



TRANSNET SOC LTD OPERATING AS TRANSNET PORT TERMINALS

(REGISTRATION NO.1990/000900/30)

NEC3 ENGINEERING AND CONSTRUCTION (ECC)

**REQUEST FOR PROPOSAL (RFP)
FOR
TENDER NUMBER: TPT/2022/04/48/RFP**

**SUPPLY AND INSTALLATION OF CCTV CAMERAS AT NGQURA CONTAINER
TERMINAL (NCT) OF TRANSNET SOC LTD (REG. NO 1990/000900/30)
OPERATING AS TRANSNET PORT TERMINALS (HEREINAFTER REFERRED TO
AS "TPT"), AS A ONCE OFF SUPPLY.**

TENDER ISSUE DATE: 24 MAY 2022

**NON-COMPULSORY BRIEFING SESSION:
MS TEAMS ON TUESDAY, 7 JUNE 2022, STARTING AT 10H00 AM**

TENDER CLOSING DATE: ON MONDAY, 27 JUNE 2022 AT 10:00 AM

TENDER VALIDITY PERIOD: TWELVE (12) WEEKS FROM CLOSING DATE

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The Tender

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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 | SUPPLY AND INSTALLATION OF CCTV CAMERAS AT NGQURA CONTAINER TERMINAL (NCT) OF TRANSNET SOC LTD (REG. NO 1990/000900/30) OPERATING AS TRANSNET PORT TERMINALS (HEREINAFTER REFERRED TO AS "TPT"), AS A ONCE OFF SUPPLY |
| TENDER DOWNLOADING | This Tender may be downloaded directly from the National Treasury eTender Publication Portal at www.etenders.gov.za FREE OF CHARGE. |

| | |
|--|---|
| COMPULSORY TENDER CLARIFICATION MEETING | <p>A non-compulsory Tender Clarification Meeting will be conducted on Microsoft Teams on the 7th June 2022, Tuesday at 10:00am [10 o'clock]. The Clarification Meeting will start punctually and information will not be repeated for the benefit of Tenderers arriving late.</p> <p>Tenderers who wish to participate in the briefing session must send request via email to nomvuselelo.mabuyakhulu@transnet.net before end of business on Monday, 6 June 2022. Tenderers are advised to download Microsoft Teams App to their PC or Mobile to be able to participate.</p> |
| CLOSING DATE | <p>10:00am on Monday, 27 June 2022</p> <p>Tenderers must ensure that tenders are uploaded timeously onto the system. If a tender is late, it will not be accepted for consideration.</p> |

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:

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- Log on to the Transnet eTenders management platform website (<https://www.transnet.net>);
 - Click on "TENDERS";
 - Scroll towards the bottom right hand side of the page;
 - On the blue window click on "register on our new eTender Portal";
 - 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.
- 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:

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- 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 [clause 12 on T2.2-16], [**Breach of Law**] whether or not they have been found guilty of a serious breach of law during the past 5 [five] years.
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.

TRANSNET PORT TERMINALS

TENDER NUMBER: TPT/2022/04/48/RFP

DESCRIPTION OF THE WORKS: SUPPLY AND INSTALLATION OF CCTV CAMERAS AT NGQURA CONTAINER TERMINAL (NCT) OF TRANSNET SOC LTD (REG. NO 1990/000900/30) OPERATING AS TRANSNET PORT TERMINALS (HEREINAFTER REFERRED TO AS "TPT"), AS A ONCE OFF SUPPLY

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 Part T2 : Returnable documents Part C: The contract Part C1: Agreements and contract data Part C2: Pricing data |
| | T1.1 Tender notice and invitation to tender T1.2 Tender data T2.1 List of returnable documents T2.2 Returnable schedules C1.1 Form of offer and acceptance C1.2 Contract data (Part 1 & 2) C1.3 Form of Securities C2.1 Pricing instructions C2.2 Activity Schedule |

| | |
|---------------------------|--------------------------------------|
| Part C3: Scope of work | C3.1 Works Information |
| Part C4: Site information | C4.1 Site information |
| C.1.4 | The Employer's agent is: |
| | Procurement Officer |
| | Name: |
| | Nomvuselelo Mabuyakhulu |
| | Address: |
| | Transnet Port Terminals |
| | 2nd Floor, 202 Anton Lembede Street, |
| | Durban Central |
| | Durban |
| | 4001 |
| | Tel No. |
| | 072 735 1899 |
| | E – mail |
| | Nomvuselelo.Mabuyakhulu@transnet.net |

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

1. Stage One - Eligibility in terms of the PSIRA compliance certificate, Integrator certificate and guarantee of VMS software and hardware:

- a) The tenderer must provide letter/ certificate endorsed by the OEM confirming that the tenderer is an approved Agent/Intergrator of the system.
- b) The tenderer must provide proof of registration with the Private Security Industry Regulatory Authority (PSIRA)
- c) The tenderer is required to provide guarantee and indicate what guarantee period is offered for the Video Management System (VMS) software, and Hardware. The guarantee can be a manufacturer's certificate or written letter/confirmation with the manufacturer's letterhead.

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

2. Stage Two - 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 70 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 pre-qualifying criteria will be regarded as an unacceptable tender.

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

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 are as follows:

- | | |
|-------------------------|--|
| Identification details: | The tender documents must be uploaded with: <ul style="list-style-type: none"> ▪ Name of Tenderer: (insert company name) ▪ Contact person and details: (insert details) ▪ The Tender Number: TPT/2022/04/48/RFP ▪ The Tender Description: Supply and installation of CCTV Cameras at Ngqura Container Terminal (NCT) of Transnet SOC LTD (reg. no 1990/000900/30) operating as Transnet Port Terminals (hereinafter referred to as "TPT"), as a once off supply. |
|-------------------------|--|

Documents must be marked for the attention of:
Employer's Agent: Nomvuselelo Mabuyakhulu

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: **10:00am on Monday, 27th June 2022**
 Location: The Transnet e-Tender Submission Portal: www.transnet.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 case of all EMEs and QSEs with 51% black ownership or more together with the tender;

3. Proof of registration on the Central Supplier Database;
4. 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: 70 | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|---------------------|--------------------------|------------------------|--------------|---------------------|--------------------------|--|--|--|--|--|--|---------|--|---|--|--|--|---|--|--|--|--|--|
| <p>The procedure for the evaluation of responsive tenders is Functionality, Price and Preference:</p> <p>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.</p> | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 25%;">Functionality criteria</th> <th style="width: 45%;">Sub-criteria</th> <th style="width: 15%;">Sub-criteria points</th> <th style="width: 15%;">Maximum number of points</th> </tr> </thead> <tbody> <tr> <td colspan="4">These Criteria must be read in conjunction with returnable T2.2-1. The tenderer shall indicate compliance by indicating YES/NO and attach evidence.</td> </tr> <tr> <td></td> <td></td> <td style="text-align: center;">Yes/ No</td> <td></td> </tr> <tr> <td rowspan="3">T2.2-1 Eligibility NB: The Tenderers are to provide evidence to compliance.</td> <td>The Contractor must provide letter/certificate endorsed by the OEM confirming that the contractor is an approved Agent/Intergrator of the system. The letter must not be older than 3 months</td> <td></td> <td></td> </tr> <tr> <td>The tenderer must provide proof of valid registration with the Private Security Industry Regulatory Authority (PSIRA)</td> <td></td> <td></td> </tr> <tr> <td>The Contractor is required to provide proof of guarantee and indicate on the schedule what guarantee period is offered for each of the following items: (1) Video Management System (VMS) software, and Hardware. The guarantee can be a manufacturer's certificate or written letter/confirmation with the manufacturer's letterhead, stating the guarantee and the conditions thereof.</td> <td></td> <td></td> </tr> </tbody> </table> | | | | Functionality criteria | Sub-criteria | Sub-criteria points | Maximum number of points | These Criteria must be read in conjunction with returnable T2.2-1. The tenderer shall indicate compliance by indicating YES/NO and attach evidence. | | | | | | Yes/ No | | T2.2-1 Eligibility NB: The Tenderers are to provide evidence to compliance. | The Contractor must provide letter/certificate endorsed by the OEM confirming that the contractor is an approved Agent/Intergrator of the system. The letter must not be older than 3 months | | | The tenderer must provide proof of valid registration with the Private Security Industry Regulatory Authority (PSIRA) | | | The Contractor is required to provide proof of guarantee and indicate on the schedule what guarantee period is offered for each of the following items: (1) Video Management System (VMS) software, and Hardware. The guarantee can be a manufacturer's certificate or written letter/confirmation with the manufacturer's letterhead, stating the guarantee and the conditions thereof. | | |
| Functionality criteria | Sub-criteria | Sub-criteria points | Maximum number of points | | | | | | | | | | | | | | | | | | | | | | |
| These Criteria must be read in conjunction with returnable T2.2-1. The tenderer shall indicate compliance by indicating YES/NO and attach evidence. | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Yes/ No | | | | | | | | | | | | | | | | | | | | | | | |
| T2.2-1 Eligibility NB: The Tenderers are to provide evidence to compliance. | The Contractor must provide letter/certificate endorsed by the OEM confirming that the contractor is an approved Agent/Intergrator of the system. The letter must not be older than 3 months | | | | | | | | | | | | | | | | | | | | | | | | |
| | The tenderer must provide proof of valid registration with the Private Security Industry Regulatory Authority (PSIRA) | | | | | | | | | | | | | | | | | | | | | | | | |
| | The Contractor is required to provide proof of guarantee and indicate on the schedule what guarantee period is offered for each of the following items: (1) Video Management System (VMS) software, and Hardware. The guarantee can be a manufacturer's certificate or written letter/confirmation with the manufacturer's letterhead, stating the guarantee and the conditions thereof. | | | | | | | | | | | | | | | | | | | | | | | | |



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|--|--|---|----|
| | All hardware components/parts selected to be installed shall have at least 12 months guarantee with a life expectancy guarantee of at least 3 years and with at least 1-year warranty on the software with full support. | | |
| This Criteria must be read in conjunction with returnable T2.2-2. Tenderers should submit a complete and comprehensive Quality Plan that demonstrates the following: | | | |
| T2.2-2 Quality Management | Project Specific Quality Plan for the contract specifically produced for this scope of works as per EEAM project specification EEAM-Q-009 Quality Management System. | 5 | 25 |
| | Project specific Quality Data Book Index | 5 | |
| | List of procedures / method statements to be used | 5 | |
| | Valid ISO 9001 Certificate | 5 | |
| | Project specific Quality Control Plan | 5 | |
| This Criteria must be read in conjunction with returnable T2.2-3. The tenderer shall provide the proposed programme (Primavera or Ms. Project), at a minimum Level 3. | | | |
| T2.2-3 Programme | Ability to execute the works in terms of the <i>Employer's</i> requirements and within the required timeframe indicating, in a logical sequence, the order and timing of the construction that will take place in order to Provide the <i>Works</i> clearly indicating the capacity & capability to achieve the dates stated in the Contract Data. | 5 | 20 |
| | Dates when the Contractor will need access to any part of the Site; submission & approval process & timing for Health & Safety Files, inclusive of construction work permit, Environmental Files and Quality Files. In addition the Programme must clearly demonstrate the procurement process for all long lead items. | 5 | |
| | The <i>Contractor</i> indicates how he plans in achieving the following dates and clearly demonstrates them on the schedule - Starting Date, Planned Completion, Sectional Completion Dates & Completion Date. In addition, the Programme clearly demonstrates adequate provisions for Time Risk Allowance (TRA). Time Risk Allowances are not float, are owned by the Tenderer, can be included in the activity duration and illustrated in the schedule in a code field or as an attachment. | 5 | |



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| | | | |
|---|--|----|----|
| | The Programme must clearly support and demonstrate alignment to the approach paper/method statement as contained in T2.1 List of Returnables. | 5 | |
| This Criteria must be read in conjunction with returnable T2.2-4. Tenderers are required to demonstrate their past experience in the delivery of similar refurbishment projects executed in the past five years with a list indicating each project value and contact details of client reference. | | | |
| T2.2-4 Previous Experience | A contractor must submit five (5) or more traceable references for the Installation, testing and commissioning of Video Management System or similar for the past five (5) years. The references should not be older than five (5) years. As proof Contractors must submit a Completion Certificate/ Purchase Order or Letter of Award | 20 | 20 |
| This Criteria must be read in conjunction with returnable T2.2-5. The Tenderer must sufficiently demonstrate the approach/methodology that he/she will employ to cover the scope of the project in a method statement | | | |
| T2.2-5 Method Statement | <p>A detailed method statement is required; it must include procedures for:</p> <ul style="list-style-type: none"> • Delivery of equipment/materials • Installation of Video Management System and Cameras • Testing procedure • Commissioning procedure • Communication (All site requirements to be communicated the Project Manager). <p>In addition to general methodology for the project, the tenderer must demonstrate the following aspects but not limited to:</p> <ul style="list-style-type: none"> - Intervals for inspection of site works (Order and timing of the inspection and milestones). | 20 | 20 |
| T2.2-6 Management and CV's | <p>Key personnel including but not limited to:</p> <ul style="list-style-type: none"> • Project Manager: National Diploma in Project Management. • Quality Officer: ISO 9001:2015 Certified More than 8 years' experience. <p>Experience of the staff allocated to the project and availability of skills to manage and perform the contract must be clearly indicated.</p> | 15 | 15 |

| | | | |
|--|--|------------|------------|
| | An Organizational Chart showing on and off-site management | | |
| Maximum possible score for Functionality | | 100 | 100 |
| <p>Functionality shall be scored independently by not less than 3 (three) evaluators and averaged in accordance with the following schedules:</p> <ul style="list-style-type: none"> • T2.2-1 Eligibility • T2.2-2 Quality Management • T2.2-3 Programme • T2.2-4 Previous Experience • T2.2-5 Method Statement • T2.2-6 Management and CV's | | | |

C.3.11. To determine a preferred bidder, bidders' prices will be ranked from the lowest to the highest acceptable price offered and Transnet will award business to the lowest acceptable Bid (highest ranked bid) unless objective criteria justify the award to another bidder.

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:

- 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, 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.

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

T 1.3 Standard Conditions of Tender

T.1 General

All Bid Documents and subsequent contracts and orders shall be subject to the following general conditions as laid down by Transnet and are to be strictly adhered to by any Respondent to this RFX

T.1.1 Actions

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 T.2 and T.3, timely and with integrity, and behave equitably, honestly and transparently.

T.1.2 Tender Documents

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

T.1.3 Interpretations

T.1.3.1 The tender data and additional requirements contained in the tender schedules that are included in the Mandatory returnable documents are deemed to be part of these Conditions of Tender.

T.1.3.2 These Conditions of Tender, the tender data and those tender schedules which are only required for tender evaluation purposes (as detailed in schedule T1.2 - T3.11.3), shall not form part of any contract arising from the invitation to tender.

T.1.3.3 For the purposes of these Conditions, the following definitions apply:

- a) comparative offer means the Tenderer's financial offer after the factors of non-firm prices, all unconditional discounts and any other tendered parameters that will affect the value of the financial offer have been taken into consideration
- b) corrupt practice means the offering, giving, receiving or soliciting of anything of value to influence the action of the *Employer* or his staff or agents in the tender process; and
- c) 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
- d) quality (functionality) means the totality of features and characteristics of a product or service that bear on its ability to satisfy stated or implied needs

T.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 read, copied and recorded. Writing 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.

T.1.5 The *Employer's* right to accept or reject any tender offer

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

T.2 Tenderer's obligations

T.2.1 Eligibility

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*.

T.2.2 Cost of tendering

Accept that 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 satisfy requirements.

T.2.3 Check documents

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

T.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.

T.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.

T.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.

T.2.7 Compulsory Briefing Session

Attend, where required, a briefing session 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.

T.2.8 Seek clarification

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

T.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.

T.2.10 Pricing the tender offer

T.2.10.1 Include all duties, taxes (except South African Value Added Tax (VAT)), and other levies payable

by the successful tenderer in the rates, prices, and the tendered total of the prices. All duties, taxes and

levies that are applicable 14 days before the closing time as stated in the tender data, to be included in the prices.

T.2.10.2 Show VAT payable by the *Employer* separately as an addition to the tendered total of the prices.

T.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.

T.2.10.4 State the rates and prices in South African Rand (ZAR) unless instructed otherwise in the tender data.

T.2.10.5 The delivery place for the Works is as per Part 3 Scope of works in South Africa

T.2.10.6 The *Contractor* shall be responsible for all costs for the transportation of the Works from place of manufacture to the *Employer's* nominated place of delivery in South Africa, including the clearance of the Works through South African Customs, payment of Customs VAT, local testing and onward delivery to Transnet's nominated destination, which costs (excluding the payment of Customs VAT) shall be separately identified in its Tax Invoices henceforth. The *Contractor* will endeavour to reduce exposure to liability for Duty on importation of the works and where not, to capture same. The Inco Term Required is (DDP Incoterms 2010).

T.2.11 Alterations to documents

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

T.2.12 Alternative tender offers

T.2.12.1 Submit alternative tender offers only if a main tender offer is also submitted, strictly in accordance with all the requirements of the tender documents. The alternative tender offer is to be submitted with the main tender offer together with a schedule that compares the

- requirements of the tender documents with the alternative requirements the tenderer proposes.
- T.2.12.2 Accept that an alternative tender offer may be based only on the criteria stated in the tender data or criteria otherwise acceptable to the *Employer*.
- T.2.13 Submitting a tender offer
- T.2.13.1 Submit a tender offer to provide the whole of the works, services or supply identified in the contract data and described in the scope of works, unless stated otherwise in the tender data.
- T.2.13.2 Return all mandatory returnable documents to the *Employer* after completing them in their entirety in writing in black ink.
- T.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*.
- T.2.13.4 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.
- T.2.13.5 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.
- T.2.13.6 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.
- T.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 minimum issued format required, will be regarded by the *Employer* as non-responsive.
- T.2.15 Closing date and time
- T.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. The *Employer* shall not accept tender offers submitted by telegraph, facsimile, e-mail or tenders submitted by post. Only tenders delivered by hand or delivered by courier will be accepted by the *Employer*.
- T.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.
- T.2.16 Tender offer validity
- T.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.

T.2.16.2 If requested by the *Employer*, consider extending the validity period stated in the tender data for an agreed additional period.

T.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 or substance of the tender offer is sought, offered, or permitted during this stage of the tender process. The total of the prices stated by the tenderer shall be binding upon the tenderer.

Note: Sub-clause T.2.17 does not preclude the negotiation of price and the final terms of the contract during the post tender negotiation, should the *Employer* elect to do so.

T.2.18.2 Dispose of samples of materials provided for evaluation by the *Employer*, where required.

T.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.

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

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

T.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.

T.2.23 Certificates

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

T.3 The *Employer's* undertakings

T.3.1 Respond to clarification

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

T.3.2 Issue Addenda

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

T.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.

T.3.4 Opening of tender submissions

T.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 notice and tender data.

The names of tenderers will be announced at the opening in the presence of tenderers who choose to attend. Tender submissions for which acceptable reasons for withdrawal have been submitted will not be opened.

T.3.5 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.

T.3.6 Grounds for rejection and disqualification

A two-envelope procedure is required: A two envelope system is a tender process whereby the technical proposal and the financial offer are submitted in separate envelopes at the same place and time, i.e. the closing date and time.

Failure to comply with the two envelope system i.e. the bidder fails to submit the technical proposal and a financial offer in two separate sealed envelopes, may lead to disqualification of the bid.

T.3.7 Test for responsiveness

T.3.7.1 The *Employer* will determine before detailed evaluation, whether each tender offer is properly received, namely:

- a) meets the laid-down grounds for eligibility;
- b) complies with the requirements of these Conditions of Tender;
- c) has been properly and fully completed and signed; and
- d) is responsive to all other requirements of the tender documents, including the return of all Mandatory returnable Schedules and documentation, as specified.

T.3.7.2 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) 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.

T.3.7.3 Reject a non-responsive tender offer, and not allow it to be subsequently made responsive by correction or withdrawal of the non-conforming deviation or reservation.

T.3.8 Arithmetical errors

T.3.8.1 Check responsive tender offers for arithmetical errors, correcting them in the following manner:

- a) Where there is a discrepancy between the amounts in figures and in words, the amount in words shall govern.
- b) If bills of quantities (or schedule of quantities or schedule of rates) 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.
- c) 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.

T.3.9 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

T.3.10 Principles for Awarding Business

As is elsewhere also provided in the Tender, Tenderers are advised and should note that any final award of business is entirely conditional upon and subject to the successful conclusion of a written contract between the preferred Tenderer(s) and the *Employer*, which contract will include such terms and conditions as the *Employer's* management and Acquisitions Council may require or prescribe.

T.3.11 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.

T.3.12 Acceptance of tender offer

T.3.12.1 Accept tender offer only if the tenderer complies with the legal requirements stated in the Tender data

T.3.12.2 Notify the successful tenderer of the *Employer's* acceptance of his tender offer by completing and returning one copy of the form of offer and acceptance before the expiry of the validity period stated in the tender data, or agreed additional period. Providing the form of offer and acceptance does not contain any qualifying statements, it will constitute the formation of a contract between the *Employer* and the successful tenderer as described in the form of offer and acceptance.

T.3.12.3 The *Employer* reserves the right to conduct post-tender negotiations.

T.3.13 Notice to unsuccessful Tenderers

After the successful tenderer has acknowledged the *Employer's* notice of acceptance, notify other tenderers that their tender offers have not been accepted.

T.3.14 Prepare contract documents

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:
addenda issued during the tender period,
inclusion of some of the mandatory returnable documents,
other revisions agreed between the *Employer* and the successful tenderer, and
the schedule of deviations attached to the form of offer and acceptance, if any.

T.3.15 Issue final contract

Prepare and issue the final draft of contract documents to the successful tenderer for acceptance as soon as possible after the date of the *Employer's* signing of the form of offer and acceptance (including the schedule of deviations, if any). Only those documents that the conditions of tender require the tenderer to submit, after acceptance by the *Employer*, shall be included.

T.3.16 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.

T.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.

T.3.18 Disclaimers

- a) The *Employer* reserves the right to request audited financial statements for the purposes of the due diligence exercise.
- b) The *Employer* reserves the right to accept the whole or any part of a tender
- c) Changes or purported changes by the Tenderer to the Tender prices will not be permitted after the closing date.
- d) The person(s) signing the Tender must be legally authorised by the Tenderer to do so by way of an appropriate written resolution, as also the person(s) authorised to negotiate on the Tenderer's behalf.
- e) The *Employer* reserves the right to verify any information supplied by a Tenderer. By submitting a Tender, the Tenderers hereby irrevocably grant the necessary consent to the *Employer* to do so.
- f) The *Employer* reserves the right to undertake post-tender negotiations with those persons appearing on the list of preferred Tenderers, once such list is approved by the Divisional Acquisitions Council.
- g) 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 without assigning any reason therefor.
- h) The *Employer* will not reimburse any Tenderer for any preparatory costs, travelling and/or accommodation costs, or for other work performed in connection with the Tender, whether the Tenderer is awarded any business arising out of the Tender, or not.
- i) The successful tenderer will be subject to the conclusion of a final NEC 3 Engineering and Construction Contract.

- j) Tenderers must note that the *Employer* is not committed to any irrevocable course of action as a result of it issuing the Tender and/or its receipt of any Tender documents. Without limitation to the *Employer's* rights elsewhere contained herein, and in addition thereto, the *Employer* may accordingly in its sole and unfettered discretion:
- k) change all services stipulated for in the Tender and re-issue the Tender in an amended form;
- l) reject any Tender which does not conform strictly with the stipulations and requirements which are set out in these documents;
- m) disqualify late Tenders received after the stated submission deadline;
- n) not necessarily accept the lowest priced Tender;
- o) award a contract in connection with this Tender at any time to any person(s) or company;
- p) make no award of business; and
- q) withdraw the Tender on good cause at any stage of the Tender process upon written notification to the Tenderers.
- r) The Purchaser reserves the right to use Supplier Development, People with Disabilities, Black Women Owned and Black youth owned as objective criteria

T.3.19 Compliance

- a. Tenderers must be fully compliant with any and all the statutory and common law that is applicable to the tender.
- b. Tenderers shall comply with all applicable South African laws, including without limitation, the following:
- c. Occupational Health & Safety Act 85 of 1993 ("OHSA");
- d. International Health Regulation Act 28 of 1974;
- e. National Environmental Management ACT No. 107 of 1998;
- f. National Environmental Management Waste Act No. 59 of 2008;
- g. Environment Conservation Act No. 73 of 1989;
- h. Hazardous Substances Act 15 1973;
- i. The Compensation for Occupational Injuries and Disease Act, 1993 (Act No.130 of 1993);
- j. All material aspects of all applicable legislation, provincial ordinances and local authority by-laws, including all relevant regulations promulgated in terms thereof, which affects the Maritime business;
- k. The Basic Conditions of Employment Act No. 75 of 1997;
- l. Criminal Procedure Act No. 51 of 1977;
- m. National Ports Act No. 12 of 2005 ("NPA") and enabling legislation thereto, including the Port Rules; Harbour Master's Written Instructions and Regulations promulgated in terms of the NPA.
- n. Control of Access to Public Premises and Vehicle Act, No. 53 of 1985;
- o. Legal Succession to the South African Transport Services Act No. 9 of 1989 (but excluding any tariff provided for in such regulations);
- p. Customs and Excise Act No 91 of 1964;
- q. The National Railway Safety Regulator Act No 16 of 2002;
- r. The Labour Relations Act No. 66 of 1995 and the Regulations thereto, and
- s. Broad-Based Black Economic Empowerment (B-BBEE) Act 53, of 2003.

FAILURE TO OBSERVE ANY OF THE AFOREMENTIONED REQUIREMENTS

MAY RESULT IN A PROPOSAL BEING REJECTED



T2.1 List of Returnable Documents

2.1.1 These schedules are required for pre-qualification and eligibility purposes:

- T2.2-1 **Stage One as per PPPFA: Eligibility Criteria Schedule** – Compliance to Eligibility Criteria

2.1.2 Stage Five as per CIDB: these schedules will be utilised for evaluation purposes:

- T2.2-2 **Evaluation Schedule:** Quality Management
- T2.2-3 **Evaluation Schedule:** Programme
- T2.2-4 **Evaluation Schedule:** Previous Experience
- T2.2-5 **Evaluation Schedule:** Method Statement
- T2.2-6 **Evaluation Schedule:** Management & CV's of Key Personnel

2.1.3 Returnable Schedules:

General:

- T2.2-7 Authority to submit tender
- T2.2-8 Record of addenda to tender documents
- T2.2-9 Letter of Good Standing
- T2.2-10 Risk Elements
- T2.2-11 Schedule of proposed Subcontractors
- T2.2-12 RFP Clarification Request Form

Agreement and Commitment by Tenderer:

- T2.2-13 Compulsory Enterprise Questionnaire
- T2.2-14 Non-Disclosure Agreement
- T2.2-15 RFP Declaration Form
- T2.2-16 RFP – Breach of Law
- T2.2-17 Certificate of Acquaintance with Tender Document
- T2.2-18 Service Provider Integrity Pact
- T2.2-19 Supplier Code of Conduct
- T2.2-20 SBD1 Form
- T2.2-21 SBD 9

1.3.2 Bonds/Guarantees/Financial/Insurance:

- T2.2-22 Insurance provided by the Contractor
- T2.2-23 Form of Intent to provide a Performance Guarantee
- T2.2-24 Forecast Rate of Invoicing
- T2.2-25 Three (3) years audited financial statements

1.3.3 Transnet Vendor Registration Form:

- T2.2-26 Transnet Vendor Registration Form

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

2.3 C1.2 Contract Data

2.4 C1.3 Forms of Securities

2.5 C2.1 Pricing Instructions (Activity Schedule)

2.6 C2.2 Activity Schedule

| | | |
|--|---|-------------------------------------|
| CCTV Cameras at TPT, Port of Ngqura | Compliance to Eligibility Criteria | Tender Schedule: T2.2-01 |
|--|---|-------------------------------------|

Tenderers are to list in this schedule compliance to the Eligibility Criteria for the CCTV Cameras. For Evidence tenderer's are to submit proof in the form of either specifications, drawings, data books, brochures, certificates, etc. Proof to be attached as part of this returnable. Failure to comply with eligibility criteria i.e. a **"No" answer** or **"No" response** will lead to disqualification.

| Eligibility Criteria | Comply (Yes/No) | Evidence Provided (Yes/No) |
|---|----------------------------|---|
| 1. The Contractor must provide letter/ certificate endorsed by the OEM confirming that the contractor is an approved Agent/Intergrator of the system. The letter must not be older than 3 months. | | |
| 2. The tenderer must provide proof of valid registration with the Private Security Industry Regulatory Authority (PSIRA) | | |
| 3. The Contractor is required to provide guarantee and indicate on the schedule what guarantee period is offered for each of the following items: (1) Video Management System (VMS) software, and (2) Hardware. The guarantee can be a manufacturer's certificate or written letter/confirmation with the manufacturer's letterhead, stating the guarantee and the conditions thereof. <ul style="list-style-type: none"> • All hardware components/parts selected to be installed shall have at least 12 months guarantee with a life expectancy guarantee of at least 3 years and with at least 1-year warranty on the software with full support. | | |

T2.2-2: Evaluation Schedule – Quality Management

The tenderer is to note that if successful, and awarded the contract, shall execute and complete the contract as per the EEAM-Q-009 Quality Management Specification for Supplier/Construction.

The tenderer shall as a minimum submit the following:

- Project Quality Plan which satisfies the technical and quality requirements of the *works*, identifying all procedures, reviews, audits, controls and records used to control and verify compliance with the Works Information.
- Project specific Quality data book index (index/list of procedures and method statements to be used during the contract).
- Qualifications and experience of quality personnel. Attach minimum qualifications as listed below:
- Index/List of procedures and method statements to be used during the contract.
- Valid ISO 9001: 2015 Certificate
- Quality Control Plans Specific to the Works Information not limited to the following.
 - These Q.C.P's shall identify all inspections, tests and verification requirements to meet Contractual obligations, specifications and related details including destructive and non-destructive testing, witnessing and hold points.
- All hardware components/parts selected to be installed shall have at least 12 months guarantee with a life expectancy guarantee of at least 3 years.
- 1-year warranty on the software with full support.
- A signed Quality Policy based on International Organisation for Standardisation (ISO 9001:2015) that displays the five key policy requirements. These requirements include:
 1. Is appropriate to the purpose of the organisation,
 2. Includes a commitment to comply with requirements and continually improve the effectiveness of the quality management system,
 3. Provides a framework for establishing and reviewing quality objectives,
 4. Is communicated and understood within the organisation, and
 5. Is reviewed for continuing suitability.

Attached submissions to this schedule:

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The scoring of the Quality Management will be as follows:

| | Project Specific Quality Plan for the contract | Project Specific Quality Data book Index | Procedures and Method statements to be used | Valid ISO 9001 Certificate | Project specific Quality Control Plan |
|-----------|---|--|---|---|---|
| 0 | No PQP submitted. | No Quality Data book Index submitted | No procedures and method statements submitted | No ISO 9001 certificate / certificate has expired | No QCPs submitted |
| 20 | PQP includes one of five requirements (procedures, reviews, audits, controls and records used to control and verify compliance) | Quality Data book index is not project specific (in line with Works Information) | Procedures and Method statements are not project specific in line with Works Information | N/A | The QCP identifies all inspections, tests and verifications to meet one of the project scope requirements |
| 40 | PQP includes two of five requirements: (procedures, reviews, audits, controls and records used to control compliance) | Quality Data book index is project specific but inadequate to cover project scope (in line with Works Information) | Procedures and methods statements are project specific but inadequate to cover the project scope in line with the Works Information | N/A | The QCP identifies all inspections, tests and verifications to meet two of the project scope requirements |
| 60 | PQP includes three of five requirements: (procedures, reviews, audits, controls and records used to control compliance) | Data book index shows adequate understanding of project quality requirements (in line with Works Information) | Procedures and method statements shows adequate understanding of project quality requirements in line with Works Information | N/A | The QCP identifies all inspections, tests and verifications to meet three of the project scope requirements |
| 80 | PQP includes four of five requirements: (procedures, reviews, audits, controls and records used to control compliance) | Data book index shows above average understanding of the project quality requirements (in line with Works Information) | Procedures and method statements shows above average understanding of the project quality requirements in line Work Information | N/A | The QCP identifies all inspections, tests and verifications to meet four of the project scope requirements |

TRANSNET PORT TERMINALS
 TENDER NUMBER: TPT/2022/04/48/RFP
 DESCRIPTION OF THE WORKS: SUPPLY AND INSTALLATION OF CCTV CAMERAS AT NGQURA CONTAINER TERMINAL (NCT) OF TRANSNET SOC LTD (REG. NO 1990/000900/30) OPERATING AS TRANSNET PORT TERMINALS (HEREINAFTER REFERRED TO AS "TPT"), AS A ONCE OFF SUPPLY

| | Project Specific Quality Plan for the contract | Project Specific Quality Data book Index | Procedures and Method statements to be used | Valid ISO 9001 Certificate | Project specific Quality Control Plan |
|------------|---|---|--|-----------------------------------|--|
| 100 | PQP includes all requirements: (procedures, reviews, audits, controls and records used to control compliance) | The Data book index covers all and above the project quality requirements of the project scope (in line with Works Information) | Procedures and method statements covers all and above the project quality requirements | ISO 9001 certificate is valid. | QCP's covers all and above the project quality requirements of the project scope |

Signed

Date

Name

Position

Tenderer

T2.2-3: Evaluation Schedule: Programme

Note to tenderers:

Programme

The Tenderer details the programme for evaluation and attaches it to this schedule. In addition, the Tenderer is to provide an electronic copy of the programme in Primavera or MS project format.

The Tenderer's attention is drawn to core clause 31 of the NEC3 Engineering and Construction contract regarding the items to be shown on a programme.

The tenderer shall provide the proposed programme, at a minimum **Level 3** showing but not limited to the following:

- Ability to execute the works in terms of the *Employer's* requirements and within the required timeframe indicating, in a logical sequence, the order and timing of the construction that will take place in order to Provide the Works clearly indicating the capacity & capability to achieve the dates stated in the Contract Data.
- Dates when the *Contractor* will need access to any part of the Site; submission & approval process & timing for Health & Safety Files, Environmental Files and Quality Files. In addition the Programme must clearly demonstrate the procurement process for all long lead items if applicable.
- The *Contractor* indicates how he plans in achieving the following dates and clearly demonstrates them on the schedule - Start Date, Access Date, Planned Completion, Key Dates & Completion Date. In addition, the Programme clearly demonstrates adequate provisions for Time Risk Allowance (TRA). Time Risk Allowances are not float, are owned by the Tenderer, can be included in the activity duration and illustrated in the schedule in a code field or as an attachment.
- The Programme must clearly support and demonstrate alignment to the Approach Method Statement as contained in T2.1 List of Returnables.

The scoring of the Programme will be as follows:

| core | | | | |
|-----------------|---|--|---|---|
| | Ability to execute the works in terms of the <i>Employer's</i> requirements and within the required timeframe indicating, in a logical sequence, the order and timing of the installation, testing and commissioning that will take place in order to Provide the <i>Works</i> clearly indicating the capacity & capability to achieve the dates stated in the Contract Data. | Dates when the <i>Contractor</i> will need <i>access</i> to any part of the Site; submission & approval process & timing for Health & Safety Files, inclusive of construction work permit, Environmental Files and Quality Files. In addition the Programme must clearly demonstrate the procurement process for all long lead items. | The Contractor indicates how he plans in achieving the following dates and clearly demonstrates them on the schedule - Starting Date, Planned Completion, Sectional Completion Dates & Completion Date. In addition the Programme clearly demonstrates adequate provisions for Time Risk Allowance (TRA). | The Programme must clearly support and demonstrate alignment to the method statement as contained in T2.1 List of Returnables |
| | 5 | 5 | 5 | 5 |
| Score 0 | The tenderer has submitted no information. | | | |
| Score 20 | The programme is not acceptable as it will not satisfy project objectives or requirements. The tenderer has misunderstood the scope of work and does not deal with the critical aspects of the overall programme. | <ul style="list-style-type: none"> ▪ The tenderer has not addressed critical access requirements. ▪ The tenderer has not allowed timing for approval processes for SHEQ documentation. ▪ The tenderer has not demonstrated the procurement process for all long lead items. | <ul style="list-style-type: none"> ▪ The tenderer has addressed one of the above date requirements and submission contains critical logic and sequencing errors which renders it unrealistic/unachievable. | <ul style="list-style-type: none"> ▪ No alignment between programme and approach paper/method statement. |
| Score 40 | The programme is generic, not practical and unrealistic, therefore is unlikely to satisfy project objectives or <i>Employer's</i> requirements. The tenderer has misunderstood certain aspects of the scope of the works and does not deal with the critical aspects of the project. | <ul style="list-style-type: none"> ▪ The tenderer has addressed critical but not all access requirements. ▪ The tenderer has not allowed sufficient timing for approval processes for SHEQ documentation. ▪ The tenderer has not adequately demonstrated the procurement process for all long lead items i.e. | <ul style="list-style-type: none"> ▪ The tenderer has addressed two of the above date requirements. | <ul style="list-style-type: none"> ▪ Alignment between programme and method statement (installation). |

| | | | | |
|-----------------|--|--|--|--|
| | | some but not all long lead items considered, and insufficient durations allowed for procurement timelines. | | |
| Score 60 | <ul style="list-style-type: none"> ▪ The Programme addresses certain specific project objectives but does not adequately deal with all critical characteristics of the project. ▪ The programme is complete and sufficiently decomposed, as demonstrated through the project WBS which fully encompasses project scope as detailed but not limited to the <i>Works Information and Technical Specification</i>; ▪ The programme is not adequately predictive in that it contains minor errors or omissions in critical path/s. ▪ Activity duration estimates demonstrate the fact that the programme does not present an accurate model of project risk. ▪ The programme contains minor errors and omissions in logic (i.e. horizontal and vertical traceability) ▪ The programme contains minor errors or omissions in its demonstration of the sequence, methodology, resource allocations, and underlying approach to provision of the <i>Works</i>, in comparison with the | <ul style="list-style-type: none"> ▪ The tenderer has adequately addressed all access requirements. ▪ The tenderer has not allowed sufficient timing for approval processes for SHEQ documentation. ▪ The tenderer has not adequately demonstrated the procurement process for all long lead items i.e. all long lead items considered, but insufficient durations allowed for procurement timelines. | <ul style="list-style-type: none"> ▪ The tenderer has addressed three of the above date requirements. | <ul style="list-style-type: none"> ▪ Alignment between programme and method statement (installation and testing). |

| | | | | |
|-----------------|---|--|---|---|
| | <p>requirements of the <i>Works Information</i> and Technical Specification, as such adequately deals with some but not all the critical characteristics of overall project execution.</p> | | | |
| Score 80 | <ul style="list-style-type: none"> ▪ The programme addresses specific project objectives. ▪ The programme is complete and sufficiently decomposed, as demonstrated through the project WBS which fully encompasses project scope as detailed but not limited to the <i>Works Information</i> and Technical Specification; ▪ The programme is transparent in the demonstration of its basis; ▪ The programme is predictive in that it provides meaningful critical path/s and an accurate/realistic model of project risk, the latter as demonstrated in activity duration estimates; ▪ The programme contains logic that is horizontally and vertically traceable; ▪ The programme adequately demonstrates the sequence, methodology, resource allocations, critical success factors, risks and underlying approach to provision of the <i>Works</i>, in line with the requirements of the <i>Works</i> | <ul style="list-style-type: none"> ▪ The tenderer has adequately addressed all access requirements. ▪ The tenderer has allowed sufficient timing for approval processes for SHEQ documentation. ▪ The tenderer has adequately demonstrated the procurement process for all long lead items i.e. all long lead items considered, and sufficient durations allowed for procurement timelines. | <ul style="list-style-type: none"> ▪ The tenderer has addressed four of the above date requirements. TRA not assigned to specific activities and/or critical components of the scope which are known to be subject to uncertainty. | <ul style="list-style-type: none"> ▪ Programme and method statement (installation, testing and commissioning) are fully aligned and submission contains no critical errors or omissions. |

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| | | | | |
|------------------|--|---|--|---|
| | <i>Information and Technical Specification, as such adequately deals with the critical characteristics of overall project execution.</i> | | | |
| Score 100 | Besides meeting the above "80" rating, the important issues are approached in an innovative and efficient way. | Besides meeting the "80" rating, the tenderer has exceeded the required expectations. | The tenderer has addressed all date requirements correctly and submission contains logic and sequencing which is accurate, and renders the submission realistic and achievable. In addition the Programme clearly demonstrates adequate provisions for Time Risk Allowance | Besides meeting the "80" rating, the tenderer has exceeded the required expectations. |

Attachment A: Electronic Copy of Programme

Attachment B: Hard Copy of Programme

Signed

Date

Name

Position

Tenderer

T2.2-4: Evaluation Schedule: Previous Experience

Note to tenderers:

Tenderers are required to demonstrate performance in comparable projects of similar size and nature by supplying the following:

- A list of past / current comparable projects.
- Construction of similar works as detailed in the Works Information with reference to:
 - A contractor must submit five (5) or more traceable references for the Installation, testing and commissioning of Video Management System or similar for the past five (5) years. The references should not be older than five (5) years. As proof Contractors must submit a Completion Certificate/ Purchase Order/ Letter of Award
- Sufficient references to substantiate experience indicated (Client name and contact details, project description, duration and contract value)

Index of documentation attached to this schedule

| | DOCUMENT NAME |
|----------|----------------------|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |

| Score | Previous Experience |
|-------|--|
| 0 | The Tenderer failed to address the question / issue. Has not submitted the required information. |
| 20 | The Tenderer's previous experience presented has no relevance to the scope of this project and did not address any of the required categories. Tenderers generally have experience in one (1) project relating to the scope of works. The tenderer has limited or poor evidence of previous experience. |
| 40 | The Tenderer's previous experience presented has some relevance to the project but lacks detail i.e. Description of previous projects, value and references. Tenderers generally have experience in three (3) projects relating to scope of <i>works</i> . The tenderer lacks convincing evidence of knowledge of previous experience, specific to the <i>works</i> . |
| 60 | The Tenderer's previous experience presented demonstrates sufficient knowledge and experience to successfully execute this project scope. Tenderers generally have experience in four (4) projects relating to the scope of works. The tenderer has reasonable and relevant previous experience to the particular requirements of the <i>works</i> . |
| 80 | The Tenderer's previous experience presented demonstrates a real understanding and substantial evidence of the ability meet the stated project requirements. Tenderers generally have experience in five (5) projects relating to the scope of works. The tenderer has extensive previous experience in relation to the <i>works</i> . |
| 100 | The Tenderer's previous experience presented demonstrates real confidence extensive understanding in all of the categories as required. Tenderers generally have experience in more than five (5) projects relating to the scope of works. The tenderer has comprehensive previous experience in projects of a similar nature. |

Signed

Date

Name

Position

Tenderer

T2.2-5: Evaluation Schedule: Method Statement

Note to tenderers:

Method statement - The tenderers must sufficiently demonstrate the approach/methodology that will be employed to cover the scope of the project.

- A detailed method statement is required, covering the material delivery to commissioning activities of the compatible CCTV Camera's system at the Ngqura Transnet Port Terminals (to enable the Employer to assess the impact to practicality, quality, health, safety, risk and the environment).

In addition to general methodology for the project please provide specific information for the following points:

1. Delivery of equipment/materials
 2. Installation of Video Management System and Cameras
 3. Testing procedure
 4. Commissioning procedure
 5. Communication (All site requirements to be communicated the Project Manager).
- In addition to general methodology for the project, the tenderer must demonstrate the following aspects but not limited to:
 - Intervals for inspection of site works (Order and timing of the inspection and milestones).

Please note: Tenderers are required to provide detailed method statements for the categories as listed above. Each sub-category as listed will be scored based on the linear scale below, and will be averaged and weighed to provide a final score. Tenderers to note that they will not achieve an "acceptable" score should they not provide the information as required in this Returnable.

The table below will be used as guidelines for scoring / evaluating the method statement submitted by the Tenderer:

| | |
|-----------------|--|
| Score 0 | The tenderer has submitted no information or inadequate information to determine a score. |
| Score 20 | The methodology/approach and work alignment to project schedule is poorly presented and only tailored to address one of the above method statement requirements |
| Score 40 | The methodology/approach is tailored to address some of the project objectives and methodology. Only two of the above method statement requirements are addressed. |



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| | |
|------------------|---|
| Score 60 | Satisfactory response/solution to the particular aspect of the requirement and evidence given that the stated employer’s requirements will be met. The methodology approach is tailored to address three of the above project requirements |
| Score 80 | The methodology/approach is specifically tailored to address the specific project objectives and methodology and is sufficiently flexible to accommodate changes that may occur during execution. The methodology/approach to manage activities is specifically tailored to all the critical characteristics of the project including delivery of equipment/material, installation of video management system and CCTV cameras, testing procedures and commissioning in line with Works Information. |
| Score 100 | Besides meeting the “80” rating, the important issues are approached in an innovative and efficient way, indicating that the tenderer has outstanding knowledge of state-of-the-art approaches. The methodology approach details ways to improve the project outcomes and the quality of the outputs. In addition to general methodology for the project, the tenderer demonstrated the following aspects: -Communication Plan and intervals for inspection of site works (Order and timing of the inspection and milestones). |

Signed

Date

Name

Position

Tenderer

T2.2-6: Evaluation Schedule - Management & CV's of Key Personnel

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. The experience of assigned key persons in relation to the scope of work will be evaluated from three different points of view, namely:
 - i. Relevant experience –
 - ii. The education, training and skills of the assigned staff in the specific sector, field, subject, etc. which is directly linked to the Scope of Works. Proof of education and training must be attached to the C.V.
2. Comprehensive CV's should be attached to this schedule:

As a minimum each CV should address the following, but not limited to;

- i. Personal particulars
 - a. Name
 - b. Place (s) of tertiary education and dates associated therewith
 - c. Professional awards
- ii. Qualifications (degrees, diplomas, grades of membership of professional societies and professional registrations)
- iii. Name of current employer and position in enterprise
- iv. Outline of recent assignments / experience that has a bearing on the Scope of Works

List of Key Persons assigned to the above disciplines

| No. | Key Persons | Name and Surname | CV attached (Yes/No) |
|-----|-----------------|------------------|----------------------|
| 1 | Project Manager | | |
| 2 | Quality Officer | | |
| 3 | | | |
| 4 | | | |
| 5 | | | |

The scoring of the Management & CV's of Key Persons will be as follows:

| | |
|------------------|---|
| Score 0 | The tenderer has submitted no information or inadequate information to determine a score. |
| Score 20 | Key personal including but not limited to: <ul style="list-style-type: none"> • Project Manager: National Diploma in Project Management. • Quality Officer: ISO 9001:2015 Certified Minimum 2 years' experience Experience of the staff allocated to the project and availability of skills to manage and perform the contract must be clearly indicated. An Organizational Chart showing on and off-site management. |
| Score 40 | Key personal including but not limited to: <ul style="list-style-type: none"> • Project Manager: National Diploma in Project Management. • Quality Officer: ISO 9001:2015 Certified Minimum 3-4 years' experience Experience of the staff allocated to the project and availability of skills to manage and perform the contract must be clearly indicated. An Organizational Chart showing on and off-site management. |
| Score 60 | Key personal including but not limited to: <ul style="list-style-type: none"> • Project Manager: National Diploma in Project Management. • Quality Officer: ISO 9001:2015 Certified Minimum 5-6 years' experience Experience of the staff allocated to the project and availability of skills to manage and perform the contract must be clearly indicated. An Organizational Chart showing on and off-site management. |
| Score 80 | Key personal including but not limited to: <ul style="list-style-type: none"> • Project Manager: National Diploma in Project Management. • Quality Officer: ISO 9001:2015 Certified Minimum 7-8 years' experience Experience of the staff allocated to the project and availability of skills to manage and perform the contract must be clearly indicated. An Organizational Chart showing on and off-site management. |
| Score 100 | Key personal including but not limited to: <ul style="list-style-type: none"> • Project Manager: National Diploma in Project Management. • Quality Officer: ISO 9001:2015 Certified More than 8 years' experience. Experience of the staff allocated to the project and availability of skills to manage and perform the contract must be clearly indicated. An Organizational Chart showing on and off-site management |



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Index of documentation attached to this schedule:

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.....

.....

| | | | |
|----------|-------|----------|-------|
| Signed | | Date | |
| Name | | Position | |
| Tenderer | | | |
| | | | |

T2.2-7: 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 |
|--------------------------|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

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 |
|--------------|---------|--|
| | | |
| | | |
| | | |
| | | |

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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



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T2.2-8: 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 | | |

Attach additional pages if more space is required.

Signed

Date

Name

Position

Tenderer

T2.2-9 Letter/s of Good Standing with the Workmen's Compensation Fund

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

- 1.
- 2.
- 3.
- 4.

Name of Company/Members of Joint Venture:

| |
|-------|
| |
| |
| |
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T2.2-11: 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 *works*.

Note to tenderers:

- In terms of PPPFA Regulation 6 (5), 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.
- In terms of PPPFA Regulation 12 (3), 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-BBEE 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 subcontractors will be subject to acceptance by the *Project 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 | |
| | <input type="checkbox"/> | <input type="checkbox"/> | |

| 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 | |
| | <input type="checkbox"/> | <input type="checkbox"/> | |
| Name of Proposed Subcontractor | | Address | | | Nature of work | | Amount of Worked | Percentage of work |



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| % Black Owned | EME | QSE | Youth | Women | Disabilities | Rural/ Underdeveloped areas/ Townships | Military Veterans |
|---------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--|--------------------------|
| | <input type="checkbox"/> | <input type="checkbox"/> |

| 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 | |
| | <input type="checkbox"/> | <input type="checkbox"/> | |

Signed

Date

Name

Position

Tenderer

T2.2-13: 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 Broad-Based Black Economic Empowerment [**B-BBEE**] Status Level of Contribution.

Transnet will award preference points to companies who provide valid proof of their B-BBEE status using either the latest version of the generic Codes of Good Practice or Sector Specific Codes (if applicable).

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 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; and
- (b) B-BBEE Status Level of Contribution.

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

| | POINTS |
|--|---------------|
| PRICE | 80 |
| B-BBEE STATUS LEVEL OF CONTRIBUTION | 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 B-BBEE status level of contributor together with the bid will be interpreted to mean that preference points for B-BBEE status level of contribution 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.

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

Ps = Points scored for comparative price of bid under consideration

Pt = Comparative price of bid under consideration

Pmin = Comparative price of lowest acceptable bid

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

4.1 preference points must be awarded to a bidder for attaining the B-BBEE status level of contribution in accordance with the table below:

| B-BBEE Status Level of Contributor | Number of points (80/20 system) |
|------------------------------------|---------------------------------|
| 1 | 20 |
| 2 | 18 |
| 3 | 14 |
| 4 | 12 |
| 5 | 8 |
| 6 | 6 |
| 7 | 4 |
| 8 | 2 |
| Non-compliant contributor | 0 |

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 .] |
| EME¹ | 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 |

¹ In terms of the Implementation Guide: Preferential Procurement Regulations, 2017, Version 2, paragraph 11.11 provides that in the Transport Sector, EMEs can provide a letter from accounting officer or get verified and be issued with a B-BBEE certificate by SANAS accredited professional or agency as the Transport Sector Code has not been aligned to the generic Codes. EMEs in the Transport Sector are not allowed to provide a sworn affidavit as the generic codes are not applicable to them.

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: . =(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.

| |
|--|
| <p>WITNESSES</p> <p>1.</p> <p>2.</p> |
|--|

| |
|---|
| <p>.....</p> <p>SIGNATURE(S) OF BIDDERS(S)</p> <p>DATE:</p> |
|---|

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 interest² 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 |
|-----------|-----------------|---------------------|-------|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
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| | | | |
| | | | |

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:
.....
.....

² 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.

3 DECLARATION

I, _____ the _____ undersigned,
(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 consortium³ 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

³ 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.



MANAGEMENT SYSTEM SHOULD THIS DECLARATION PROVE TO BE FALSE.

| | |
|--------------------|-------------------------|
| Signature | Date |
| Position | Name of bidder |

TRANSNET PORT TERMINALS

TENDER NUMBER: TPT/2022/04/48/RFP

DESCRIPTION OF THE WORKS: SUPPLY AND INSTALLATION OF CCTV CAMERAS AT NGQURA CONTAINER TERMINAL (NCT) OF TRANSNET SOC LTD (REG. NO 1990/000900/30) OPERATING AS TRANSNET PORT TERMINALS (HEREINAFTER REFERRED TO AS "TPT"), AS A ONCE OFF SUPPLY

T2.2-14 NON-DISCLOSURE AGREEMENT

[October 2021]

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 2nd Floor, Waterfall Business Estate, 9 Country Estate Drive, Midrand, 1662, South Africa

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

- 2.1 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.
- 2.2 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.
- 2.3 Notwithstanding clause 2.1 above, the Receiving Party may disclose Confidential Information:
- 2.3.1 to those of its Agents who strictly need to know the Confidential Information for the sole purpose set out in clause 2.2 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
- 2.3.2 to the extent required by law or the rules of any applicable regulatory authority, subject to clause 2.4 below.
- 2.4 In the event that the Receiving Party is required to disclose any Confidential Information in accordance with clause 2.3.2 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.

- 2.5 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.
- 2.6 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

- 3.1 The Receiving Party agrees to ensure proper and secure storage of all Information and any copies thereof.
- 3.2 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.
- 3.3 The Company shall, within 7 [seven] days of receipt of a written demand from Transnet:
- 3.3.1 return all written Confidential Information [including all copies]; and
- 3.3.2 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.
- 3.4 The Company shall on request supply a certificate signed by a director as to its full compliance with the requirements of clause 3.3.2 above.

4. ANNOUNCEMENTS

- 4.1 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.
- 4.2 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

8.1 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.

8.2 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

9.1 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.

9.2 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.

9.3 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.

9.4 This Agreement may only be modified by a written agreement duly signed by persons authorised on behalf of each party.

9.5 Nothing in this Agreement shall constitute the creation of a partnership, joint venture or agency between the parties.

9.6 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 | _____ | | |



TRANSNET PORT TERMINALS
 TENDER NUMBER: TPT/2022/04/48/RFP
 DESCRIPTION OF THE WORKS: SUPPLY AND INSTALLATION OF CCTV CAMERAS AT NGQURA
 CONTAINER TERMINAL (NCT) OF TRANSNET SOC LTD (REG. NO 1990/000900/30) OPERATING AS
 TRANSNET PORT TERMINALS (HEREINAFTER REFERRED TO AS "TPT"), AS A ONCE OFF SUPPLY

T2.2-15: 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.

TRANSNET PORT TERMINALS
 TENDER NUMBER: TPT/2022/04/48/RFP
 DESCRIPTION OF THE WORKS: SUPPLY AND INSTALLATION OF CCTV CAMERAS AT NGQURA CONTAINER TERMINAL (NCT) OF TRANSNET SOC LTD (REG. NO 1990/000900/30) OPERATING AS TRANSNET PORT TERMINALS (HEREINAFTER REFERRED TO AS "TPT"), AS A ONCE OFF SUPPLY

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 T2.2-14 "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.

TRANSNET PORT TERMINALS
TENDER NUMBER: TPT/2022/04/48/RFP
DESCRIPTION OF THE WORKS: SUPPLY AND INSTALLATION OF CCTV CAMERAS AT NGQURA
CONTAINER TERMINAL (NCT) OF TRANSNET SOC LTD (REG. NO 1990/000900/30) OPERATING AS
TRANSNET PORT TERMINALS (HEREINAFTER REFERRED TO AS "TPT"), AS A ONCE OFF SUPPLY

T2.2-16: REQUEST FOR PROPOSAL – BREACH OF LAW

NAME OF COMPANY: _____

I / We _____ do hereby certify that
I/we have/have not been found guilty during the preceding 5 (five) years of a serious breach of law,
including but not limited to a breach of the Competition Act, 89 of 1998, by a court of law, tribunal or
other administrative body. The type of breach that the 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

T2.2-17 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 RFP. 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



TRANSNET PORT TERMINALS
TENDER NUMBER: TPT/2022/04/48/RFP
DESCRIPTION OF THE WORKS: SUPPLY AND INSTALLATION OF CCTV CAMERAS AT NGQURA
CONTAINER TERMINAL (NCT) OF TRANSNET SOC LTD (REG. NO 1990/000900/30) OPERATING AS
TRANSNET PORT TERMINALS (HEREINAFTER REFERRED TO AS "TPT"), AS A ONCE OFF SUPPLY

T2.2-18 Service Provider Integrity Pact

Important Note: All potential tenderers must read this document and certify in the RFP Declaration Form that 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")

TRANSNET PORT TERMINALS

TENDER NUMBER: ICLM HQ 493/TPT

DESCRIPTION OF THE WORKS: THE STRUCTURAL REPAIRS AND CORROSION PROTECTION OF 3 STS CRANES AT THE PORT OF DURBAN CONTAINER TERMINAL PIER 1 OF TRANSNET SOC LTD (REG. NO 1990/000900/30) OPERATING AS TRANSNET PORT TERMINALS (HEREINAFTER REFERRED TO AS "TPT"), AS A ONCE OFF SUPPLY

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

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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

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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.
- 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

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- 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:

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- 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 RFP; or
 - f) tendering with the intention of not winning the Tender.
- 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

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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:

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- 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.

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- 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 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:

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- 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



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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

T2.2-19: 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 (insert name of Company)
Resolution from Board of Directors)

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



TRANSNET PORT TERMINALS
 TENDER NUMBER: TPT/2022/04/48/RFP
 DESCRIPTION OF THE WORKS: SUPPLY AND INSTALLATION OF CCTV CAMERAS AT NGQURA
 CONTAINER TERMINAL (NCT) OF TRANSNET SOC LTD (REG. NO 1990/000900/30) OPERATING AS
 TRANSNET PORT TERMINALS (HEREINAFTER REFERRED TO AS "TPT"), AS A ONCE OFF SUPPLY

T2.2-20: SBD1 Form

SBD1 FORM

PART A

INVITATION TO BID

YOU ARE HEREBY INVITED TO BID FOR THE BELOW REQUIREMENTS:

| | | | | | |
|-------------|--------------------|---------------|--------------|---------------|-------|
| BID NUMBER: | TPT/2022/04/48/RFP | CLOSING DATE: | 27 JUNE 2022 | CLOSING TIME: | 10:00 |
|-------------|--------------------|---------------|--------------|---------------|-------|

| | |
|-------------|---|
| DESCRIPTION | SUPPLY AND INSTALLATION OF CCTV CAMERAS AT NGQURA CONTAINER TERMINAL (NCT) OF TRANSNET SOC LTD (REG. NO 1990/000900/30) OPERATING AS TRANSNET PORT TERMINALS (HEREINAFTER REFERRED TO AS "TPT"), AS A ONCE OFF SUPPLY |
|-------------|---|

BID RESPONSE DOCUMENTS MAY BE SUBMITTED ON THE TRANSNET E-TENDER SUBMISSION PORTAL

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

- Log on to the Transnet eTenders management platform website (<https://www.transnet.net>);
- Submit bid documents by uploading them into the system against the tender selected.

| | |
|--|--|
| PRIOR THE BID CLOSING DATE, BIDDING PROCEDURE ENQUIRIES MAY BE DIRECTED TO: | AFTER THE BID CLOSING DATE, BIDDING PROCEDURE ENQUIRIES MAY BE DIRECTED TO: |
|--|--|

| | | | |
|------------------|--------------------------------------|------------------|------------------------------|
| CONTACT PERSON | Nomvuselelo Mabuyakhulu | CONTACT PERSON | Phumza Lehlohla |
| TELEPHONE NUMBER | 072 735 1899 | TELEPHONE NUMBER | 031 308 8144 |
| FACSIMILE NUMBER | N/A | FACSIMILE NUMBER | N/A |
| E-MAIL ADDRESS | Nomvuselelo.Mabuyakhulu@transnet.net | E-MAIL ADDRESS | Phumza.Lehlohla@transnet.net |

SUPPLIER INFORMATION

| | | | | | |
|----------------------------|----------------------------|--|--------|-------------------------------|--|
| NAME OF BIDDER | | | | | |
| POSTAL ADDRESS | | | | | |
| STREET ADDRESS | | | | | |
| TELEPHONE NUMBER | CODE | | NUMBER | | |
| CELLPHONE NUMBER | | | | | |
| FACSIMILE NUMBER | CODE | | NUMBER | | |
| E-MAIL ADDRESS | | | | | |
| VAT REGISTRATION NUMBER | | | | | |
| SUPPLIER COMPLIANCE STATUS | TAX COMPLIANCE SYSTEM PIN: | | OR | CENTRAL SUPPLIER DATABASE No: | UNIQUE REGISTRATION REFERENCE NUMBER: MAAA: |



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| | | | |
|---|--|---|---|
| B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE | TICK APPLICABLE BOX] <input type="checkbox"/> Yes <input type="checkbox"/> No | B-BBEE STATUS LEVEL SWORN AFFIDAVIT | [TICK APPLICABLE BOX] <input type="checkbox"/> Yes <input type="checkbox"/> No |
|---|--|---|---|

[A B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE/ SWORN AFFIDAVIT (FOR EMES & QSEs) MUST BE SUBMITTED IN ORDER TO QUALIFY FOR PREFERENCE POINTS FOR B-BBEE]

| | | | |
|--|--|---|---|
| ARE YOU THE ACCREDITED REPRESENTATIVE IN SOUTH AFRICA FOR THE GOODS /SERVICES /WORKS OFFERED? | <input type="checkbox"/> Yes <input type="checkbox"/> No [IF YES ENCLOSE PROOF] | ARE YOU A FOREIGN BASED SUPPLIER FOR THE GOODS /SERVICES /WORKS OFFERED? | <input type="checkbox"/> Yes <input type="checkbox"/> No [IF YES, ANSWER THE QUESTIONNAIRE BELOW] |
|--|--|---|---|

QUESTIONNAIRE TO BIDDING FOREIGN SUPPLIERS

IS THE ENTITY A RESIDENT OF THE REPUBLIC OF SOUTH AFRICA (RSA)? YES NO

DOES THE ENTITY HAVE A BRANCH IN THE RSA? YES NO

DOES THE ENTITY HAVE A PERMANENT ESTABLISHMENT IN THE RSA?
 YES NO

DOES THE ENTITY HAVE ANY SOURCE OF INCOME IN THE RSA?
 NO YES

IS THE ENTITY LIABLE IN THE RSA FOR ANY FORM OF TAXATION? YES NO

IF THE ANSWER IS "NO" TO ALL OF THE ABOVE, THEN IT IS NOT A REQUIREMENT TO REGISTER FOR A TAX COMPLIANCE STATUS SYSTEM PIN CODE FROM THE SOUTH AFRICAN REVENUE SERVICE (SARS) AND IF NOT REGISTER AS PER 1.3 BELOW.



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PART B

TERMS AND CONDITIONS FOR BIDDING

1. TAX COMPLIANCE REQUIREMENTS

- 1.1 BIDDERS MUST ENSURE COMPLIANCE WITH THEIR TAX OBLIGATIONS.
- 1.2 BIDDERS ARE REQUIRED TO SUBMIT THEIR UNIQUE PERSONAL IDENTIFICATION NUMBER (PIN) ISSUED BY SARS TO ENABLE THE ORGAN OF STATE TO VERIFY THE TAXPAYER'S PROFILE AND TAX STATUS.
- 1.3 APPLICATION FOR TAX COMPLIANCE STATUS (TCS) PIN MAY BE MADE VIA E-FILING THROUGH THE SARS WEBSITE WWW.SARS.GOV.ZA.
- 1.4 BIDDERS MAY ALSO SUBMIT A PRINTED TCS CERTIFICATE TOGETHER WITH THE BID.
- 1.5 IN BIDS WHERE CONSORTIA / JOINT VENTURES / SUB-CONTRACTORS ARE INVOLVED, EACH PARTY MUST SUBMIT A SEPARATE TCS CERTIFICATE / PIN / CSD NUMBER.
- 1.6 WHERE NO TCS IS AVAILABLE BUT THE BIDDER IS REGISTERED ON THE CENTRAL SUPPLIER DATABASE (CSD), A CSD NUMBER MUST BE PROVIDED.

NB: FAILURE TO PROVIDE / OR COMPLY WITH ANY OF THE ABOVE PARTICULARS MAY RENDER THE BID INVALID.

SIGNATURE OF BIDDER:

CAPACITY UNDER WHICH THIS BID IS SIGNED:

(Proof of authority must be submitted e.g. company resolution)

DATE:



T2.2-21: SBD 9

SBD 9 - CERTIFICATE OF INDEPENDENT BID DETERMINATION

1. Section 4(1)(b)(iii) of the Competition Act No. 89 of 1998, as amended, prohibits an agreement between, or concerted practice by, firms, or a decision by an association of firms, if it is between parties in a horizontal relationship and if it involves collusive bidding (or bid rigging). Collusive bidding is a per se prohibition meaning that it cannot be justified under any grounds. Bid rigging (or collusive bidding) occurs when businesses, that would otherwise be expected to compete, secretly conspire to raise prices or lower the quality of goods and / or services for purchasers who wish to acquire goods and / or services through a bidding process. Bid rigging is, therefore, an agreement between competitors not to compete.
2. Transnet will take all reasonable steps to prevent abuse of the supply chain management system and to:
 - a. disregard the bid of any bidder if that bidder, or any of its directors have abused the institution's supply chain management system and or committed fraud or any other improper conduct in relation to such system.
 - b. cancel a contract awarded to a supplier of goods and services if the supplier committed any corrupt or fraudulent act during the bidding process or the execution of that contract.
3. This SBD serves as a certificate of declaration that would be used by institutions to ensure that, when bids are considered, reasonable steps are taken to prevent any form of bid-rigging.
4. In order to give effect to the above, the following certificate of Bid Determination (SBD 9) must be completed and submitted with the bid:



CERTIFICATE OF INDEPENDENT BID DETERMINATION

I, the undersigned, in submitting the accompanying bid:

(Bid Number and Description)

in response to the invitation for the bid made by:

(Name of Institution)

do hereby make the following statements that I certify to be true and complete in every respect:

I certify, on behalf of: _____ that:

(Name of Bidder)

1. I have read and I understand the contents of this Certificate;
2. I understand that the accompanying bid will be disqualified if this Certificate is found not to be true and complete in every respect;
3. I am authorized by the bidder to sign this Certificate, and to submit the accompanying bid, on behalf of the bidder;
4. Each person whose signature appears on the accompanying bid has been authorized by the bidder to determine the terms of, and to sign the bid, on behalf of the bidder;
5. For the purposes of this Certificate and the accompanying bid, I understand that the word "competitor" shall include any individual or organization, other than the bidder, whether or not affiliated with the bidder, who:
 - a. has been requested to submit a bid in response to this bid invitation;
 - b. could potentially submit a bid in response to this bid invitation, based on their qualifications, abilities or experience; and
 - c. provides the same goods and services as the bidder and/or is in the same line of business as the bidder
6. 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 consortium¹ will not be construed as collusive bidding.
7. In particular, without limiting the generality of paragraphs 6 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:

¹ 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.

- a. prices;
 - b. geographical area where product or service 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 bid;
 - e. the submission of a bid which does not meet the specifications and conditions of the bid; or
 - f. bidding with the intention not to win the bid.
8. 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 products or services to which this bid invitation relates.
9. 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.
10. 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.

.....
 Signature

.....
 Date

.....
 Position

.....
 Name of Bidder

T2.2-22: Insurance provided by the *Contractor*

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

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

| Insurance against (See clause 84.2 of the ECC) | Name of Insurance Company | Cover | Premium |
|--|--------------------------------------|--------------|----------------|
| 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 R10 000 000. | | | |
| Insurance in respect of loss of or damage to own property and equipment. | | | |
| (Other) | | | |

Signed

Date

Name

Position

Tenderer



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T2.2-23: Form of Intent to Provide a Performance Guarantee

It is hereby agreed by the Tenderer that a Performance Guarantee drafted **exactly** as provided in the tender documents will be provided by the Guarantor named below, which is a **bank or insurer registered in South Africa**:

Name of Guarantor
 (Bank/Insurer)

Address

The Performance Guarantee shall be provided within **2 (Two)** weeks after the Contract Date defined in the contract unless otherwise agreed to by the parties.

Signed

Name

Capacity

On behalf of (name of tenderer)

Date

Confirmed by Guarantor's Authorised Representative

Signature(s)

Name (print)

Capacity

On behalf of Guarantor
 (Bank/insurer)

Date



T2.2-24: Forecast Rate of Invoicing

Tenderer to submit the forecast rate of invoicing (cash-flow) based on the Tender Price and Tender Programme.

| |
|--|
| Index of documentation attached to this schedule: |
|--|

| | | | |
|----------|-------|----------|-------|
| Signed | | Date | |
| Name | | Position | |
| Tenderer | | | |



T2.2-25: Three (3) years audited financial statements

Attached to this schedule is the last three (3) years audited financial statements of the single tenderer/members of the Joint Venture.

NAME OF COMPANY/IES and INDEX OF ATTACHMENTS:

.....

.....

.....

.....

.....

.....

.....

.....



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T2.2-26 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.cipc.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.



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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.



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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 xxxxxxx):

| | | | | | | |
|--|------------------------------|------------------------|-----------------------|---------------|-----------------------|-----------------------|
| 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 |
| | Educational Institution | Specialised 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 |
| | Educational Institution | Specialised 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 | |



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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: | | | | | | | | | | | | | |



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- 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 | YES <input type="radio"/> NO <input type="radio"/> |
| <p>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.</p> <p>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.</p> | |
| FIRST TIME SUPPLIER | YES <input type="radio"/> NO <input type="radio"/> |
| <p>A supplier that we haven't as yet Traded within Transnet and will be registered via our database for the 1st time.</p> | |
| SUPPLIER DEVELOPMENT PLAN | YES <input type="radio"/> NO <input type="radio"/> |
| <p>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.).</p> | |
| DEVELOPMENT PLAN DOCUMENT | YES <input type="radio"/> NO <input type="radio"/> |
| <p>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.</p> | <p>*If Yes- Attach supporting documents</p> |
| ENTERPRISE DEVELOPMENT BENEFICIARY | YES <input type="radio"/> NO <input type="radio"/> |



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| | |
|---|--|
| A supplier that is not as yet in our value chain that we are assisting in their developmental area. | |
| SUPPLIER DEVELOPMENT BENEFICIARY A supplier that we are already doing business with or transacting with and we are also assisting them assisting them in their developmental area e.g. (They might require training or financial assistance etc.) | YES <input type="radio"/> NO <input type="radio"/> |
| 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 <input type="radio"/> NO <input type="radio"/> |
| ENTERPRISE DEVELOPMENT RECIPIENT A supplier that isn't in our value chain as yet but we have assisted them with an ED intervention | YES <input type="radio"/> NO <input type="radio"/> |

| | | | |
|--|--|-------------|--|
| 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 | |



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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



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APPENDIX C

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 of the following enterprise and am duly authorised to act on its behalf:

| | |
|--|---|
| Enterprise Name: | |
| Trading Name (If Applicable): | |
| Registration Number: | |
| Enterprise Physical Address: | |
| Type of Entity (CC, (Pty) Ltd, Sole Prop etc.): | |
| Nature of Business: | |
| Definition of "Black People" | <p>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 –</p> <p>(a) who are citizens of the Republic of South Africa by birth or descent; or</p> <p>(b) who became citizens of the Republic of South Africa by naturalisation-</p> <p>i. before 27 April 1994; or</p> <p>ii. on or after 27 April 1994 and who would have been entitled to acquire citizenship by naturalization prior to that date;"</p> |



TRANSNET PORT TERMINALS
 TENDER NUMBER: TPT/2022/04/48/RFP
 DESCRIPTION OF THE WORKS: SUPPLY AND INSTALLATION OF CCTV CAMERAS AT NGQURA CONTAINER TERMINAL (NCT) OF TRANSNET SOC LTD (REG. NO 1990/000900/30) OPERATING AS TRANSNET PORT TERMINALS (HEREINAFTER REFERRED TO AS "TPT"), AS A ONCE OFF SUPPLY

| | |
|--|--|
| Definition of "Black Designated Groups" | <p>Black Designated Groups means:</p> <ul style="list-style-type: none"> (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 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 Financial Statements/Management Accounts and other information available on the latest financial year-end of _____, 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



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APPENDIX D

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 of the following enterprise and am duly authorised to act on its behalf:

| | |
|--|---|
| Enterprise Name: | |
| Trading Name (If Applicable): | |
| Registration Number: | |
| Enterprise Physical Address: | |
| Type of Entity (CC, (Pty) Ltd, Sole Prop etc.): | |
| Nature of Business: | |
| Definition of "Black People" | <p>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 –</p> <p>(a) who are citizens of the Republic of South Africa by birth or descent;</p> <p>or</p> <p>(b) who became citizens of the Republic of South Africa by naturalisationi-</p> <p>i. before 27 April 1994; or</p> |



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| | |
|--|---|
| | 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 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 Financial Statements/Management Accounts and other information available on the latest financial year-end of _____, 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) | |
| 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



TRANSNET PORT TERMINALS

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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. | | |

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:

SUPPLY AND INSTALLATION OF CCTV CAMERAS AT NGQURA CONTAINER TERMINAL (NCT) OF TRANSNET SOC LTD (REG. NO 1990/000900/30) OPERATING AS TRANSNET PORT TERMINALS (HEREINAFTER REFERRED TO AS "TPT"), AS A ONCE OFF SUPPLY

The tenderer, identified in the Offer signature block, has examined the draft contract as listed in the Acceptance section and agreed to provide this Offer.

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:

Name & signature of witness

(Insert name and address of organisation)

Date

Tenderer's CIDB registration number:

Acceptance

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

The terms of the contract, are contained in:

| | |
|---------|--|
| Part C1 | Agreements and Contract Data, (which includes this Form of Offer and Acceptance) |
| Part C2 | Pricing Data |
| Part C3 | Scope of Work: Works Information |
| Part C4 | Site Information |

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

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

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

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

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

Signature(s)

Name(s)

Capacity

for the Employer

Transnet SOC Ltd operating as Transnet Port Terminals
 2nd Floor,
 202 Anton Lembede Street,
 Durban Central
 Durban, 4001

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 | | |

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 _____ <i>(Insert name and address of organisation)</i> | Transnet SOC Ltd operating as Transnet Port Terminals Kingsmead Office Park Stalwart Simelane (Stanger) Street Durban, South Africa 4001 |
| 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 activity schedule |
| | dispute resolution Option | W1: Dispute resolution procedure |
| | and secondary Options | X7: Delay damages X13: Performance Bond X18: Limitation of liability Z: <i>Additional conditions of contract</i> |
| | of the NEC3 Engineering and Construction Contract June 2005 (amended June 2006 and April 2013) | |
| 10.1 | The <i>Employer</i> is: | Transnet SOC Ltd (Registration No. 1990/000900/30) |
| | Address | Registered address: Transnet Corporate Centre Transnet Corporate Centre 138 Eloff Street Braamfontein Johannesburg 2000 |
| | Having elected its Contractual Address for the purposes of this contract as: | Transnet Port Terminals 2nd Floor, 202 Anton Lembede Street, Durban Central Durban, 4001 |
| 10.1 | The <i>Project Manager</i> is: (Name) | Themba Masingi |

| | | |
|----------|---|--|
| | Address | Transnet Port Terminals (PECT) Straddle Carrier Workshop Greenstreet Port Elizabeth 6001 |
| | Tel | 063 501 0698 |
| | e-mail | Themba.Masingi@transnet.net |
| 10.1 | The <i>Supervisor</i> is: (Name) | TBC |
| | Address | Transnet Port Terminals (PECT) Straddle Carrier Workshop Greenstreet Port Elizabeth 6001 |
| | Tel No. | TBC |
| | e-mail | TBC |
| 11.2(13) | The <i>works</i> are | Supply and installation of CCTV cameras at Ngqura Container Terminal (NCT) of Transnet SOC Ltd (reg. no 1990/000900/30) operating as Transnet Port Terminals (hereinafter referred to as "TPT"), as a once off supply |
| 11.2(14) | The following matters will be included in the Risk Register | The compatibility of the new system to the existing system |
| 11.2(15) | The <i>boundaries of the site</i> are | As stated in Part C4.1."Description of the Site and it surroundings" |
| 11.2(16) | The Site Information is in | Part C4 |
| 11.2(19) | The Works Information is in | Part C3 |
| 12.2 | The <i>law of the contract</i> is the law of | the Republic of South Africa subject to the jurisdiction of the Courts of South Africa. |
| 13.1 | The <i>language of this contract</i> is | English |
| 13.3 | The <i>period for reply</i> is | 2 weeks |
| 2 | The <i>Contractor's</i> main responsibilities | No additional data is required for this section of the <i>conditions of contract</i>. |

| | | | |
|----------|--|---|----------------------|
| 3 | Time | | |
| 11.2(3) | The <i>completion date</i> for the whole of the <i>works</i> is | TBC | |
| 11.2(9) | The <i>key dates</i> and the <i>conditions</i> to be met are: | Condition to be met | key date |
| | | 1 Installed and configured system | TBC |
| | | 2 Cameras are installed and giving visuals | TBC |
| 30.1 | The <i>access dates</i> are | Part of the Site | Date |
| | | 1 Ngqura Terminal | Container TBC |
| 31.1 | The <i>Contractor</i> is to submit a first programme for acceptance within | 2 weeks of the Contract Date. | |
| 31.2 | The <i>starting date</i> is | TBC | |
| 32.2 | The <i>Contractor</i> submits revised programmes at intervals no longer than | 2 weeks. | |
| 35.1 | The <i>Employer</i> is not willing to take over the <i>works</i> before the Completion Date. | | |
| 4 | Testing and Defects | | |
| 42.2 | The <i>defects date</i> is | 52 (fifty two) weeks after Completion of the whole of the works. | |
| 43.2 | The <i>defect correction period</i> is | 2 weeks | |
| 5 | Payment | | |
| 50.1 | The <i>assessment interval</i> is monthly on the | 25th (twenty fifth) day of each successive month. | |
| 51.1 | The <i>currency of this contract</i> is the | South African Rand. | |
| 51.2 | The period within which payments are made is | Payment will be effected on or before the last day of the month following the month during | |



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| | | |
|----------|---|--|
| | | which a valid Tax Invoice and Statement were received. |
| 51.4 | The <i>interest rate</i> is | the prime lending rate of Standard Bank of South Africa. |
| 6 | Compensation events | |
| 60.1(13) | The <i>weather measurements</i> to be recorded for each calendar month are, | the cumulative rainfall (mm) |
| | | the number of days with rainfall more than 10 mm |
| | | the number of days with minimum air temperature less than 0 degrees Celsius |
| | | the number of days with snow lying at 08:00 hours South African Time |
| | | and these measurements: |
| | The place where weather is to be recorded (on the Site) is: | Port of Ngqura |
| | The <i>weather data</i> are the records of past <i>weather measurements</i> for each calendar month which were recorded at: | Ngqura |
| | and which are available from: | South African Weather Service 012 367 6023 or info3@weathersa.co.za. |
| 7 | Title | No additional data is required for this section of the <i>conditions of contract</i>. |
| 8 | Risks and insurance | |
| 80.1 | These are additional <i>Employer's</i> risks | None |
| 84.1 | The <i>Employer</i> provides these insurances from the Insurance Table | |
| | 1 Contract Works Cover: | Covering physical loss of or damage to the <i>works</i>, temporary works and material for |



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incorporation into the works whilst in transit, temporary storage and whilst in the course of erection at the contract site within the Republic of South African.

Cover / indemnity:

to the extent as stated in the insurance policy for Contract Works / Public Liability

The deductibles are:

as stated in the insurance policy for Contract Works / Public Liability

2 Contractors Public Liability
Cover:

Covering legal for loss of or damage to property (except the works, Plant and Materials & Equipment) and liability for bodily injury to or death of a third party persons (not an employee of the Contractor) arising out of or in connection with the performance of the works on the contract site or sites designated for purpose of the performance of the contract.

Cover / indemnity

Is to the extent as stated in the insurance policy for Contract Works / Public Liability

The deductibles are:

as stated in the insurance policy for Contract Works / Public Liability

3 Riot/ Strike / Terrorism
Cover:

Provided by South Africa Special Risks Insurance Association (SASRIA) in respect of risks within the Republic of South Africa, insurance subject to the terms, exceptions and conditions of the SASRIA coupon

Cover / indemnity

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

The deductibles are

As stated in the insurance policy of contract works.

Note:

The deductibles for the insurance as stated above are listed in the document titled "Certificate of Insurance: Transnet (SOC) Limited Principal Controlled Insurance."



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84.1 The minimum limit of indemnity for insurance in respect of death of or bodily injury to employees of the *Contractor* arising out of and in the course of their employment in connection with this contract for any one event is

The *Contractor* must comply at a minimum with the provisions of the Compensation for Occupational Injuries and Diseases Act No. 130 of 1993 as amended.

The Contractor provides these additional Insurances

- 1 Where the contract requires that the design of any part of the works shall be provided by the Contractor the Contractor shall satisfy the Employer that professional indemnity insurance cover in connection therewith has been affected.**
- 2 Where the contract involves manufacture, and/or fabrication of Plant & Materials, components or other goods to be incorporated into the works at premises other than the site, the Contractor shall satisfy the Employer that such plant & materials, components or other goods for incorporation in the works are adequately insured during manufacture and/or fabrication and transportation to the site.**
- 3 Should the Employer have an insurable interest in such items during manufacture, and/or fabrication, such interest shall be noted by endorsement to the Contractor's policies of insurance as well as those of any sub-contractor**

4 Motor Vehicle Liability Insurance comprising (as a minimum) "Balance of Third Party" Risks including Passenger and Unauthorised Passenger Liability indemnity with a minimum indemnity limit of R 5 000 000.

5 The insurance coverage referred to in 1, 2, 3, and 4 above shall be obtained from an insurer(s) in terms of an insurance policy approved by the Employer. The Contractor shall arrange with the insurer to submit to the Project Manager the original and the duplicate original of the policy or policies of insurance and the receipts for payment of current premiums, together with a certificate from the insurer or insurance broker concerned, confirming that the policy or policies provide the full coverage as required. The original policy will be returned to the Contractor.

84.2 The minimum limit of indemnity for insurance in respect of loss of or damage to property (except the works, Plant, Materials and Equipment) and liability for bodily injury to or death of a person (not an employee of the Contractor) caused by activity in connection with this contract for any one event is **Whatever the Contractor requires with minimum limit of R10m per occurrence.**

84.2 The insurance against loss of or damage to the works, Plant and Materials as stated in the insurance policy for contract works and public liability selected from: **Principal Controlled Insurance policy- Contract works cover**

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

10 Data for main Option clause

| | | |
|------------|--|---|
| A | Priced contract with Activity Schedule | No additional data is required for this Option. |
| 11 | Data for Option W1 | |
| W1.1 | The <i>Adjudicator</i> is | 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 Chairman of the Association of Arbitrators (Southern Africa) 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 | Durban, South Africa |
| | 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 | |
| X7 | Delay damages | |
| X7.1 | Delay damages for Completion of the whole of the works are | 0.1% of the contract value per day Capped at 10% |
| X13 | Performance bond | |
| X13.1 | The amount of the performance bond is | 10% of the total of the Prices |

X18 Limitation of liability

- X18.1 The *Contractor's* liability to the **Nil**
Employer for indirect or consequential loss is limited to:
- X18.2 For any one event, the **The deductible of the relevant insurance policy**
Contractor's liability to the *Employer* for loss of or damage to the *Employer's* property is limited to:
- X18.3 The *Contractor's* liability for **The cost of correcting the Defect**
 Defects due to his design which are not listed on the Defects Certificate is limited to:
- X18.4 The *Contractor's* total liability to **The Total of the Prices**
 the *Employer* for all matters arising under or in connection with this contract, other than excluded matters, is limited to:
- X18.5 The *end of liability date* is **5 years after Completion of the whole of the works**

Z Additional conditions of contract
 The *additional conditions of contract* are:

- Z3 Additional clause relating to Performance Bonds and/or Guarantees**
- Z3.1** **The Performance Guarantee under X13 above shall be an irrevocable, on-demand performance guarantee, to be issued exactly in the form of the Pro Forma documents provided for this purpose under C1.3 (Forms of Securities), in favour of the Employer by a financial institution reasonably acceptable to the Employer.**

Z3 Defects Correction Bond (Retention Bond)



Z3.2

The Supplier gives the Employer a Defects correction bond, provided by a bank with a minimum long term credit rating of A – (Fitch rating or equivalent) which the Project Manager has accepted, to the value of 5% of the Contract value and in the form set out in document C1.3 Sureties in Part 1 Agreements and Contract Data. The bond will be given to the Employer prior to the final delivery, commissioning, testing and handover of the works.

Z4 Additional clauses relating to Joint Venture**Z3.1**

Insert the additional core clause 27.5

27.5. In the instance that the *Contractor* is a joint venture, the *Contractor* shall provide the *Employer* with a certified copy of its signed joint venture agreement, and in the instance that the joint venture is an 'Incorporated Joint Venture,' the Memorandum of Incorporation, within 4 (four) weeks of the Contract Date.

The Joint Venture agreement shall contain but not be limited to the following:

- **A brief description of the Contract and the Deliverables;**
- **The name, physical address, communications addresses and domicilium citandi et executandi of each of the constituents and of the Joint Venture;**
- **The constituent's interests;**
- **A schedule of the insurance policies, sureties, indemnities and guarantees which must be taken out by the Joint Venture and by the individual constituents;**



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- **Details of an internal dispute resolution procedure;**
- **Written confirmation by all of the constituents:**
 - i. **of their joint and several liabilities to the *Employer* to Provide the Works;**
 - ii. **identification of the lead partner in the joint venture confirming the authority of the lead partner to bind the joint venture through the *Contractor's* representative;**
 - iii. **Identification of the roles and responsibilities of the constituents to provide the Works.**
- **Financial requirements for the Joint Venture:**
 - iv. **the working capital requirements for the Joint Venture and the extent to which and manner whereby this will be provided and/or guaranteed by the constituents from time to time;**
 - v. **the names of the auditors and others, if any, who will provide auditing and accounting services to the Joint Venture.**

Z4.2

Insert additional core clause 27.6

27.6. The *Contractor* shall not alter its composition or legal status of the Joint Venture without the prior approval of the *Employer*.

Z5 Additional obligations in respect of Termination

Z5.1

The following will be included under core clause 91.1:



In the second main bullet, after the word 'partnership' add 'joint venture whether incorporate 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)**

Z5.2 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"

Z5.3 **Amend "R1 – R15 or R18" to "R1 – R15, R18, R22 or R23."**

Z7 **Right Reserved by the Employer to Conduct Vetting through SSA**

Z7.1 **The Employer 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:**

- 1. 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.**
- 2. 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.**

3. 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.

Z8 Additional Clause Relating to Collusion in the Construction Industry The contract award is made without prejudice to any rights the *Employer* may have to take appropriate action later with regard to any declared tender rigging including blacklisting.

Z9 Protection of Personal Information Act The *Employer* and the *Contractor* 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.

Z11 Anti-corruption, TPT Indemnity

Z11.1 Anti - Corruption

In the event that the Contractor is alleged to be, or found by any competent court or Tribunal to be involved in any corrupt, unlawful or illegal activities, or is being investigated for any alleged corrupt, unlawful or illegal activity in relation to Transnet or any other party with whom Contractor does business, or if Transnet learns that:

- a. Improper payments are being or have been made or offered to Transnet officials or any other person by *Contractor* or those acting on behalf of *Contractor* with respect to the Services; or



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b. *Contractor* or those acting on behalf of *Contractor* has accepted any payment or benefit, regardless of value, as an improper inducement to award, obtain or retain business or otherwise gain or grant an improper business advantage from or to any other person or entity.

Transnet reserves the right to terminate the aforementioned awarded contract, by giving immediate written notice to the effect that, all or any Agreements it may have with *Contractor* or any and all Awards made *Contractor* for breach of this clause.

Further in the event of such termination, *Contractor* shall not be entitled to any further payment, regardless of any activities undertaken or agreements with additional third parties entered into by *Contractor* prior to such termination; and further.

***Contractor* shall be liable to Transnet for any actual damages or remedies as provided either in the Agreements that are to be signed or in law.**

Z11.2 Indemnity

1) Contractor irrevocably and unconditionally undertakes to indemnify and does hereby keep TPT indemnified and hold TPT harmless against, and, in respect of, all and any loss or damage incurred by itself or any other third- Party as a result of, arising out of or connected with any failure, act or omission or breach of this Agreement by Contractor or any of its employees, security officers, servants, agents , assigns, contractors or sub-contractors, or occurring during or as a result of the provision by the Contractor of the Security Service. Such absolute obligation of Contractor to indemnify TPT on a full indemnity basis against all claims shall including, but not be limited to:



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- a) **liability in respect of any loss or damage to property, whether movable or immovable, belonging to third parties; or other**
 - b) **liability in respect of lost property belonging to third parties;**
 - c) **liability arising out of any unlawful act committed by or *Contractor* or its employees, security officers, servants, agents, contractors and sub-contractors during the process of rendering a Security Service; or at any other time when a claim has been and could be made against the TPT arising out of the acts of or omissions of one or more of such persons;**
 - d) **liability in respect of the death, unlawful arrest, injury, illness or disease of any person, or entity should the damage, loss, unlawful arrest, death, injury, illness or disease referred to above be attributable to or arise out of the Security Services that are being or have been rendered by the *Contractor*, its agents, contractors, sub-contractors in terms of this Agreement.**
-
- 1) ***Contractor* shall at its own expense and with effect from the date of signature hereof, take reasonable precautions for the protection of life and or property that is in any way connected with in whole or any part of this agreement and shall hold TPT harmless against all claims for any loss, demands, proceedings, damages, costs, charges, expenses whatsoever, arising out of this agreement.**
 - 2) ***Contractor* agrees that it shall intervene in any claim arising and to indemnify and hold TPT harmless from any claim, damage, loss, cost, expense, legal expenses, arising from or attributable to *Contractor* provision of services, its acts, or omissions or those of its agents, employees, sub-contractors,**

representative/s or other for whom TPT may be / may not be deemed responsible for in terms of the agreement.

Z11.3 Protection of Personal Information

1. The following terms shall bear the same meaning as contemplated in Section 1 of the Protection of Person information act, No.4 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. Transnet will process all information by the Respondent 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.
3. The Parties acknowledge and agree that, in relation to personal information that will be processed pursuant to this RFP, the Responsible party is "Transnet" and the Data subject is the "Respondent". Transnet will process personal information only with the knowledge and authorisation of the Respondent and will treat personal information 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.
4. Transnet reserves all the rights afforded to it by the POPIA in the processing of any of its information as contained in this RFP and the Respondent is required to comply with all prescripts as detailed in the POPIA relating to all information concerning Transnet.
5. In responding to this bid, Transnet acknowledges that it will obtain and have access to personal information of the Respondent. Transnet agrees that it shall only process the information disclosed by Respondent in their response to this bid for the

purpose of evaluating and subsequent award of business and in accordance with any applicable law.

6. Transnet further agrees that in submitting any information or documentation requested in this RFP, the Respondent is consenting to the further processing of their personal information for the purpose of, but not limited to, risk assessment, assurances, contract award, contract management, auditing, legal opinions/litigations, investigations (if applicable), document storage, destruction, de-identification and publishing of personal information by Transnet and/or its authorised appointed third parties.
7. Furthermore, Transnet will not otherwise modify, amend or alter any personal data submitted by the Respondent or disclose or permit the disclosure of any personal data to any third party without the prior written consent from the Respondent. Similarly, Transnet requires the Respondent to process any personal information disclosed by Transnet in the bidding process in the same manner.
8. Transnet 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 this RFP (physically, through a computer or any other form of electronic communication).
9. Transnet shall notify the Respondent in writing of any unauthorised access to information, 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 Respondent must take all necessary remedial steps to mitigate the extent of the loss or compromise of personal information and to restore the integrity of the affected personal information as quickly as is possible.

10. The Respondent may, in writing, request Transnet to confirm and/or make available any personal information in its possession in relation to the Respondent and if such personal information has been accessed by third parties and the identity thereof in terms of the POPIA. The Respondent may further request that Transnet correct (excluding critical/mandatory or evaluation information), delete, destroy, withdraw consent or object to the processing of any personal information relating to the Respondent in Transnet's possession in terms of the provision of the POPIA and utilizing Form 2 of the POPIA Regulations.
11. In submitting any information or documentation requested in this RFP, the Respondent is hereby consenting to the processing of their personal information for the purpose of this RFP and further confirming that they are aware of their rights in terms of Section 5 of POPIA

Respondents are required to provide consent below:

| | |
|------------|--|
| YES | |
|------------|--|

| | |
|-----------|--|
| NO | |
|-----------|--|

12. Further, the Respondent declares that they have obtained all consents pertaining to other data subject's personal information included in its submission and thereby indemnifying Transnet against 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 the Respondent submitted.
13. The Respondent declares that the personal information submitted for the purpose of this RFP is complete, accurate, not misleading, is up to date and may be updated where applicable.

Signature of Respondent's authorised representative: _____

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Should a Respondent have any complaints or objections to processing of its personal information, by Transnet, the Respondent 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

C1.2 Contract Data

Part two - Data provided by the *Contractor*

The tendering *Contractor* is advised to read both the NEC3 Engineering and Construction Contract - June 2005 (with amendments June 2006 and April 2013) and the relevant parts of its Guidance Notes (ECC3-GN) in order to understand the implications of this Data which the tenderer is required to complete. An example of the completed Data is provided on pages 156 to 158 of the ECC3 Guidance Notes.

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

| Clause | Statement | Data |
|----------|--|------|
| 10.1 | The <i>Contractor</i> is (Name): | |
| | Address | |
| | Tel No. | |
| | Fax No. | |
| 11.2(8) | The <i>direct fee percentage</i> is | % |
| | The <i>subcontracted fee percentage</i> is | % |
| 11.2(18) | The <i>working areas</i> are the Site and | |
| 24.1 | The <i>Contractor's</i> key persons are: | |
| | 1 Name: | |
| | Job: | |
| | Responsibilities: | |
| | Qualifications: | |
| | Experience: | |
| | 2 Name: | |
| | Job | |
| | Responsibilities: | |
| | Qualifications: | |
| | Experience: | |



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| | | | | |
|------------|--|--|-------------------------|-------------|
| | | CV's (and further key persons data including CVs) are appended to Tender Schedule entitled . | | |
| 11.2(14) | The following matters will be included in the Risk Register | | | |
| 31.1 | The programme identified in the Contract Data is | | | |
| A | Priced contract with activity schedule | | | |
| 11.2(20) | The <i>activity schedule</i> is in | | | |
| 11.2(30) | The tendered total of the Prices is | (in figures) | | |
| | | (in words), excluding VAT | | |
| | Data for Schedules of Cost Components | <i>Note "SCC" means Schedule of Cost Components starting on page 60 of ECC, and "SSCC" means Shorter Schedule of Cost Components starting on page 63 of ECC.</i> | | |
| A | Priced contract with activity schedule | Data for the Shorter Schedule of Cost Components | | |
| 41 in SSCC | The percentage for people overheads is: | % | | |
| 21 in SSCC | The published list of Equipment is the last edition of the list published by | | | |
| | The percentage for adjustment for Equipment in the published list is | % (state plus or minus) | | |
| 22 in SSCC | The rates of other Equipment are: | Equipment | Size or capacity | Rate |
| | | | | |
| | | | | |

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| | | | | |
|----|----|--|-----------------------------|--------------------|
| | | | | |
| | | | | |
| | | | | |
| 61 | in | The hourly rates for Defined Cost of SSSC design outside the Working Areas are | Category of employee | Hourly rate |
| | | | | |
| | | | | |
| | | | | |
| 62 | in | The percentage for design overheads is SSSC | % | |
| 63 | in | The categories of design employees whose travelling expenses to and from the Working Areas are included in Defined Cost are: | | |

C1.3 Forms of Securities

Pro forma Performance Guarantee

For use with the NEC3 Engineering & Construction Contract - June 2005 (with amendments June 2006 and April 2013)

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

Option X13: Performance bond

The pro forma document for this Guarantee is provided here for convenience but is to be treated as part of the *Works Information*.

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

The Performance Bond needs to be issued by an institution that are reasonably acceptable to the *Employer*.

Transnet may choose to not to accept an Issuer. Should the issuer not being accepted, the performance bond needs to be replaced by an issuer that are acceptable to Transnet. Issuers need to be verified for acceptance by Transnet before a performance bond is issued.



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Pro-forma Performance Bond (for use with Option X13)

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

Transnet SOC Ltd
 C/o Transnet Port Terminals
 Transnet Corporate Centre
 138 Eloff Street
 Braamfontein
 Johannesburg
 2000

Date:

Dear Sirs,

Performance Bond for Contract No. TPT/2022/04/48/RFP

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

Transnet SOC Limited, Registration No. 1990/000900/30 (the *Employer*) and

{Insert registered name and address of the Contractor} (the *Contractor*), for

{Insert details of the works from the Contract Data} (the *works*).

I/We the undersigned

on behalf of the
 Guarantor

of physical address

.....

.....

.....

.....

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

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

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Completion Certificate for the whole of the *works* has been issued, that all amounts due from the *Contractor* as certified in terms of the contract have been received by the *Employer* and that the *Contractor* has fulfilled all his obligations under the Contract, or

- the date that the Surety issues a replacement Performance Bond for such lesser or higher amount as may be required by the *Project Manager*.

5. Always provided that this bond will not lapse in the event the Guarantor is notified by the *Project Manager*, (before the dates above), of the *Employer's* intention to institute claims and the particulars thereof, in which event this bond shall remain in force until all such claims are paid and settled.

6. The amount of the bond shall be payable to the *Employer* upon the *Employer's* demand and no later than 7 days following the submission to the Guarantor of a certificate signed by the *Project Manager* stating the amount of the *Employer's* losses, damages and expenses incurred as a result of the non-performance aforesaid. The signed certificate shall be deemed to be conclusive proof of the extent of the *Employer's* loss, damage and expense.

7. Our total liability hereunder shall not exceed the sum of:

(say) _____

R _____

8. This Performance Bond is neither negotiable nor transferable and is governed by the laws of the Republic of South Africa, subject to the jurisdiction of the courts of the Republic of South Africa

Signed at _____ on this _____ day of _____ 201_

Signature(s)

Name(s) (printed)

Position in Guarantor company

Signature of Witness(s)

Name(s) (printed)



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PART 2: PRICING DATA

| Document reference | Title | No of pages |
|---------------------------|--------------------------------|--------------------|
| C2.1 | Pricing instructions: Option A | 2 |
| C2.2 | Activity Schedule | 2 |

C2.1 Pricing Instructions: Option A

1. The *conditions of contract*

1.1. How the contract prices work and assesses it for progress payments

Clause 11 in NEC3 Engineering and Construction Contract, June 2005, (with amendments June 2006 and April 2013) (ECC) Option A states:

Identified and defined terms 11

11.2 (20) The Activity Schedule is the *activity schedule* unless later changed in accordance with this contract.

(22) Defined Cost is the cost of the components in the Shorter Schedule of Cost Components whether work is subcontracted or not excluding the cost of preparing quotations for compensation events.

(27) The Price for Work Done to Date is the total of the Prices for

- each group of completed activities and
- each completed activity which is not in a group

A completed activity is one which is without Defects which would either delay or be covered by immediately following work.

(30) The Prices are the lump sums for each of the activities on the Activity Schedule unless later changed in accordance with this contract.

1.2. Measurement and Payment

1.2.1 The Activity Schedule provides the basis of all valuations of the Price for Work Done to Date, payments in multiple currencies, price adjustments for inflation and general progress monitoring.

1.2.2 The amount due at each assessment date is based on **completed activities and/or milestones** as indicated on the Activity Schedule.

1.2.3 The Activity Schedule work breakdown structure provided by the *Contractor* is based on the Activity Schedule 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 activity schedule work breakdown structure is compiled to the satisfaction of the *Project Manager* with any additions and/or amendments deemed necessary.

1.2.4 The *Contractor's* detailed Activity Schedule summates back to the Activity Schedule provided by the *Employer* and is in sufficient detail to monitor completion of activities related to the Accepted Programme in order that payment of completed activities may be assessed.



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- 1.2.5 The short descriptions in the Activity Schedule are for identification purposes only. All work described in the Works Information is deemed included in the activities.
- 1.2.6 The Activity Schedule is integrated with the Prices, Accepted Programme and where required the forecast rate of payment schedule.
- 1.2.7 Activities in multiple currencies are separately identified on both the Activity Schedule and the Accepted Programme for each currency.
- 1.2.8 The tendered total of the prices as stated in the Contract Data is obtained from the Activity Schedule summary. The tendered total of the prices includes for all direct and indirect costs, overheads, profits, risks, liabilities and obligations relative to the Contract.

C2.2 Activity Schedule

The Employer requires at least the following activities to be priced. Each activity must be priced individually.

The price reflected below must be fixed and firm. Failure to provide a fixed and firm price will declare the Contractor non responsive.

It is Transnet's preference to enter into a Rand based contract, where the contractor will hedge the Foreign exchange (FX) risk exposure on their balance sheet at a cost acceptable to Transnet by verifying cost of hedging with Transnet Treasury before hedge execution by the contractor. Should this not be possible and should it be required that the Employer hedge the FX risk, the Contractor will be required to re-imburse the Employer for any hedging related costs (losses that arise due to the moving of hedges), in the event that a payment cannot take place on the hedged date due to the Contractor.

For any supply items, it is Transnet's preference to enter into a contract on a DDP (Incoterms 2010, Port of Ngqura) basis. However, a DAP (Incoterms 2010, Port of Ngqura) will be accepted, provided the contractor agrees to reimburse the Employer in respect of any additional costs to be incurred as a result of choosing the DAP Incoterms 2010, e.g. Customs VAT, cargo.

| ITEM | DESCRIPTION | UNIT | QTY | RATE (R) | AMOUNT (R) |
|------------------|---|------|-----|----------|------------|
| CAPEX (A) | | | | | |
| | All items under this section shall be for both CCTV cameras network system and associated equipment. | | | | |
| 1 | Preliminary and general: | | | | |
| 1.1 | Preliminary and general: Fixed charge items | Sum | 1 | | |
| 1.2 | Preliminary and general: Time-related items | Sum | 1 | | |
| 2 | CCTV Cameras Network System: | | | | |
| 2.1 | Software Component Description | | | | |
| 2.1.1. | Site management license which includes: Unlimited Concurrent User Connection licenses, Unlimited Video Wall Monitor licenses, Full Sensor Management capabilities, Full Incident Management capabilities, Unlimited operational maps management license | Sum | 1 | | |
| 2.1.2 | Application Server Redundancy license (site) | Sum | 1 | | |
| 2.1.3 | Video/audio channel recording license * existing 120 licenses | Sum | 80 | | |
| 2.1.4 | Recording Redundancy channel license - N+1 * existing 120 licenses | Sum | 80 | | |

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| ITEM | DESCRIPTION | UNIT | QTY | RATE (R) | AMOUNT (R) |
|-----------------|--|------|-----|------------------------------------|------------|
| 2.2. | Hardware Components | | | | |
| 2.2.1 | AMS server including the Application server, Web server and SQL enterprise | Sum | 2 | | |
| 2.2.2 | Smart Video Recorder, 2U, with internal RAID6+RAID1 120TB net storage. | Sum | 5 | | |
| 2.2.3 | Decoder 5204 supporting up to 4 video outputs (1U) | Sum | 4 | | |
| 3 | Cameras | | | | |
| 3.1 | FHD PTZ cameras | Sum | 10 | | |
| 3.2 | FHD Fixed camera | Sum | 15 | | |
| 3.3 | Stadium Camera | Sum | 1 | | |
| 4 | Screens | | | | |
| 4.1 | 65 inch 4k UHD large format display screens | Sum | 4 | | |
| 6 | Sundries | Sum | 1 | | |
| 7 | Inspection and certification | Sum | 1 | | |
| | | | | Total price (A) | |
| Opex (B) | | | | | |
| 8 | Software and Hardware Maintenance Agreement | | | | |
| 8.1 | 5 Year – Product Maintenance Agreement – next day OEM support | Sum | 1 | | |
| | | | | Total price (B) | |
| | | | | Total price A+B (excl VAT): | |

Signed _____ Date _____

Name _____ Position _____

Tenderer _____

SCOPE OF WORK

For

Ngqura Container Terminal CCTV Cameras

Site:

Ngqura Container Terminal

PART 3: SCOPE OF WORKS

| Document reference | Title | No of pages |
|---------------------------|-------------------------------------|--------------------|
| C3.1 | This cover page | 1 |
| | <i>Employer's Works Information</i> | 32 |
| | Total number of pages | 33 |

C3.1 EMPLOYER'S WORKS INFORMATION

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1. BACKGROUND

Ngqura Container Terminal began commercial shipping operations (container) in October 2009. Ngqura Container Terminal (NCT) is located just outside Port Elizabeth and is a major container transshipment hub for Transnet Port Terminals (TPTs) contributing to the local and Eastern Cape economy. NCT forms part of the general port of Ngqura which is one of the few deepwater ports in South Africa enabling shipping lines to berth some of their largest vessels. The port consists of an operational area as well as supporting infrastructure, facilitating the import, export and transshipment of containers to and from and within South Africa.

1.1 Interpretation and Terminology

The following abbreviations are used in this Works Information:

Table 1: Abbreviations

| Abbreviation | The meaning given to the abbreviation |
|---------------------|--|
| MPT | Multi-Purpose Terminal |
| NCT | Ngqura Container Terminal |
| CCTV | Closed Circuit Television |
| ISPS | International Ship and Port Facility Security Code |
| SOPs | Standard Operating Procedures |
| SHE | Safety, Health and Environment |
| PLZ | Pan, Tilt & Zoom |
| ISPS | International Ship and Port Facility Security Code |
| TPT | Transnet Port Terminals |
| DP | Data Pack |
| OEM | Original Equipment Manufacturer |
| QC | Quality Control |
| VMS | Video Management System |
| QA | Quality Assurance |
| NCR | Non-Conformance Report |
| QCP | Quality Control Plan |
| AIA | Authorised Inspection Authority requirements |
| BOM | Bill of Material |

2. BUSINESS NEED OVERVIEW AND PROPOSED SOLUTION

2.1 Business need

The CCTV monitoring system at the Port of Ngqura was installed back in 2010, the useful life of the cameras and video management system has been exceeded, which has resulted to images of the

footage being not clear and the CCTV camera’s system not working. The port of Ngqura requires the current CCTV cameras system to be reinstated to an operational level with emphasis on operations, safety, security, ISPS compliance and unlawful activities detection.

2.2 Proposed solution and objectives

The Ngqura terminal requires an additional twenty-six (26) cameras, restoration of existing NICE system with OEM or similar (*the similar product is a product that should not compromise the integrity of the OEM system that is already installed at TPT or require modification on the system to complement the SIMILAR product*) VMS software and hardware to bring the entire CCTV system to a working condition, which is inclusive of a five-year software and hardware VMS maintenance contract. These CCTV cameras system shall be of the latest technology on the market. This will improve productivity and ensure a safer working environment. The solution considered is illustrated in the tables below:

Table 2: Proposed solutions

| # | Option | Details | No |
|---|------------------------|---|--------------------|
| 1 | Upgrade of CCTV system | <ul style="list-style-type: none"> i. Install/ restore with OEM or similar VMS hardware and software that will complement the existing system. ii. Installation of new cameras, brackets, switches and field boxes; iii. Install 65-inch screens iv. Upgrade the CCTV cameras network infrastructure with low latency high bandwidth to allow for high definition viewing; and v. High system availability | <p>26</p> <p>4</p> |

The objective of this investment is to acquire and install a total of 26 CCTV cameras; restore the existing VMS software and hardware components for the system at Ngqura terminal to a working state. This will improve productivity, safety and environment through the optimal functioning of CCTV cameras to assist and monitor the terminals’ processes.

2.3 Employer’s Objectives

The *Employer* (Transnet Port Terminal) requires the works in this document to be executed as such that it will ensure **business continuity, business value** and **security compliance**.

Further objectives include:

- 2.3.1 To install/restore existing system with the OEM or similar VMS software and hardware to a fully operational CCTV network;
- 2.3.2 To improve the safe environment through the optimal functioning of CCTV cameras to monitor the Ngqura terminal;
- 2.3.3 To meet the security compliance requirements;
- 2.3.4 To provide new and latest technology CCTV cameras equipment;
- 2.3.5 To supply system components that are suitable and robust to operate in the Port's environment;
- 2.3.6 To provide low maintenance, effective and reliable equipment;
- 2.3.7 To ensure that the NCT CCTV system meets meets the Transnet Security Strategy regarding integration of security and surveillance systems.

3. SCOPE OF WORK

To maintain a safe working environment, to protect against the unlawful use of the business asset, meet targeted efficiencies, and comply with ISPS code, the NCT CCTV cameras VMS software and hardware must be installed or restored to a fully functional system. The Scope of Work for Ngqura Transnet Port Terminals CCTV Cameras system can be summarized as follows:

- 3.1** Installation/restoration of servers, recorders, management system, software and associated equipment;
- 3.2** All additional new cameras will be of the latest CCTV technology on the market compatible with the existing management system;
- 3.3** The CCTV cameras must be strategically placed in identified blind spots and critical Operational areas to detect unlawful activities, deviations from SOPs and unsafe work practices identified by the employer;
- 3.4** The Network Video Recording system storage and licencing to be in line with the terminals additions and future needs;
- 3.5** Install four (4) 65 inch 4k UHD large format display screens at the Security Control Room and associated equipment to maximise camera live streaming view;
- 3.6** Install mixed cameras, PTZ, fixed and stadium cameras – all with High Definition image streaming and where required night vision and heat detection where necessary;

3.6.1 Stadium Camera Specification

The camera is a Box Type Camera of 16.0 Megapixels with on-board self-learning pattern-based video analytics and LightCatcher technology which provides unsurpassed image quality in low light environments and shall meet or exceed the following design and performance specifications:

Table 3: Stadium Camera specification

| Technical Specifications | |
|----------------------------------|---|
| Image Sensor | 27.2mm Progressive scan CMOS |
| Active Pixels | 4944 (H) x 3280 (V) |
| Imaging Area | 23.6 mm (H) x 13.4 mm (V) |
| Minimum Illumination | 0.005 lux (F1.4) |
| Dynamic Range | 70dB |
| Lens | EF / EF-S Mount (SLR-style) 24-70mm |
| Image Compression | H.264 (MPEG-4 Part 10/AVC), Motion JPEG |
| Image Rate | 12 |
| Streaming | Multi-Stream H.264 and Motion JPEG, HDSM 2.0, SmartCodec technology |
| Motion Detection | Pixel and classified objects analytics |
| Electronic Shutter | Automatic, Manual (1/8000 sec) |
| Iris Control | Automatic, Manual |
| Day/Night Control | Automatic, Manual |
| Flicker Control | 50 Hz, 60 Hz |
| White Balance | Automatic, Manual |
| Privacy Zones | Up to 64 zones |
| Audio Input | Line Input and output, A/V mini-jack |
| I/O Terminals | Alarm In, Alarm Out |
| Electrical Specifications | |
| Power Source | PoE: IEEE 802.3af Class 3 compliant 13 W / 24 AC, 12 VDC |

- 3.7** Upgrade the current software component management and analytics system to the latest software version in line with Transnet’s standards of both desktop and server operating system which will include Site management license, Unlimited Concurrent User Connection licenses, Unlimited Video Wall Monitor licenses, Full Sensor Management capabilities, Full Incident Management capabilities, Unlimited operational maps management license ;
- 3.8** Upgrade hardware components (proprietary and in conjunction with the management and analytics operating system) include an application server, Web server, smart video recorder inclusive of storage and redundancy;
- 3.9** The system to be installed shall have a life expectancy guarantee of at least 3 years; whilst the hardware comes with at least one-year guarantee and with at least one-year warranty

the software;

3.10 All work shall be done following the applicable code of practices, standards (national, international and Transnet standards) and in a manner to give a visual and surveillance improvement to the Terminals;

3.11 The required *Works* can be summarised in the table below:

Table 4: CCTV cameras system requirements breakdown.

| Qty | Software Component Description |
|------------|---|
| 1 x | Site management license which includes: Unlimited Concurrent User Connection licenses, Unlimited Video Wall Monitor licenses, Full Sensor Management capabilities, Full Incident Management capabilities, Unlimited operational maps management license |
| 1 x | Application Server Redundancy license (site) |
| 80 x | Video/audio channel recording license * existing 120 licenses |
| 80 x | Recording Redundancy channel license - N+1 * existing 120 licenses |
| Qty | Hardware Components |
| 2 x | AMS server including the Application server, Web server and SQL enterprise |
| 5 x | Smart Video Recorder, 2U, with internal RAID6+RAID1 120TB net storage. |
| 4 x | Decoder 5204 supporting up to 4 video outputs (1U) |
| Qty | Software and Hardware Maintenance Agreement |
| 1 x | 5 Year – Product Maintenance Agreement – next day OEM support |
| Qty | Cameras |
| 10 x | FHD PTZ cameras |
| 15 x | FHD Fixed camera |
| 1 x | Stadium Camera |
| Qty | Screens |
| 4 x | 65 inch 4k UHD large format display screens |

3.12 General

3.12.1 This section includes a digital video management system.

3.12.2 An extended video management and surveillance system ("VMS"), which leverages video as the main sensor in the control room for recording, transmission, viewing and analytic analysis while natively integrating third party systems The VMS shall automatically automate and present enhanced collaboration tools and dynamic workflows to the operators.

3.12.3 The VMS shall include incident management capabilities that are associated with specific context, including custom pages of video cameras, recorded video playback, maps and sensors data.

3.13 General definitions

3.13.1 POI search – Analytic technique to efficiently locate and track a specific person across time and location across non-overlapping security cameras.

3.13.2 Shared storage device - A SAN or NAS device or any device capable of block level access via the Windows operating system, capable of partitioning and drive letter allocation in the operating system.

3.13.3 Slot – An element of a Video Pane / Content Layout, which may contain maps, videos, tours, and sensor information. The number and size of slots is a configurable parameter.

3.14 System Functions and Capabilities

3.14.1 The VMS shall provide the following general features and capabilities to simultaneously display live, playback and recorded video, while continuously recording onto the system's hard-drive(s) and archiving to a remote storage server.

3.14.2 Compression types supported: H.264, MJPEG, MPEG4

3.14.3 Frame rates (fps):

3.14.3.1 PAL – 25, 12.5, 6, 3, 2, 1

3.14.3.2 The maximum frame rate shall be achievable at all video resolutions

3.14.4 Overall throughput per recording server: Up to 768 Mbps comprised of:

3.14.4.1 Recording – up to 512 Mbps

3.14.4.2 Live monitoring – up to 153 Mbps

3.14.4.3 Playback – up to 102 Mbps

3.14.5 Network:

3.14.5.1 Protocols supported: HTTP, HTTPS, TCP, UDP, IPv4, IPv6, IGMP, RTP, RTSP, TLS1.3

- 3.14.5.2 Information security
- 3.14.5.3 Authentication means: User name and password
- 3.14.5.4 Encryption: TLS with AES256 bit
- 3.14.5.5 Recorder to edge devices connection via HTTPS
- 3.14.5.6 Client application to server application via HTTPS
- 3.14.5.7 Encrypted live video, video playback and exported file
- 3.14.5.8 VMS management to database connection via configurable connection string, Windows authentication, AES encryption

- 3.14.6 Resiliency/Redundancy:
 - 3.14.6.1 Recording availability: 99.999%, achieved through active-active dual recording
 - 3.14.6.2 High availability system implementation
 - 3.14.6.3 Local recording backed-up with centralized recording

- 3.14.7 Support for DAS, SAN, and NAS storage

- 3.14.8 Virtual matrix (VMX) capabilities allowing full switching and control of the video inputs on monitor wall via a GUI or security video keyboard

- 3.14.9 ONVIF compliance: Profile S

- 3.14.10 Integrated modules for managing security components including intrusion detection sensors, access control components, alarm panels, and fire detection panels, with bi-directional communication to the sensor or panel

- 3.14.11 Integrated modules for managing an incident, including adaptive operational procedures, automatic actions, collaboration, shared communication and context-related content such as maps, video, audio and sensor data

- 3.14.12 Browser-based viewing capabilities: via IE 11

- 3.14.13 Visualization – GIS enabled mapping to track incidents and sensors

- 3.14.14 Support for remote independent connected VMS installations

- 3.14.15 The VMS recorders shall support centralized real-time processing of compressed video for video analytics, camera tampering, video motion detection, and visual parameter optimization.

- 3.14.16 VMS recorders shall be capable of operating in a virtualization environment according to VMware specifications

3.15 System Software

- 3.15.1 The VMS shall include applications for viewing, review and investigation of video; user policy setup; site setup and configurations.

3.15.2 The VMS shall include an infrastructure for monitoring and notification of failure or errors of any of the system components.

3.15.3 Architectures: centralized and/or distributed

3.15.4 Operating systems:

3.15.4.1 Client application OS: Windows 10

3.15.4.2 Server application OS: Windows Server 2016

3.15.5 VMS applications shall support deployment via a self-extracting installation file for administrative use and via web browser for operational use

3.15.6 User interface and display

3.15.6.1 The VMS operator interface shall allow an operator to:

- a) Run the web application without client installation
- b) Monitor and play back video from cameras connected to the VMS using a local workstation or external monitor
- c) Monitor, record and play back audio from audio sources connected to the VMS

3.15.6.2 The VMS shall provide for incident management, including adaptive operational procedures, automatic actions, collaboration, shared communication and context-related content such as maps, video, audio and sensor data.

3.15.6.3 The VMS shall support a multi-monitor scheme, enabling floating viewing windows, which can be allocated to additional monitors connected to the same workstation.

3.15.6.4 Users shall be able to drag and drop already opened video from one monitor to another

3.15.6.5 The VMS shall offer an array of standard video layout templates (symmetric and non-symmetric) and the ability to create a customized layout.

3.15.6.6 Layouts shall be assignable to pages, which may be called up manually or upon alarm.

3.15.6.7 Users shall be able to create private page for their own use and the administrator shall be able to publish the created page so other users can use it as well

3.15.6.8 Viewing windows shall support tabbed pages to enhance the functionality of each window.

3.15.6.9 The VMS user interface (UI) shall further support:

- a) Event query and display
- b) Multiple sensor types per window
- c) Map display
- d) Display of control room monitors
- e) Visual timeline navigation of playback video
- f) Incident management
- g) Access control systems (ACS)
- h) The VMS shall have provision for a Home page to include a specific layout of video panes and pre-selected cameras either in live or playback modes, as well as other security sensors and maps.

3.15.7 The VMS operator interface shall graphically display camera states on a hierarchical list to include camera type, alarm status, recording status, and audio association

3.15.8 Maps – The VMS shall allow the user to open a page layout that includes maps as well as other video windows.

3.15.8.1 Supported map-related functions:

- a) Display map list
- b) Perform operations on cameras and sensors depicted on map, including drag and drop to new window
- c) Add new elements: Supported map elements: cameras, security sensors, linked maps and pages, pre-programmed actions
- d) Drill down to linked maps

3.15.8.2 Zoom in and out

- a) Depict change in sensor state
- b) Automatic pop-up upon event
- c) Preview sensors and incidents in a pop-up
- d) Geographic coordinate calibration with point-to-point distance measurement
- e) Map layers

3.15.8.3 Mapping shall support GIS data

3.15.8.4 Supported file formats: BMP, JPG, PNG

3.15.8.5 Calibrated with coordinates: BMPW, JPGW, PNGW

3.15.9 External monitors and video walls – The VMS shall support the direction of live or playback video to external monitors and video walls.

3.15.9.1 The VMS shall display only monitors that the user is authorized to view and manage.

3.15.9.2 A user shall be able to start, pause, jump to time a playback session, even if it was started by another user.

3.15.10 Supported VMS operations common to video monitoring and playback:

3.15.10.1 View video on full screen or in a layout pattern on single or multiple monitors

3.15.10.2 Enlarge/restore a single video slot while maintaining the state of the other video slot of the layout for restore operations

3.15.10.3 Synchronized playback of several video/audio channels

- a) Add/remove video/audio slot to the sync session, or synchronize all slots per monitor.

3.15.10.4 Digital pan-tilt-zoom

- a) Zoom up to 672% of original image size

3.15.10.5 Automatic image optimization utilizing de-interlacing, de-blocking, de-ringing, sharpening, and dithering post processing filters

3.15.10.6 Optimization of image clarity and dynamic range of enabled video cameras, adjusting smoothness, sensitivity, and brightness

3.15.10.7 Privacy masking for displayed video

3.15.10.8 On screen display (OSD)

3.15.10.9 Dewarping of panoramic images

- a) View dewarped and original non-dewarped images
- b) Virtual PTZ control of dewarped images
- c) View redefined camera orientation
- d) View predefined layout, including quad and panoramic

3.15.11 Image clarity

3.15.11.1 The display shall avoid combing artifacts when displaying interlaced video on a progressive monitor.

3.15.11.2 The display shall provide for automatic optimization of image clarity and dynamic range of enabled video cameras for viewing and recording by adjusting brightness and contrast of the edge device.

3.15.12 Video streaming

3.15.12.1 The VMS shall provide separate streams for recording and monitoring. The streams shall be configured for the most appropriate resolution, frame rate or bit-rate.

3.15.12.2 The VMS shall optimize the viewing experience by selecting the appropriate stream out of dual streaming under the following predefined constraints:

- a) Client hardware resources
- b) Video slot resolution
- c) Network bandwidth
- d) User preference for resolution or frame rate
- e) Override automatic stream selection
- f) Edge device scheduler catch-up – transfer video only during non-working hours from the edge device local storage to the recorder

3.15.12.3 The VMS shall support limiting the outgoing network bandwidth from a recorder.

3.15.12.4 The VMS shall enable the restriction of certain user groups (roles) from using certain sensors to control network bandwidth through manual allocation of viewing resources.

3.15.13 Monitoring and control

3.15.13.1 Video – The VMS shall support live video monitoring

3.15.13.2 Pan Tilt Zoom (PTZ) – The VMS viewing application workstation shall provide support for authorized users to control PTZ cameras, call PTZ presets, create new PTZ presets, and define preset parameters.

- a) A user shall be able to associate presets with specific alarms.
- b) The VMS shall provide up to 100 user priority levels for PTZ operation.
- c) A user shall be able to lock PTZ operation of a camera, preventing users of equal or lower priority from operating the camera.
- d) PTZ operation devices: Keyboard, mouse, joystick
- e) A user shall be able to control a PTZ via joystick with no more than one frame latency.
- f) Tours – A tour feature shall allow the user to monitor several video input channels, in a single window in a cyclical fashion, with the following capabilities:
 - i. Include one or more video channels
 - ii. Group tours in hierarchical fashion
 - iii. Select dwell time for each camera
 - iv. Select a PTZ preset for PTZ cameras in the progression
 - v. Pause or advance tour element displayed
 - vi. Skip between the tour's cameras

vii. Call up a tour to a local or external monitor

3.15.13.3 Digital presets (with and w/o client side dewarping)

- a) The user shall be able to digitally zoom into a region of interest
- b) The user shall be able to save the digitally zoomed region of interest as a digital preset
- c) The user shall be able to select a digital preset from the video slot menu
- d) The user shall be able to configure a digital preset for a dewarping view
- e) Audio – The VMS shall support live monitoring of connected audio-capable edge devices.

3.15.14 Recorder management and control

3.15.14.1 The VMS shall support a primary-secondary dual recording scheme, whereby an edge device is recorded on dual recorders with independent recording from each other, including the recording at different storage retention times.

- a) Only the primary recorder shall be able to configure the edge device.
- b) The VMS shall support switching between primary and secondary recorders
- c) There shall be no video loss in the case of failure in one of the recorders in a dual recording scheme.

3.15.14.2 Mirrored recording

- a) The VMS shall support recording the same edge device in two different recorders, such that one recorder is a mirrored version of the other using the same streaming and recording configurations as active- active redundancy.
- b) The camera shall appear as a single channel, so the administrator can configure any automation on the camera level and not per recorder.
- c) Upon failure of the primary recorder, the player shall automatically reconnect to the mirrored (secondary) recorder for continued live streaming of any given channel (with no more than 30 second stream failover), and or playback.
- d) In the case of failure, the playback of a mirrored channel shall be transparent, and the player shall tailor the playlist between the two mirrored recorders

3.15.14.3 The VMS shall present the recorder configuration throughput and storage status, so that users can understand all configuration aspects of the recorder and utilize the server to the optimum working point.

- a) Recorder parameters: Storage, throughput, computing power, throughput burden.
- b) Storage parameters: Estimated retention, storage capacity, storage capacity type

3.15.14.4 Video authentication

- a) The VMS shall provide video authentication for recorded H.264 and MPEG-4 video streams input from edge devices using the SHA-1 secure hash function.
- b) The authentication shall be performed on the exported video for exported video on file playbacks.
- c) The authentication scheme shall detect altered video and provide notification of such before the file is played. Video shall not be played if the video is not authenticated

3.15.14.5 Playback and review

- a) Operator playback controls:

- i. Start and Stop
 - ii. Pause and Resume
 - iii. Fast Forward/Fast Reverse up to 1024 times faster than the recorded speed
 - iv. Slow Forward/Slow Reverse
 - v. Frame-by-frame Advance or Rewind
 - vi. Loop Replay
 - vii. Jog Shuttle, using the slide bar for Fast/Slow Forward / Fast/Slow Reverse
 - b) Instant playback – The VMS shall give an operator the ability to change from live monitoring to playback by dragging the video player timeline and to resume real time monitoring with one click of a button.
 - c) Continuous playback – Video playback, once initiated, shall continue for the duration of the recorded video.
 - i. Looped video shall be configurable for defined periods.
 - d) Synchronized playback – The VMS shall allow the user to play up to 25 synchronized video slots per monitor.
 - i. The channels that are part of a synchronized playback session shall stay in a session even when changing from playback to live video and back to playback.
 - ii. The VMS shall allow adding video channels to and removing from a synchronized playback session.
 - iii. Playback synchronization shall support advanced playback operations including Fast/Slow Forward/Reverse Playback, Pause and Frame-by-frame.
 - e) Bookmark
 - i. The VMS user can bookmark points of interest in a video timeline
 - ii. Bookmarks shall be graphically presented on the timeline
 - iii. Bookmarks shall have a name and description
 - iv. Users shall be able to easily browse between bookmarks by clicking the Previous/Next buttons
 - v. While performing synchronized playback, the timeline shall graphically present the bookmarks of all channels together
 - vi. Users shall be able to modify the colour of bookmark on the timeline
 - f) Playback tags
 - i. The VMS user can create temp tags, which can be used to jump to a specific time of recording for playback without the need to create bookmarks (which are saved in the DB)
 - ii. Tags are private, temporary and kept per session. Once the user is logged-out, tags are cleared.
- 3.15.14.6 Alarms and events - The VMS shall support management of alarms based on VMD, AVMD, video analytics applications, third-party input via API, TTL, edge device events, maintenance events, rule-based macros, and Boolean logic expressions; as well as bi-directional management of third-party security sensors including access control systems, fire panels, alarm panels and perimeter intrusion detection systems.
- a) Associations - The VMS shall allow associating a system action and user or user group to an alarm.

- i. User shall have the ability to set or filter cameras and any other sensor in the cameras/sensors list/tree according to the alarm state of that sensor.
- b) Supported notification methods:
 - i. Addition to a list on a user workstation or monitor
 - ii. Pop-up on local or external monitor
 - iii. Audible sound
 - iv. API-based notification or communication to sensor of a third-party system
 - v. TTL or relay
 - vi. SNMP
- c) A user shall have the ability to associate each video alarm with a pre-defined page which contains a video pane layout and pre-configured cameras in live or playback mode on a local workstation or external monitor
- d) Actions - A user shall have the ability to define rules to automatically execute actions upon an alarm condition to include the following: send command to sensor, play page locally, play page on external monitor, display live video, display playback video, close video, move camera to PTZ pre-set, start/stop virtual tour, start/stop recording, play a predefined sound, send an http request, execute an external application locally.
- e) Camera tamper - The VMS shall automatically identify camera tampering by monitoring scene brightness, full or partial lens blockage, position change, or unfocused/blurred view and generate security and maintenance alarms.
- f) An event log shall be capable of search, query, filter, export and playback of video sensor events.
- g) Analytics:
 - i. The VMS video analytic features shall apply centralized, automatic, persistent artificial intelligence in real-time to video signals in an effort to improve the efficiency of operators by directing them immediately to events that need attention and facilitating determination on the appropriate action.
 - ii. Available standard analytic applications:
 - Intrusion Detection with filters for clutter, clouds, snow, vibration
 - Overcrowding Detection
 - People Counting
- h) POI search shall be a licensed web-based application to allow an operator to locate and track a specific person across time and location across non-overlapping security cameras.
- i) The operator shall be able to efficiently locate and track a specific person across time and location to minimize search time from hours to minutes when time is of the essence.

3.15.14.7 The application shall allow access to all relevant associated VMS recordings.

- a) Search initiators:
 - i. VMS recorded content
 - ii. Photographic images
 - iii. Artificial avatar builder
 - iv. When initiating a query by VMS recorded content, the operator shall be able to initiate the query for a specific VMS video channel and time range in order

to get results of the extracted individual's thumbnails from the image database, which was generated in real-time by the analytics application.

- v. The operator shall be able to manage POI albums.
- vi. The operator shall be able to differentiate adults from children.
- vii. The operator shall be able to view the paths of selected persons of interest as a map layer

3.15.14.8 Incidents

a) Incident management

- i. The VMS shall allow the user to manage events as incidents that are associated with specific contexts, including custom pages of video cameras, recorded video playback, maps, sensors data, as well as textual description.
- ii. The VMS shall have a dedicated Incident screen intuitively providing situation decision guidance support.
- iii. Incident creation
- iv. The VMS shall have the following Incident creation options:
 - Automatically as a result of pre-configured rules
 - On demand by operators
 - From scheduled triggers
- v. The VMS shall allow users to create a new incident that includes the relevant content from maps, cameras, video playback, sensors, and other relevant sources.
- vi. The VMS shall allow users to associate an incident with a location by dragging and dropping an indicator on a map, thereby creating a new incident at that point.
- vii. Opening incidents
 - The VMS shall have the ability to open incidents on demand via pre-configured "Quick-Launch" action buttons and keyboard function keys.
 - When opening a new incident, it should be possible to launch with it a procedure with a list of dynamic tasks.
 - It shall be possible to launch and attach any additional predefined procedure dynamically from within the context of an already open incident.
- viii. Incident assignment
- ix. Methods of incident assignment:
 - Claiming by acknowledgement
 - Automatic assignment according to a predetermined procedure
 - Via supervisor for dispatching to operators
 - The application shall allow distribution of task assignments manually or automatically for collaborative management of incidents.
 - The incident assignment method shall be configurable according to operational requirements.
- x. Managing incidents
 - Pop-up notifications shall appear when incidents are created or escalated.

- Open incidents shall be automatically sorted according to the following criteria: Severity, reflected with a colour indication; Time (more recently opened incidents first)
 - It shall be possible to configure the system to display an incident on a supervisor's terminal only when it is escalated beyond a predefined severity level.
 - An operator shall have the ability to add incident comments.
 - If a comment includes a hyperlink, the user shall be able to click on the link and open a new browser tab with the link content
 - Closed incidents shall automatically disappear from the incident list but remain available for search and display according to filtering criteria including time and date, type, severity, owner, location and description text
 - The system shall be configurable to require comment upon incident closure.
- xi. Stakeholders
- Other system users shall be able to function as stakeholders with the ability to access the incident record and to contribute to the incident's management by completing tasks and adding information to the record.
 - The incident management application shall allow communication between its stakeholders through a textual message board Incident workflow
- xii. Incident management shall include associated predefined operational workflow procedures to provide the operator structured guidance and assistive information for successfully managing an incident:
- A dedicated Incident screen shall intuitively provide situation decision guidance support.
- xiii. The user shall have the ability to define a workflow for each incident.
- xiv. The user shall have the ability to define a procedure containing a list of tasks instructing the operator about what actions to take when an alarm occurs. Other users shall be able to see the status of each task for a specific event on the respective workstation.
- xv. The workflow shall be adaptive to the user's selections and change the remaining tasks in the workflow based on conditional tasks that present multiple options to proceed.
- xvi. The workflow shall support simple tasks that can be managed (e.g., completed) manually, as well as automatic tasks that execute an automatic action that performs a system command and/or a sensor command.
- xvii. Automatic actions executed as automatic tasks in a workflow procedure shall support creating, closing and changing incidents.
- xviii. The user shall have the ability to change the state of each task to: Suspend, In Progress, Complete, Cancel and Fail.

3.16 Administration

3.16.1 User management

- 3.16.1.1 The VMS shall provide hierarchal, role-based authorization policies.
- 3.16.1.2 Each VMS user shall be assigned with a security role, or "role", which determines that user's access to various VMS functionalities, and an authentication policy, which determines that user's login permissions.
- 3.16.1.3 An administrative user with "manage role" privileges shall be able to create a role with defined authorization permissions and then assign it to multiple users, thus saving the need to repeatedly define the same authorization settings for each user.
- 3.16.1.4 A user shall be able to create a child role, which inherits the permissions of the parent role, and modify the permissions rather than starting from scratch.
- 3.16.1.5 A user shall be able to link a parent role to another parent role so the child linked to both parents inherits both parents' permissions.
- 3.16.1.6 An administrator shall be able to build role hierarchy trees using either of the following approaches:
 - a) "Top-down" - the administrator reduces the scope of permissions, generation by generation. By denying permissions to the parents, the permissions are also denied to the children. The administrator can then further limit the permissions of the children without affecting the parents and grandparent.
 - b) "Bottom-up" - first creating the children with a reduced set of permissions, then creating the parents, who inherit the permissions in the children plus more permissions, and finally, creating the grandparent - who inherits the permissions in both the parents and children - and allowing all permissions.
- 3.16.1.7 The roles shall be clearly color-coded and show icons according to their status, with arrows showing the relationship between linked roles, such as a parent and its children or two associated parents and their children.
- 3.16.1.8 Roles shall enable modification of the authorization and authentication policies of a user by moving the user to a role associated with different policies.
- 3.16.1.9 The Roles workspace shall provide a whiteboard that enables users to get an immediate and visual understanding of the organization's role hierarchy.
- 3.16.1.10 It shall be possible to define flexible policies, which may be active or inactive, depending upon the security needs of the organization.

3.16.2 Audit

- 3.16.2.1 The VMS shall provide detailed audit reports, and a user shall have the ability to generate, view, filter and export audit information.
- 3.16.2.2 Supported source types: users, application, server components
- 3.16.2.3 Filter types: users, record types, computer IP, timeframe, criticality level
- 3.16.2.4 Export format: CSV file

3.16.3 Configuration

- 3.16.3.1 A user shall be able to configure an entity once and apply its configuration to other similar physical entities.

3.16.4 Dashboard reports

- 3.16.4.1 A user shall be able to generate a site report of the recorders, storage and edge devices configuration connected to the VMS and present it as a dashboard table.
 - a) Information shall include retention days, oldest recording time, edge device model and vendor, compression, resolution, and maintenance information.
 - b) The report can be exported to CSV format and can be open by another instance of the VMS
- 3.16.4.2 A user shall be able to generate a recorder report grouping video channels according to their configured retention.
- 3.16.4.3 A user shall be able to view VMS recorder storage capacity estimation according to its video channels configuration
- 3.16.5 Edge device management
 - 3.16.5.1 The VMS shall be able to automatically support detection of edge devices via an edge device discovery tool, WS-discovery or UPnP.
 - 3.16.5.2 The VMS shall support ONVIF-based communication with the edge devices for streaming and configuration.
 - 3.16.5.3 The user shall be able to navigate to the edge device's web page from the VMS configuration application.
 - 3.16.5.4 The VMS shall reflect the edge device web application UI parameters configuration in the VMS configuration application such that each modelled parameter will enforce its configuration from the VMS.
 - 3.16.5.5 Adding a new UI edge device parameter shall not require core development besides the edge device driver.
- 3.16.6 Discovery
 - 3.16.6.1 Recorder discovery - The VMS shall be able to automatically support detection of recorders via the AMS
 - 3.16.6.2 Sensor discovery – The VMS shall be able to automatically discover video sensors of its own site and its remote independent sites
- 3.16.7 User authentication and authorization
 - 3.16.7.1 The VMS shall enable the system administrator to define user profiles with different user privileges.
 - 3.16.7.2 Available management settings:
 - a) User creation, with user definition of password (as per Transnet's standards)
 - b) Association of Microsoft Active Directory groups to VMS roles
 - c) Single sign on enablement, eliminating the need to log into the application once the PC login has been accomplished
 - d) Creation of user profiles (roles)
 - e) Setting user privileges within the VMS
 - f) Restriction to perform playback from relative time for specific channels
- 3.16.8 Planning – The VMS shall provide management tools for incorporating response plans for routine and emergency situations.

- 3.16.8.1 Plan types: customized incident types, rule-based task activation with event-triggered and time-triggered activation, sensor commands, automatic notifications, resource assignment escalation policies

3.17 Mobile Viewer application

- 3.17.1 The VMS shall provide web-based viewing and playback capabilities, supporting laptops, smart phones and tablets.
- 3.17.2 The Mobile Viewer application shall not require deployment with an installation package.
- 3.17.3 The Mobile Viewer shall be updated with upgrades made on the VMS application management server at time of login or refresh of the client application's browser page.
- 3.17.4 The VMS Mobile Viewer shall present the channels of the media sources that the user is authorized to view.
 - 3.17.4.1 Media source channels shall be searchable from the client interface.
- 3.17.5 Layouts supported: single, 2 x 2, 3 x 3 with full screen option
 - 3.17.5.1 Maintain open streams when changing a video layout.
- 3.17.6 The Mobile Viewer shall further:
 - 3.17.6.1 Support a mix of live and playback windows
 - 3.17.6.2 Support synchronized playback
 - 3.17.6.3 Support instant playback for a configurable time period
 - 3.17.6.4 Support authorized PTZ operations, including moving to presets
 - 3.17.6.5 Provide monitoring of its components by heartbeat for maintenance purposes
 - 3.17.6.6 Be accessible with single sign on
 - 3.17.6.7 Support media export to multiple file formats, including AVI
 - 3.17.6.8 Forward video by email to another client
 - 3.17.6.9 Provide an API for independent application development
 - 3.17.6.10 Support remote site transcoding to meet network the bandwidth limit between the remote and central site

3.18 Recorders

- 3.18.1 General – VMS recorders shall have the following general attributes:
 - 3.18.1.1 Record both video and audio streams from edge devices without the use of multiplexing techniques
 - 3.18.1.2 Maintain recording operations during playback or live viewing
 - 3.18.1.3 Run as a Windows service
 - 3.18.1.4 Support SD (4:3), HD (16:9) and megapixel cameras not in HD format
 - 3.18.1.5 Maintain streaming and recording functionality without video loss when the VMS storage is in a RAID rebuild state

- 3.18.1.6 Support flexible streaming of several video streams according to decoding station performance and network bandwidth
- 3.18.1.7 Support segregated networks, enabling separate networks for the capture of media from edge devices and from the viewing and management network.
- 3.18.1.8 Support unicast or multicast video transmission over LAN's and narrowband WAN's
- 3.18.1.9 Support up to 96 TTL outputs and relays (combined) to edge devices.
- 3.18.1.10 Virtualization – The VMS recorders shall support VMware vSphere virtualization infrastructure version 5.1 and higher.
 - a) Number of virtual recorder machines (VM's) per VMS recorder: 4
 - b) Recording throughput per VM: 64 Mbps.
 - c) Video channels per VM: 128
 - d) Number video analytics/special function/camera tamper channels per physical machine: 40
 - e) The virtualization infrastructure shall support the VMS architecture for redundancy.
 - f) Virtualization system requirements
 - i. CPU: 2 x Intel Xeon E5-2620 @2.00 GHz
 - ii. OS: Windows Server 2016 English
 - iii. RAM: 32 GB
 - iv. LAN: 6 Gig E
- 3.18.1.11 Video streaming – The VMS shall support video streaming from the recording devices ("recorders") or directly from edge devices (cameras, encoders).
 - a) The VMS shall be able to provide a standard multicast stream for remote third-party decoding devices over an IP network.
 - b) The VMS shall be able to configure different multicast addresses for different recording channels.
 - c) Recorders shall automatically start providing the multicast streams after service start-up.
 - d) Protocols supported:
 - e) RTP/TCP – unicast support only
 - f) RTP/UDP – unicast and multicast support
- 3.18.1.12 Storage
 - a) Recorders shall have the ability to centrally store data via IP over a LAN/WAN network to a central storage server.
 - b) Recorders shall possess dedicated hardware components to enable connection to a shared network storage solution.
- 3.18.1.13 Performance
 - a) VMS recorders shall simultaneously support 100% of recording channels, 30% of the channels with live monitoring and 20% of the channels with playbacks, all at the same time.
 - b) Baseline performance for recording channels shall be at 4CIF resolution with 30 fps (NTSC) or 25 fps (PAL), and with a bit-rate of 2Mbps per channel.
- 3.18.1.14 Maintenance, supervision, and upgrade
 - a) The VMS recorders shall provide the following functionality:
 - i. Recorder remote maintenance

- ii. Periodic status checks of edge devices
 - iii. SNMP trap alarms to the NMS application for all essential maintenance events
 - iv. SNMP MIB's for monitoring open maintenance events, severity counters and configuration changes
 - b) Recorders shall maintain backward compatibility for up to two versions to accommodate future upgrades.
- 3.18.1.15 System requirements
 - a) Storage
 - i. Controller processor: LSI ROC XOR engine
 - ii. Controller cache: 512MB
 - iii. Interface: PCI-Express
 - iv. RAID Type: RAID 6
 - v. Disks per RAID group: 12
 - vi. Disk type: 1 TB minimum, 7200 rpm or higher SAS
 - vii. RAID stripe size: 128 KB
- 3.18.2 Video recording – VMS recorders shall exhibit the following properties:
 - 3.18.2.1 Three levels of video quality presets to balance quality with bandwidth utilization
 - 3.18.2.2 User-adjustable bit rates
 - 3.18.2.3 Recording modes:
 - a) Constant recording with tags for alarm triggers, to include inputs from:
 - b) Video analytics applications
 - c) Motion detection
 - d) TTL input signal
 - e) Video signal loss
 - f) Third party systems – access control, fire detection, intrusion detection
 - g) User-defined automatic actions
 - 3.18.2.4 Event-based recording with configurable pre-alarm and post alarm periods, based on scheduling or alarm triggers
 - 3.18.2.5 Constant plus event recording, where the video recorded may switch to recording at an alternate frame rate or switch to record the second stream upon an alarm trigger
 - 3.18.2.6 Schedules – allow for two different recording periods per day, per channel, with ability for different recording modes per period.
 - 3.18.2.7 Catch-up - support catch-up of video and/or audio recording from edge device local storage, to be performed in parallel to live stream for:
 - a) Catchup of missing recording due to:
 - i. Network disconnections
 - ii. Recorder downtime
 - iii. Recorder failover
 - iv. The catch-up shall be able to make sure no gaps in video are created due to mismatching video streams between the primary stream and the stream recorded on the edge storage
 - b) Catchup of pre-alarm with event recording.

- i. There shall be no streaming between the edge device and the recorder up to the time of the event.
- ii. In parallel to live event streaming, the recorder catches up the pre-alarm time.
- iii. stream and the stream recorded on the edge storage

3.18.3 Video playback – VMS recorders shall exhibit the following properties:

3.18.3.1 Playback using the RTP/TCP protocol

3.18.3.2 Encryption of video playback stream when the recorder connection is encrypted

3.18.4 Live video viewing

3.18.4.1 When streaming directly from edge devices, a workstation shall receive a multicast stream directly from the edge device for live viewing. The recorder shall register to the same multicast group for recording.

3.18.4.2 The VMS shall support Source Specific Multicast (SSM).

3.18.4.3 The live video stream shall be encrypted when the connection to the recorder is encrypted and live monitoring set to TCP.

3.18.4.4 Audio – VMS recorders shall exhibit the following properties:

- a) Monitor, record, and deliver inbound audio streams from edge devices
- b) Codec: G.711
- c) Supported protocols:
 - i. Unicast: RTP/UCP
 - ii. Multicast: RTP/UDP

3.19 Application Management Server

3.19.1 An application management server ("AMS") shall be a central application server that includes a database for consistent configuration of site equipment and user data.

3.19.2 The AMS shall provide data consistency and integrity, and time synchronization of the VMS components.

3.19.3 The AMS shall be deployed at each physical site/station to allow autonomous operation of the station even if the communication to the head-end is interrupted.

3.19.4 The VMS integrations shall incorporate a bi-directional gateways infrastructure layer converting third party components into a unified language

3.19.5 The AMS shall run SQL Server 2017 Standard Edition.

3.19.6 The AMS shall be able to be virtualized using VMware vSphere virtualization infrastructure version 5.1 and higher.

3.19.7 The AMS shall support up to 8,000 sensors and up to 450 VMS recorders

- 3.19.8 Virtualization specifications
- 3.19.8.1 CPU: 2 x Intel Xeon E5-2620 @2.00 GHz
- 3.19.8.2 OS: Windows Server 2016
- 3.19.8.3 RAM: 32 GB
- 3.19.8.4 LAN: 4 x Gig E
- 3.19.8.5 Free disk space: 640 GB minimum
- 3.19.8.6 Storage redundancy: Hot swappable RAID 1
- 3.19.8.7 Power supply: Hot swappable

3.20 System Storage

- 3.20.1 In addition to the on-board recorder storage, recorders shall have the ability to centrally store data via IP over a LAN/WAN network to shared network storage.
 - 3.20.1.1 Shared network storage
 - a) A shared network storage solution shall support capacities of up to 500TB per VMS recorder.
 - b) The storage solution shall be dedicated exclusively to the VMS system.
 - c) The storage shall connect to a recorder using iSCSI or Fiber Channel protocol, and the storage network infrastructure shall be isolated from the general access network.
 - d) The VMS software shall support seamless connection and operation with multiple storage systems simultaneously.
 - i. The VMS shall be able to operate with multiple storage systems from multiple vendors and/or models.
 - 3.20.2 The VMS shall continue recording if all but one of its connected storage devices becomes disconnected or unavailable.
 - 3.20.2.1 The VMS shall be able to play back video that resides on the storage devices that are accessible to it, and the software shall display gaps in the video if portions of the video are not accessible due to the storage device being unavailable.
 - 3.20.2.2 The recording software shall be able to check the storage availability state and reconnect to a previously disconnected storage device automatically, if the previously disconnected device has become fully available again to the OS hosting the VMS recorder.
 - 3.20.2.3 Upon reconnection and if the data in the storage is intact, the video that resided in the storage device shall become available for playback.
 - 3.20.2.4 A failure of one of the storage devices shall not affect writing to all other connected storage devices and the software shall redistribute all the recorded channels across the remaining storage devices.
- 3.20.3 When dual recording is employed, the two recorders used shall write to different shared storage resources to maintain full redundancy.

- 3.20.4 The shared storage solution and the network leading to it shall be able to support and guarantee the aggregated performance requirements from all its connected VMS recorders, including under the following conditions:
 - 3.20.4.1 Rebuilding of a RAID array
 - 3.20.4.2 Storage controller offline
 - 3.20.4.3 Disconnection of a storage device from the network
 - 3.20.4.4 Redundancy, reliability and availability
 - 3.20.4.5 The storage network shall be designed to support 99.999% availability.
- 3.20.5 The storage solution shall possess at least two fully redundant storage controllers.
- 3.20.6 Each controller shall have at least two communication interfaces connected to two or more separate physical infrastructures.
- 3.20.7 The storage and video recording servers shall be interconnected in a full mesh network topology, with dual full redundant network components.
- 3.20.8 The drives in the storage device shall be protected by a RAID or any other redundant drive mechanism capable of recovering from multiple drive failures.
- 3.20.9 A maintenance event in one of the RAID array shall not affect other arrays in performance or availability.
- 3.20.10 The number of drives in a RAID group or protected group shall not exceed the recommended or best practice number of the storage OEM.
- 3.20.11 The hard drives in the storage shall be at least 7.2K RPM drives with SAS interface.
- 3.20.12 A failure of a drive, network interface, controller or any other redundant component shall not affect availability of the storage and shall not pose any delay or service outage.
- 3.20.13 Network Attached Storage (NAS)
 - 3.20.13.1 VMS recording on NAS shall support automatic failover and reconnection.
 - 3.20.13.2 Recorded VMS channels associated with failed storage shall automatically be transferred to another available storage device.
 - 3.20.13.3 Upon a reconnection of a failed storage device, normal recording operation to that device shall be restored.
 - 3.20.13.4 VMS recording on NAS shall support parallel writing to multiple storage devices.
- 3.20.14 Maximum total throughput during normal network operation shall not exceed 60% of the network transmission capability.

4 EXTENT OF THE WORKS

4.1 Disposal Work

Removal of any CCTV system components to be given to the Employer through the Project Manager for disposal working for Transnet Port Terminal Supply Chain Management to follow a correct reverse logistics process.

4.2 Maintenance

The Contractor shall provide a maintenance contract on the CCTV Camera system's software and hardware for the period of 5 years from the warranty/guarantee expiry date. A solid maintenance agreement contract to cover both hardware and software management system.

5 TEMPORARY WORKS

All temporary works shall be designed, managed and carried out by the Contractor and all costs associated with such temporary works shall be deemed to have been included in the rates of this contract.

6 SPECIFICATIONS, TECHNICAL DATA SHEETS

6.1 Plant and Materials Standards and Workmanship

6.1.1 The Investigation, Survey and Site Clearance

6.1.1.1 The *Contractor* should ensure the existing services & infrastructure around the area of project execution are protected.

6.1.1.2 The *Contractor* will be liable for any damage to service or infrastructure as a result of the *Contractor's* employee/s or equipment of any kind.

6.1.2 National and International Standards

The Contractor shall be responsible for compliance of all works with National and International Standards, including but not limited to the following:

- **OHS Act** Occupational Health and Safety Act and Regulations, No. 85 of 1993
- **SANS 10142** The wiring of premises
- **BS 970-1** Specification for wrought steels for mechanical and allied engineering purposes – Part 1: General inspection and testing procedures and specific requirements for carbon, carbon-manganese, alloy and stainless steels.
- **Disaster management Act, 2002**
- **Transnet Directives and Guidelines for Covid 19 Management**

6.1.3 The Contractor shall be responsible for compliance of all works with Transnet Specifications, including but not limited to the following:

Table 5: Transnet Specifications

| | |
|------------------|--|
| EEAM-Q-008 | Corrosion Protection |
| EEAM-Q-009 | Quality Management Specification for Supplier/Construction |
| EEAM-Q-012 | General Electrical Equipment |
| EEAM-Q-013 | Commissioning and Handover Specification for Supplier/Construction |
| EEAM-Q-016 | General Requirements and Conditions |
| EEAM-Q-020 | Tests on Electrical Equipment |
| EEAM-Q-021 | Electronic Equipment |
| BTS SHEQ PRO 012 | New Projects of Modifications |
| BTS SHEQ PRO 021 | SHE Contractor Specifications |

7 HEALTH AND SAFETY

The *Contractor* shall be obliged to comply with OHS Act and TPT’s SHEQ requirements, especially the compulsory induction training for his employees, all medical examinations, police clearances, etc. as prescribed by the Terminal.

7.1 Health and safety at the Delivery and Work Place

At all times during the delivery, installation and testing of the equipment, the *Contractor* is responsible for the safety of all persons on the Delivery Place and shall have the necessary systems and procedures in place to effectively manage this situation.

The *Contractor’s* workforce must attend an induction relating to the safety and operational aspects of the terminal before they can work at the terminal. The *Contractor* is responsible to supply all the necessary PPE to his employees.

7.2 Safety risk management

The *Contractor* must submit a safety file to the TPT SHEQ department for approval after being appointed. The *Contractor* may not commence with Works unless the safety file has been approved by SHEQ. The *Contractor* shall submit a Method Statement to TPT for approval with all the necessary holding points. The *Contractor* shall compile the risk register and share it with the Project Manager for endorsement. The *Contractor* shall ensure that the following documentation is compiled and

submitted to TPT and the *Project Manager* shall provide templates to the *Contractor*:

- a) Project Execution Plan
- b) Health & Safety Management Plan
- c) Risk Management Plan
- d) Quality Management Plant
- e) Designs schematics/ drawings for the work

As such, the *Contractor* to liaise with Transnet's *Project Manager* as to when work can be carried out at these areas. The *Contractor* is to allow sufficient time in the *contractor's* program to allow for work on an operational Site.

8 QUALITY CONTROL PLANS

8.1 Quality Control

- 8.1.1 The Contractor shall prepare and submit a Quality Control Plan (QCP) to TPT for review in accordance with the requirements of the Contract.
- 8.1.2 QCP's shall identify all inspection, test and verification requirements to meet the Contractual obligations, specifications, related details including destructive and non- destructive testing, witness and hold points.
- 8.1.3 QCP's shall include a reference to all tests specified in the Contract Document.
- 8.1.4 The *Contractor* shall not undertake any work in advance of the review and acceptance of the Quality Control Plan without the written consent of Transnet.
- 8.1.5 Pre-inspection meetings may be held at the discretion of Transnet. In such cases, the content of the agenda shall include, but not be limited to, the following:
 - 8.1.5.1 Documentation: Method of Submission reviews etc.
 - 8.1.5.2 Quality Control Plan: Agreement of inspection, witness, review and hold points, Agreement of contacts for notification, etc.
 - 8.1.5.3 Code Databook: Agreement to contents and format.
 - 8.1.5.4 QC Procedures: Agreement to Scope.
 - 8.1.5.5 AIA: Authorised Inspection Authority requirements.
 - 8.1.5.6 Communications: Responsible persons.
 - 8.1.5.7 Non-destructive Testing: Personnel qualification, method and extend required.

8.2 Inspection Points

8.2.1 Inspection means all activities such as measuring, examining, testing, gauging one or more characteristics of material or service and comparing these with specified requirements to determine conformity which include:

- **Hold Point = H:** This indicates an inspection or test which is considered vital to quality, integrity and safe functioning of the material or services and which can only be achieved at this point. The *Contractor* shall not proceed beyond this point without written approval by Transnet and/or the appointed Third Party Inspection Authority.
- **Witness Point – W:** This indicates an inspection or test which may be equally as important as a Hold Point, but which can be waived by the appointed Third Party Inspection Authority or Transnet.
- **Review Point – R:** This indicates that the information collected is required to be reviewed and approved. The job may continue past the review point, however, if the information is inadequate or does not satisfy the requirements, may necessitate additional work.
- **Inspection Points – I:** During the review of the Quality Control Plan, Inspection points will be added by Transnet and where relevant, the Third Party Inspection Authority to indicate the intended monitoring of the *Contractor's* and/or *Sub-contractor's* quality control.

8.2.2 The *Contractor* shall as a minimum, carry out the inspections as detailed in the Quality Control Plan and maintain the required records for verification by Transnet and/or Third Party Inspection Authority. Signing-off of the Quality Control Plan progressively by all relevant parties is a mandatory requirement following the indicated inspection activity.

8.2.3 Non-Conformities: Non-Conformity is defined as a deficiency in characteristic, documentation or procedure which renders the quality of an item, work or service unacceptable or indeterminate in accordance with specified requirements. Such Non-Conformities shall be identified by the *Contractor/Employer*.

8.2.4 The Contractor shall maintain a register of his NCR's and shall submit this register to the Employer monthly. The Senior Engineering Manager will audit the register. The Employer reserves the right to request copies of NCR's for review of deviation and disposition.

8.2.5 The *Contractor* develops and maintains a comprehensive register of documents that will be generated throughout the contract including all quality-related documents as part of its Quality Plan.

8.2.6 The Quality Plan means the *Contractor's* statement, which outlines strategy, methodology, resources allocation, QA and Quality Control co-ordination activities to ensure that the Works

meet the standards stated in the Works Information.

8.3 Revision to Quality Control Plans

Revision of the QCP shall be subject to the same submission, review and acceptance routines as described for the original QCP submission.

8.4 Kick-Off Meeting

After the Contract start date, and before the commencement of the works, TPT will require a Kick-Off Meeting with the *Contractor* to discuss fully the implications of meeting TPT quality requirements. This meeting may be held as part of the Contract kick-off meeting for each package or may be a separate meeting, subject to the critical or complex nature of the work. This requirement for a pre-inspection meeting may be repeated when sub- *Contractors* of key equipment are engaged. After mobilization of the *Contractor*, and before the commencement of any installation activities, TPT shall arrange for a Quality kick-off meeting to discuss fully the implications of meeting the projects' quality requirements. This meeting may be held as part of the formal kick-off meeting for each *contractor* or maybe a separate meeting subject to the critical or complex nature of the work.

8.5 Inspection and Testing

The *Supplier/Contractor* is responsible for the conduct of all *Contractor* inspections and tests and includes:

- 8.5.1 Documenting inspection and tests result in the QCP's.
- 8.5.2 Progressively inspecting the quality of the Scope of Work performed, including that of all Sub-*Contractors*.
- 8.5.3 Inspecting to meet all Contractual requirements, in number, type, and form. Inspecting day to day activities, material receipts, issue of material for installation, in-process inspections, and final inspections. Completed original QCP's shall be submitted to TPT through the Project Manager in the Data Pack (DP)

9 MANAGEMENT AND START-UP

9.1 Management Meetings

Further to Kick-off meeting regular meetings of a general nature of the project may be convened and chaired by the Project Manager as follows:

Table 6: Standard Project Management Meetings

| Title and purpose | Approximate time & interval | Location | Attendance by: |
|--|--|--------------------------------|--|
| Project Progress Meetings (Report on the progress) | Bi-weekly (once every fortnight) | Transnet Port Terminal-Ngqura | <i>Project Manager, Contractor's representatives and other appropriate individuals as required by the Project Manager.</i> |
| Design/ Schematic Review Meetings (Review the designs/ schematics) | Once a month (during design/ schematic development stages) | Transnet Port Terminal- Ngqura | <i>Project Manager, Contractor's representatives and other appropriate individuals as required by the Project Manager</i> |
| Safety Action Meetings (Discuss urgent safety issues within the project) | On an urgent basis as requested by the <i>Project Manager</i> to address particular issues. | Transnet Port Terminal- Ngqura | <i>Project Manager, Contractor's representatives and other appropriate individuals as required by the Project Manager</i> |
| Risk Assessment Meetings (Discuss the project's risks). | On an urgent basis as requested by the <i>Project Manager / Contractor</i> to address risks and opportunities. | Transnet Port Terminal- Ngqura | <i>Project Manager, Contractor's representatives and other appropriate individuals as required by the Project Manager</i> |

9.2 Documentation Control

Transnet uses a document controlling system to track, record and control documentation circulated. All formal communication should be submitted to TPT Document Controller. This include among others, circulation of minutes, drawings, claims etc. TPT Document Controller shall work with the *Contractor's* Document Controller (*if available*).

9.3 Environmental Constraints and Management

The *Contractor* shall ensure that the execution of the Works complies with all the environmental standards and regulations. The TPT Environmental Manager shall work closely with the project team and the *Contractor* to ensure that all environmental standards and regulations are well understood by everybody.

9.4 Training Workshops and Technology Transfer

The *Contractor* shall issue a training pack (in hard and soft copy) along with the hand-over pack on how to operate the system. Training shall be done at suitable times and the *Contractor* shall make provision for multiple sessions to accommodate all shifts. Training will be required on-site and should ensure that personnel who will be involved in the operation have a good knowledge and understanding of the procedures and requirements. The training shall be done for for three different groups, which are IT personel, Operators and Operator's Supervisors.

9.5 Procurement

9.5.1 Code of Conduct

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

- 9.5.1.1 The Preferential Procurement Policy Framework Act, 2000: Preferential Procurement Regulations, 2017 (PPPFA)
- 9.5.1.2 The Transnet Procurement Procedures Manual (PPM);
- 9.5.1.3 Section 217 of the Constitution - the five pillars of Public PSCM (Procurement and Supply Chain Management): fair, equitable, transparent, competitive and cost-effective;
- 9.5.1.4 The Public Finance Management Act (PFMA);
- 9.5.1.5 The Broad-Based Black Economic Empowerment Act (B-BBEE); and
- 9.5.1.6 The Anti-Corruption Act.

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

9.5.2 People

- 9.5.2.1 *Contractor* shall ensure that suitably qualified and certified persons are allocated to tasks.
- 9.5.2.2 The *Contractor* does not employ or bring a *Sub-contractor* onto the Site and/or Working Areas without the prior approval of the *Project Manager*.
- 9.5.2.3 Where the *Contractor* employs a *Sub-contractor* who constructs or installs part of the *Works* or who supplies Plant and Materials for incorporation into the *Works* which involves a *Sub-contractor* operating on the Site and/or Working Areas, then the *Contractor* ensures that any such *Sub-contractor* complies with all the safety, risk and quality requirements as stipulated in these documents and as required by the *Employer*.

9.6 Plant and Materials

- 9.6.1 The Contractor shall supply training and maintenance schedules in the data books

submitted. These schedules will be added to SAP to ensure that effective maintenance is performed. This will entail monthly inspection and planned maintenance repairs when needed.

- 9.6.2 The Bill of Material (BOM), drawings, spares list and training material must be included in project data-pack. The BOM and original spares list will be supplied by the *Contractor* in an electronic format with recommended spare levels.

10 COMPLETION SUPPORT

10.1 General

- 10.1.1 All Plant and Materials shall be new.
- 10.1.2 All Plant shall be installed according to the manufacturer's recommendations.
- 10.1.3 All Plant must be securely mounted on the equipment such that vibration and movement will not dislodge any components.
- 10.1.4 All rotating components shall be statically balanced before fitting. High speed rotating components shall also be dynamically balanced.
- 10.1.5 All fatigue sensitive welds on manufactured components shall be post-weld treated by local burr grinding and shot preening afterwards.
- 10.1.6 All plant component install shall withstand the corrosive conditions of the terminal

10.2 Commissioning & Close-Out

As part of project close-out after commissioning, the *Contractor* is required to must submit the following documents (both hard and electronic copies) among others:

- 10.2.1 As-Built Drawings (schematics)
- 10.2.2 Operating, Maintenance and Training Manuals
- 10.2.3 As-Commissioned Settings
- 10.2.4 Quality Control Plans
- 10.2.5 Take Over Certificate
- 10.2.6 Risk Assessment
- 10.2.7 Project Execution Plan
- 10.2.8 Health & Safety Management Plan
- 10.2.9 Risk Management Plan
- 10.2.10 Quality Management Plant
- 10.2.11 Register of documents to be kept on-site with instruction details of the required administrative tasks.
- 10.2.12 Certificate of Compliance for hardware and software Work.

10.3 Technical Support after Completion

The *Contractor* shall undertake that spares for all mechanical, electrical, information technology hardware components of the system are readily available for at least 3 years from the date of *final acceptance and handover*. Should spares be required during this period but not be readily available,

the *Contractor* shall make modifications to the system to use readily available spares at that time, and no cost to the *Employer*. Should the system become substantially inoperable, inefficient or unsafe during the period between taking over and the *defects date* due to defects, the *defects date* will be extended by the same amount of time that it takes to return the system to a satisfactory operating state.

PART 4: SITE INFORMATION

Core clause 11.2(16) states

"Site Information is information which

- describes the Site and its surroundings and
- is in the documents which the Contract Data states it is in."

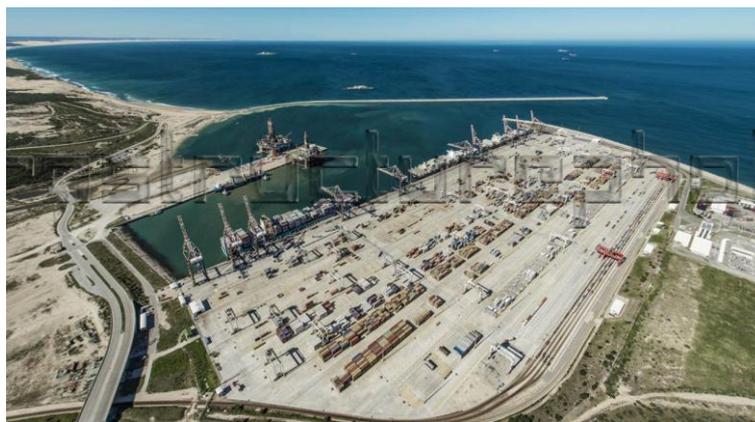
In Contract Data, reference has been made to this Part 4 of the contract for the location of Site Information.

1. Description of the Site and its surroundings

1.1. General description

Ngqura Container Terminal (NCT) is a state-of-the-art container handling facility situated in the Port of Ngqura. The terminal operates with four linear berths and is a container handling facility that is directly involved in the logistical handling of containerised cargo including temporary storage.

Ngqura Container Terminal (NCT) is part of The Port of Ngqura, which situated approximately 20 kilometres North-North East of Port Elizabeth. The Port of Ngqura is in Algoa Bay and is situated at the mouth of Ngqura River. The Port of Ngqura is a deep-water port with water depths between 16m and 18m, operating four berths (from D100 to D103), has a total land area of 1,254ha and has a total quay length of 1320 meters. The Port of Ngqura is situated adjacent to the Coega Industrial Development Zone (IDZ), on the Eastern seaboard of South Africa.



The server room is situated at administration building outside the terminal environment in 1st floor and outside the glass door, which will not impact the staff working inside the 1st floor. We have eight (8) cameras that connected on the cranes for operational purpose that pulling through to the control room. Other cameras are situated outside the terminal which will not impact the operation.

1.2. Existing buildings, structures, and plant & machinery on the Site

Not applicable

1.3. Subsoil information

Not applicable

1.4. Hidden services

Not applicable

1.5. Other reports and publicly available information

Not applicable

ANNEXURE A:

**EEAM-Q-008 - SPECIFICATION FOR CORROSION
PROTECTION**

| | | |
|----------------------------|--------------------------------|---|
| REVISION Ver. 17 | REFERENCE EEAM-Q-008 |  |
|----------------------------|--------------------------------|---|

| | |
|-------------------------------------|---|
| DOCUMENT TYPE: SPECIFICATION | AUTHORISATION DATE: Date signed by CEO |
|-------------------------------------|---|

| | |
|---|---------------------|
| TITLE: SPECIFICATION FOR CORROSION PROTECTION | PAGE 0 of 13 |
|---|---------------------|

| | | |
|---|---|---|
| COMPILED BY: EQUIPMENT ENGINEERING AND ASSET MANAGEMENT (GENERAL MANAGER) | REVIEWED BY: SENIOR MANAGER (PROJECT MANAGER) | REVIEWED BY: SENIOR MANAGER (ASSET MANAGER) |
|---|---|---|

| | |
|--|----------------------------------|
| ACCEPTED BY: CHIEF FINANCIAL OFFICER | AUTHORIZED BY: CEO |
|--|----------------------------------|

| | | | |
|--------------------------------------|--------------------------------|-----------------|---------------------------|
| FUTURE REVISION RECORD NUMBER | DESCRIPTION OF REVISION | APPROVAL | DATE 18/06/2008 |
| -1- | | | |

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| KEYWORDS SPECIFICATION | DATE OF LAST REVIEW: N/A DATE OF NEXT REVIEW: 18/06/2008 |
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June 2008

1. SCOPE

- 1.1. This specification covers Transnet Port Terminals requirements for protective coating of iron and steel structures, electrical motors, gear boxes etc. against corrosion and must be read in conjunction with the main specification as well as the following (latest editions):-

| | |
|-----------|--|
| SABS 064 | "Preparation of steel surfaces for coating" |
| SABS 763 | "Hot-dip (galvanized) zinc coatings" |
| SABS 1091 | "National colour standards for paint" |
| BS 5493 | "Code of practice for protective coating of iron and steel structures against corrosion" |

2. TYPES OF CORROSION PROTECTION TO BE USED

- 2.1. The coatings specified in this specification are chosen according to BS 5439, Table 3, part 9, to ensure that the condition of the surface will be at least RE2 on the European scale of degree of rust, after 10 years in a environment of frequent salt spray, chemicals and polluted coastal atmosphere. During the 10 years, the normal maintenance painting will be done.
- 2.2. The paint manufacturer shall guarantee the paint for at least 10 years.
- 2.3. Should a tenderer wish to offer coating systems other than those specified, as an alternative, he shall submit full technical details and a list comparing all appropriate details of the alternatives proposed, with the original specified.
- 2.4. Tenderers must ensure that the different coats they offer in their tenders are compatible with each other.
- 2.5. The coating of proprietary items must be done according to Clause 3.
- 2.6. All galvanized components including bolts and nuts but excluding walkway gratings, must be painted with the specified system, unless otherwise approved.

The following coating systems must be used unless otherwise specified in the main specification:-

| Substrate | Coat No | Generic Description | Approved Brand Products | Dry Film Thickness (µm) |
|------------------|---------|---|---|-------------------------|
| 3CR12 steel | 1 | Surface tolerant epoxy primer | DULUX /SIGMA Sigmacover primer INTERNATIONAL (PLASCON) Intergard 269 STONCOR (CHEMRITE COATINGS) Carboline 193 Primer | 65-75 |
| | 2 | Two component recoatable, polyurethane finish (Gloss) | DULUX / SIGMA Sigmadur gloss INTERNATIONAL (PLASCON) Interthane 990 STONCOR (CHEMRITE COATINGS) Carboline 134 | 65-75 |
| Galvanized Steel | 1 | Surface tolerant epoxy primer | DULUX /SIGMA- Sigmacover primer INTERNATIONAL (PLASCON) Intergard 269 STONCOR (CHEMRITE COATINGS) Carboline 193 Primer | 65-75 |
| | 2 | Two component recoatable, polyurethane finish (Gloss) | DULUX /SIGMA- Sigmadur gloss INTERNATIONAL (PLASCON) Interthane 990 STONCOR (CHEMRITE COATINGS) Carboline 134 | 65-75 |

| Substrate | Coat No | Generic Description | Approved Brand Products | Dry Film Thickness (µm) |
|------------|---------|--|--|-------------------------|
| Mild steel | 1 | Two component self curing inorganic zinc ethyl silicate OR two component zinc rich polyamide cured | DULUX /SIGMA- Sigma MC60 OR Sigma-cover primer | 65-75 |

| | | | |
|---|--|--|---------|
| | epoxy primer | INTERNATIONAL (PLASCON) Interzinc 233 OR Interzinc 52 or 53 | |
| | | STONCOR (CHEMRITE COATINGS) Carbo Zinc 11 OR Carbo-line 658 Primer | |
| 2 | Flexible recoatable high build polyamide cured MIO epoxy | DULUX/SIGMA – Sigmacover CM MIO | 125-150 |
| | | INTERNATIONAL (PLASCON) Interseal 010 MIO | |
| | | STONCOR (CHEMRITE COATINGS) Carboline 190 HB M.I.O. or Carboline 193 M.I.O. | |
| 3 | Two component recoatable, polyurethane finish (Gloss) | DULUX/SIGMA Sigmadur gloss | 65-75 |
| | | INTERNATIONAL (PLASCON) Interthane 990 | |
| | | STONCOR (CHEMRITE COATINGS) Carboline 134 | |

- 2.7. The paint manufacturer's recommendations for the application of the different coating systems, curing time before handling or application of subsequent coats, health and safety recommendations etc. must be carefully adhered to.
- 2.8. Paint contractors must have a quality management system which must be submitted to the Engineer for approval before commencement of the work.
- 2.9. Galvanizing shall be done to SABS 763 heavy duty hot dip galvanizing to a thickness of at least 85µm. Electroplated components in zinc or cadmium are not acceptable.
- 2.10. All mounting bolts, nuts, washers and brackets as well as all fixing bolts, studs nuts and washers shall be of stainless steel. Fixing rivets shall be of either stainless steel or brass.
- 2.11. High tensile bolts for friction grip joints must not be galvanised and must be primed and painted after installation. High tensile bolts must be certified.
- 2.12. The full paint system shall be applied to all surfaces which are to be covered with wear pads, linings etc.
- 2.13. For steelwork which will be transported over long distances and erected on site the two pack epoxy primers is preferred.

3. PROPRIETARY ITEMS

- 3.1. Proprietary items such as gearboxes, motors, brakes etc. must either be painted according to this specification or where the coating system is equal to or exceeds this specification sufficient proof of the coating system applied must be provided. Items which are nearly equal to this specification shall be given a finishing coat according to this specification's thicknesses and final colours and to the following procedure:-
 - 3.1.1. A cross cut test must be done to SABS SM159 to determine if the original coating adheres correctly to the substrate;
 - 3.1.2. The original coating shall be rubbed down to remove any smooth finishing to form a suitable key for the finish coat and any damaged areas prepared and patch primed with a suitable primer;
 - 3.1.3. The item must then be detergent washed to remove any foreign matter, taking care that no dust, solvent etc. contaminates any working part of the item;
 - 3.1.4. A test shall be done on the existing coat to ensure that the finish coat will not react with and cause undue dissolving and lifting of the existing coat. This can be done by applying a small quantity of the finishing coat thinners.
 - 3.1.4.1. Should any undue dissolving or lifting occur, a suitable intermediate or barrier coat must be applied before the finishing coat is applied.
 - 3.1.5. Proprietary items which failed the cross cut test and which generally have inadequate protection shall be dismantled and the full corrosion protection specification applied.

4. SURFACE PREPARATION

- 4.1. All steel surfaces shall be detergent washed and fresh water rinsed to remove all oil, grease and surface contaminants before shot blasting.
- 4.2. Sharp edges shall be radiused and major roughness of welds shall be removed by grinding. Welding spatter and flux shall be removed.
- 4.3. Components manufactured from hot rolled steel sections and steel plate shall be blast cleaned to base metal in accordance with SABS 064 grade SA2½ - very thorough blast cleaning, to remove all mill scale, rust, weld spatter etc.
 - 4.3.1. "Sharp" chilled iron shot, chilled iron grit, or granular abrasive slag is to be used to produce a proper degree of surface roughness.
 - 4.3.2. Blast profile shall be determined by micrometer profile gauge, Keane-Tator surface profile comparator or Testex press-o-film.
 - 4.3.3. The profile height shall be between 40 and 50µm at any point.
- 4.4. Good quality blast cleaning and spray painting equipment shall be used. Air used for spraying and blast cleaning shall be free from all traces of oil, water and salinity. Water and oil traps must be fitted to all equipment.
- 4.5. Wheel abrading equipment shall not be used unless an angular profile the same as clause 4.3.3 is achieved.
- 4.6. When wet blasting is done the primer shall be applied before oxidization starts or surface contamination occurs.
- 4.7. Components manufactured from 3CR12 steel shall be lightly abraded. The components shall then be passivated by using a mixture of 10 - 15% nitric acid in water which is rinsed off after 10 - 15 minutes. The surface shall be neutralized to pH 7 before it is coated.
- 4.8. Hot-dip galvanized components, galvanized bolts and nuts etc. shall be lightly abraded with a galvanizing pre-cleaner. The components shall then be washed with detergent and water and washed down with clean water until a water break free surface is achieved. Allow to dry thoroughly.

5. JOINTS AND MATING SURFACES OF MEMBERS

- 5.1. Mating (faying) surfaces of members which have to be joined by high tensile steel bolts in friction grip shall be cleaned according to Clause 4 and painted with primer only.
 - 5.1.1. After being assembled joints so formed shall be seal welded and painted or after the intermediate coat was applied the edges shall be sealed with an approved brand of paintable flexible sealant or mastic (e.g. Butyl rubber, polyurethane sealer or two component epoxy), by means of a suitable caulking gun.
- 5.2. All rivets, bolts, welds, sharp edges etc. must be covered with a "stripe coat" of the primer or intermediate coat specified to ensure the correct dry film thickness on sharp edges, as well as sealing of bolt threads to head etc.
- 5.3. All other mating surfaces must be sealed with an approved brand of flexible Butyl rubber, paintable Silicone, polyurethane sealer or two component epoxy sealer, and joined while still wet. All excess compounds must be completely removed.

6. PAINTING PROCEDURES

- 6.1. Directly before the application of paint, the area to be painted shall be degreased with a suitable degreaser and left to dry.
- 6.2. Paint shall only be applied under the following conditions:-

- 6.2.1. There is adequate light.
- 6.2.2. The steel temperature is between 5 and 50°C and at least 3°C above the dew point of the air.
- 6.2.3. The relative humidity of the air is between the limits specified by the paint supplier.
- 6.2.4. Wind does not interfere with the method used and sand and dust cannot be blown onto wet paint.
- 6.3. Steelwork shall be supported on trestles, at least 900 mm off the ground for painting purposes.
- 6.4. An adequate number of test readings shall be taken per square meter in order to determine the dry film thickness.
 - 6.4.1. The paintwork shall be acceptable if the average of the test readings taken falls within or exceeds the ranges given.
 - 6.4.2. Paintwork shall not be acceptable if any single test reading is less than the specified minimum thickness.
- 6.5. An ultrasonic or electronic magnetic flux thickness measurement gauge shall be used, but in case of dispute, destructive testing shall be applied. The painted steelwork shall present a clean, neat appearance of uniform colour and gloss as applicable to the paint used. Each coat of paint shall be applied as a continuous, even film of uniform thickness. More than one application of paint may be required to achieve the dry film thicknesses specified or to obliterate the colour of the previous coating.
- 6.6. The use of thinners or solvents at any stage of the work is prohibited, unless specified by the paint manufacturer.
- 6.7. Precautions shall be taken to prevent coatings from being applied to equipment nameplates, instrument glasses, signs etc.

7. COLOUR CODES

Machinery and equipment shall be painted in the following final colours:-

| Area | Colour | Code No. [SABS 1091 and International No's] |
|-------|--|--|
| 7.1.1 | Mobile equipment (cranes, loaders etc.) | |
| | a) Structure, machinery and electrical houses, operator's cabins, chutes, hoppers etc. | Transnet Red RAL 3020 |
| | b) Undercarriage, travel bogies, rubber tyred rims | Transnet Red RAL 3020 |
| 7.1.2 | Industrial buildings, conveyor structures | |
| | a) Roofs and canopies | Pantone cool grey 10 RAL 7037 (Staubgrau) |
| | b) Painted walls | Pantone cool grey 3 RAL 7035 (Lightgrau) or SABS 1091 G62 (Pale grey) |
| | c) Steel columns, rafters, trusses | Pantone cool grey 5 RAL 7004 (Signalgrau) |
| 7.1.3 | General | |
| | a) Guards | Golden yellow SABS 1091-B49 RAL 1003 |
| | b) Sheaves | Orange RAL 2008 |
| | c) Cable reels (Stainless steel) | Orange RAL 2008 |
| | Machine buffers and parts of machine which could constitute a serious hazard | Golden Yellow (High Gloss) with Luminous green stripes in chevron pattern SABS B49 and Luminous green |

| Area | Colour | Code No. [SABS 1091 and International No's] |
|---|-------------------------------------|---|
| e) Any exposed rotating part of machinery, electrical Switch-gear (other than starting and stopping devices and emergency stop control), electrical services e.g. conduit and allied fittings | Light Orange (High Gloss) | SABS 1091 B26 BS 381C-557 |
| f) Low voltage switchgear panels where orange is not aesthetically acceptable | Light grey | SABS 1091-G29 BS 381C-631 |
| g) Medium voltage cable trays, switchgear and motors (3,3 kV and up) | Oxford Blue | SABS FO2 BS 381C-105 RAL5003 |
| h) Starting devices, low voltage cable trays and switchgear | Mid brunswick green (high gloss) | BS 381C-228 SABS1091-EO4 RAL6005 |
| i) Portnet Logo | Transnet White | RAL 3012 |
| j) Parts of stationary machinery (Electrical, motors, gearboxes, brakes, transformers, etc.) | Light Grey | SABS G29 BS 381C-631 |
| k) Hand levers, hand wheels, oiling points, handrails on walkways, ladders | Golden Yellow (High Gloss) | SABS 1091 B49 BS 381C-356 |
| l) Stopping devices, grease points, motor fan covers and danger signs (not symbolic safety signs for which see SABS 1186) | Signal red (High Gloss) | SABS 1091 A11 BS 381C-537 RAL3001 |
| m) Walkways (non slip surfaces) (galvanized gratings not to be painted) | Shop floor green | |
| n) Informatory signs and notices (not symbolic safety signs for which see SABS 1186) | White on Emerald Green (High Gloss) | White on SABS 1091 E14 BS 381C- 228 |

| Area | Colour | Code No. [SABS 1091 and International No's] |
|---------------------------|-----------------------------|---|
| 7.1.4 Pipe lines | | |
| a) Reclaim water piping | Aluminium | |
| b) Slurry pipe lines | Dark admiralty grey | SABS 1091-G12 |
| c) Fire protection piping | Signal red | SABS 1091-A11 |
| d) Washwater drain pipes | Light grey | SABS 1091-G29 |
| e) Instrument air | White with Strong blue band | White and SABS 1091-F11 |
| f) Plant air | White with Flag blue band | White and SABS 1091-FO4 |
| g) Potable water | Grass green | SABS 1091-D14 |

7.1.5 Colour bands for pipes shall be 75 mm wide for pipe sizes up to 150 mm diameter and 100 mm wide for 150 mm and above. The colour bands shall be applied to the pipe flanges, valves, junctions, walls or structures etc. in such a manner that the pipe may be easily identifiable. On straight sections the maximum spacing shall be 100 x the pipe diameter.

8. FIELD TOUCH-UP PAINTING

8.1. Damaged and unpainted areas, fasteners, welds, etc. shall be cleaned by wire brushing with hand tool or power tool in a manner which will minimize damage to sound paint. Grinding will not be allowed. Rust spots shall be cleaned to bright metal. Thick edges of old paint abutting on bare metal surfaces shall be feathered by scraping and sanding.

8.1.1. Where welding is required on areas already coated with the coating system, the coat should be stepped back for ± 30 mm around the weld area.

8.2. The paint shall be applied to match the original coats in accordance with the manufacturer's recommendations for the specific paint system.

Note: Inorganic zinc primers shall not be re-covered with an inorganic primer, but only with an organic zinc primer.

8.3. Areas of damaged galvanizing shall be repaired with an approved cold galvanizing product or metal sprayed by the wire spraying process with Zinc, and then touched up with the specific paint system.

9. GENERAL

9.1. All walkways, floors, maintenance platforms etc. must be painted with a durable, non skid coating of the appropriate colour.

9.2. Exposed machined surfaces must be coated with a strippable corrosion inhibitor (e.g. Tectyl).

9.3. Where different materials will be in contact with each other and galvanic corrosion can occur the contact areas of the materials must be isolated from each other or the joints made water proof to prevent ingress of moisture.

9.4. All components must be designed with corrosion prevention in mind and specifically the following:-

- 9.4.1. No entrapment of dirt, product, moisture etc.
 - 9.4.2. No areas must be inaccessible for maintenance such as too narrow gaps etc.
 - 9.4.3. Large flat areas rather than complicated shapes and profiles.
 - 9.4.4. No sharp corners and discontinuous welds.
- 9.5. Parts of equipment which are exposed to high temperatures must be coated with the following system:-

| Coat No | Generic Description | Approved Brand Products | Dry Film Thickness (µm) |
|---------|---|--|-------------------------|
| 1 | Two component self curing inorganic zinc ethyl silicate | DULUX /SIGMA-Sigma MC60 INTERNATIONAL (PLASCON) Interzinc 233 STONCOR (CHEMRITE COATINGS) Carbo Zinc 11 | 65-75 |
| 2 | Single component high temperature moisture curing silicone with aluminum flakes | DULUX/SIGMA – Sigmatherm Silicate INTERNATIONAL (PLASCON) Intertherm 50 STONCOR (CHEMRITE COATINGS) Carboline 1248 | 40 |

10. MAINTENANCE PAINTING OF STRUCTURES

- 10.1. Areas which are only lightly corroded must be cleaned by means of high pressure water blasting or wire brushing by power tool and the following system applied:-

| Coat No | Generic Description | Approved Brand Products | Dry Film Thickness (µm) |
|---------|---|---|-------------------------|
| 1 | Surface tolerant two pack epoxy primer with aluminum pigments | Dulux/SIGMA Aluprimer STONCOR (CHEMRITE COATINGS) Carbomastic 15 INTERNATIONAL (PLASCON) Intergard 468, | 125-150 |
| 2 | Same as first coat OR micaceous iron oxide (MIO) epoxy | DULUX/SIGMA – Sigmacover CM MIO | 125-150 |

| | | | |
|---|--|--|-------|
| | | INTERNATIONAL (PLASCON) Interseal 010 MIO | |
| | | STONCOR (CHEMRITE COATINGS) Carboline 190 HB M.I.O. or Carboline 193 M.I.O. | |
| 3 | Two component recoatable, polyurethane finish (Gloss) | DULUX/SIGMA Sigmadur gloss | 65-75 |
| | | INTERNATIONAL (PLASCON) Interthane 990 | |
| | | STONCOR (CHEMRITE COATINGS) Carboline 134 | |

10.1.1. Alternatively, the Noxyde paint system can be used, consisting of two to three coats of water based Noxyde paint to achieve a DFT of 350 to 400 microns. Where the Noxyde system is used on areas other than slightly corroded structural areas, the following additional requirements must be observed:

- 10.1.1.1. Very smooth surfaces (e.g. 3CR12, stainless steel or hot-dip galvanized components, bolts, nuts and fittings, and HT bolts): Parts must be thoroughly degreased using OptiDegreaser, washed down with potable water, and immediately when dry, a single coat of OptiPrimeAqua applied.
- 10.1.1.2. Paintable flexible sealant/mastic: Only sealant approved by the paint manufacturer may be used, and an initial coat of OptiPrimeAqua applied over it before the further coats of Noxyde are applied.
- 10.1.1.3. Bolted/rivited connections: After blasting or and/or cleaning as required, apply a coat of OptiPrimeAqua and an additional stripe coat of Noxyde, in contrasting colour, to all bolt/nut and plate edges and crevices.

- 10.2. The adhesion of old coatings must be verified by doing a cross cut adhesion test on selected areas.
- 10.3. The compatibility of the new paint system on the old coating must be tested and guaranteed in writing by the paint supplier.
- 10.4. The work and coating system must be guaranteed for a minimum of 12 months.
- 10.5. All heavily corroded areas must be shot blasted to minimum SA2 and the three coat system indicated in clause 2.6 applied.
- 10.6. Areas where the old coating is still sound need only be high pressure cleaned with a suitable solvent and coated with one of the primers suggested in clause 10.2 (as tie coat) and then with one of the top coats suggested in clause 2.6 to get the appropriate colour and finish. The minimum dry film thickness of this tie coat must be 75 microns and top coat must be 50 microns, but the previous coating colour shall be completely obliterated to present a uniform colour.

Note: Inorganic zinc primers shall not be re-covered with an inorganic primer, but only with an organic zinc primer.

- 10.7. Repairs to the insides of all the enclosed sections of the booms as well as the insides of the crane legs, sill beams, cross beams, pylon cross bracing members etc. shall be done as above but the top coat need not be applied.

***** END OF SPECIFICATION HE 9/2/8 [Version 17] *****

ANNEXURE B:

**EEAM-Q-009- QUALITY MANAGEMENT
SPECIFICATION FOR
SUPPLIER/CONSTRUCTION**

| | | | |
|--|-------------------------------------|---|--------------------|
| REVISION 0 | REFERENCE EEAM-Q-009 |  | |
| DOCUMENT TYPE SPECIFICATION | | AUTHORISATION DATE: Date signed by CEO | |
| TITLE: QUALITY MANAGEMENT SPECIFICATION FOR SUPPLIER/CONSTRUCTION | | PAGE 1 of 14 | |
| COMPILED BY: | REVIEWED BY: | REVIEWED BY: | |
| SENIOR MANAGER (QUALITYMANAGER) | SENIOR MANAGER (PROJECT MANAGER) | SENIOR MANAGER (GENERAL MANAGER) | |
| ACCEPTED BY: | | AUTHORIZED BY: | |
| CHIEF FINANCIAL OFFICER | | CEO | |
| FUTURE REVISION RECORD NUMBER | DESCRIPTION OF REVISION | APPROVAL | DATE 01/03/2010 |
| -1- | | | |
| CONTENTS | | | |
| 1.0 QUALITY MANAGEMENT SPECIFICATION FOR SUPPLIER/CONSTRUCTION | | | |

| | |
|---------------------------|---------------------------------|
| KEYWORDS SPECIFICATION | DATE OF LAST REVIEW: N/A |
| | DATE OF NEXT REVIEW: 01/03 2010 |

DETAILS CONTENTS

| | | | |
|-------|--|------|--|
| Title | | Page | |
|-------|--|------|--|

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1. Introduction

This Specification outlines the minimum requirements to ensure that products and services supplied to Transnet Port Terminals are manufactured, provided, constructed or installed in accordance with all specified requirements as defined in the Contract, all associated specifications, drawings, codes and standards.

2. Definitions

| Term, Abbreviation | Meaning |
|---------------------------------------|--|
| Data | All drawings/documents/data/information and DP's required to be supplied under the Contract |
| Data Pack (DP) | A compilation of manufacturing data, certification, inspection and testing records prepared by the Supplier/Contractor to verify compliance with the Contractual requirements. |
| Employer | For the purposes of this document, the term Employer has the same meaning as applied to the term Client. |
| Field Inspection Checklist (FIC) | A document that details the checks, requirements and test parameters for each type of equipment to permit field installation and pre- commissioning of the equipment. |
| TPT | Transnet Port Terminals is the Employer's Nominated Agent in terms of the Conditions of Contract. |
| Inspection Release Report (IRR) | A document issued to the Supplier/Contractor by TPT advising release of the Materials for shipment. This does not relieve the Supplier/Contractor of its obligations in accordance with the Terms and Conditions of the Contract. |
| Inspection Waiver Report (IWR) | A document issued to the Supplier/Contractor by TPT advising that TPT has waived final inspection for the materials listed in this document. The issue of this Report does not preclude further inspection by TPT, is issued without prejudice and does not relieve the Supplier/ Contractor from the guarantees and obligations included in the Contract/ Contract. A document prepared by the Supplier/Contractor providing relevant information applicable to the installation and maintenance of the specific equipment, including consumables (eg. oils etc) |
| Project Quality Plan (PQP) | A document that outlines the Supplier/Contractor's strategy, methodology, resources allocation, Quality Assurance and Quality Control coordination activities to ensure that Goods and Services supplied meet or exceed the requirements defined in the Contract, drawings, codes and standards. |
| Quality Control Plan (QCP)* | A document outlining specific manufacturing / construction inspection and testing requirements, including responsibilities, test acceptance criteria, nomination of witness and hold points. For the purposes of this document, the term Supplier/Contractor has the same meaning as applied to the term Sub-Supplier/Sub-Contractor |
| Supplier/Contractor | This refers to the documentation required to be submitted by the relevant Supplier / Contractor in terms of the Contract. |
| Supplier/Contractor Data Requirements | These requirements are generally tailored to suit the particular Scope of Work, although it also addresses the manner in which the documentation is required to be submitted, eg Hard copy, Electronic copy etc |
| Technical Query Note (TQN) | This refers to a document used by the Supplier/Contractor to formally clarify a Technical Query related to the scope of supply. This should not be used where a non-conformance has already been initiated. |

3. Applicable Documents

3.1 General

All work performed shall comply with the requirements of this Specification, the documentation referenced in the Contract and the latest revision/edition of the relevant Codes and Standards referenced herein.

3.2 Statutory Regulations

Occupational Health & Safety Act, Act No 85, of 1993 and Regulations as amended.

3.3 Codes and Standards

| Document No. | Title |
|---------------------|---|
| ISO 9001 | International Standard Series Quality Systems |
| EEAM-Q-013 | Punch Listing Standard |

4. Quality System

4.1 General

The Supplier/Contractor shall be responsible for all quality activities necessary to ensure the Work meets the requirements specified in the Contract, and shall manage and coordinate all Quality aspects of Work in accordance with the requirements of this Specification, and the Supplier/Contractor's PQP and QCP's once reviewed and approved by TPT.

The Supplier/Contractor shall ensure that all Sub-Suppliers/Sub-Contractors also conform with the requirements of this Specification.

4.2 Supplier/Contractor Quality System Requirements

The Supplier/Contractor shall have, maintain and demonstrate its use to TPT, its documented Quality Management System. The Supplier/Contractors Quality Management System should be in accordance with the International Standard ISO 9001.

The Supplier/Contractor shall submit its Quality System documentation to TPT at the time of tender and at Contract Phases as detailed below:

- Project Quality Plan
- Quality Policy
- Index of Procedures to be used
- Programme of internal and external audits

4.3 Supplier/Contractor Documentation Requirements

The Supplier/Contractor shall develop and maintain a comprehensive register of documents that will be generated throughout the project, and shall include all quality related documents. The register shall be submitted to TPT for review.

TPT shall indicate those documents required to be submitted for information/review and/or acceptance and this shall be indicated in the Supplier/Contractors' Document Register. The register shall indicate the dates of issue of the documents taking into account sufficient time to allow TPT review/acceptance cycle prior to the document being required for use.

5. Quality Assurance

5.1 Project Quality Plan

Where specified, the Supplier/Contractor shall submit a PQP to TPT within 28 days after the Contract start date. The PQP shall detail how the Supplier/Contractor's Quality System will be applied to the Scope of Work specified in the Contract, and shall address the following:

- Satisfying the technical and quality requirements of the Supplier/Contractor's Scope of Work, and relevant elements of the applicable ISO 9001 standard
- include all quality activities relevant to the Scope of Work, identifying all procedures, reviews, audits, controls and records used to control and verify compliance with the specified Contractual requirements

Include a listing of all special processes (eg. welding and non-destructive testing, cube testing etc) envisaged for use, including confirmation of personnel certification as required

- Include all proposed method statements (for site based work activities)
- Include a description of the Supplier/Contractor's project organisation, with key positions and responsibilities identified and individuals named. The organisation structure shall also indicate the resources committed to the management / coordination of QA / QC activities
- Include a listing of all Quality Control Plans (QCP's), and associated Field Inspection Checklists (FIC's), as applicable
- Identify in the Project Quality Plan any Sub-Supplier/Sub-Contractor work. Sub-Supplier/Sub-Contractor plans shall be approved by the Supplier/Contractor, and a copy forwarded to the TPT
- Include the proposed Authorised Inspection Authority (where applicable - for pressurised equipment and systems)
- Include a schedule of proposed quality records

The PQP shall be controlled and re-submitted for approval when required to incorporate any change necessary during the Contract duration to ensure that the document is maintained as an effective control, change management and records. The change management will be done to an agreed policy or procedure.

Note: Where the Supplier/Contractor is required to provide a PQP, no work shall commence until the PQP is approved by TPT.

5.2 Procedures

The Supplier/Contractor's PQP and procedures shall address the system elements and activities appropriate to the Scope of Work, in compliance with the specified Quality Standard.

Where specified, the Supplier/Contractor shall submit copies of Quality Procedures for review. In addition, the Supplier/Contractor shall ensure that copies of all Procedures relevant to the Scope of Work are available for reference by TPT at each work location.

These will include, as applicable, the following:

5.2.1 Document Control

The Supplier/Contractor's Project Quality Plan shall provide a description of how TPT provided, Supplier/Contractor and Sub-Supplier/Sub-Contractor documents are to be managed. The description shall address as a minimum:

- Management tools and databases
- Receipt, registration and maintenance
- Internal and external distribution to Employer, third parties and Sub-Contractors
- Management of Codes, Standards and Specifications

-
- Internal review and approval routines and authorities
 - How it is ensured that the correct revisions of documents are available at the point of use including retention periods for all documentation.

5.2.2 Design Control

Where the Supplier/Contractor is responsible for any aspect of design related to their Scope of Work, the Quality Plan shall describe the Supplier/Contractor's methods and procedures for the control of these design activities.

5.2.3 Procurement

Where the Supplier/Contractor is responsible for any aspect of procurement related to their Scope of Work, the Quality Plan shall describe the Supplier/Contractor's methods and procedures for the control of these activities.

5.3 Supplier/Contractor Audits

The Supplier/Contractor shall:

- Carry out audits in accordance with its Quality System at its own and Sub-Supplier/Sub-Contractor's facilities to ensure project quality requirements are being achieved
- Include a QA Audit Schedule in the Supplier/Contractor PQP submitted to TPT prior to commencement of the Scope of Work. The Audit Schedule shall include all audits to be implemented by the Supplier/Contractor and Sub-Supplier/Sub-Contractor during the execution of the Contract
- Where stipulated in the Contract, perform an audit within three months after the Contract start date and thereafter at a minimum frequency of three months. Audit reports shall be submitted to TPT at the completion of each Audit. Where unsatisfactory performance is evident, additional audits shall be performed by the Supplier/Contractor as directed by TPT.

5.4 Transnet Port Terminals Audit

TPT reserves the right to perform quality audits or participate as an observer in Supplier/Contractor audits to verify compliance with the Contractual requirements. The Supplier/Contractor shall within a time frame as agreed upon, correct any adverse audit finding advised by TPT.

6. Inspection and Testing

6.1 General

TPT may, at its discretion perform surveillance inspection at the Supplier/Contractor's premises, SubSupplier/Sub-Contractor's premises or at the location of the Scope of Work.

Dependent on the nature of the Scope of Work and the frequency of inspections TPT may elect to have inspection personnel resident at the place of manufacture, fabrication, or assembly.

The Supplier/Contractor shall ensure free entry and access is given to TPT, certifying authorities and statutory authorities to inspect the Scope of Work and review procedures and quality records at all parts of the Supplier/Contractor's and Sub-Supplier/Sub-Contractor's premises, or at the location of the Scope of Work while any work or test is in progress.

The Supplier/Contractor shall provide TPT with all necessary tools, calibrated measuring equipment, safety equipment and workspace to verify or witness tests in progress.

While TPT is at the Supplier/Contractor's premises, the Supplier/Contractor shall provide, free of charge, reasonable facilities including office facilities and reasonable access to a telephone, facsimile machine and computer connection point.

The Supplier/Contractor shall provide notice in writing in within a time frame time as agreed upon, to allow the attendance of TPT and other representatives at nominated witness and hold points.

6.2 Quality Control Plans

The Supplier/Contractor shall prepare and submit QCP's to TPT for review in accordance with the requirements of the Contract and PQP.

QCP's shall identify all inspection, test and verification requirements to meet the Contractual obligations, specifications, drawings and related details including destructive and non-destructive testing, witness and hold points.

The Supplier/Contractor shall not commence fabrication or manufacture prior to review and approval of the applicable QCP by the TPT.

QCP's shall include reference to all tests specified in the Contract Document.

A typical format for an QCP is shown in Appendix A. The Supplier/Contractor may use its own format providing all information shown in Appendix A is included.

6.3 Inspection Points

The QCP shall identify points in the fabrication, manufacturing and/or installation process that are selected for inspection and shall be denoted by the following inspection codes:

- Hold Point (H) Inspection point in the manufacturing cycle, beyond which work shall not proceed without the specified activity, work or function being witnessed. Holding points require written notification to TPT.
- Witness Point (W) An inspection point in the manufacturing cycle that will be witnessed or verified. If TPT confirms it is unable to attend after being provided with the written notification then manufacture may proceed. Witness points require written notification to TPT.
- Review Point (R) A point at which products and quality records are verified and endorsed. Review points are not notifiable points.
- Surveillance (S) An inspection point in the manufacturing cycle during which any activity, work or function is observed. No formal notification is required.

The Supplier/Contractor shall maintain the status of testing and inspection by progressively having the QCP's signed off.

6.4 Revision to Quality Control Plans

Revision of the QCP shall be subject to the same submission, review and acceptance routines as described for the original QCP issue

6.5 Kick Off Meeting

After the Contract start date, and prior to manufacture, TPT will require a Kick Off Meeting with the Supplier/Contractor to discuss fully the implications of meeting TPT quality requirements. This meeting may be held as part of the Contract kick-off meeting for each package or may be a separate meeting, subject to the critical or complex nature of the work. This requirement for a pre-inspection meeting may be repeated when sub-Supplier/Contractors of key equipment are engaged.

After mobilization of the Contractor, and prior to the commencement of any construction activities, TPT will arrange for a Quality kick-off meeting to discuss fully the implications of meeting the projects' quality requirements. This meeting may be held as part of the formal kick-off meeting for each contractor, or may be a separate meeting subject to the critical or complex nature of the work.

6.6 Schedule of Inspection

The Supplier/Contractor shall submit a Schedule showing the proposed dates for inspections and tests nominated in the QCP where witness and hold points are required. The Schedule shall be regularly updated with progress and issued to TPT to show the current inspection and test status.

6.7 Field Inspection Checklists

For site installation and construction activities, the Supplier/Contractor shall prepare Field Inspection Checklists (FIC's) to permit inspection and testing of installed equipment and constructed facilities in accordance with the respective QCP's.

FIC's shall be provided to TPT for initial review, and shall be used to record the results of inspection and testing (where applicable), and on completion be submitted to TPT to confirm satisfactory completion of the tests and inspections at nominated QCP witness and hold points.

6.8 Inspection Notification

The Supplier/Contractor shall notify TPT in writing at least two calendar weeks prior to the advent of inspections or tests that require witnessing.

For inspections or tests within the country, arrangements shall be confirmed at least two working days before the event. For inspection and tests outside of the country, arrangements shall be confirmed at least seven working days before the event.

Inspection notifications shall include the following essential information:

- Contract Number
- Location of Inspection or Test
- Nature of Inspection or Test
- Date and Time of Inspection or Test
- Name and telephone number of the Supplier/Contractor's Representative.

6.9 Inspection and Testing

The Supplier/Contractor is responsible for the conduct of all Supplier/Contractor inspections and tests, and includes:

- Documenting inspection and tests result in the QCP's and relevant FIC's
- Progressively inspecting the quality of the Scope of Work performed, including that of all Sub-Supplier/Sub-Contractors
- Inspecting to meet all Contractual requirements, in number, type and form
- Inspecting day to day activities, material receipts, issue of material for installation, in-process inspections, and final inspections.

Completed original QCP's and FIC's shall be submitted to TPT in the DP

6.10 Inspection Release

At completion of the Scope of Work, either in total or in phases, TPT may issue an Inspection Release Report (IRR) or a waiver of inspection.

The issue of either an inspection release or waiver of inspection does not relieve the Supplier/Contractor of its obligations under the Contract. The Supplier/Contractor shall ensure a copy of the release note and final expediting release note for transport, where appropriate, is attached to the delivery docket and accompanies the Work to the designated destination indicated in the Contract. Items delivered to TPT without a copy of these documents may not be accepted.

A copy of the inspection release or waiver of inspection shall be included in the DP.

6.11 Special Processes

It is the Supplier/Contractor's responsibility to ensure that all processes which require prequalified procedures and/or work methods are tested and qualified before work begins. This typically covers such activities as welding, non-destructive testing, special fabrication techniques and painting. Unless specified such procedures are the Supplier/Contractor's responsibility and do not require submission to TPT before work begins. When such procedures are requested, no work shall commence until procedures are approved by TPT.

It is the Supplier/Contractor's responsibility to ensure all operators are qualified for the processes in accordance with the procedure and/or applicable standards. Records of qualification of operators shall be maintained by the Supplier/Contractor and made available to TPT when requested.

Records of qualification of procedures and processes shall be maintained by the Supplier/Contractor in accordance with the applicable procedure or code.

6.12 Welding Procedures

Where the Supplier/Contractor's Scope of Work includes fabricated weldments, Welding Procedure Specifications (WPS) defining the method, preparation and sequences to be adopted to achieve a satisfactory welded joint shall be provided for all weld types required in the execution of the Supplier/Contractor's Scope of Work. The procedure shall only be submitted to TPT when requested in the Contract.

WPS shall include all welding essential and non-essential variables for each process used, including appropriate test results and shall comply with the standard or code pertaining to welding required in the execution of the Supplier/Contractor's Scope of Work.

When requested in the Contract a suitably marked "weld map" shall be completed by the Supplier/Contractor for all items to be fabricated. A summary of WPS shall be prepared and when used, shall be identified on the weld map.

Where TPT approval is required, fabrication shall not commence until written approval of WPS and Welding Procedure Qualification Records (WPQR) is received by the Supplier/Contractor. No welding fabrication will be accepted that is not covered by an TPT approved WPS/WPQR.

Welding Procedure Qualification (WPQ) tests may be witnessed by TPT and/or an independent inspection authority. Testing of the specimens prepared during the WPQ Tests shall be carried out by an independent approved testing laboratory independent of the Supplier/Contractor. In certain instances, a certificate to EN 10204 3.1 B may be required which will be clarified at Tender review and clarification stage.

Where actual weld deposit analysis and weld metal physical properties are required for procedure qualification, the information shall be taken from the procedure qualification tests. Data listed in the catalogues of the manufacturer of welding consumables is not acceptable.

Welders/welding operators shall be qualified in accordance with the relevant welding code prior to commencing production fabrication. Specific Welder Qualifications (WQ's) records will be reviewed by TPT in the Supplier/Contractor's works and should NOT be submitted for review.

A register of welders qualified to work shall be maintained by the Supplier/Contractor.

6.13 Material Traceability

Where, and to the extent that material traceability is required, the Contractor shall provide its procedures for the maintenance of material identification throughout all phases of manufacture. Methods of identification, routines for re-stamping or stencilling as appropriate shall be defined and agreed with the Employer.

Adequate records shall be maintained throughout construction enabling traceability of key materials from final product back to original material certificates. The material traceability records shall form part of the DP

The Contractor shall prepare a schedule of materials and equipment that are subject to traceability requirements.

6.14 Material Certification

Where specified in the Contract the following certificates shall be provided to TPT and included in the DP.

- Type A: A Supplier/Contractor's certificate of compliance with the Contract. This certifies that the goods or services are supplied in compliance with the Contract without mention of any test results (EN10204 certificate 2.1).
- Type B: A certificate issued by a laboratory or test facility independent of the Supplier/Contractor's works. It shall quote test results carried out on the product supplied and state whether compliance with the relevant technical standard, code etc has been complied with. (EN 10204 certificate 3.1 B).
- Type C: The same as Type B, the tests are to be witnessed by a third party (EN 10204 certificate 3.1C).

7. Non Conforming Products

7.1 General

The Supplier/Contractor shall establish and maintain procedures to control material or products that do not meet the specified requirements.

All Supplier/Contractor product and/or materials identified as not conforming to requirements shall be dealt with promptly as follows:

- If the Supplier/Contractor discovers material or product which is not in accordance with the requirements of the Contract, i.e. a non conformance (NCR), the Supplier/Contractor shall promptly initiate the non-conformance procedure in terms of the Supplier/Contractor's Quality Management System, advise TPT promptly, and provide a copy of the NCR to TPT
- If TPT or it's agent identifies a non conformance an TPT NCR may be raised.
- Originals of all closed out NCR's shall be included in the DP.

7.2 Corrective and Preventative Action

If the Supplier/Contractor proposes a disposition of any non conforming materials or product which varies from the requirements of the Specification or Contract, such a proposal shall be submitted in writing to TPT whose decision on the proposal shall be obtained in writing before the non conforming material or product is covered up or incorporated into the Works, or is the subject of any other disposition.

The disposition of non-conformances which do not vary the requirements of the Contract, specification or drawings may be approved by the Supplier/Contractor following discussion and agreement with TPT.

8. Concession Requests and Technical Queries

8.1 Concession Requests

Where a Supplier/Contractor requests a Concession to deviate from the requirements of the Contract or specified requirements, the Supplier/Contractor shall raise the request with TPT using the format as shown in Annexure B.

The Concession Requests shall clearly identify all elements of the proposed deviation together with any resulting technical, commercial and/or schedule impacts.

Completed original Concession Requests shall be included in the DP.

8.2 Technical Queries

For clarification of technical issues (only), Supplier/Contractor may submit a Technical Query Note (TQN) to TPT in accordance with the Contract.

The TQN shall clearly identify all elements of the query, and all supporting documentation and/or drawings shall be attached where appropriate.

Completed original TQN's shall be included in the DP.

9. Inspection, Measuring and Test Equipment

9.1 Calibration

The Supplier/Contractor, including its Sub-Supplier/Sub-Contractors shall ensure the calibration of test and measuring equipment is performed and maintained in accordance with the relevant Supplier/Contractor procedures and/or the equipment manufacturer's specifications.

Where calibration is required by an external laboratory, the Supplier/Contractor shall ensure that the facility selected for calibration possesses current certification. Calibration certificates shall contain a statement that the test equipment is accurate to within specified tolerances.

The Supplier/Contractor should establish the frequency of calibration for each item of equipment (including jigs, fixtures or templates) and record the details in a 'Measuring and Test Equipment Register' (or similar).

9.2 Use of Inspection, Measuring and Test Equipment

The Supplier/Contractor shall ensure that authorised equipment users:

- Use the equipment in accordance with manufacturers instructions, and accepted industry practices
- Ensure the equipment is covered by a current calibration certificate
- Conduct the measurements or tests in accordance with the equipment manufacturer's specifications or other relevant specification
- Prior to commencement of each inspection or test activities:
 - Identify the measurements to be made
 - Determine the accuracy required
 - Select the appropriate inspection, measuring or test equipment for the scope of work.

9.3 Verification of Previous Test Results

Where the calibration status of the equipment is unknown, expired or has doubtful accuracy, the equipment shall immediately be quarantined, and tagged according to Supplier/Contractor's Quality System procedures. The Supplier/Contractor shall then arrange for either in-house or external calibration, and:

- review all previous test results associated with the suspect equipment
- identify the inspections, measurements or tests required to re-validate the results
- ensure that suitable re-testing is performed with calibrated equipment
- document the results of the re-testing on the respective inspection and test documentation.

10. Quality Records

Supplier/Contractors shall maintain Quality Records necessary to provide objective evidence that demonstrates and verifies achievement of the QA / QC requirements associated with the Scope of Work. All Quality Records, including original source material test certificates and non destructive test reports, shall be retained by the Supplier/Contractor during the project, and be provided to TPT at the times, and in the quantities specified in the Contract.

The Supplier/Contractor shall collate all quality records in the DP and submit the DP to TPT in accordance with the Contract and all referenced standards and specifications. This DP shall be compiled progressively, and shall be available for review at all phases of manufacture or construction activities.

The Scope of Work shall not be complete until the Supplier/Contractor's DP including the quality records from Sub-Supplier/Sub-Contractors have been reviewed and accepted by TPT.

The DP shall be compiled progressively during the execution of the Scope of Work and shall be made available for review by TPT as required.

Annexure B - Request for Concession

| Request for Concession | | No: _____ of 2 | |
|--|--|-------------------------------|----------|
| A. SUPPLIER/CONTRACTOR SUPPLIED INFORMATION | | | |
| SUPPLIER/CONTRACTOR NAME: _____ | | CONTRACT NO.: _____ | |
| SUPPLIER/CONTRACTOR CONCESSION NO.: _____ | | DATE: _____ | |
| Required concession applicable to: (Item/Material/Equipment/Area) | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| Description of Concession — Revised Requirements: _____ | | | |
| | | | |
| | | | |
| | | | |
| Justification: _____ | | | |
| | | | |
| | | | |
| (NOTE: This concession will be rejected if the following information is not provided): | | | |
| (i) VALUE OF BENEFIT TO CLIENT | (ii) AGREE TO AN EXTENSION OF THE WARRANTY | YES | NO |
| S/R | IF "YES" WHAT PERIOD? | | |
| | | | |
| | | (iii) ANY IMPACT ON SCHEDULE? | NO |
| | | IF "YES" WHAT PERIOD? | |
| | | | |
| References: | | | |
| Original Requirements | reference: | | |
| Rev.: | Specification | N | Rev.: |
| Drawing No.: | Rev.: | Specification | O. Rev.: |
| Drawing No.: | Rev.: | Specification | : Rev.: |
| Attached applicable | documentation: | N | |
| Requested by: | | | |
| (Supplier/Contractor) Name: _____ | | Signature _____ | |
| | | : _____ D | |
| Note: Sections B to F on Page 2 | | | |

| Request for Concession No: | | | |
|---|-----------------------------------|--|-----------|
| B. SITE ADMINISTERED CONTRACT? | Yes <input type="checkbox"/> | Nn <input type="checkbox"/> | Go to "D" |
| Possible QC implications: | | | |
| <input type="checkbox"/> Recommendations <input type="checkbox"/> Recommended | <input type="checkbox"/> Rejected | | |
| Site Construction Manager: _____ Signature: _____ Date: _____ | | | |
| Site Engineer: _____ Signature: _____ Date: _____ | | | |
| C. RECOMMENDATION BY CONTRACT ADMINISTRATOR: Name: _____ | | | |
| Signature | | Date: _____ | |
| D. RECOMMENDATION BY ENGINEERING: | | | |
| <input type="checkbox"/> Recommended | <input type="checkbox"/> Rejected | <input type="checkbox"/> Conditional, with the following | |
| recommendations: | | | |
| Package Engineer: _____ Signature: _____ Date: _____ | | | |
| Lead Discipline Engineer: _____ Signature: _____ Date: _____ | | | |
| Engineering Manager: _____ Signature: _____ Date: _____ | | | |
| Comments: | | | |
| | | | |
| | | | |
| E. PROJECT MANAGER DISPOSITION: Accepted <input type="checkbox"/> Rejected <input type="checkbox"/> | | | |
| Name: _____ | | Signature _____ Date: _____ | |
| F. EMPLOYER DISPOSITION: Accepted <input type="checkbox"/> Rejected <input type="checkbox"/> | | | |

ANNEXURE C:

**EEAM-Q-012 - SPECIFICATION FOR GENERAL
ELECTRICAL EQUIPMENT**

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GENERAL ELECTRICAL EQUIPMENT

**SPECIFICATION HE8/2/2
[Version 4]**

February 1997

1. SCOPE

- 1.1. This Specification covers TPT's requirements for low voltage general electrical equipment and must be read in conjunction with the main specification.

2. FACTORY BUILT ASSEMBLIES (FBA) OF SWITCHGEAR AND CONTROL GEAR

This section shall be read in conjunction with BS 5486 Part 1 and /or IEC 439.

- 2.1. All electronic control modules, printed circuit boards, electrical control and protection equipment etc. shall be housed in robust enclosures with minimum protection of IP 55 for indoor and IP65 for outdoor usage and shall be designed to protect the equipment from mechanical damage as far as possible.

- 2.1.1. All enclosures used indoors shall be manufactured from mild steel and enclosures used outdoors shall be manufactured from 3CR12 or stainless steel, and shall be painted in accordance with Specification HE9/2/8.

- 2.2. All equipment shall be housed in a FBA in terms of the following:-

- 2.2.1. A multi-cubicle-type design shall be used;

- 2.2.2. The FBA shall be for in- or outdoor installation according to use;

- 2.2.3. The FBA shall be of the stationary type;

- 2.3. Protection against shock shall be by means of:

- 2.3.1. By using protective circuits;

- 2.3.2. By discharging of electrical devices;

- 2.3.3. Barriers or enclosures noting that:

Where it is necessary to make provision for the removal of barriers, opening of enclosures, or withdrawal of parts of enclosures (doors, casings, lids, covers and the like), this shall be in accordance with the following requirements:

2.3.3.1. Removal, opening or withdrawal shall necessitate the use of a key or tool;

2.3.3.2. All live parts which can accidentally be touched after the door has been opened shall be disconnected before the door can be opened. This shall be by interlocking the door or doors with a switch disconnecter so that they can only be opened when the disconnecter is open and that the disconnecter cannot be closed when the door or doors is/are open.

If, for reasons of operation, the FBA is fitted with a device permitting authorised persons to obtain access to live parts while the equipment is switched on, the interlock shall automatically be restored on re-closing the door or doors.

2.3.3.3. For withdrawable equipment:

The FBA shall include an internal barrier or shutter shielding all live parts in such a manner that they cannot accidentally be touched when the door is open. It shall either be fixed in place or shall slide into place the moment the door is opened. It shall not be possible to remove this barrier or shutter except by the use of a key or tool.

2.3.3.4. Where applicable, warning labels shall be used.

Where any parts beyond an enclosure need occasional handling (such as replacement of a lamp or a fuse-link), the removal, opening or withdrawal without the use of a key or tool and without switching off shall be possible only if the following conditions is fulfilled:

A second barrier shall be provided inside the enclosure so as to prevent persons from coming accidentally into contact with live parts not protected by another protective measure. However this barrier need not prevent persons from coming intentionally into contact by by-passing this barrier with the hand. It shall not be possible to remove the barrier except through the use of a key or tool.

2.4. It shall be possible for competent electrical personnel to perform the following operations while the assembly is in service and live:

Visual inspection of switching devices and other apparatus;

Adjusting and resetting of relays and releases;

Certain fault location operations, e.g. voltage and current measuring with suitably designed and insulated devices.

- 2.5. Accessibility for maintenance shall be provided by use of barrier protected sub-sections for each functional unit or group.
- 2.6. All panels shall have an internal fluorescent light as well as 230 V 3 point plug fitted.
- 2.7. Anti-condensation heaters shall be fitted when called for by the main specification.

3. AC CONTACTORS

- 3.1. Contactors shall comply with IEC 947-4-1/latest.
- 3.2. Contactors shall be chosen by taking the following factors into account:-
 - 3.2.1. Load to be switched;
 - 3.2.2. Utilization category, e.g. AC1, AC2, AC3, AC4, AC11;
 - 3.2.3. Electrical life (Clause 3.3);
 - 3.2.4. Short circuit immunity;
 - 3.2.5. Starting time;
 - 3.2.6. Mechanical life:- All contactors shall have a mechanical life of at least 10 million operations. (1 operation equals 1 make and 1 break).
- 3.3. The electrical life shall be not less than that laid out below for the following utilization categories:-

| Utilisation Category | Electrical Life In Hours |
|----------------------|--------------------------|
| AC 1 | 8 000 |
| AC 2 | 6 000 |
| AC 3 | 8 000 |
| AC 4 | 2 500 |
| AC 3/4 | 5 000 |

The category AC 3/4 is defined as one where the usual operation is in category AC 3 with more than 1% of total operations occurring in AC 4.

For the purpose of determining life in this category the percentage operations in category AC 4 shall be equivalent to the expected value, but shall in any case not be less than 20% of the total.

3.3.1. The duty class shall be at least class 3. Should the operating class exceed that of class 3, i.e. 300 cycles per hour, the actual value shall be used when computing the expected electrical life.

3.4. Block type contactors shall be used for all low voltage motor control applications.

3.5. The maximum thermal current rating shall be at least 1.25 times the rated full load current.

3.6. Auxiliary contacts shall be contained in a separate unit directly operated from the main armature.

3.7. Visual indication by means of a pin or protrusion that the contactor is energized must be provided.

4. **SWITCH DISCONNECTERS**

4.1. Switch disconnecters shall comply to BS 5419 and/or SABS 152.

4.2. The rating of the disconnector shall suit the system fault level and the breaking capacity of the associated moulded case circuit breaker (where used), or fuses, and shall be rated for fault make load break operation.

4.3. The mechanical endurance shall not be less than:-

10 000 operating cycles for rated currents between 0 and 63 A;

3 000 operating cycles for rated currents between 63 and 250 A;

1 000 operating cycles for rated currents exceeding 250 A.

4.4. The electrical endurance in the appropriate utilization category shall not be less than 20% of the mechanical endurance.

4.5. Where the neutral link is external to the disconnector and is removable without first opening the disconnector it shall be labelled in terms of SABS 0142.

4.6. The disconnector shall be interlocked with the front cover of the enclosure in a way to prevent opening of the cover if the switch is "ON". The switch must be able to be switched on with the cover open, only by a competent electrician for maintenance purposes.

4.7. The disconnector shall be suitable for padlocking in the off position.

5. INDICATING INSTRUMENTS AND PROTECTION RELAYS

- 5.1. All indicating instruments shall be flush-mounted industrial type that comply with the relevant clauses of IEC 51-1, IEC 51-2, IEC 51-7, IEC 51-8 and IEC 51-9 and shall have a minimum accuracy of 3% or better and shall have a scale length of not less than 90 mm.
- 5.2. All scales except for thermal ammeters shall be linear and shall be marked in accordance with BS 3693 with the scale selected for the accuracy class.
- 5.3. All instrument glass shall be glare free.
- 5.4. All current operated instruments and protection relays shall be protected against continuous over current of up to 120% of the nominal value as well as short circuit currents that may be experienced.
- 5.5. Ammeters shall be marked with the ratios of the associated current transformer.
- 5.6. Ammeter full-scale deflection shall be 120% of primary current of the associated current transformer.
- 5.7. Voltmeter scales shall indicate 80%-120% of the nominal system voltage. Where 0-120% indication is needed the nominal voltage shall be approximately 75% of full scale. The nominal voltage shall be marked with a red line.
- 5.8. If required by the system or main specification ammeters shall incorporate a thermal maximum demand indicator with a time lag of 15 minutes. A built in saturation current transformer shall be provided to protect the indicator against the maximum fault currents that may be experienced. A resettable pointer shall be provided to indicate the maximum value reached.

6. CONTROL SWITCHES

- 6.1. Control switches shall comply with BS 4749.
- 6.2. "Emergency-stop" push buttons shall be of red colour, shall have one normally closed and one normally open contact and shall be of the mushroom head twist lock type and be lockable in the "off" position.
- 6.3. All push buttons shall have non corrosive appropriately engraved and anodized escutcheon plates fitted.

7. **LIMIT SWITCHES**

- 7.1. All "end" or "ultimate" limit switches (e.g. slow down, end of travel, maximum travel etc.) shall be of the rotary cam operated type, housed in an extremely rigid cast iron enclosure with a minimum protection of IP 55, with large roller levers of the spring return-to-neutral action. It is stressed that the entire limit switch must be of an extremely robust construction.
- 7.2. All limit switches shall be mounted in easily accessible positions to facilitate adjustment, maintenance and replacement.
- 7.3. Magnetic or inductive proximity type limit switches are preferred and are to be used wherever possible.

8. **RATING PLATES AND LABELS**

- 8.1. Rating plates complying with the relevant requirements of IEC 298 showing the following information shall be provided:-
 - 8.1.1. Manufacturer's name;
 - 8.1.2. Manufacturer's type number;
 - 8.1.3. Manufacturers serial number
 - 8.1.4. Portnet contract number;
 - 8.1.5. Year of manufacture;
 - 8.1.6. Rated values, etc.
- 8.2. Identification labels is required on or adjacent to all electrical control equipment, switches, relays, instruments, meters, fuses, MCCB's, test blocks, terminal strips etc. The text shall be in black letters on a white background and shall be at least 5mm in height.
 - 8.2.1. These identification labels shall correlate with the corresponding schematic and wiring diagram and the wording shall be in English.
- 8.3. All labels shall be of a corrosion resistant material and shall be securely attached.
- 8.4. Labels shall be placed adjacent to all fuses and circuit breakers to indicate their rating.

8.5. All switching devices shall be provided with labels that indicate ON, OFF, EARTH, as required. These labels shall be permanently marked with characters at least 10 mm in height, and shall be visible to the operator in a normal operating position, in a fixed position or located on a moving component of the switch that is visible through an opening and shall be as follows:-

8.5.1. I - white lettering on black background for the ON position;

8.5.2. O - white lettering on a green background for the OFF position;

8.5.3. Earth symbol in black on a yellow background for earth position.

9. **MOULDED CASE CIRCUIT BREAKERS**

9.1. Moulded case circuit breakers shall comply with SABS 156.

10. **FUSES**

10.1. Fuse links shall be of a high rupturing capacity type complying with SABS 172 and/or BS 88. Fifty percent spare fuse links of each size shall be supplied loose at handover of the equipment.

11. **RESISTANCE UNITS**

11.1. Resistance units shall be made up of standard modules (mill-banks). These shall be to Nema 26.5" dimensional standards and each bank shall be made up of grids of one size only. The grids shall be of the heavy duty stamped chromium steel or nickel chromium alloy corrosion resistant grid type. There must be a terminal tap on every second grid.

11.2. Modules must be easily removable without the need to dismantle any part of the enclosure.

11.3. All taps and terminations shall be clearly identified with relevant numbers, which must correspond to the numbering shown on the schematic and wiring diagrams.

11.4. The resistance banks shall be enclosed in robust well ventilated drip-proof enclosures with louvred side and rear fixed covers. All units shall be accessible from the front only by "lift-off" type doors. Exterior and interior surfaces of the enclosure shall be painted with a suitable heat-resistant paint.

11.5. The resistance enclosed shall be arranged for floor mounting and bottom entry of electrical cables.

- 11.6. When resistance enclosure doors are removed, all terminals on resistance tappings, the terminal blocks, cable terminations and the individual grid banks must be readily accessible.
- 11.7. Resistance units shall be mounted in accessible positions as near to their motion panels as is practical. Cast iron, sheradized mild steel, or wire wound resistances are not acceptable. All insulation used in the construction of the resistances must be fire proof and non-hygroscopic. Soldered joints must not be used in connection to resistances.
- 11.8. The resistances must be designed to at least Nema Class 174 P rating for hoist drives and Nema Class 94 rating for permanently connected resistances and shall be capable of prolonged operation in service without overheating.

NOTE: Resistances mounted in or on top of the control panels will definitely not be acceptable.

- 11.9. Resistance units shall be individually designated to indicate to which motion they apply.

12. **POWER FACTOR CORRECTION AND HARMONIC FILTERING EQUIPMENT (IF ASKED FOR IN THE MAIN SPECIFICATION)**

- 12.1. Capacitors must comply with BS 1650 or IEC 70 and shall have passed the routine tests specified.
- 12.2. Capacitors must be of the "dry" metallized film or paper "self sealing" type, impregnated with an non PCB, fully biodegradable non-toxic dielectric.
- 12.3. Each capacitor must be fitted with an external HRC fuse rated at 2 times capacitor full load current, for protection.
- 12.4. Capacitors must be fitted with discharge resistors to discharge the capacitor voltage to less than 50 V in one minute.
- 12.5. Inrush currents of capacitors must be kept to an acceptable level by using reactors or resistors. Details of actual and allowable inrush currents to be given in tender documents.

13. **WIRING AND CABLES**

- 13.1. All cables for fixed installations must comply with SABS 1507, except where special cables have otherwise been specified.
- 13.2. Steel wire armoured cables must be used where the possibility of mechanical damage exists.

13.3. Armouring of cables will not be used for earthing purposes or any return circuit but shall be bonded to earth. An earth conductor shall be provided in each cable for earthing purposes. If an earth core is not provided a separate, appropriately coloured, insulated earth wire shall be run.

13.3.1. Metallic structures shall not be used for any return or earthing circuit under normal operating conditions but all structures shall be electrically bonded together with welding type cables..

13.4. Spare cores and terminals for all control cables shall be provided as follows:

| <u>Number of Conductors/Cables</u> | <u>Spare Cores</u> |
|------------------------------------|--------------------|
| 3 - 6 | 1 |
| 7 - 12 | 3 |
| Over 12 | 4 |

13.5. The standard method for numbering small wiring shall be as indicated in NRS 003, Annex A.

13.6. Colour coding of cables

13.6.1. Unless otherwise agreed to the colour of all auxiliary and control wiring (except earth wires) shall be grey. The colour of earth wires shall be green/yellow.

13.6.2. All three phase supplies shall be colour coded red, white and blue.

13.6.3. Single phase supply cables shall be blue for neutral and brown for live.

13.6.4. DC supply cables to motors, fields, magnets etc. shall be orange.

13.6.5. If the correct colour cables are not available cable ends may be marked with "air-shrink" or "heat shrink" type insulation material for ± 200 mm. Colour coding of cables with insulation or marking tape is not acceptable.

13.7. Cable Installation on structures and in electrical rooms etc:

13.7.1. Except where otherwise specified, the entire electrical installation including the wiring, shall where applicable, be in accordance with the "Code of Practice for the Wiring of Premises" (SABS 0142-1978) or the IEEE Wiring Regulations for Electrical Installations.

13.7.2. The cables must be installed by the following methods:

13.7.2.1. In cable ducts or hollow floors with covers;

13.7.2.2. On structures, strapped to cable trays or in electrical conduits, with protection against mechanical damage where necessary.

13.7.2.3. No loop-in wiring shall be permitted. All limit switch and field wiring shall return to junction boxes for re-marshalling.

13.7.2.4. All cable glands shall be corrosion resistant glands of the "Posi" or "Pratley Envirogland", Exe type, or similar.

13.7.2.5. Junction and connection boxes must be manufactured in glass fibre reinforced polyester with threaded brass inserts and earthing continuity rods, and must be suitable for threaded (minimum 8 threads) glands. The minimum enclosure protection must be IP65. Pratley "EZEE-FIT" or similar boxes will be preferred.

13.7.2.6. The number and size of cables that may be accommodated in cable ducts, trays or conduits shall be in accordance with the manufacturer's recommendations and the temperature rise permissible for the cables used for the load that may be carried.

13.8. Internal panel wiring shall be in accordance with BS 158 and/or BS 162:

13.8.1. All instruments and control wiring shall be carried out in minimum size of 1.5mm² cross section, with stranded copper conductors. Wires connected to current transformers shall have a minimum cross sectional area of 4 mm².

13.8.2. The communication cores of screened cable shall have a minimum area of 1 mm².

13.8.3. The wiring shall be done in a neat and orderly manner using any of the two methods below:

13.8.3.1. In covered switchboard type wire channels or,

13.8.3.2. Suitably strapped with approved strapping material.

13.8.4. When wiring is looped from the cubicle interior to the door or to the back it must be suitably strapped and enclosed in a flexible conduit.

13.8.5. Cable Trays:

13.8.5.1. Cable trays shall be of "Unistrut" or similar and equal manufacture and shall consist of butting sections made from stainless steel of minimum thickness of 1.2 mm. Cable trays shall be painted according to Specification HE9/2/8 for colour coding purposes.

13.8.5.2. Cable trays shall be bolted to structures on both horizontal and vertical runs at centres recommended by the number and mass of cables carried. Maximum distances 1.3. metre for steel.

13.8.5.3. Each section of metal cable tray must be provided with a stainless steel connection tab/lug at each end prior to being painted, for continuous earthing purposes.

13.9. Terminals and connections:

13.9.1. All terminal connections shall be done with good quality connectors and/or lugs and each wire end shall be marked with durable tags or clips on which shall be clearly and indelibly marked, the identifying code numbers of each wire, corresponding to the wiring diagrams.

13.9.2. The system of wire and terminal numbering shall be provided in the terminal boxes for possible additional wiring.

13.9.3. A minimum of 20% but not less than 4 spare terminals shall be provided in the terminal boxes for possible additional wiring.

13.9.4. Box type rail mounted terminals complying with EN 50035 with a pressure pad between the conductor and clamping screws shall be used. Cage clamp systems may also be used except in areas where high shock forces exist, e.g. on spreader beam or headblock equipment.

13.9.5. Moulding and insulation materials shall be resistant to flame or self extinguishing as required by IEC 216.

13.9.6. Access to all terminals shall be through doors, covers etc.

13.10. Flexible Connections:

- 13.10.1. Where wiring crosses from one structure to another and relative motion between the structures is possible, a welding type cable earth bond shall interconnect the two structures.
- 13.10.2. Flexible connections shall be made with heavy duty flexible cord using watertight terminators. Where the length of cable is greater than 1.6. metres a basket type cable grip shall be provided at each end.
- 13.10.3. Flexible cables shall run in free air and shall not contact other cables or structures.

14. **PROTECTION AGAINST CORROSION**

- 14.1. All enclosures, cabinets etc. shall be manufactured from 3CR12 or similar stainless steel sheeting, as called for in the main specification and shall be painted according to Specification HE9/2/8 for identification.
- 14.2. All fixing screws, bolts, nuts, washers, clips, terminals, brackets, etc. shall be stainless steel.

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END OF SPECIFICATION HE8/2/2 [Version 4]

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ANNEXURE D:

**EEAM-Q-013 - COMMISSIONING AND HANDOVER
SPECIFICATION FOR SUPPLIER/CONSTRUCTION**

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1. Purpose

The purpose of this standard is to establish the requirements for verification and documentation of completed Construction work and to establish the methods for:

1. Preparing a list of open work items on units/modules/systems that have been handed over to Cold Commissioning,
2. Disseminating this information to responsible parties and closing out completed items on the list.

The intent is to have only one integrated Punch List Process for Construction Completion and Commissioning that interfaces with the Client, nominated EPCM Team and Contractor. This master punch list will be held in an electronic database so that punch lists can be generated for any module/system in the plant as required.

2. Scope

This standard is applicable to the process of construction completion leading to handover for Cold Commissioning and Hot Commissioning.

3. References

- NEC 3 Engineering and Construction Contract
- EEAM-Q- 009 - Quality Management
- Occupational Health and Safety Act (South Africa), Act 85 of 1993 as amended

4. Definitions

4.1. Mechanical Completion

Mechanical Completion is that point where a system or sub-system has been installed, erected and tested in accordance with the job specification and drawings to the extent that Cold Commissioning activities on that particular system can productively and safely begin. This is the demarcation point where ownership of the sub-system/system changes hands from the construction staff to the commissioning team.

5. Punch Listing Process

Prior to Mechanical Completion the TPT *Supervisors* assigned to the various Contracts will work with the Contractor to identify items of work that is deficient and/or incomplete to ensure that the formal Punch List Process is streamlined. The items identified in this manner will not form part of the Punch List but advised to Contractor during the normal Construction Management Processes. The nature of defects during this Punch List Items are likely to be of a physical nature e.g. incomplete work, incorrect work, etc.

During Cold Commissioning, punch items can be added to the Punch List by the Commissioning Team. The Punch List Items during this process is likely to be of a functional nature e.g. belts not running fast enough, pressure not correct, etc.

During Hot Commissioning, further Punch List items could be added. The Punch List Items at this stage should be of a performance nature e.g. not enough tonnage, quality of product not correct, etc.

Defects/Deficiencies identified during the Punch List Process shall be recorded.

5.1. Mechanical Completion Punch list

When in the opinion of the Contractor, the Works or part of the *works* is sufficiently complete to warrant the commencement of Cold Commissioning of such *works*, the Contractor will submit a request for a joint Mechanical Completion Punch list inspection, after having punched the works himself and cleared all Category 'A' Punch list Items (see definition of Category A in section 5.5 below). Any additional Category 'A' Punch list items identified by the Transnet Port Terminals team must be rectified before proceeding to the next stage.

Once all Category A Punch List Items have been rectified a Mechanical Completion Certificate will be issued to the Contractor.

For Civil and simple building contracts, the Project Manager will certify Completion at this point and issue a Completion Certificate. The works shall also be taken over

by the Employer within 2 weeks of completion and the Project Manager shall certify Take Over.

Note: Mechanical Completion also means Electrical and instrumentation Completion where relevant

5.2. Certification by the Designer

In accordance with the requirements of the Construction Regulation 9.(2)(f), the Designer is required to carry out sufficient inspections at appropriate times to ensure that the works is constructed in accordance with the design. The Designer shall record such inspections. Designers Inspection Record. The Priority for Completion on the Designers Inspection Record must be tailored to suit the structure being inspected. Where the Resident Design Engineer (RDE), represents the design he shall use the same form.

Once the structure being constructed reached the stage of Mechanical Completion, the Designer shall carry out a final inspection and issue a Certificate of Compliance certifying that the structure is safe to commission, (Construction Regulation 9.(2).(h).

5.3. Cold Commissioning Verification

For process type plants such as Bulk Materials Handling Plants, any functional effects/deficiencies identified during Cold Commissioning will be registered in the Deficiency Management Database for rectification and closeout. For simple projects such as Rail Tie-ins, a manual tracking system shall be implemented by the *Supervisor*.

When the Works has been Cold Commissioned, the *Contractor* will submit a request for a joint Cold Commissioning Punch list inspection to verify that all Category 'A' and 'B' punch items are completed and to ensure that damaged plant and equipment are repaired prior to the issue of a Cold Commissioning Certificate.

For all contracts, a Cold Commissioning Completion Certificate must be issued at this point.

5.4. Hot Commissioning Verification

Any functional defects/deficiencies observed during Hot Commissioning will be recorded in the Deficiency

Management Database and added to the project punch list for rectification and close out.

As soon as the Contract Works have successfully passed all applicable performance tests in accordance with the conditions of the relevant contract and upon completion of Hot Commissioning, Transnet Port Terminals and the Client verify that all functional defects/deficiencies recorded in the Deficiency Management Database have been investigated, resolved, closed out and have been signed off.

For design, supply and install contracts a Hot Commissioning Completion Certificate will be prepared by Transnet Port Terminals for signature by the Client.

5.5. Punch list Categories

Punch list items will be categorised into Category 'A', 'B or 'C' punch items using the following criteria:

| | |
|---------------------------|--|
| Category 'A' Punch Items: | Punch Items that affect the health of persons and safety of the Works that must be rectified before equipment can be Safety Cleared prior to the end of Stage 1. |
|---------------------------|--|

Listed below are examples of items that should be classed as Category 'A' Punch list items.

- Absence of Red Lined As Built" Drawings
- Safety valves/Pressure relief valves not operational
- Open Trenches
- Uncovered / Open Slots
- Floor grating missing
- Grouting outstanding
- Hand railing and Kick Plates missing
- Structural items loose / missing
- Missing or incomplete equipment
- Machine guards missing/Not fitted correctly
- Safety covers missing on Electrical equipment
- Emergency stops/Trip systems not operational

- Safe working procedures not in place
- Safety Warning Signs missing
- Lighting
- Audible warning systems not operational
- Labelling outstanding
- Colour coding outstanding
- Pipe Supports, Gaskets, Bolts, etc. on piping missing or defective
- O&M Manuals
- COSHH documentation for any hazardous substances
- Electrical earth completion

Category 'B' Punch Items: Punch Items that may be rectified during the Cold Commissioning phase but must be cleared before the issuing of a Cold Commissioning Certificate prior to the end of Stage 2.

Listed below are examples of items that should be classed as category B: Punch list items.

- Red Lined As Built' Drawings
- Permanent labelling not fitted
- Protection and interlocking systems not operational
- Missing/incomplete field instrumentation that supports protection and interlocking systems
- Colour coding not done
- Safe work procedures not in place

Category 'C' Punch Items: Minor Punch Items that may be rectified during the maintenance / warranty period.

Listed below are examples of items that should be classed as Category C Punch list items.

- Cosmetic items
- Painting (other than colour coding)
- Non-critical documentation

Any Health and Safety requirements identified during Punch listing must be rectified before the issue of a Safety Clearance Certificate.

5.6. Additional Employer Requirements

Additional Employer requirements must be listed and handed to the *Project Manager* for a decision to implement. These items could be logged in the Punch List as Category C items for follow-up and close-out

5.7. Punch List Register Attributes

The Punch list Register will, as a minimum, contain the following information:

- Transnet Port Terminals Management Area
 - Description of Equipment
 - Drawing Number
 - Punch list ref. no.
 - Punch list Originator
 - Punch item number
 - Punch list Date and revision
-
- Plant number where applicable
 - Description of defect
 - Category 'A', 'B', 'C'
 - Defect Type outstanding item, construction defect, design, wish list
 - Scheduled date of completion
 - Actual completion date
 - Responsible Party e.g. Contractor/Transnet Port Terminals

5.8. Punch Listing Documentation

All Punch lists must be registered with the Transnet Port Terminals Quality Manager.

The Quality Manager will log the punch list items into Commissioning Database and issue the compiled list to the Contractor and relevant Transnet Port Terminals Construction Supervisors.

The following requirements are compulsory during commissioning and handover:

Cold Commissioning

1. Punch list (rev 1)
2. Initial Data pack
3. Operating manuals and procedures (rev 1)
4. Data pack
 - 4.1. Test certificates for ropes/twist locks/ spreader
 - 4.2. Operation and maintenance manuals
 - 4.3. Design/drawings
 - 4.4. Quality Control records.

5. Cold Commissioning certificate with punch list items category 1 and 2 complete (signed off by the project manager, maintenance manager, contractor)

Hot Commissioning

6. Certificate of electrical compliance
7. Functional data pack data pack (functional) speeds/brakes
8. Load test certificates
9. Punch List (rev 2)
10. Signed off operational Handover (signed off by the Project manager, maintenance manager, and contractor)

Endurance Testing

11. Endurance test report
12. Performance test report
13. Punch list (rev 3) to include planned completion date of all items at this point
14. Provisional Handover (signed off by the project manager, maintenance manager and contractor, operations manager).

Final Handover

(to occur within 30 days after provisional handover)

Final handover will occur 30 days after the provisional handover to operations. At this point, the project manager will ensure that the defects as recorded on the punch list have been completed by the contractor with the provision that operations can provide for the work to be completed. If the equipment has not been handed over to the project team within this period to close off all items then the equipment will be deemed fully handed over to the operations team.

5.9. Finalisation of Punch List Items

The Contractor will be responsible to ensure that all Punch list Items are cleared by the agreed date.

Each day, an updated punch list report shall be generated by the Contractor and given to the Supervisors for distribution. Weekly punch list status reports and graphs shall be generated to facilitate the management and completion of the punch effort.

A completion punch report shall be inserted into the Data Pack. This report will indicate any outstanding punch items that shall remain to be completed after handover. No category "A" items will be allowed to carry-over to the commissioning phase of the project.

When items on the punch lists are cleared, the Contractor will ensure that the punch list register is updated to reflect the status of punch list completion. Functional and performance defects and deficiencies identified during the Commissioning and Maintenance phases will be recorded by the Supervisor and handed over to the responsible Contractor for clearance. All Punch list items, functional defects and deficiencies must be cleared before the issue of a Defects Certificate.

6. Roles and Responsibilities

6.1. Construction

Construction is responsible for the following:

- Identification of Punch List items
- Manage punch list progress on a daily basis to support the construction completion activities
- Issue system walk down notice based on Contractor reported status
- Ensuring that Construction personnel complete assigned Punch List items in a timely manner
- Providing the Commissioning Group with input on any open work items identified by Construction on units/modules/systems turned over to Commissioning

6.2. Supervisors

Construction Supervisors are responsible for the following:

- Facilitate Contractor change and understanding of shift from work package to system completion
- Manage punch list progress on a daily basis to support the construction completion activities
- Issue System Walk-down Notices
- Work with Resident Design Engineers to complete checklist and test reports that support Commissioning activities
- Coordinate Contractor personnel for commissioning activities.

6.3. Resident Design Engineers

Resident Design Engineers represent the "Designer" on Site and with respect to Punch Listing are responsible for the following:

- Participate in construction walk-downs and punch list process
- Assist in establishing system package contents, including drawings, test results, check sheets, supplier information, and other Client required documentation

- Resolve design and material issues caused by punch lists and functional deficiencies
- Resolve non-conformance reports associated with the system
- Participate in the finalization of the Data Packs
- Assume the role of commissioning engineer where no specific commissioning engineer has been appointed.

6.4. Contractors

Contractors are responsible for the following:

- Completion of the works according to the drawings and job specifications and within the time constraints of the project schedules and milestones
- Handing over documentation according to the procedures.
- This includes but is not limited to quality verifying documents, marked up as-built drawings, punch list status, etc.
- Co-operating closely with Transnet Port Terminals to permit an orderly and timely completion of the entire facility
- Co-operating with the Others to facilitate the commissioning effort, especially when system / module boundaries overlap the scope of more than one Contractor

6.5. Equipment Vendor Representatives

Each Vendor Representative is responsible for providing the Commissioning Group with input on

- any open work items identified on Units/Modules/systems handed over to Commissioning.

6.6. QA/QC Team

QA/QC is responsible for the following:

- Ensure Commissioning QCP's are prepared
- Ensure Commissioning Files are prepared and complete and forms part of the Data Packs
- Participate in Punch Listing process
- Coordinate the collection of quality records with *Contractor* and ensure Data Books are compiled as construction and commissioning work progresses
- Manage the Punch List System
- At approximately the 60% point in construction,

pro-actively facilitate the change of project focus from an area approach to a systems approach for completing and handing over the facility

6.7. Transnet Port Terminals Commissioning Manager

The Transnet Port Terminals Commissioning Manager/assigned Commissioning Engineer is responsible for the following:

- Preparing, reviewing, and issuing individual system Punch Lists and Functional Deficiency Lists to the appropriate parties for rectification/resolution
- Maintaining and updating the Deficiency Management Database for process type plants
- Distributing new and updated Module Punch Lists

6.8. Transnet Port Terminals Commissioning Engineers

Each Transnet Port Terminals Commissioning Engineer is responsible for the following on their assigned systems:

- Ensuring that deficiencies and defects identified during Cold and Hot Commissioning are recorded in the Deficiency Management Database
- Expediting completion of all open Punch List and Functional Deficiency Items
- Verifying item completion
 - Where no specific Commissioning Engineer has been identified, the Resident Design Engineer assumes that responsibility

7. Records

All records generated are in accordance with the requirements of this procedure and retained in accordance with the requirements of the Procedure Archiving and Retention of Documents and signed over to the Client in accordance with the requirements of procedure. Document Handover to Client.

8. Annexure

Annexure 1 – EEAM - Q - 009 – Quality Management

ANNEXURE E:

**EEAM-Q-016 - SPECIFICATION FOR GENERAL
REQUIREMENTS AND CONDITIONS**

| | | | |
|--|---|---|-------------|
| REVISION 0 | REFERENCE EEAM-Q-016 (ORIGINAL SPECIFICATION – HE9.2.2 Ver7) |  | |
| DOCUMENT TYPE: SPECIFICATION | | | |
| TITLE: SPECIFICATION FOR GENERAL REQUIREMENTS AND CONDITIONS | | PAGE 0 of 16 | |
| COMPILED BY: QUALITY MANAGER (COE) KRIS NAIDOO Date: _____ | REVIEWED BY: ENGINEERING MANAGER (COE) JESSENDRAN PILLAY Date: _____ | REVIEWED BY: PRINCIPAL ENGINEER (COE) ROFHIWA TAKALANI Date: _____ | |
| REVIEWED BY: CHIEF ENGINEER (COE) SABELO MZIMELA Date: _____ | | AUTHORIZED BY: GENERAL MANAGER ENGINEERING JOSIAH MPOFU Date: _____ | |
| FUTURE REVISION RECORD NUMBER | DESCRIPTION OF REVISION | APPROVAL | DATE |
| -1- | Clause 10.6 revised by removing microfilm and removed clause 10.9 | | |
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1. SCOPE

- 1.1. This specification covers Transnet general requirements and conditions for the design, supply, erection and commissioning of port equipment and structures and must be read in conjunction with the main specification.

2. GENERAL

- 2.1. Each Tenderer shall provide Transnet with sufficient proof of having suitable experience regarding the designing and/or manufacturing of similar equipment, proven in practise and applied in circumstances similar to those intended by Transnet. To this end, complete and detailed reference lists shall be submitted with the tender.
- 2.2. The equipment in general and the intended operation of the equipment to be supplied, shall be in full compliance with the Occupational Health and Safety Act, Act 85 of 1993, as amended.
- 2.3. The tenderer must submit an offer in accordance with the main specification, and may only then submit alternative offers. Full details as requested in these tender documents should be submitted for each alternative offer. Full details of the differences or deviation from the main offer shall also be submitted.
- 2.4. The Tenderer shall submit a complete list of proposed sub-contractors and suppliers of major components with his tender.
 - 2.4.1. The list of sub-contractors must contain sufficient detail to enable Transnet to grant approval for the respective sub-contracting.
- 2.5. A complete list of major components shall be submitted with the tender, containing sufficient details like make, description, rating, standard of design and manufacture, etc. to enable Transnet Engineers to decide about its suitability in terms of local conditions, availability, past experiences, etc.
- 2.6. To enable Transnet to apply life-cycle costing in comparison of offers, a complete list of major components to be replaced during the life of the equipment shall be submitted, indicating for each item the expected mean time between failures, based on past experience, and total cost of replacement, including labour and material. Any additional material that can assist Transnet to apply life cycle costing can be submitted by the Tenderer.
- 2.7. The equipment as made and supplied shall be complete in every respect, of modern design using most advanced technology extensively supported by reputable local companies, and be designed and built to applicable recognised standards and good engineering practices.
- 2.8. All components to be fitted shall have been tested for reliability and extended lifetime in conditions to be expected.

- 2.9. The Tenderer shall complete the Schedule of Prices. The lump sum quoted for each category shall be deemed to cover all costs of the design, materials, plant and labour of each item to complete the work according to the drawings and specifications.
- 2.10. All special tools, software and devices essential for the effective operation and/or maintenance of the plant and equipment, shall be listed, detailed and quoted for separately in the Schedule of Prices.
- 2.11. Further to clause 11 of the E5M (1980), *Cannot find if this is current* the Contractor shall comply with all Municipal regulations regarding the inspection of any portion of the Works. The Contractor shall further provide the Engineer with documented proof of compliance when so requested by the Engineer.
- 2.12. All handbooks, training manuals, wording on drawings and equipment designation labels shall be in English and the Contractor shall ensure that the correct and accurate translation of English is used throughout.
- 2.13. The works will only be accepted (and the certificate of acceptance issued) when the works has been successfully commissioned and tested, and all final drawings, manuals and other documents required in terms of the contract has been delivered to Transnet and accepted by Transnet
- 2.14. Where "tonne", "ton" or the abbreviation "t" is used, it shall be taken as meaning "metric ton" which is equivalent to 1 000kg or approximately 2 204,62 pound mass.

3. STATEMENT OF COMPLIANCE

- 3.1. All tenders are to be accompanied by a separate clause by clause statement of compliance to the requirements of the main specification, as well as to all its annexures, completed and signed by the Tenderer. A general statement that equipment offered is in compliance with the specification is not acceptable.
- 3.2. Every statement of non-compliance or partial compliance shall be fully defined by the Tenderer.
- 3.3. Where a simple statement of compliance against a particular clause could be insufficient to describe exactly what is being offered, a description, fully explaining the Tenderer's offer, shall be submitted with the tender.

4. COPYRIGHT OF PLANS, DIAGRAMS AND DOCUMENTS

- 4.1. The contractor will grant to Transnet a non-exclusive licence, in accordance with the provisions of section 22 of the Copyright Act 1978 (Act 98 of 1978) OK, (a) to copy any plan, diagram, drawing, specification, bill of quantities, design calculation or other similar document made other than under the direction or control of Transnet, by the Contractor in connection with the installation, (b) to make free and unrestricted use thereof for its own purposes, (c) to provide copies thereof to consultants to be used by them for the purpose of the consultancy and (d) to provide other parties with copies for tenders invited by it. The Contractor, further more, if any plan, diagram, drawing, specification, bill of quantities, design calculations or other similar document made, other than under the direction or control of Transnet, by any principal or sub-contractor of the Contractor, is used in connection with the installation, shall cause such principal or sub-contractor to grant to Transnet a similar non-exclusive licence in respect of such plan, diagram, drawing, specification, bill of quantities, design calculation or other similar document. The provisions of this clause shall not apply to documents made, in the case of equipment to be supplied in connection with the manufacturing process of the equipment supplied but only to the equipment supplied itself. No separate or extra payment shall be due by Transnet in respect of any non-exclusive licence granted in terms of this clause.

5. DESIGN CALCULATIONS

- 5.1. Tenders must be accompanied by a preliminary design analysis and drawings for structural work. The design calculations and drawings shall be sufficiently comprehensive for Transnet Engineers to make a fair and accurate assessment of the essential details and general qualities of the scheme offered. The various loading combinations used for the analysis of the structure must be detailed and submitted with the tender.
- 5.2. At the completion of the Works, the Contractor shall supply as part of the contract, one set of clearly set out, edited and bound, final complete design, stability and stress analysis for all structural items.
- 5.3. Designs based on computer analysis must include properly drawn up, indexed and reference diagrams of all bending moments, shear and axial forces and deflections for all the loading cases. A number reference drawing to facilitate reading of computer printouts must be included.
- 5.4. Structurally critical items shall be identified within the Design Submission.

6. CERTIFICATION

- 6.1. Where applicable, the Contractor shall for each piece of equipment fully completed and taken over by Transnet, submit the necessary certificate of classification and/or certification by a recognised testing authority in compliance with requirements of applicable standards and rules.

7. CONTRACT MANAGEMENT

- 7.1. The Tenderer shall submit a full set of financial statements, as required in terms of the Companies Act, for the last three financial years. This shall include the financial statements, auditor's report and chairman's report of the Tenderer and proposed main sub-contractors.
- 7.2. The Tenderer shall submit an organogram of the company with his tender which shall show all posts down to supervisory level for all personnel who will be directly involved with this contract and down to managerial level for all other posts in the Tenderer's organisation.
- 7.3. The Tenderer shall submit a C.V. of all personnel who will be directly involved with the management and execution of this contract down to supervisory level. This shall include qualifications and past experience.
- 7.4. The successful Tenderer shall be prepared to commit himself in writing to providing Transnet with an adequate, experienced and stable project team for the duration of the contract. Every effort must be exercised by the Contractor to minimise replacement of individual project members in order to ensure optimum contract management continuity. Prior advice and full motivation must be submitted to Transnet before the replacement of any of the Contractor's key personnel involved with the project.
- 7.5. The Tenderer shall submit a detailed barchart showing all major activities and identifying all major milestones to be achieved in this contract. This barchart will be critically analysed by Transnet as it will show whether Tenderers are able to plan the project efficiently. This barchart will be taken into account when evaluating offers received.
- 7.6. The Contractor shall submit a fully detailed schedule within two weeks after the official contract showing all activities from a Work Breakdown Structure commencing from date of contract to the final commissioning and acceptance based on the initial barchart submitted with the tender.
- 7.7. The Tenderer shall submit details of resource management which will be applied to this contract for:
 - 7.7.1. Manpower
 - 7.7.2. Finance
 - 7.7.3. Equipment
 - 7.7.4. Material supply

- 7.8. This should be in sufficient detail to establish where the above resources will be obtained and how they will be managed during the duration of the contract.
- 7.9. It is a requirement of this contract that the Contractor will employ a full time, fully experienced site manager who has been delegated sufficient authority to manage the contract efficiently and safely on site during erection and commissioning.

8. **QUALITY MANAGEMENT**

- 8.1. The Contractor shall be required to install and operate a quality management system which conforms to the requirements of BS ISO 9001/9002.
- 8.2. The Tenderer must submit a detailed statement of his quality system with this tender which shall include the following:-
 - 8.2.1. Statement of quality management policy and objectives.
 - 8.2.2. Statement of the design control system with emphasis on design review procedures and customer requirements evaluation.
 - 8.2.3. Statement of the documentation and change control procedures.
 - 8.2.4. Statement of the quality control procedures that will apply to purchased materials.
 - 8.2.5. Statement of the quality control plan for all components manufactured or supplied so that inspection is carried out to ensure conformance to the specification.
 - 8.2.6. Statement of the quality control procedure that will apply to installation and painting on site.
- 8.3. The sole responsibility for ensuring that the components supplied conform to the specification shall rest with the Contractor.
- 8.4. The Contractor shall notify the Engineer of all inspections at least 3 working days in advance of such inspections. The Engineer reserves the right to have an inspector present at such inspections. The Contractor shall have the relevant quality control plans available at such inspections. The Engineer shall give the Contractor 24 hour notice in writing of his intention to attend the inspections.
 - 8.4.1. Where the contract provides for tests on the premises of the Contractor or of his sub-contractor, the Contractor shall provide such assistance, labour, materials, electricity, fuel, stores, apparatus and instruments as may be a requisite and as may be reasonable demanded to carry out such tests efficiently. All gauges, templates, tools and other equipment required to check the accuracy of the work shall be calibrated at regular intervals by a laboratory approved by the National Calibration Services of the Council for Scientific and Industrial Research of South Africa,

- or by an equivalent authority in the country of origin of the equipment
- 8.4.2. As and when the equipment has passed these tests, the Engineer shall furnish the Contractor a certificate in writing to this effect.
- 8.4.3. If as a result of such an inspection, examination or test the Engineer decides that such equipment is defective or not in accordance with the requirements, he shall notify the Contractor accordingly, stating in writing his objections and reasons therefore. The Contractor shall timeously make good the defect to ensure that the equipment complies with the requirements. Thereafter, if required by the Engineer, the tests shall be repeated under the same terms and conditions save that all reasonable expenses to which Transnet may be put by the repetition of the tests will be deducted from the contract sum.
- 8.4.4. Unless the Engineer otherwise directs, no equipment or materials are to be delivered to site until the Engineer issues an inspection certificate in respect of such equipment. The Contractor shall be responsible for the reception on site of all equipment delivered for the purpose of the contract.
- 8.5. Transnet reserves the right to conduct a quality assurance audit on the Contractor's quality control system at regular intervals.
- 8.6. If required by the Engineer the Contractor shall produce evidence to show that both his welding procedures and welders have passed all the relevant tests required in terms of BS EN 1011 (or equivalent)
- 8.7. The Contractor shall hold design review meetings during the planning phases of this contract. This will be to establish all customer requirements and to provide approval in principle for design interfaces for all designs and specifications to ensure that quality is designed into the final product. Transnet may request a presence at such meetings, themselves or nominated specialist inspectors.
- 8.8. The Contractor shall not change any design or specification feature which has any of the following impacts without formal approval by the Engineer:
- 8.8.1. Financial
 - 8.8.2. Interface with other equipment or installations
 - 8.8.3. Safety
 - 8.8.4. Departure from customer requirements

9. SITE SURVEY BY CONTRACTOR

- 9.1. Immediately after award of the contract, and prior to final design, the successful Tender shall survey the complete site of final operation of the equipment tendered for. This survey shall serve to confirm dimensions and for relative positions of all items and equipment that will interface with the equipment tendered for, e.g. rail gauges, conveyor position relative to rails, location of electrical power supply points, location and dimensions of any obstacle protruding into the operations envelope, etc.
- 9.2. It will be the contractor's responsibility to ensure that equipment supplied in terms of the contract will interface successfully with existing items and equipment.
- 9.3. Any major deviation from data supplied by Transnet in the tender documents shall be brought to the attention of the Engineer. Any potential impact of a commercial or technical nature shall be discussed and finalised with the Engineer, prior to final design of the equipment.
- 9.4. The Tenderer shall allow in all respects in his tender for this requirement to survey the operation site and confirm tender data.

10. DRAWINGS AND SCHEMATICS

- 10.1. On the contract being placed, the Contractor shall at once prepare and must submit two copies of black line paper prints of the general arrangements, working drawings and schematics for approval by the Engineer. These drawings and schematics must be submitted in a systematic manner, accompanied by an index sheet of all the drawings and schematics in question. Approval in principle by the Engineer must be obtained prior to commencement of fabrication or construction. Time required for preparation and approval of these drawings must be included in the Tenderer's program.
- 10.2. Drawings which are submitted for the Engineer's formal approval shall bear the signature and designation of the Tenderer's "responsible professional Engineer".
- 10.3. General arrangement drawings shall show the complete structural layout arrangements with plan views, elevations, cross sections, location and sizes of members, erection details, cladding details, services where applicable, etc.
- 10.4. Notwithstanding any formal approval in principal of drawings and schematics submitted to Transnet, the sole responsibility for the adequacy of the design, fabrication and installation or erection as well as accuracy of workmanship and quality of all materials, shall rest entirely with the Contractor who will be required to rectify any defects.
- 10.5. The Contractor's fabrication shop drawings and detailed drawings are not required for approval except when the Engineer requests such drawings specifically for approval or to assist him in the inspection of the structure at any stage.

- 10.6. At the completion of the Works, the Contractor shall supply as part of the contract two sets of paper prints and a set of latest AUTOCAD version files in the DXF format of the general arrangement, manufacturing and detailed working drawings and schematics, showing every portion of the work as actually made for the equipment, giving all wording in English and all dimensions in Metric units.
- 10.7. The drawings and schematics shall comply with the applicable SABS, British, EN or ISO standards. The official Transnet title block with the Transnet serial No. and numbering system must be included in the lower right hand corner.
 - 10.7.1. The Contractor will be advised regarding numbering and detailing of drawings.
- 10.8. Prints and CAD files must be delivered not later than 2 months after completion of the commissioning of the equipment.

11. **SITE BOOKS**

- 11.1. The Contractor shall supply and have available at the site office at all times, the following site books:
 - 11.1.1. Site instruction book:

This shall be a suitable carbon copy book, size A4, with two detachable sheets for receiving and recording instructions in triplicate issued by the Engineer or his authorised representative.
 - 11.1.2. Site diary book:

This shall be a suitable carbon copy book, size A4, with two detachable sheets for a page to a day and all events affecting the Works, such as arrivals of plans, breakdown of machinery, weather conditions etc., must be entered. The plant, labour and material on site must be recorded as well as work performed.

Entries will be made by the Contractor (or his appointed agent) and signed by both parties daily. The diary may be used to establish the validity of claims for extension of time.
 - 11.1.3. Site Safety and Accident Log Book

A means of recording site safety (induction) training, and accidents (however minor) and any other safety related issues.
 - 11.1.4. Plant Record Book

A record of all plant and equipment on site, whether owned by the contractor or hired. Certificates to show that the equipment is fully maintained and has the necessary certificates. Records of all personnel trained to use each piece of equipment.

The Contractor shall be permitted to use Electronic means of recording and storing this information provided that the data is backed up daily on a separate device.

- 11.2. These site books will remain the property of Transnet and will be used for reference purposes and during the guarantee period.

12. CO-OPERATION WITH OTHER PARTIES

- 12.1. Departments of Transnet and other contractors may be working in the confines of the contract work site and in the general area surrounding it during the course of the contract. The Contractor shall make reasonable allowance in all tendered rates for the necessity to interface with the activities of other contractors and Transnet, and to allow for access and safe working conditions.

- 12.2. The success of the project depends on the effective co-operation of all contractors on site, and the Contractor will if necessary be required to discuss his programme on a day to day basis with the Engineer's Deputy to ensure effective co-ordination.

13. CUSTOMS AND PORT REGULATIONS

- 13.1. The Works are situated within a Customs controlled area and the Contractor and his staff shall observe all Customs regulations within the port area.

- 13.2. The Works are sited within a promulgated port area and the Contractor and his staff shall observe all Port Regulations within the port area. Copies of the Harbour Regulations are obtainable from the Port admin offices.

- 13.3. The fullest collaboration between the Contractor, Transnet and the Engineer is essential in regard to the working of the port.

14. INSTRUCTION OF TRANSNET'S PERSONNEL

- 14.1. Transnet personnel concerned with operating, and maintenance will be made available for instruction by the Contractor in their various functions at the Port concerned.

- 14.2. The necessary formal lecturing on the working, adjustment, maintenance and fault finding procedures shall be arranged for at the Port concerned.

- 14.3. Details of alternative and additional official courses offered shall be specified at tender stage i.e. full procedures, duration, and place of training, competence and qualifications of personnel to be trained.

15. OPERATING AND MAINTENANCE INSTRUCTION MANUALS AND PARTS CATALOGUE

15.1. The Contractor will be required to furnish three final copies of each manual/handbook supplied in terms of the contract. Two bound copies shall be submitted with the third on a CD or other Electronic medium.

15.2. One copy of the preliminary set of manuals/handbooks must be available on site one month prior to commissioning.

15.3. One copy of the final set of handbooks will be kept in the workshop and the Contractor must cover every page of this set with translucent plastic.

15.4. The following manuals shall be supplied as part of the contract:

15.4.1. Maintenance Instruction Manual.

15.4.2. Workshop Reference Manual.

15.4.3. Operator's Manual.

15.4.4. Parts Catalogue.

15.4.5. Training Manual.

15.5. The *Maintenance Instruction Manual* shall include:

15.5.1. Safety instructions to be observed by maintenance and operating personnel.

15.5.2. A general description with illustrations and flow diagrams of the works, indicating all major items, with a functional description of these items.

15.5.3. Full detail of all faultfinding procedures (electrical and mechanical).

15.5.4. Detailed periodic maintenance programmes in respect of the whole of the works, including electrical components and structural work.

15.5.5. Comprehensive data and procedure descriptions (suitably illustrated) on routine maintenance, including intervals, tasks, wear tolerances and lubrication detail.

15.5.6. A list of all equipment that require lubrication must be compiled under the following headings.

15.5.7. Name, description, location.

15.5.8. Recommended lubricant.

15.5.9. Frequency of lubrication.

15.5.10. A list of all PLC fault codes and their probable causes.

15.5.11. Diagrams of all electrical, pneumatic and hydraulic circuits.

15.6. The Workshop Reference Manual shall include:

15.6.1. Safety instructions to be observed by maintenance and operating personnel.

15.6.2. Complete data and procedures on the repair and overhaul of all items of the works.

15.6.3. Detailed diagrams of all electrical, pneumatic and hydraulic circuits.

15.6.4. A list of all PLC fault codes and their probable causes.

15.6.5. A complete listing of the PLC programs.

15.6.6. Data necessary for condition monitoring purposes, like the number of teeth on gears, number of balls/rollers in bearings etc.

15.6.7. Detailed Supplier data sheets on all standard equipment that forms part of the works.

15.6.8. Design, installation, inspection and performance or load test certificates as required by law (including Act 85 of 1993).

15.6.9. Completed commissioning document for the works.

15.6.10. Details of any special tools required

15.7. The *Operator's Manual* must detail the safe and efficient operation of the works, and must include the following:

15.7.1. Safety instructions to be observed by the operating personnel.

15.7.2. Start-up procedure.

15.7.3. Shut-down procedure.

15.7.4. Storm anchoring procedure if applicable.

15.7.5. Diagram showing the lay-out of controls and operator meters and displays.

15.7.6. Detail of the use of the controls and interpretation of the meters and displays.

15.7.7. Detailed check-lists for the daily, weekly and monthly inspections to be performed by the operator.

15.7.8. A list of all fault codes that could be displayed at operator, with a description and detail of what action should be taken by operator

when such a code is displayed.

15.8. The *Parts Catalogue* shall comprehensively list all parts of the works with full descriptions, locations, re-order numbers and supplier, and will include illustrated diagrams of assemblies showing all parts of the assembly. A list of suppliers and their contact detail shall also be included.

15.9. The *Training Manual*:

15.9.1. Comprehensive pictures and text shall be provided to enable Transnet Academy (the division responsible for training) to compile final training manuals for operator training, including first line maintenance.

15.9.2. Pictures and text shall be in digital format supplied on CD Rom to enable Transnet to edit the content.

15.9.3. To assist the Contractor in compiling the necessary information, the following requirements must be complied with for all major parts of the equipment.

15.9.3.1. Identify (i.e. description and picture of) the part and describe where the part can be found on the equipment.

15.9.3.2. Explain the function of the part; and

15.9.3.3. Describe what the operator has to do to keep the part in good working order.

15.10. All final manuals shall be supplied by the Contractor as soon as possible after the works has been successfully commissioned, in order for the works to be accepted (see clause 2.13).

16. **RECOMMENDED SPARES**

16.1. A complete priced list of recommended mechanical and electrical spares to enable Transnet to operate and maintain the installation efficiently for it's useful life and to obtain spares as required must be submitted by the Contractor not later than one month after the finalisation of the design. This list of recommended spares must include full details on the source or supplier in each and every case.

16.2. Spares for the equipment must be classified as:

16.2.1. Initial spares which are the major assemblies and critical single items that have been established from experience as being necessary to maintain the installation fully operational after commissioning for a period of twelve months.

16.2.2. Recommended maintenance spares which are the spares that the Contractor recommends as necessary for the maintenance of

the installation over and above the initial spares described above, and include all wearing items and slow moving contingency (insurance) spares.

16.3. Each spare part must be comprehensively described, and Contractors must furnish the manufacturer's part number as well as any applicable international item number.

16.4. Tenderers shall state:

16.5.1 Whether all essential renewable parts for all the equipment will be readily available in the Republic of South Africa.

16.5.2 What after sales service and operational instruction can be offered to Transnet.

17. **GUARANTEE AND GUARANTEE PERIOD**

17.1. The Contractor shall guarantee that all components and material supplied are new and fit the specified purpose for which they are purchased and are free from any defects in design, workmanship and material and are in strict accordance with the specifications and drawings, unless otherwise agreed in writing by Transnet.

17.2. The Contractor shall agree to replace without charge to Transnet any defective items discovered within 12 months from the date of acceptance, provided that the equipment has been operated and maintained in accordance with the Contractor's written operating instructions; normal wear and tear excluded.

17.3. During the guarantee period the Contractor shall have a branch or local agent at or near the Port with full time personnel available for guarantee repairs. Spare parts and equipment must also be available from the branch or agent.

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END OF SPECIFICATION HE 9/2/9 [Version 7]

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ANNEXURE F:

**EEAM-Q-020 - SPECIFICATION FOR TESTS ON
ELECTRICAL EQUIPMENT**

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1. SCOPE

- 1.1. This specification covers site electrical pre-operational tests and commissioning tests required for electrical apparatus, wire, cables and other miscellaneous equipment and material as called for in the specifications and must be read in conjunction with the other specifications.

2. GENERAL INFORMATION

- 2.1. Pre-operational tests and acceptance certificates as herein specified are defined as those tests and inspections required by the ENGINEER prior to equipment being energized to determine that the apparatus involved may be safely energized.
- 2.2. Calibrating tests, checks on limit switch settings, interlocking, PLC functioning etc. are so called cold commissioning or dry tests.
- 2.3. Hot commissioning tests are the tests as specified by the Engineer such as burn in tests for electronic equipment and continuous cycle tests etc. when the equipment is handling the product it was designed for.
- 2.4. Final acceptance will not only depend on equipment dependability, as determined by the subject tests, but will depend on complete operational tests on all equipment to show that the equipment will perform the functions for which it was designed.
- 2.5. These specifications intend that the workmanship methods, inspections and materials used in erection and installation of the subject equipment shall conform with accepted engineering practices, the specifications as prepared by the Engineer, Manufacturer's instructions and the relevant Standards as referred to in all the attached specifications.
- 2.6. The Contractor shall bear the costs of all tests required.

3. RESPONSIBILITY

- 3.1. The testing shall be performed by and under the immediate supervision of the Contractor.
- 3.2. The Contractor shall adjust, set, co-ordinate, calibrate and test all systems and equipment furnished and/or installed by him.
- 3.3. The Contractor shall determine, and the Engineer shall approve the individuals in whom final responsibility and authority rests for carrying out these tests and

inspection procedures on particular equipment. The method to be followed in obtaining clearances on electrical equipment shall also be established and such method rigidly adhered to.

- 3.4. All testing shall be scheduled by the Contractor and cleared through the Engineer. No testing of any kind shall be done or scheduled without this clearance.
- 3.5. The Contractor shall notify in person or by letter all the interested parties at least 24 hours prior to tests, establishing the time the test is to be performed.
- 3.6. The interested parties to be informed will be determined in conjunction with the Engineer.
- 3.7. The parties notified shall be responsible for having their representatives present at the designated time. Absence of any one representative will not prohibit the test from proceeding on schedule, unless such representative is essential in doing the tests.
- 3.8. Each of the notified interested parties and the testers employed shall be individually responsible for the safety of all members of their organization during such time as the tests are performed.
- 3.9. The Contractor will coordinate all testing to ensure that all trades are prepared and that the conditions are safe.
- 3.10. Detailed testing method and equipment shall be approved by the Engineer.
- 3.11. On some tests, particularly the final inspections of important equipment, the manufacturer's Engineer or representative shall be present and perform same. The request for a manufacturer's representative shall be made sufficiently in advance to the date the test is scheduled so that satisfactory arrangements for the representative's services can be made. Frequently, the manufacturer's responsibility applies to both electrical and mechanical equipment. Where such joint responsibility exists, the request for a manufacturer's representative shall be arranged to satisfy both electrical and mechanical requirements simultaneously.
- 3.12. Manufacturer's instructions shall be carefully read for any special conditions that may be required for testing.
- 3.13. Following established procedures, equipment will be energized after certification on the relevant form by the personnel performing the tests, that equipment is ready for energizing and with the concurrence of the Engineer.

4. TESTING EQUIPMENT

- 4.1. All testing equipment for tests which are to be performed shall be furnished by the Contractor.

- 4.2 Testing equipment required to prove guarantee values shall be calibrated immediately prior to the relevant tests to be performed. The error curves shall be submitted with the report.

5. TESTING RECORDS

- 5.1. Test results shall be entered in test forms provided by the Contractor or, if such forms are not available, in test forms approved by the Engineer.
- 5.2. Authorized, qualified representatives of the parties interested (see paragraph 3.0 shall be present to approve a test when made. One (1) copy of the rough draft-test report shall be given to each authorized representative at the time the test is made.
- 5.3. Formal test reports approved by the Engineer shall be supplied and prepared by the party performing the test within 48 hours, signed by the authorized representatives, and furnished to the Engineer for distribution.

6. SAFETY PRECAUTIONS

- 6.1. The Contractor shall exercise extreme care in performing the tests specified so as not to jeopardize the safety of personnel and to prevent equipment damage during any tests. All exposed live parts subject to testing shall be guarded by personnel, barricades, or other practical means to ensure against personnel being injured by coming in contact or close proximity to exposed parts.
- 6.2. All equipment, exposed live parts, etc., shall be completely discharged by grounding or other accepted methods so as to eliminate the possibility of injury to personnel from electrical shock after the tests have been completed.

7. PROVISIONAL ACCEPTANCE

- 7.1. The Engineer's Provisional Acceptance of any electrical installation shall be based upon the completion of tests and checks prescribed in clauses 8 through 13, submission of test data (where required), satisfactory materials and workmanship, and demonstration of satisfactory start-up.

8. EARTH CONTINUITY AND RESISTANCE TESTS

8.1. General:

- 8.1.1. All earthing and bonding cables must be checked for continuity and earth resistance.

8.2. Test procedure:

- 8.2.1. Measuring the cable and connection resistance simultaneously with a resistance bridge or accurate multi-meter.

8.3. Acceptance:

- 8.3.1. The resistance of the earthing and bonding cables and connections must be less than stated in SABS 0142/latest.
- 8.3.2. Complete and accurate records of all resistance readings of all earthing conductors of motors, transformers, power cables etc. must be made.

The records shall include the following:

- 8.3.2.1. Complete identification of the cable and connection points including its approximate length;
- 8.3.2.2. Resistance reading;
- 8.3.2.3. The approximate average cable temperature.
- 8.3.3. No electrical systems will be energized until the master copy of its test record is approved by the Engineer.

9. MEDIUM VOLTAGE CABLES

9.1. General:

- 9.1.1. The Contractor shall give all medium voltage cables a high potential test in compliance with the cable manufacturers specifications, after all splices and potheads or cable terminations have been made.
- 9.1.2. The medium voltage cables shall be given a complete dielectric absorption test before and after the high potential test. The cable test shall be performed prior to connections to the electrical equipment at either end.
- 9.1.3. The Contractor shall supply all instruments for testing.

9.2. Test Procedures:

- 9.2.1. Medium voltage stress cone type terminations or potheads shall remain intact but testing shall not include any bus work beyond the pothead or stress termination.
- 9.2.2. Cable continuity and phase identification shall be checked.
- 9.2.3. In setting up the test set special safety precautions should be taken regarding grounding of the test equipment. The test set, it's voltmeter and the cable shield should be grounded at the same ground.
- 9.2.4. All 4 core cables shall be tested between one conductor and ground with the other conductors and the metallic shield, metallic sheath or armour grounded to the same ground. Each conductor to be tested in this manner.
- 9.2.5. All single conductor cables shall also be tested between one conductor and ground with the other conductor in the same conduit grounded.
- 9.2.6. Each cable is to be given a full dielectric absorption test as herein specified with a suitable motor driven or electronic megger. The readings taken shall be recorded in the test record.
- 9.2.7. The dielectrical absorption megger test shall be applied for a long enough duration to fully charge the cable. Megger readings shall be taken every fifteen (15) seconds during the first three (3) minutes and at one (1) minute intervals thereafter. The test shall continue until three (3) equal readings one (1) minute apart are obtained. The cable may then be considered to be fully charged.
- 9.2.8. All cables should have approximately the same megohm reading. In the event that a cable shows an appreciably lower resistance value than the others in the same conduit or cable run, this condition shall be discussed with the Engineer prior to the application of the high potential test.
- 9.2.9. After an acceptable megger test, the Contractor shall give the cables a direct current (DC) high potential test. The test potential shall be 80% of the factory test voltage for 15 minutes. The test voltages shall be applied gradually during the first minutes in five equal steps. Leakage current readings shall be taken at each voltage increment, and at one (1) minute intervals after full test voltage has been applied for the remainder of the test. After completion of the test, cables shall be discharged slowly. No test will be accepted where there is an appreciable increase in leakage current throughout the test.

9.2.10. Cables shall not be subjected to more than one (1) high potential test without approval of the Engineer. During these tests a man shall be stationed at each point where the cable has exposed connections.

9.2.11. The successful high potential test shall be immediately followed by another megger test as heretofore specified.

9.3. Acceptance:

9.3.1. The cable must withstand the specified high voltage without an appreciable increase in leakage current.

9.3.2. Final acceptance will also depend on satisfactory results of the two megger tests. The results of the final megger test should reasonably parallel those of the first megger test and should show no evidence of permanent injury to the cable caused by the high voltage test.

9.3.3. Complete and accurate records of all megger and accompanying high potential tests shall be made. The records shall include the following:-

9.3.3.1. Complete identification of the cable including its approximate length;

9.3.3.2. Megger readings vs time data;

9.3.3.3. High potential and leakage current readings vs time data;

9.3.3.4. The approximate average cable temperature.

9.3.4. No cable shall be energized until the master copy of its test record is approved by the Engineer.

10. LOW VOLTAGE POWER CABLES

10.1. General:

10.1.1. All wires and cables shall be tested for continuity. Except for 60 volt services and below, all wires and cables shall be given a megger test.

10.1.2. All cable connections must pass visual inspections for workmanship and conformance with standard practice.

10.2. Test Procedure:

10.2.1. Continuity shall be checked by means of a DC test device using bell or buzzer.

- 10.2.2. Bus tie cables shall be meggered before connections to buses are made.
 - 10.2.3. Each 400 volt service cable from substations shall be meggered with the cable connected to the switch gear with the corresponding breaker racked in and open. Connections at the other end of each of these cables shall be as follows:-
 - 10.2.3.1. Cables to individual motors shall be disconnected from the motor for initial tests, and followed by cables connected to motors as per specification for rotating equipment;
 - 10.2.3.2. Cables to control centres shall be connected to the control centre main breaker with breaker in the open position.
 - 10.2.4. Minimum megger readings shall be 1 Me 6 ohm.
 - 10.2.5. The megger test must be held until the reading reaches a constant value. For 400 volt cables the cable megger test shall be held until three (3) equal readings, each one (1) minute apart, are obtained.
 - 10.2.6. A 1000 volt motor-driven or electronic megger with a value of at least twice that of the RMS voltage shall be used on all service conductors.
- 10.3. Acceptance:
- 10.3.1. Minimum megger requirements must be met.
 - 10.3.2. Any cable having a megger reading 50% lower than average, even though meeting minimum requirements, shall await further instructions from the Engineer as to drying or other treatment to be given the cable prior to acceptance.
 - 10.3.3. Complete and accurate records of all tests and inspections shall be made.

11. MEDIUM VOLTAGE SWITCH GEAR AND CIRCUIT BREAKERS

- 11.1. General:
 - 11.1.1. All switch gear shall be given operational tests. This shall include mechanical operation, as well as operation by control circuits, relays and tripping devices. All breakers and busbars shall be given a megger test.
- 11.2. Test Procedures:
 - 11.2.1. Megger tests on the medium voltage bus shall be applied between each phase separately and ground with other phases tied to ground. All breakers shall be racked-out.

- 11.2.2. In addition each breaker shall be given a megger test in the racked-out and closed position. Megger tests shall be applied between each phase to ground and to each other phase.
 - 11.2.3. A suitable motor driven or electronic megger shall be used. Each test shall be held until a constant reading is obtained. Minimum test values shall be as specified in specifications.
 - 11.2.4. All test readings shall be recorded.
 - 11.2.5. All circuit breakers shall be operated through at least three (3) open-close-open cycles in both the rack-in and test positions by manual operation and by control circuits from each control point. All indication lights, annunciators, alarms and targets shall be observed to determine correct operation and breaker mechanism shall be observed for correct alignment, freedom of binding and good contact. All breakers shall be checked for ease of rack-in and rack-out and checked to determine that the breaker cannot be moved out of operation position while the breaker is closed.
 - 11.2.6. The interchangeability of the circuit breakers shall be demonstrated.
 - 11.2.7. PT and CT data shall be recorded and PT and CT circuits shall be checked with a multi-tester.
 - 11.2.8. Protective relays shall be adjusted and calibrated with an injection type test arrangement (multi-amp or equal). Results shall be recorded and the co-ordination of the protective relaying shall be proved.
 - 11.2.9. After initial energization, switch gear shall be checked for correct phase sequence.
- 11.3. Acceptance:
- 11.3.1. Minimum megger requirements must be met;
 - 11.3.2. Proper mechanical and electrical operation of switch gear must be assured;
 - 11.3.3. Correct protective relaying operation must be proven;
 - 11.3.4.** Complete and accurate records of all tests and inspections shall be made.

12. POWER TRANSFORMERS

12.1. General:

- 12.1.1. Before testing, all transformers shall be inspected for cleanliness, damage, moisture (blue coloured silica gel), oil leaks and phase identification. Each transformer winding shall be given megger tests.

- 12.1.2. Oil filled transformers shall have the oil checked for dielectric strength.
- 12.1.3. Accessories and auxiliary circuits to switchgear and alarm panels shall be checked.

12.2. Test Procedures:

- 12.2.1. Transformer windings shall be meggered with cables disconnected. (The cables have to be disconnected anyhow for cable high potential tests). See clause 9.0.
- 12.2.2. The 400 volt connection to the switchgear does not have to be opened, but the secondary isolator shall be racked out.
- 12.2.3. The transformer neutral has to be disconnected from ground.
- 12.2.4. When meggering the primary side, the secondary winding has to be grounded and vice versa.
- 12.2.5. The minimum values of the specified megger tests shall be as specified in the standard specification.
- 12.2.6. All 2500 V megger tests shall be held at least five (5) minutes and until three (3) consecutive equal readings one (1) minute apart are obtained. Readings shall be taken every thirty (30) seconds during the first two (2) minutes and every minute thereafter. 1000 V Megger readings must be held until the reading reaches a constant value and until three (3) consecutive equal readings one (1) minute apart are obtained.
- 12.2.7. The oil samples for the dielectric strength test shall be taken from the bottom of the transformer tank and tested in accordance with SABS Specifications.
- 12.2.8. Oil temperature indicator, level gauge and pressure relief devices must be manually actuated to check operation of auxiliary circuits.
- 12.2.9. To check the Bucholz relay, air shall be injected at the test connection.

12.3. Acceptance:

- 12.3.1. Minimum megger requirements must be met.
- 12.3.2. Oil dielectric strength shall be above the minimum specified by the manufacturer.
- 12.3.3. Auxiliary circuits shall be fully operational.

13. LOW VOLTAGE SWITCH GEAR

13.1. General:

- 13.1.1. The 400 volt switch gear bus shall be given a phase-to phase and phase-to-ground megger test.
- 13.1.2. All switch gear, relays and control devices shall be given complete operational tests to show that the equipment performs all design functions and meets design and equipment procurement specifications.

13.2. Test Procedures:

- 13.2.1. With transformer secondary breaker and load breakers open, all current transformers shorted, all potential transformer fuses removed and all 400 volt feeder breaker load terminals grounded, the 400 volt bus shall be given a phase-to-phase and phase-to-ground megger test.
- 13.2.2. Megger tests on the 400 volt bus shall be applied between each phase and ground with phases not under test also grounded.
- 13.2.3. All circuit breakers shall be operated through at least three (3) open-close-open cycles in both the rack-in and test position by manual operation and by control circuits from each control point (draw out breakers only). All indicating lights, annunciators, and breaker mechanisms shall be observed for correct alignment, freedom of binding and good contact. Draw out breakers shall be checked for ease of rack-in and rack-out and checked to determine that the breaker cannot be moved out of operating position while the breaker is closed.
- 13.2.4. PT and CT data shall be recorded and PT and CT circuits shall be checked with a multi-tester.
- 13.2.5. Protective relays shall be adjusted and calibrated with an injection type test arrangement (multi-amp or equal). Results shall be recorded and the co-ordination of the protective relaying shall be proved.
- 13.2.6. After initial energization, switch gear shall be checked for correct phase sequence.

13.3. Acceptance:

- 13.3.1. Minimum megger requirements must be met.
- 13.3.2. Proper mechanical and electrical operation of switch gear must be assured.
- 13.3.3. Correct protective relaying operation must be proven.

- 13.3.4. Complete and accurate records of all tests and inspections shall be made.

14. ROTATING EQUIPMENT - 400V AND LOWER

14.1. General:

- 14.1.1. All rotating equipment, large and small, rated 400 volt and lower shall pass a minimum megger reading at room temperature. Any machine not passing this test shall be dried and retested until it either passes or is found unsatisfactory.
- 14.1.2. Prior to testing, all rotating equipment shall be inspected for cleanliness, damages, moisture, alignment, proper lubrication, oil leaks and phase identification.
- 14.1.3. For motors fed from main control panels or motor control centres, the setting of the protective equipment shall be checked.
- 14.1.4. For motors fed directly from 400 volt, switchgear setting of the protective relays is covered by clause 13.0.

14.2. Test Procedures:

- 14.2.1. The circuit breaker is to be racked in, but in the open position. Where magnetic contractors are used, the contactor shall be in the open position so that the section of conductor between the contactor and terminals is included in the test. Control circuit conductors shall be isolated.
- 14.2.2. Megger tests shall be applied between all phases tied together and ground.
- 14.2.3. Megger tests shall be taken with the motor winding temperature at room temperature.
- 14.2.4. All 400 volt motor cables shall be tested before connections are made at the motor in accordance with clause 10.0. Megger tests for each 400 volt motor shall include the cables feeding it.
- 14.2.5. A motor-driven or electronic megger with a service voltage of at least twice the RMS voltage shall be used on all motors.
- 14.2.6. Minimum megger readings shall be 1 Meg ohms.
- 14.2.7. The megger test must be held until the reading reaches a constant value and until three (3) consecutive equal readings one (1) minute apart are obtained.

- 14.2.8. For motors fed from main control panels or motor control centres, overload- and instantaneous over-current protection has to be set to suit the particular drives.
- 14.2.9. After successful performance of mechanical and insulation tests and after the electrical starter protection have been adjusted, the motor may be "bumped" to check for proper rotation.
- 14.3. Acceptance:
 - 14.3.1. All rotating equipment must pass the megger insulation tests as specified and satisfy all representatives as to cleanliness and neatness of the installation.
 - 14.3.2. Complete and accurate records of all tests shall be made. Final acceptance of rotating equipment cannot be made until the equipment is operated during hot commissioning. The equipment shall prove proper rotation, lubrication, alignment and freedom from excessive vibration to the satisfaction of the Engineer.

15. COLD COMMISSIONING

- 15.1. The programmable logic control system shall only be tested once the LV switchboard and other control panels have been tested in the manual mode and been provisionally accepted by the Engineer.
- 15.2. The control system shall firstly be tested DRY, i.e. all motor fuses shall be removed or circuit breakers shall be in the OPEN positions.
- 15.3. All plant/external inputs to the PLC shall be individually checked in the field or motor control centre by operating the required field limit switch, relays etc. and checked on the programmer monitor if the status indication of the correct input reference alters.
- 15.4. All plant/external outputs shall be checked individually by forcing the PLC output coil by means of the programming unit and checking the field, motor control or mimic display panel if the correct relay, indication lamp or contactor has operated.
- 15.5. A signed test record showing all input/ output references and reference to which field, motor control centre or mimic panel device was initiated or was operated shall be made and handed to the Engineer before the second part of the DRY test commences.
- 15.6. The second part of the DRY test shall be by carrying out drive selections, route start ups and route stops for all possible drives as listed. All inputs which cannot be present because of the absence of any plant movement shall be simulated by a plant input simulator to be provided by the Contractor.

- 15.7. Upon completion of the tests, a signed test record showing all route selections, starts and stops simulated for every route and a list of all simulated inputs/outputs used shall be made and handed to the Engineer.
- 15.8. The Contractor shall then call upon the Engineer to witness a repetition of all previous DRY tests.

16. HOT COMMISSIONING

- 16.1. Commissioning of the whole installation shall not commence until all work which is essential for safe operation has been completed.
- 16.2. First, the electrical equipment and circuitry shall be checked and tested in each Motor Control Board and shall be rendered "healthy" and fully operational before any other part of the installation is commissioned.
- 16.3. The settings of all protective, instrument and timing devices are to be correctly based on the manufacturer's characteristic curves.
- 16.4. The operation of all equipment and motors shall be tested on the "manual" sequence first prior to attempting "automatic" sequence control.
- 16.5. Commissioning shall follow the electrical testing procedures necessary prior to start-up of the equipment.
- 16.6. The start-up of each system or plant shall be done in the presence of the authorized representatives of the machine suppliers, the mechanical contractors, the electrical suppliers of the boards, the Electrical Contractor and the Engineer, unless otherwise arranged by the Engineer.
- 16.7. During hot commissioning the temperature rise of all motors will be calculated using the resistance method.
- 16.8. For a period determined elsewhere in this document, after completion of the foregoing operations, the Electrical Contractor shall arrange for a competent representative to remain on site to test-run the installation to the satisfaction of the Engineer.

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END OF SPECIFICATION HE8/2/8 [Version 4]

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ANNEXURE G:

**EEAM-Q-021 - SPECIFICATION FOR ELECTRONIC
EQUIPMENT**

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| REVISION 0 | REFERENCE EEAM-Q-021 |  | |
| DOCUMENT TYPE SPECIFICATION | | AUTHORISATION DATE: Date signed by CEO | |
| TITLE: SPECIFICATION FOR ELECTRONIC EQUIPMENT | | PAGE 1 of 5 | |
| COMPILED BY: EQUIPMENT ENGINEERING AND ASSET MANAGEMENT (GENERAL MANAGER) | REVIEWED BY: SENIOR MANAGER (PROJECT MANAGER) | REVIEWED BY: SENIOR MANAGER (ASSET MANAGER) | |
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| CONTENTS | | Page | |
| 1.0 | SPECIFICATION FOR REEF SOCKET OUTLETS | 04 | |

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|---------------------------|---------------------------------|
| KEYWORDS SPECIFICATION | DATE OF LAST REVIEW: N/A |
| | DATE OF NEXT REVIEW: 01/06 2005 |

1. **SCOPE**

- 1.1. This specification covers TPT's requirements for electronic equipment and must be read in conjunction with the main Specification.
- 1.2. The production standard of all electronic equipment shall be in accordance with the relevant and recognized standards and recommendations for the electronics industry such as contained in IEC Publications, British Standard Specifications, DIN Specifications, standards recommended by the Electronic Industries Association or any other pertinent and widely accepted standards/recommendations.
- 1.3. The national or international standards (if any) to which the electronic equipment complies to shall be stated.
- 1.4. TPT reserves the right to inspect and/or test electronic equipment offered and to use relevant standards/ recommendations for the electronics industry as outlined in Clause 1.2. above as a basis for acceptance/rejection of equipment supplied by the successful tenderer.
- 1.5. When the equipment offered includes, or is required to interact with a Programmable Logic Controller or a microprocessor based device the mode of interfacing between the programmable device and other equipment offered shall clearly be described.
- 1.6. An indication of the extent to which the electronic equipment has been service proven in industry (e.g. names of major users, volume of sales etc.) shall be provided.
- 1.7. Tenderers shall certify that electronic equipment is designed and/or protected to operate reliably under the service conditions listed in the main Specification.
- 1.8. Tenderers shall certify that electronic equipment as designed and supplied is capable of operating reliably with the electrical system of supply as specified in the main Specification.
- 1.9. All electronic equipment shall be suitably protected against voltage spikes, over voltage, over current and over temperature. Details of the protection shall be submitted at the time of tendering.
- 1.10. All electronic equipment shall be effectively screened against electromagnetic, radio or microwave interference.

1.11. All electronic cards must be treated (coated) for use in a tropical environment.

- 1.11. Electronic equipment must be installed in a dust free/air-conditioned environment.
- 1.12. The functions of all controls, switches, indications etc. shall be engraved or otherwise clearly and permanently marked on all equipment in English.
- 1.13. Construction and installation of all equipment offered shall be such that overhaul and maintenance will be readily possible.
- 1.14. Microprocessor based devices:
 - 1.14.1. All microprocessor based devices, e.g. Programmable Logic Controllers offered shall be of a standard design with respect to both hardware and software and must be freely available in the Republic of South Africa.
 - 1.14.2. Only the latest generation modules available in South Africa shall be used.
 - 1.14.3. A fully documented and commented source code listing must be supplied for the program used by the PLC.
 - 1.14.4. All software and hardware required for software maintenance must be specified and must be listed with recommended initial spares.
 - 1.14.5. The unit shall be of a heavy duty industrial type specifically designed for this type of application.
- 1.15. All PLC output cards shall be fitted with relays rated at least 4A 230V in preference to semi-conductor switching devices.
- 1.16. Electronic equipment manuals:
 - 1.16.1. Maintenance manuals required in terms of the main specification shall include all the necessary information on electronic equipment to enable SAPO's maintenance staff to fully comprehend the function of the equipment down to module or card level. In order to comply with this condition the following information (as applicable) shall be included in manuals:-
 - 1.16.1.1. Complete circuit diagrams;
 - 1.16.1.2. System block or logic diagrams;
 - 1.16.1.3. Layout and interconnection diagrams;
 - 1.16.1.4. Test procedures (flow chart form preferred) and information to enable testing such as voltage values and tolerances, waveforms, polarities etc;
 - 1.16.1.5. A complete description of the electronic equipment, including the function of all input and output points,

maintenance and calibration procedures, reference to special test instruments required etc.

- 1.16.2. Symbols used on diagrams shall be in accordance with IEC Publication 117 or BS 3939.
- 1.16.3. In the case of encapsulated modules (i.e. discrete components permanently enclosed), the complete internal circuitry, including the identification of all discrete components, shall be submitted on diagrams.
- 1.17. All electronic equipment shall be fully year 2000 compliant and shall be certified by the supplier and/or designer as such. Completed and signed certificates shall be submitted to TPT immediately after final commissioning of the equipment

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END OF SPECIFICATION HE8/2/9 [Version 5]

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