



water & sanitation

Department:
Water and Sanitation
REPUBLIC OF SOUTH AFRICA

DW106

REQUEST FOR BID

BID NUMBER W11000

Blue Drop Trailer Equipped with Automatic Water Quality Monitoring Equipment to Remotely regulate the Operations of Water Treatment Works for the Directorate Water Quality and Regulation, Sub-Directorate Drinking Water and Waste Water Management, Free State Province.

ISSUE DATE:

27 November 2015

CLOSING DATE AND TIME

07 January 2016 11:00

Compulsory Briefing Session

Date: 08 December 2015

Time: 09h00

Venue: Department of Water and Sanitation

"Spruite" Boardroom, DWS Offices 2nd Floor Bloem Plaza
at the corner of East Burger and Charlotte Maxeke Streets in Bloemfontein.

**SUBMIT TENDER DOCUMENT
TO**

POSTAL ADDRESS:
DIRECTOR-GENERAL: WATER AND SANITATION
PRIVATE BAG X 313
PRETORIA,0001

OR

TO BE DEPOSIT IN:
THE TENDER BOX AT THE
ENTRANCE
OF ZWAMADAKA BUILDING
157 FRANCIS BAARD STREET
(FORMERLY SCHOEMAN
STREET)
PRETORIA,0001

TENDERER: (Company address and stamp)

**COMPILED BY:
DEPARTMENT OF WATER AND SANITATION:**

TABLE OF CONTENTS

1 INVITATION TO BID (SBD 1).....3-4

2 TAX CLEARANCE REQUIREMENTS (SBD 2).....5

3 PRICING SCHEDULE – PURCHASES FIRM PRICES (SBD 3.1).....6-7

5 DECLARATION OF INTEREST (SBD 4).....8-11

6 PREFERENCE POINTS CLAIM FORM (SBD 6.1).....12-18

7 DECLARATION OF BIDDER'S PAST SCM PRACTICES (SBD8).....19-20

8 CERTIFICATE OF INDEPENDENT BID DETERMINATION (SBD 9).....21-23

9 GENERAL CONDITIONS OF CONTRACT.....24-36

10 SPECIAL CONDITION OF CONTRACT.....37-38

11 BEE REPORTING.....39

12 TERMS OF REFERENCE AND EVALUATION CRITERIA ().....40-49

INVITATION TO SBD1

YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS OF THE DOJ & CD

BID NUMBER: **W11000**

CLOSING DATE: **07 January 2016**

CLOSING TIME: **11:00**

DESCRIPTION: Blue Drop Trailer Equipped with Automatic Water Quality Monitoring Equipment to remotely regulate the Operations of Water Treatment Works for the Directorate Water Quality and Regulation, Sub-Directorate Drinking Water and Waste Water Management, Free State Province.

The successful bidder will be required to fill in and sign a written Contract Form (SBD 7).

BID DOCUMENTS MAY BE POSTED TO:

Private Bag x313,
Pretoria,
0001

OR

DEPOSITED IN THE BID BOX SITUATED AT (STREET ADDRESS)

Tender Box, Zwamadaka Building
157 Francis Baard Street (Formerly Schoeman),
Pretoria
0001

Bidders should ensure that bids are delivered timeously to the correct address. If the bid is late, it will not be accepted for consideration.

The bid box is generally open 24 hours a day, 7 days a week.

ALL BIDS MUST BE SUBMITTED ON THE OFFICIAL FORMS – (NOT TO BE RE-TYPED)

THIS BID IS SUBJECT TO THE PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT AND THE PREFERENTIAL PROCUREMENT REGULATIONS, 2011, THE GENERAL CONDITIONS OF CONTRACT (GCC) AND, IF APPLICABLE, ANY OTHER SPECIAL CONDITIONS OF CONTRACT

THE FOLLOWING PARTICULARS MUST BE FURNISHED
(FAILURE TO DO SO MAY RESULT IN YOUR BID BEING DISQUALIFIED)

NAME OF BIDDER.....
POSTAL ADDRESS.....
STREET ADDRESS.....
TELEPHONE NUMBER CODE.....NUMBER.....
CELLPHONE NUMBER.....
FACSIMILE NUMBER CODE NUMBER.....

CELLPHONE NUMBER.....

FACSIMILE NUMBER CODE NUMBER.....

E-MAIL ADDRESS.....

VATREGISTRATIONNUMBER.....

HAS AN ORIGINAL AND VALID TAX CLEARANCE CERTIFICATE BEEN SUBMITTED? (SBD 2) YES or
NO

HAS A B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE BEEN SUBMITTED? (SBD 6.1) YES or NO

IF YES, WHO WAS THE CERTIFICATE ISSUED BY?

AN ACCOUNTING OFFICER AS CONTEMPLATED IN THE CLOSE CORPORATION ACT
(CCA).....

A VERIFICATION AGENCY ACCREDITED BY THE SOUTH AFRICAN ACCREDITATION SYSTEM
(SANAS);OR.....

A REGISTERED AUDITOR
.....

[TICK APPLICABLE BOX]

**(A B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE 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? YES or
NO

[IF YES ENCLOSE PROOF]

SIGNATURE OF BIDDER:.....

DATE:.....

CAPACITY UNDER WHICH THIS BID IS SIGNED.....

TOTAL BID PRICE.....TOTAL NUMBER OF ITEMS OFFERED.....

ANY ENQUIRIES REGARDING THE BIDDING PROCEDURE MAY BE DIRECTED TO:

Department: Department of Water and Sanitation

Contact Person: Miss Maleka Lebogang

Tel: 012 336 8578

Fax: 086 443 6203

E-mail address: malekal@dwa.gov.za

ANY ENQUIRIES REGARDING TECHNICAL INFORMATION MAY BE DIRECTED TO:

Contact Person: MR G.Janse Van Noordwyk.

Tel: 051 405 9000

E-mail address: jansevann@dwa.gov.za

TAX CLEARANCE CERTIFICATE REQUIREMENTS

It is a condition of bid that the taxes of the successful bidder must be in order, or that satisfactory arrangements have been made with South African Revenue Service (SARS) to meet the bidder's tax obligations.

- 1 In order to meet this requirement bidders are required to complete in full the attached form TCC 001 "Application for a Tax Clearance Certificate" and submit it to any SARS branch office nationally. The Tax Clearance Certificate Requirements are also applicable to foreign bidders / individuals who wish to submit bids.
- 2 SARS will then furnish the bidder with a Tax Clearance Certificate that will be valid for a period of 1 (one) year from the date of approval.
- 3 The original Tax Clearance Certificate must be submitted together with the bid. Failure to submit the original and valid Tax Clearance Certificate will result in the invalidation of the bid. Certified copies of the Tax Clearance Certificate will not be acceptable.
- 4 In bids where Consortia / Joint Ventures / Sub-contractors are involved, each party must submit a separate Tax Clearance Certificate.
- 5 Copies of the TCC 001 "Application for a Tax Clearance Certificate" form are available from any SARS branch office nationally or on the website www.sars.gov.za.
- 6 Applications for the Tax Clearance Certificates may also be made via eFiling. In order to use this provision, taxpayers will need to register with SARS as eFilers through the website www.sars.gov.za.

Jeyrel:Wdk416-SBD2 tax clearance

**PRICING SCHEDULE – FIRM PRICES
(PURCHASES)**

NOTE: ONLY FIRM PRICES WILL BE ACCEPTED. NON-FIRM PRICES (INCLUDING PRICES SUBJECT TO RATES OF EXCHANGE VARIATIONS) WILL NOT BE CONSIDERED

IN CASES WHERE DIFFERENT DELIVERY POINTS INFLUENCE THE PRICING, A SEPARATE PRICING SCHEDULE MUST BE SUBMITTED FOR EACH DELIVERY POINT

Name of bidder.....	Bid number : W11000
Closing Time 11:00	Closing date: 07 January 2016

OFFER TO BE VALID FOR 90 DAYS FROM THE CLOSING DATE OF BID.

ITEM NO.	DESCRIPTION	QUANTITY	UNIT PRICE	BID PRICE IN RSA CURRENCY(ALL APPLICABLE TAXES INCLUDED)
1	Horse box type trailer equipped with auto analyser panels to monitor operational parameters on a water treatment works	1	R	R
2	Backup generator according to specifications	1	R	R
3	Circulation pumps and hoses to transport the sample water from the process units to the trailer	1	R	R
TOTAL				R

NB: Bidders are requested to provide a detailed price breakdown of the requirement on a separate sheet should there be any part that is not covered on the 3.1.

- Required by:

- At:

- Country of origin

- Does the offer comply with the specification(s)? *YES/NO

- If not to specification, indicate deviation(s)

= Period required for delivery

*Delivery: Firm/not firm

- Delivery basis

Note: All delivery costs must be included in the bid price, for delivery at the prescribed destination.

** "all applicable taxes" includes value-added tax, pay as you earn, income tax, unemployment insurance fund contributions and skills development levies.

DECLARATION OF INTERESTS

SBD4

1. Any legal person, including persons employed by the state¹, or persons having a kinship with persons employed by the state, including a blood relationship, may make an offer or offers in terms of this invitation to bid (includes an advertised competitive bid, a limited bid, a proposal or written price quotation). In view of possible allegations of favouritism, should the resulting bid, or part thereof, be awarded to persons employed by the state, or to persons connected with or related to them, it is required that the bidder or his/her authorised representative declare his/her position in relation to the evaluating/adjudicating authority where-

- the bidder is employed by the state; and/or

- the legal person on whose behalf the bidding document is signed, has a relationship with persons/a person who are/is involved in the evaluation and or adjudication of the bid(s), or where it is known that such a relationship exists between the person or persons for or on whose behalf the declarant acts and persons who are involved with the evaluation and or adjudication of the bid.

2. **In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.**

2.1 Full Name of bidder or his or her representative:

2.2 Identity Number:.....

2.3 Position occupied in the Company (director, trustee, shareholder², member):

.....

2.4 Registration number of company, enterprise, close corporation, partnership agreement or trust:

.....

2.5 Tax Reference Number:.....

VAT Registration Number:

- 2.6.1 The names of all directors / trustees / shareholders / members, their individual identity numbers, tax reference numbers and, if applicable, employee / PERSAL numbers must be indicated in paragraph 3 below.

¹"State" means -

- (a) any national or provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act No. 1 of 1999);
- (b) any municipality or municipal entity;
- (c) provincial legislature;
- (d) national Assembly or the national Council of provinces; or
- (e) Parliament.

²"Shareholder" means a person who owns shares in the company and is actively involved in the management of the enterprise or business and exercises control over the enterprise.

2.7 Are you or any person connected with the bidder presently employed by the state? **YES / NO**

2.7.1 If so, furnish the following particulars:

Name of person / director / trustee / shareholder/ member:
Name of state institution at which you or the person connected to the bidder is employed :
Position occupied in the state institution:

Any other particulars:
.....
.....
.....

2.7.2 If you are presently employed by the state, did you obtain the appropriate authority to undertake remunerative work outside employment in the public sector? **YES / NO**

2.7.2.1 If yes, did you attach proof of such authority to the bid document? **YES / NO**

(Note: Failure to submit proof of such authority, where applicable, may result in the disqualification of the bid.

2.7.2.2 If no, furnish reasons for non-submission of such proof:

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

2.8 Did you or your spouse, or any of the company's directors / trustees / shareholders / members or their spouses conduct business with the state in the previous twelve months? **YES / NO**

2.8.1 If so, furnish particulars:
.....
.....
.....

2.9 Do you, or any person connected with the bidder, have any relationship (family, friend, other) with a person employed by the state and who may be involved with the evaluation and or adjudication of this bid? **YES / NO**

2.9.1 If so, furnish particulars.
.....
.....

.....

2.10 Are you, or any person connected with the bidder, aware of any relationship (family, friend, other) between any other bidder and any person employed by the state who may be involved with the evaluation and or adjudication Of this bid?

YES/NO

2.10.1 If so, furnish particulars.

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

2.11 Do you or any of the directors / trustees / shareholders / members of the company have any interest in any other related companies whether or not they are bidding for this contract?

YES/NO

2.11.1 If so, furnish particulars:

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

3 Full details of directors / trustees / members / shareholders.

Full Name	Identity Number	Personal Income Tax Reference Number	State Employee Number / Persal Number

4 DECLARATION

I, THE UNDERSIGNED (NAME).....

CERTIFY THAT THE INFORMATION FURNISHED IN PARAGRAPHS 2 and 3 ABOVE IS CORRECT. I ACCEPT THAT THE STATE MAY REJECT THE BID OR ACT AGAINST ME SHOULD THIS DECLARATION PROVE TO BE FALSE.

.....
Signature

.....
Date

.....
Position

.....
Name of bidder

PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2011

This preference form must form part of all bids invited. It contains general information and serves as a claim form for preference points for Broad-Based Black Economic Empowerment (B-BBEE) Status Level of Contribution

NB: BEFORE COMPLETING THIS FORM, BIDDERS MUST STUDY THE GENERAL CONDITIONS, DEFINITIONS AND DIRECTIVES APPLICABLE IN RESPECT OF B-BBEE, AS PRESCRIBED IN THE PREFERENTIAL PROCUREMENT REGULATIONS, 2011.

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 R1 000 000 (all applicable taxes included); and
- the 90/10 system for requirements with a Rand value above R1 000 000 (all applicable taxes included).

1.2 The value of this bid is estimated to exceed/not exceed R1 000 000 (all applicable taxes included) and therefore the.....system shall be applicable.

1.3 Preference points for this bid shall be awarded for:

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

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

POINTS

1.3.1.1 **PRICE**

.....

1.3.1.2 **B-BBEE STATUS LEVEL OF CONTRIBUTION**

.....

Total points for Price and B-BBEE must not exceed

100

1.4 Failure on the part of a bidder to fill in and/or to sign this form and submit a B-BBEE Verification Certificate from a Verification Agency accredited by the South African Accreditation System (SANAS) or a Registered Auditor approved by the Independent Regulatory Board of Auditors (IRBA) or an Accounting Officer as contemplated in the Close Corporation Act (CCA) together with the bid, will be interpreted to mean that preference points for B-BBEE status level of contribution are not claimed.

1.5 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

2.1 "all applicable taxes" includes value-added tax, pay as you earn, income tax, unemployment insurance fund contributions and skills development levies;

- 2.2 **“B-BBEE”** means broad-based black economic empowerment as defined in section 1 of the Broad-Based Black Economic Empowerment Act;
- 2.3 **“B-BBEE status 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;
- 2.4 **“bid”** means a written offer in a prescribed or stipulated form in response to an invitation by an organ of state for the provision of services, works or goods, through price quotations, advertised competitive bidding processes or proposals;
- 2.5 **“Broad-Based Black Economic Empowerment Act”** means the Broad-Based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003);
- 2.6 **“comparative price”** means the price after the factors of a non-firm price and all unconditional discounts that can be utilized have been taken into consideration;
- 2.7 **“consortium or joint venture”** means an association of persons for the purpose of combining their expertise, property, capital, efforts, skill and knowledge in an activity for the execution of a contract;
- 2.8 **“contract”** means the agreement that results from the acceptance of a bid by an organ of state;
- 2.9 **“EME”** means any enterprise with an annual total revenue of R5 million or less .
- 2.10 **“Firm price”** means the price that is only subject to adjustments in accordance with the actual increase or decrease resulting from the change, imposition, or abolition of customs or excise duty and any other duty, levy, or tax, which, in terms of the law or regulation, is binding on the contractor and demonstrably has an influence on the price of any supplies; or the rendering costs of any service, for the execution of the contract;
- 2.11 **“functionality”** means the measurement according to predetermined norms, as set out in the bid documents, of a service or commodity that is designed to be practical and useful, working or operating, taking into account, among other factors, the quality, reliability, viability and durability of a service and the technical capacity and ability of a bidder;
- 2.12 **“non-firm prices”** means all prices other than “firm” prices;
- 2.13 **“person”** includes a juristic person;
- 2.14 **“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;
- 2.15 **“sub-contract”** means the primary contractor’s assigning, leasing, making out work to, or employing, another person to support such primary contractor in the execution of part of a project in terms of the contract;
- 2.16 **“total revenue”** bears the same meaning assigned to this expression in the Codes of Good Practice on Black Economic Empowerment, issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act and promulgated in the *Government Gazette* on 9 February 2007;
- 2.17 **“trust”** means the arrangement through which the property of one person is made over or bequeathed to a trustee to administer such property for the benefit of another person; and
- 2.18 **“trustee”** means any person, including the founder of a trust, to whom property is bequeathed in order for such property to be administered for the benefit of another person.

3. ADJUDICATION USING A POINT SYSTEM

- 3.1 The bidder obtaining the highest number of total points will be awarded the contract.
- 3.2 Preference points shall be calculated after prices have been brought to a comparative basis taking into account all factors of non-firm prices and all unconditional discounts;
- 3.3 Points scored must be rounded off to the nearest 2 decimal places.
- 3.4 In the event that two or more bids have scored equal total points, the successful bid must be the one scoring the highest number of preference points for B-BBEE.
- 3.5 However, when functionality is part of the evaluation process and two or more bids have scored equal points including equal preference points for B-BBEE, the successful bid must be the one scoring the highest score for functionality.
- 3.6 Should two or more bids be equal in all respects, the award shall be decided by the drawing of lots.

4. POINTS AWARDED FOR PRICE

4.1 THE 80/20 OR 90/10 PREFERENCE POINT SYSTEMS

A maximum of 80 or 90 points is allocated for price on the following basis:

90/10

$$P_s = 90 \left(1 - \frac{P_t - P_{\min}}{P_{\min}} \right)$$

Where

- P_s = Points scored for comparative price of bid under consideration
- P_t = Comparative price of bid under consideration
- P_{min} = Comparative price of lowest acceptable bid

5. Points awarded for B-BBEE Status Level of Contribution

- 5.1 In terms of Regulation 5 (2) and 6 (2) of the Preferential Procurement Regulations, 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 (90/10 system)
1	10
2	9
3	8
4	5
5	4
6	3
7	2
8	1
Non-compliant contributor	0

- 5.2 Bidders who qualify as EMEs in terms of the B-BBEE Act must submit a certificate issued by an Accounting Officer as contemplated in the CCA or a Verification Agency accredited by SANAS or a Registered Auditor. Registered auditors do not need to meet the prerequisite for IRBA's approval for the purpose of conducting verification and issuing EMEs with B-BBEE Status Level Certificates.
- 5.3 Bidders other than EMEs must submit their original and valid B-BBEE status level verification certificate or a certified copy thereof, substantiating their B-BBEE rating issued by a Registered Auditor approved by IRBA or a Verification Agency accredited by SANAS.
- 5.4 A trust, consortium or joint venture, will qualify for points for their B-BBEE status level as a legal entity, provided that the entity submits their B-BBEE status level certificate.
- 5.5 A trust, consortium or joint venture will qualify for points for their B-BBEE status level as an unincorporated entity, provided that the entity submits their consolidated B-BBEE scorecard as if they were structure and that such a consolidated B-BBEE scorecard is prepared for every separate bid.
- 5.6 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.
- 5.7 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 subcontractor is an EME that has the capability and ability to execute the sub-contract.
- 5.8 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.

6. BID DECLARATION

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

7. B-BBEE STATUS LEVEL OF CONTRIBUTION CLAIMED IN TERMS OF PARAGRAPHS 1.3.1.2 AND 5.1

7.1 B-BBEE Status Level of Contribution: =(maximum of 10 or 20 points)

(Points claimed in respect of paragraph 7.1 must be in accordance with the table reflected in paragraph 5.1 and must be substantiated by means of a B-BBEE certificate issued by a Verification Agency accredited by SANAS or a Registered Auditor approved by IRBA or an Accounting Officer as contemplated in the CCA).

8 SUB-CONTRACTING

8.1 Will any portion of the contract be sub-contracted? YES / NO (delete which is not applicable)

8.1.1 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? YES / NO (delete which is not applicable)

9 DECLARATION WITH REGARD TO COMPANY/FIRM

9.1 Name of company/firm :

9.2 VAT registration number :

9.3 Company registration number :

9.4 TYPE OF COMPANY/ FIRM

- Partnership/Joint Venture / Consortium
- One person business/sole propriety

Close corporation
Company
(Pty) Limited

[TICK APPLICABLE BOX]

9.5 DESCRIBE PRINCIPAL BUSINESS ACTIVITIES

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

9.6 COMPANY CLASSIFICATION

Manufacturer
Supplier
Professional service provider
Other service providers, e.g. transporter, etc.
[TICK APPLICABLE BOX]

9.7 Total number of years the company/firm has been in business?

9.8 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 paragraph 7 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 7, the contractor may be required to furnish documentary proof to the satisfaction of the purchaser that the claims are correct;
- (iv) If the B-BBEE status level of contribution has been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, 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) restrict the bidder or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, 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
 - (e) forward the matter for criminal prosecution

WITNESSES:

1.

2.

.....
SIGNATURE(S) OF BIDDER(S)
.....

DATE:.....

ADDRESS:.....

.....

.....

SBD 8

DECLARATION OF BIDDER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES

- 1 This Standard Bidding Document must form part of all bids invited.
- 2 It serves as a declaration to be used by institutions in ensuring that when goods and services are being procured, all reasonable steps are taken to combat the abuse of the supply chain management system.
- 3 The bid of any bidder may be disregarded if that bidder, or any of its directors have-
 - a. abused the institution's supply chain management system;
 - b. committed fraud or any other improper conduct in relation to such system; or
 - c. failed to perform on any previous contract.
- 4 **In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.**

Item	Question	Yes	No
4.1	<p>Is the bidder or any of its directors listed on the National Treasury's Database of Restricted Suppliers as companies or persons prohibited from doing business with the public sector?</p> <p>(Companies or persons who are listed on this Database were informed in writing of this restriction by the Accounting Officer/Authority of the institution that imposed the restriction after the <i>audi alteram partem</i> rule was applied).</p> <p>The Database of Restricted Suppliers now resides on the National Treasury's website(www.treasury.gov.za) and can be accessed by clicking on its link at the bottom of the home page.</p>	<p>Yes</p> <input type="checkbox"/>	<p>No</p> <input type="checkbox"/>
4.1.1	If so, furnish particulars:		
4.2	<p>Is the bidder or any of its directors listed on the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004)?</p> <p>The Register for Tender Defaulters can be accessed on the National Treasury's website (www.treasury.gov.za) by clicking on its link at the bottom of the home page.</p>	<p>Yes</p> <input type="checkbox"/>	<p>No</p> <input type="checkbox"/>
4.2.1	If so, furnish particulars:		
4.3	<p>Was the bidder or any of its directors convicted by a court of law (including a court outside of the Republic of South Africa) for fraud or corruption during the past five years?</p>	<p>Yes</p> <input type="checkbox"/>	<p>No</p> <input type="checkbox"/>
4.3.1	If so, furnish particulars:		
4.4	<p>Was any contract between the bidder and any organ of state terminated during the past five years on account of failure to perform on or comply with the contract?</p>	<p>Yes</p> <input type="checkbox"/>	<p>No</p> <input type="checkbox"/>
4.4.1	If so, furnish particulars:		

CERTIFICATION

I, THE UNDERSIGNED (FULL NAME).....

CERTIFY THAT THE INFORMATION FURNISHED ON THIS DECLARATION FORM IS TRUE AND CORRECT.

I ACCEPT THAT, IN ADDITION TO CANCELLATION OF A CONTRACT, ACTION MAY BE TAKEN AGAINST ME SHOULD THIS DECLARATION PROVE TO BE FALSE.

.....
Signature

.....
Date

.....
Position

.....
Name of Bidder

Js365bW

CERTIFICATE OF INDEPENDENT BID DETERMINATION

- 1 This Standard Bidding Document (SBD) must form part of all bids¹ invited.
- 2 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).² Collusive bidding is a *pe se* prohibition meaning that it cannot be justified under any grounds.
- 3 Treasury Regulation 16A9 prescribes that accounting officers and accounting authorities must take all reasonable steps to prevent abuse of the supply chain management system and authorizes accounting officers and accounting authorities 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.
- 4 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.
- 5 In order to give effect to the above, the attached Certificate of Bid Determination (SBD 9) must be completed and submitted with the bid:

¹ Includes price quotations, advertised competitive bids, limited bids and proposals.

² 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.

CERTIFICATE OF INDEPENDENT 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 consortium³ 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:
- (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.

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.

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

GOVERNMENT PROCUREMENT GENERAL CONDITIONS OF CONTRACT.

NOTES

The purpose of this document is to:

- (i) Draw special attention to certain general conditions applicable to government bids, contracts and orders; and**
- (ii) To ensure that clients be familiar with regard to the rights and obligations of all parties involved in doing business with government.**

In this document words in the singular also mean in the plural and vice versa and words in the masculine also mean in the feminine and neuter.

- The General Conditions of Contract will form part of all bid documents and may not be amended.**
- Special Conditions of Contract (SCC) relevant to a specific bid, should be compile separately for every bid (if (applicable) and will supplement the General Conditions of Contract. Whenever there is a conflict, the provisions in the SCC shall prevail.**

TABLE OF CLAUSES

1. Definitions
2. Application
3. General
4. Standards
5. Use of contract documents and information; inspection
6. Patent rights
7. Performance security
8. Inspections, tests and analysis
9. Packing
10. Delivery and documents
11. Insurance
12. Transportation
13. Incidental services
14. Spare parts
15. Warranty
16. Payment
17. Prices
18. Contract amendments
19. Assignment
20. Subcontracts
21. Delays in the supplier's performance
22. Penalties
23. Termination for default
24. Dumping and countervailing duties
25. Force Majeure
26. Termination for insolvency
27. Settlement of disputes
28. Limitation of liability
29. Governing language
30. Applicable law
31. Notices
32. Taxes and duties
33. National Industrial Participation Programme (NIPP)
34. Prohibition of restrictive practices

General Conditions of Contract

1. **Definitions** 1. The following terms shall be interpreted as indicated:
 - 1.1 "Closing time" means the date and hour specified in the bidding documents for the receipt of bids.
 - 1.2 "Contract" means the written agreement entered into between the purchaser and the supplier, as recorded in the contract form signed by the parties, including all attachments and appendices thereto and all documents incorporated by reference therein.
 - 1.3 "Contract price" means the price payable to the supplier under the contract for the full and proper performance of his contractual obligations.
 - 1.4 "Corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value to influence the action of a public official in the procurement process or in contract execution.
 - 1.5 "Countervailing duties" are imposed in cases where an enterprise abroad is subsidized by its government and encouraged to market its products internationally.
 - 1.6 "Country of origin" means the place where the goods were mined, grown or produced or from which the services are supplied. Goods are produced when, through manufacturing, processing or substantial and major assembly of components, a commercially recognized new product results that is substantially different in basic characteristics or in purpose or utility from its components.
 - 1.7 "Day" means calendar day.
 - 1.8 "Delivery" means delivery in compliance of the conditions of the contract or order.
 - 1.9 "Delivery ex stock" means immediate delivery directly from stock actually on hand.
 - 1.10 "Delivery into consignees store or to his site" means delivered and unloaded in the specified store or depot or on the specified site in compliance with the conditions of the contract or order, the supplier bearing all risks and charges involved until the supplies are so delivered and a valid receipt is obtained.
 - 1.11 "Dumping" occurs when a private enterprise abroad market its goods on own initiative in the RSA at lower prices than that of the country of origin and which have the potential to harm the local industries in the RSA.
 - 1.12 "Force majeure" means an event beyond the control of the supplier and not involving the supplier's fault or negligence and not foreseeable. Such events may include, but is not restricted to, acts of the purchaser in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions and freight embargoes.
 - 1.13 "Fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of any bidder, and includes collusive practice among bidders prior to or after bid submission) designed to establish bid prices at

artificial non-competitive levels and to deprive the bidder of the benefits of free and open competition.

- 1.14 "GCC" means the General Conditions of Contract.
- 1.15 "Goods" means all of the equipment, machinery, and/or other materials that the supplier is required to supply to the purchaser under the contract.
- 1.16 "Imported content" means that portion of the bidding price represented by the cost of components, parts or materials which have been or are still to be imported (whether by the supplier or his subcontractors) and which costs are inclusive of the costs abroad, plus freight and other direct importation costs such as landing costs, dock dues, import duty, sales duty or other similar tax or duty at the South African place of entry as well as transportation and handling charges to the factory in the Republic where the supplies covered by the bid will be manufactured.
- 1.17 "Local content" means that portion of the bidding price which is not included in the imported content provided that local manufacture does take place.
- 1.18 "Manufacture" means the production of products in a factory using labour, materials, components and machinery and includes other related value-adding activities.
- 1.19 "Order" means an official written order issued for the supply of goods or works or the rendering of a service.
- 1.20 "Project site," where applicable, means the place indicated in bidding documents.
- 1.21 "Purchaser" means the organization purchasing the goods.
- 1.22 "Republic" means the Republic of South Africa.
- 1.23 "SCC" means the Special Conditions of Contract.
- 1.24 "Services" means those functional services ancillary to the supply of the goods, such as transportation and any other incidental services, such as installation, commissioning, provision of technical assistance, training, catering, gardening, security, maintenance and other such obligations of the supplier covered under the contract.
- 1.25 "Written" or "in writing" means handwritten in ink or any form of electronic or mechanical writing.

2. Application.

- 2.1 These general conditions are applicable to all bids, contracts and orders including bids for functional and professional services, sales, hiring, letting and the granting or acquiring of rights, but excluding immovable property, unless otherwise indicated in the bidding documents.
- 2.2 Where applicable, special conditions of contract are also laid down to cover specific supplies, services or works.
- 2.3 Where such special conditions of contract are in conflict with these general conditions, the special conditions shall apply.

3. General

- 3.1 Unless otherwise indicated in the bidding documents, the purchaser shall not be liable for any expense incurred in the preparation and submission of a bid. Where applicable a non-refundable fee for documents may be charged.
- 3.2 With certain exceptions, invitations to bid are only published in the Government Tender Bulletin. The Government Tender Bulletin may be obtained directly from the Government Printer, Private Bag X85, Pretoria 0001, or accessed electronically from www.treasury.gov.za

4. Standards

- 4.1 The goods supplied shall conform to the standards mentioned in the bidding documents and specifications.

5. Use of contract documents and information; inspection.

- 5.1 The supplier shall not, without the purchaser's prior written consent, disclose the contract, or any provision thereof, or any specification, plan, drawing, pattern, sample, or information furnished by or on behalf of the purchaser in connection therewith, to any person other than a person employed by the supplier in the performance of the contract. Disclosure to any such employed person shall be made in confidence and shall extend only so far as may be necessary for purposes of such performance.
- 5.2 The supplier shall not, without the purchaser's prior written consent, make use of any document or information mentioned in GCC clause 5.1 except for purposes of performing the contract.
- 5.3 Any document, other than the contract itself mentioned in GCC clause 5.1 shall remain the property of the purchaser and shall be returned (all copies) to the purchaser on completion of the supplier's performance under the contract if so required by the purchaser.
- 5.4 The supplier shall permit the purchaser to inspect the supplier's records relating to the performance of the supplier and to have them audited by auditors appointed by the purchaser, if so required by the purchaser.

6. Patent rights.

- 6.1 The supplier shall indemnify the purchaser against all third-party claims of infringement of patent, trademark, or industrial design rights arising from use of the goods or any part thereof by the purchaser.

7. Performance security

- 7.1 Within thirty (30) days of receipt of the notification of contract award, the successful bidder shall furnish to the purchaser the performance security of the amount specified in SCC.
- 7.2 The proceeds of the performance security shall be payable to the purchaser as compensation for any loss resulting from the supplier's failure to complete his obligations under the contract.

7.3 The performance security shall be denominated in the currency of the contract or in a freely convertible currency acceptable to the purchaser and shall be in one of the following forms:

- (a) A bank guarantee or an irrevocable letter of credit issued by a reputable bank located in the purchaser's country or abroad, acceptable to the purchaser, in the form provided in the bidding documents or another form acceptable to the purchaser; or
- (b) A cashier's or certified cheque

7.4 The performance security will be discharged by the purchaser and returned to the supplier not later than thirty (30) days following the date of completion of the supplier's performance obligations under the contract, including any warranty obligations, unless otherwise specified in SCC.

8. Inspections, tests and analyses

8.1 All pre-bidding testing will be for the account of the bidder. 8.2 If it is a bid condition that supplies to be produced or services to be rendered should at any stage during production or execution or on completion be subject to inspection, the premises of the bidder or contractor shall be open, at all reasonable hours, for inspection by a representative of the Department or organization acting on behalf of the Department.

8.2 If it is a bid condition that supplies to be produced or services to be rendered should at any stage during production or execution or on completion be subject to inspection, the premises of the bidder or contractor shall be open, at all reasonable hours, for inspection by a representative of the Department or an organization acting on behalf of the Department.

8.3 If there are no inspection requirements indicated in the bidding documents and no mention is made in the contract, but during the contract period it is decided that inspections shall be carried out, the purchaser shall itself make the necessary arrangements, including payment arrangements with the testing authority concerned.

8.4 If the inspections, tests and analyses referred to in clauses 8.2 and 8.3 show the supplies to be in accordance with the contract requirements, the cost of the inspections, tests and analyses shall be defrayed by the purchaser.

8.5 Where the supplies or services referred to in clauses 8.2 and 8.3 do not comply with the contract requirements, irrespective of whether such supplies or services are accepted or not, the cost in connection with these inspections, tests or analyses shall be defrayed by the supplier.

8.6 Supplies and services which are referred to in clauses 8.2 and 8.3 and which do not comply with the contract requirements may be rejected.

8.7 Any contract supplies may on or after delivery be inspected, tested or analyzed and may be rejected if found not to comply with the requirements of the contract. Such rejected supplies shall be held at the cost and risk of the supplier who shall, when called upon, remove them immediately at his own cost and forthwith substitute them with supplies which do comply with the requirements of the contract. Failing such removal the rejected supplies shall be returned at the suppliers cost and risk. Should the supplier fail to provide the substitute supplies forthwith, the purchaser may, without giving the supplier further opportunity to substitute the rejected supplies, purchase such supplies as may be necessary at the expense of the supplier.

8.8 The provisions of clauses 8.4 to 8.7 shall not prejudice the right of the purchaser to cancel the contract on account of a breach of the conditions thereof, or to act in terms of Clause 25 of GCC.

9. Packing

9.1 The supplier shall provide such packing of the goods as is required to prevent their damage or deterioration during transit to their final destination, as indicated in the contract. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit, and open storage. Packing, case size and weights shall take into consideration, where appropriate, the remoteness of the goods' final destination and the absence of heavy handling facilities at all points in transit.

9.2 The packing, marking, and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressly provided for in the contract, including additional requirements, if any, specified in SCC, and in any subsequent instructions ordered by the purchaser.

10. Delivery and documents

10.1 Delivery of the goods shall be made by the supplier in accordance with the terms specified in the contract. The details of shipping and/or other documents to be furnished by the supplier are specified in SCC.

10.2 Documents to be submitted by the supplier are specified in SCC.

11. Insurance

11.1 The goods supplied under the contract shall be fully insured in a freely convertible currency against loss or damage incidental to manufacture or acquisition, transportation, storage and delivery in the manner specified in the SCC.

12. Transportation

12.1 Should a price other than an all-inclusive delivered price be required, this shall be specified in the SCC.

13. Incidental services

13.1 The supplier may be required to provide any or all of the following services, including additional services, if any, specified in SCC:

- (a) Performance or supervision of on-site assembly and/or commissioning of the supplied goods;
- (b) Furnishing of tools required for assembly and/or maintenance of the supplied goods;
- (c) Furnishing of a detailed operations and maintenance manual for each appropriate unit of the supplied goods;
- (d) Performance or supervision or maintenance and/or repair of the supplied goods, for a period of time agreed by the parties, provided that this service shall not relieve the supplier of any warranty obligations under this contract; and

(e) Training of the purchaser's personnel, at the supplier's plant and/or on-site, in assembly, start-up, operation, maintenance, and/or repair of the supplied goods.

13.2 Prices charged by the supplier for incidental services, if not included in the contract price for the goods, shall be agreed upon in advance by the parties and shall not exceed the prevailing rates charged to other parties by the supplier for similar services.

14. Spare parts

14.1 As specified in SCC, the supplier may be required to provide any or all of the following materials, notifications, and information pertaining to spare parts manufactured or distributed by the supplier:

(a) Such spare parts as the purchaser may elect to purchase from the supplier, provided that this election shall not relieve the supplier of any warranty obligations under the contract; and

(b) In the event of termination of production of the spare parts:

(i) Advance notification to the purchaser of the pending termination, in sufficient time to permit the purchaser to procure needed requirements; and

(ii) Following such termination, furnishing at no cost to the purchaser, the blueprints, drawings, and specifications of the spare parts, if requested.

15. Warranty

15.1 The supplier warrants that the goods supplied under the contract are new, unused, of the most recent or current models, and that they incorporate all recent improvements in design and materials unless provided otherwise in the contract. The supplier further warrants that all goods supplied under this contract shall have no defect, arising from design, materials, or workmanship (except when the design and/or material is required by the purchaser's specifications) or from any act or omission of the supplier, that may develop under normal use of the supplied goods in the conditions prevailing in the country of final destination.

15.2 This warranty shall remain valid for twelve (12) months after the goods, or any portion thereof as the case may be, have been delivered to and accepted at the final destination indicated in the contract, or for eighteen (18) months after the date of shipment from the port or place of loading in the source country, whichever period concludes earlier, unless specified otherwise in SCC.

15.3 The purchaser shall promptly notify the supplier in writing of any claims arising under this warranty.

15.4 Upon receipt of such notice, the supplier shall, within the period specified in SCC and with all reasonable speed, repair or replace the defective goods or parts thereof, without costs to the purchaser.

15.5 If the supplier, having been notified, fails to remedy the defect(s) within the period specified in SCC, the purchaser may proceed to take such remedial action as may be necessary, at the supplier's risk and expense and without prejudice to any other rights which the purchaser may have against the supplier under the contract.

16. Payment

- 16.1 The method and conditions of payment to be made to the supplier under this contract shall be specified in SCC.
- 16.2 The supplier shall furnish the purchaser with an invoice accompanied by a copy of the delivery note and upon fulfilment of other obligations stipulated in the contract.
- 16.3 Payments shall be made promptly by the purchaser, but in no case later than thirty (30) days after submission of an invoice or claim by the supplier.
- 16.4 Payment will be made in Rand unless otherwise stipulated in SCC.

17. Prices

- 17.1 Prices charged by the supplier for goods delivered and services performed under the contract shall not vary from the prices quoted by the supplier in his bid, with the exception of any price adjustments authorized in SCC or in the purchaser's request for bid validity extension, as the case may be.

18. Contract amendments

- 18.1 No variation in or modification of the terms of the contract shall be made except by written amendment signed by the parties concerned.

19. Assignment

- 19.1 The supplier shall not assign, in whole or in part, its obligations to perform under the contract, except with the purchaser's prior written consent.

20. Subcontracts

- 20.1 The supplier shall notify the purchaser in writing of all subcontracts awarded under this contracts if not already specified in the bid. Such notification, in the original bid or later, shall not relieve the supplier from any liability or obligation under the contract.

21. Delays in the supplier's performance

- 21.1 Delivery of the goods and performance of services shall be made by the supplier in accordance with the time schedule prescribed by the purchaser in the contract.
- 21.2 If at any time during performance of the contract, the supplier or its subcontractor(s) should encounter conditions impeding timely delivery of the goods and performance of services, the supplier shall promptly notify the purchaser in writing of the fact of the delay, its likely duration and its cause(s). As soon as practicable after receipt of the supplier's notice, the purchaser shall evaluate the situation and may at his discretion extend the supplier's time for performance, with or without the imposition of penalties, in which case the extension shall be ratified by the parties by amendment of contract.
- 21.3 No provision in a contract shall be deemed to prohibit the obtaining of supplies or services from a national department, provincial department, or a local authority.
- 21.4 The right is reserved to procure outside of the contract small quantities or to have minor essential services executed if an emergency arises, the supplier's point of supply is not situated

at or near the place where the supplies are required, or the supplier's services are not readily available.

- 21.5 Except as provided under GCC Clause 25, a delay by the supplier in the performance of its delivery obligations shall render the supplier liable to the imposition of penalties, pursuant to GCC Clause 22, unless an extension of time is agreed upon pursuant to GCC Clause 21.2 without the application of penalties.
- 21.6 Upon any delay beyond the delivery period in the case of a supplies contract, the purchaser shall, without cancelling the contract, be entitled to purchase supplies of a similar quality and up to the same quantity in substitution of the goods not supplied in conformity with the contract and to return any goods delivered later at the supplier's expense and risk, or to cancel the contract and buy such goods as may be required to complete the contract and without prejudice to his other rights, be entitled to claim damages from the supplier.

22. Penalties

- 22.1 Subject to GCC Clause 25, if the supplier fails to deliver any or all of the goods or to perform the services within the period(s) specified in the contract, the purchaser shall, without prejudice to its other remedies under the contract, deduct from the contract price, as a penalty, a sum calculated on the delivered price of the delayed goods or unperformed services using the current prime interest rate calculated for each day of the delay until actual delivery or performance. The purchaser may also consider termination of the contract pursuant to GCC Clause 23.

23. Termination for default

- 23.1 The purchaser, without prejudice to any other remedy for breach of contract, by written notice of default sent to the supplier, may terminate this contract in whole or in part:
- (a) If the supplier fails to deliver any or all of the goods within the period(s) specified in the contract, or within any extension thereof granted by the purchaser pursuant to GCC Clause 21.2;
 - (b) If the Supplier fails to perform any other obligation(s) under the contract; or
 - (c) If the supplier, in the judgment of the purchaser, has engaged in corrupt or fraudulent practices in competing for or in executing the contract.
- 23.2 In the event the purchaser terminates the contract in whole or in part, the purchaser may procure, upon such terms deems appropriate, goods, works or services similar to those undelivered, and the supplier shall be liable to the purchaser for any excess costs for such similar goods, works or services. However, the supplier shall continue performance of the contract to the extent not terminated.
- 23.3 Where the purchaser terminates the contract in whole or in part, the purchaser may decide to impose a restriction penalty on the supplier by prohibiting such supplier from doing business with the public sector for a period not exceeding 10 years.
- 23.4 If a purchaser intends imposing a restriction on a supplier or any person associated with the supplier, the supplier will be allowed a time period of not more than fourteen (14) days to provide reasons why the envisaged restriction should not be imposed. Should the supplier fail to respond within the stipulated fourteen (14) days the purchaser may regard the intended penalty as not objected against and may impose it on the supplier.

- 23.5 Any restriction imposed on any person by the Accounting Officer / Authority will, at the discretion of the Accounting Officer / Authority, also be applicable to any other enterprise or any partner, manager, director or other person who wholly or partly exercises or exercised or may exercise control over the enterprise of the first-mentioned person, and with which enterprise or person the first-mentioned person, is or was in the opinion of the Accounting Officer / Authority, actively associated.
- 23.6 If a restriction is imposed, the purchaser must, within five (5) working days of such imposition, furnish the National Treasury, with the following information:
- (i) The name and address of the supplier and / or person restricted by the purchaser;
 - (ii) The date of commencement of the restriction
 - (iii) The period of restriction; and
 - (iv) The reasons for the restriction.

These details will be loaded in the National Treasury's central database of suppliers or persons prohibited from doing business with the public sector.

- 23.7 If a court of law convicts a person of an offence as contemplated in sections 12 or 13 of the Prevention and Combating of Corrupt Activities Act, No. 12 of 2004, the court may also rule that such person's name be endorsed on the Register for Tender Defaulters. When a person's name has been endorsed on the Register, the person will be prohibited from doing business with the public sector for a period not less than five years and not more than 10 years. The National Treasury is empowered to determine the period of restriction and each case will be dealt with on its own merits. According to section 32 of the Act the Register must be open to the public. The Register can be perused on the National Treasury website.

24. Anti-dumping and countervailing duties and rights

- 24.1 When, after the date of bid, provisional payments are required, or antidumping or countervailing duties are imposed, or the amount of a provisional payment or anti-dumping or countervailing right is increased in respect of any dumped or subsidized import, the State is not liable for any amount so required or imposed, or for the amount of any such increase. When, after the said date, such a provisional payment is no longer required or any such anti-dumping or countervailing right is abolished, or where the amount of such provisional payment or any such right is reduced, any such favourable difference shall on demand be paid forthwith by the contractor to the State or the State may deduct such amounts from moneys (if any) which may otherwise be due to the contractor in regard to supplies or services which he delivered or rendered, or is to deliver or render in terms of the contract or any other contract or any other amount which may be due to him.

25. Force Majeure

- 25.1 Notwithstanding the provisions of GCC Clauses 22 and 23, the supplier shall not be liable for forfeiture of its performance security, damages, or termination for default if and to the extent that his delay in performance or other failure to perform his obligations under the contract is the result of an event of force majeure.
- 25.2 If a force majeure situation arises, the supplier shall promptly notify the purchaser in writing of such condition and the cause thereof. Unless otherwise directed by the purchaser in writing, the supplier shall continue to perform its obligations under the contract as far as is reasonably

practical, and shall seek all reasonable alternative means for performance not prevented by the force majeure event.

26. Termination for insolvency

- 26.1 The purchaser may at any time terminate the contract by giving written notice to the supplier if the supplier becomes bankrupt or otherwise insolvent. In this event, termination will be without compensation to the supplier, provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to the purchaser.

27. Settlement of Disputes

- 27.1 If any dispute or difference of any kind whatsoever arises between the purchaser and the supplier in connection with or arising out of the contract, the parties shall make every effort to resolve amicably such dispute or difference by mutual consultation.
- 27.2 If, after thirty (30) days, the parties have failed to resolve their dispute or difference by such mutual consultation, then either the purchaser or the supplier may give notice to the other party of his intention to commence with mediation. No mediation in respect of this matter may be commenced unless such notice is given to the other party.
- 27.3 Should it not be possible to settle a dispute by means of mediation, it may be settled in a South African court of law.
- 27.4 Mediation proceedings shall be conducted in accordance with the rules of procedure specified in the SCC.
- 27.5 Notwithstanding any reference to mediation and/or court proceedings herein,
- (a) The parties shall continue to perform their respective obligations under the contract unless they otherwise agree; and
 - (b) The purchaser shall pay the supplier any monies due the supplier.

28. Limitation of liability

- 28.1 Except in cases of criminal negligence or wilful misconduct, and in the case of infringement pursuant to Clause 6;
- (a) The supplier shall not be liable to the purchaser, whether in contract, tort, or otherwise, for any indirect or consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided that this exclusion shall not apply to any obligation of the supplier to pay penalties and/or damages to the purchaser; and
 - (b) The aggregate liability of the supplier to the purchaser, whether under the contract, in tort or otherwise, shall not exceed the total contract price, provided that this limitation shall not apply to the cost of repairing or replacing defective equipment.

29. Governing language

- 29.1 The contract shall be written in English. All correspondence and other documents pertaining to the contract that exchanged by the parties shall also be written in English.

30. Applicable law

- 30.1 The contract shall be interpreted in accordance with South African laws, unless otherwise specified in SCC.

31. Notices

- 31.1 Every written acceptance of a bid shall be posted to the supplier concerned by registered or certified mail and any other notice to him shall be posted by ordinary mail to the address furnished in his bid or to the address notified later by him in writing and such posting shall be deemed to be proper service of such notice.
- 31.2 The time mentioned in the contract documents for performing any act after such aforesaid notice has been given, shall be reckoned from the date of posting of such notice.

32. Taxes and duties

- 32.1 A foreign supplier shall be entirely responsible for all taxes, stamp duties, license fees, and other such levies imposed outside the purchaser's country.
- 32.2 A local supplier shall be entirely responsible for all taxes, duties, license fees, etc., incurred until delivery of the contracted goods to the purchaser.
- 32.3 No contract shall be concluded with any bidder whose tax matters are not in order. Prior to the award of a bid the Department must be in possession of a tax clearance certificate, submitted by the bidder. This certificate must be an original issued by the South African Revenue Services.

33. National Industrial Participation (NIP) Programme

- 33.1 The NIP Programme administered by the Department of Trade and Industry shall be applicable to all contracts that are subject to the NIP obligation

34. Prohibition of Restrictive practices

- 34.1 In terms of section 4 (1) (b) (iii) of the Competition Act No. 89 of 1998, as amended, an agreement between, or concerted practice by, firms, or a decision by an association of firms, is prohibited if it is between parties in a horizontal relationship and if a bidder (s) is / are or a contractor(s) was / were involved in collusive bidding (or bid rigging).
- 34.2 If a bidder(s) or contractor(s), based on reasonable grounds or evidence obtained by the purchaser, has / have engaged in the restrictive practice referred to above, the purchaser may refer the matter to the Competition Commission for investigation and possible imposition of administrative penalties as contemplated in the Competition Act No. 89 of 1998.
- 34.3 If a bidder(s) or contractor(s), has / have been found guilty by the Competition Commission of the restrictive practice referred to above, the purchaser may, in addition and without prejudice to any other remedy provided for, invalidate the bid(s) for such item(s) offered, and / or terminate the contract in whole or part, and / or restrict the bidder(s) or contractor(s) from conducting business with the public sector for a period not exceeding ten (10) years and / or claim damages from the bidder(s) or contractor(s) concerned.

35. SPECIAL CONDITIONS OF CONTRACT

- 35.1 The State reserves the right to verify and authenticate all the information supplied in this document by the bidder.
- 35.2 The Bid must be strictly in accordance with the conditions and specifications contained herein.
- 35.3 If it is found that any information has been tampered with during the evaluation process and/or after the Bid/Contract has been awarded that any false information has been provided, the State reserves the right to take the necessary action as it deems fit, including but not limited to the institution of criminal proceedings.
- 35.4 Failure to sign all relevant places shall invalidate your bid (**SBD1, SBD 3.1, SBD 4, SBD 6.1 or 6.2, SBD 8, SBD 9 and SCC**)
- 35.5 All queries should be sent to the relevant person via email state above. No query will be responded to if sent 3 days before the closing date.
- 35.6 If you are not a registered supplier with the Department of Water and Sanitation, please complete the supplier registration forms and banking details, supplier registration forms are available at Departmental website, www.dwa.gov.za
- 35.7 Bidders/ Individuals that are directors or members in more than one company bidding for this tender and do not openly declare their interests will be disqualified
- 35.8 **Failure to submit original and valid Tax Clearance Certificate shall invalidate your bid.**
- 35.9 The DWS reserves the right to not make an award on any of the responses to this Bid.
- 35.10 The DWS reserves the right to award only parts of this bid and re-bid for other parts.
- 35.11 All bid documents should be hand delivered and deposited in to the Tender Box, if sent via post, envelope or package, the envelope must be clearly marked to avoid your submission been mixed with normal letters sent to the Department.
- 35.12 Only signed, original documents will be accepted.

36. ACCEPTANCE OF TERMS AND SPECIAL CONDITIONS

The above terms of the bid and all Annexure have been read, understood and accepted.

For and on behalf of the Bidder:

.....

Signature of Bidder:

Date:

Bidder's Name & Surname:

Designation

Witness Name & Surname:

Date

Signature:

Address (Physical):

TRADING NAME: _____

CONTACT PERSON: _____

CONTACT NUMBER: _____

CLOSING DATE: _____

This template must be completed by the bidder

TENDER NUMBER		
SERVICE /PROJECT DESCRIPTION		
NAME OF BIDDER		
TENDER AMOUNT		
BBBEE LEVEL		
COMPANY'S COMPOSITION OF EXISTANCE		
	% OWNERSHIP	TOTAL NUMBER
WOMEN		
PEOPLE WITH DISABILITIES		
BLACK MALES		
YOUTH		
PARTICIPATION IN PROJECT IMPLEMENTATION		
	TOTAL NUMBER	LEVEL OF PARTICIPATION (eg Project Management, Technical, Administrative)
WOMEN		
PEOPLE WITH DISABILITIES		
BLACK MALES		
YOUTH		

Please note that this information is for reporting purposes only, and will not prejudice the company in anyway nor will it be considered as an evaluation tool.

Name:.....

Position:.....

Signature:.....Date:.....

39



ENTITY MAINTENANCE

ENTITY MAINTENANCE

HEAD OFFICE USE ONLY	Reference no.	<input type="text"/>	<input type="checkbox"/> Registered
	Entity name	<input type="text"/>	Date registered: <input type="text"/>
		<input type="text"/>	<input type="checkbox"/> Verified on SafetyWeb
	Entity number	<input type="text"/>	Date verified: <input type="text"/>
	Remarks	<input type="text"/>	<input type="checkbox"/> Captured
		<input type="text"/>	Date captured: <input type="text"/>
	<input type="text"/>	<input type="checkbox"/> Authorised	
	<input type="text"/>	Date authorised: <input type="text"/>	

IMPORTANT INFORMATION TO SUPPLIER

I/We hereby request and authorise you to pay any amounts, which may accrue to me/us to the credit of my/our account with the mentioned bank
 I/we understand that the credit transfers hereby authorised will be processed by computer through a system known as "ACB- Electronic Fund Transfer Service", and
 I/we understand that no additional advice of payment will be provided by my/our bank, but that the details of each payment will be printed on my/our bank statement
 or any accompanying voucher. (This does not apply where it is not customary for banks to furnish bank statements).
 I/we understand that the Department will supply a payment advice in the normal way, and that it will indicate the date on which the funds will be made available in
 my/our account.

This authority may be cancelled by me/us by giving thirty days notice by prepaid registered post. Please ensure information is validated as per required bank
 screens.

I/We understand that bank details provided should be exactly as per the records held by the bank.

I/We understand that the Department will not assume responsibility for any delayed payments, as a result of incorrect information supplied.

SUPPORTING DOCUMENTATION MUST ACCOMPANY THIS FORM

ALL RELEVANT FIELDS MUST BE COMPLETED

THE ACCOUNT MUST BE IN THE NAME OF THE SUPPLIER AND NO 3RD PARTY PAYMENTS WILL BE ALLOWED

Section A: Type of Supplier (For official use only)

<input type="checkbox"/> New Supplier Information	<input type="checkbox"/> Update Supplier Information
Supplier Type:	<input type="checkbox"/> Individual <input type="checkbox"/> Govt. Department <input type="checkbox"/> Partnership <input type="checkbox"/> Company <input type="checkbox"/> Trust <input type="checkbox"/> CC <input type="checkbox"/> Other (Specify) <input type="text"/>

Section B: Company/Personal Details

Registered Name	<input type="text"/>
Trading Name	<input type="text"/>
*VAT Number	<input type="text"/> *Compulsory where applicable
PERSAL Number	<input type="text"/>
Title	<input type="text"/> Initials <input type="text"/>
First Name	<input type="text"/>
Surname	<input type="text"/>

Section C: Address Detail

Payment Address	<input type="text"/>
	<input type="text"/>
	<input type="text"/>
	<input type="text"/>
	Postal code <input type="text"/>



ENTITY MAINTENANCE (continued on page)

Section D: Supplier Account Details (FOR VERIFIED BANK)

Account Name		
Account Number		
Bank Name		Account Type
Branch Name		<input type="checkbox"/> Cheque Account
Branch Number		<input type="checkbox"/> Savings Account
*ID Number		<input type="checkbox"/> Transmission Account
Passport Number		* Compulsory for individuals
**Company Registration Number		**Compulsory for companies
***CC Registration		***Compulsory where applicable
****Please include CC/CK where applicable		
Practise Number		
****Trust Number		

IT IS HERBY CONFIRMED THAT THESE DETAILS HAVE BEEN VERIFIED AND IS EXACTLY THE SAME AS ON ONE OF THE FOLLOWING APPLICABLE SCREENS:

- ABSA:** CIF Screen
- FNB:** Hogans System on the CIS4
- STD:** Bank - Look - Up - Screen
- Nedbank:** Banking Platform under the Client Details Tab

Contact Number ()

Signature of Bank Official Print Name

BANK STAMP

Date (dd/mm/yyyy)

Section E: Contract Details of Supplier

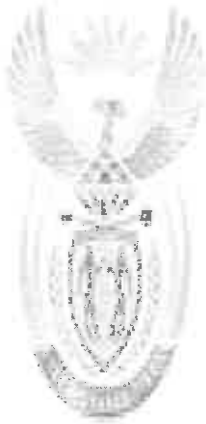
Telephone	()
Fax	()
Mobile (Cell no.)	
E-mail Address	
Contact Person	
Signature of Supplier	Print Name

Date (dd/mm/yyyy)

Section F: Contract Details of DWA Office (For official use only - officials with signing authority only)

Office	
Telephone	()
Fax	()
E-mail Address	
Signature of DWA Official	Print Name

OFFICIAL STAMP
 Date (dd/mm/yyyy)



water & sanitation

Department:
Water and Sanitation
REPUBLIC OF SOUTH AFRICA

W11000

Blue Drop Trailer Equipped with Automatic Water Quality Monitoring Equipment to Remotely regulate the Operations of Water Treatment Works for the Directorate Water Quality and Regulation, Sub-Directorate Drinking Water and Waste Water Management, Free State Province.

SPECIFICATIONS FOR A HORSEBOX TYPE TRAILER EQUIPPED WITH AUTO ANALYZER PANELS TO MONITOR OPERATIONAL PARAMETERS ON A WATER TREATMENT WORKS.

A. CONDITIONS

The conditions governing this tender are as set out in the document entitled "Departmental General Conditions of Tender".

B. SPECIAL CONDITIONS

Before awarding of this contract the Department reserves the right to inspect the tenderer's premises to evaluate the service facilities and spare parts holding.

C. SERVICE

The service to be rendered under this tender is to supply:

- i. Supply a horse box type trailer equipped with auto analyzer panels to monitor operational parameters on a water treatment works
- ii. The trailer must have a backup generator according to specifications
- iii. Circulation pumps and hoses to transport the sample water from the process units to the trailer.
- iv. Details are set in the detail specifications under technical compliance

D. QUANTITIES

The department will procure the exact quantities as set out under technical compliance.

EVALUATION SYSTEM

DWS will evaluate all proposals in terms of the Preferential Procurement Policy Framework Act. No. 5 of 2000 (PPPFA). A copy of the PPPFA regulations can be downloaded from www.treasury.gov.za. In accordance with the PPPFA, submissions will be adjudicated on 90/10 points system and the evaluation criteria. A three phase evaluation criteria will be considered in evaluating the bid being:

Phase 1: Administrative / Mandatory compliance

Phase 2: Technical compliance

Phase 3: Points awarded for B-BBEE Status Level of Contribution

PHASE 1: ADMINISTRATIVE COMPLIANCE: (MANDATORY REQUIREMENTS)

Bidders must submit all the below mentioned requirements. Bids with deviations from the requirements /conditions, SHALL be disqualified from further consideration.

Aspects	Description
Administrative compliance	<ul style="list-style-type: none">• Certificate of compliance with quality management system, ISO 9001:2008.• Bidders must attach brochure for each instrument.• It is a requirement that bidders who do business with government must comply to the relevant tax legislations and bidders are required to submit an ORIGINAL AND VALID Tax Clearance Certificate as issued by SARS. Failure to submit such may invalidate your bid.• Standard bidding document (SBD) forms completed and signed

PHASE 2: TECHNICAL COMPLIANCE

Bidders must comply with all the below mentioned requirements. Bids with deviations from the requirements /conditions, SHALL be disqualified for further consideration.

SPECIFICATIONS FOR A HORSEBOX TYPE TRAILER EQUIPED WITH AUTO ANALYZER PANELS TO MONITOR OPERATIONAL PARAMETERS ON A WATER TREATMENT WORKS.

<p>SPECIFICATION FOR A WATER DISTRIBUTION SYSTEM MONITORING PANELS AND CONTROLLERS (3 PANELS WITH ALL EXCESSORIES) CONSISTING OF THE FOLLOWING PER PANEL:</p> <p>1A. INLET ELECTRICAL CONDUCTIVITY (EC) PH TURBIDITY</p> <p>1B. AFTER SEDIMENTATION ELECTRICAL CONDUCTIVITY (EC) PH TURBIDITY FREE CHLORINE</p> <p>1C. FINAL WATER ELECTRICAL CONDUCTIVITY (EC) PH TURBIDITY FREE CHLORINE</p>	QTY	DETAILS OF OFFER		
		COMPLIANT	NON COMPLIANT	REASON FOR DEVIATION IF NON COMPLIANT
<p><u>SECTION 1: PANEL DISCRPTION</u></p> <p>A. The Water Distribution System Monitoring Panel shall be a single panel with instruments pre-mounted, wired and plumbed. (required for all 3 panels)</p> <ol style="list-style-type: none"> 1. The back plane of the panel shall be not greater than 56cm wide by 122cm long and made of corrosion resistant material. 2. The panel shall be fully assembled with all instruments, except controller, mounted, plumbed and wired prior to shipment. The controller for the panels shall be mounted separately. 3. The sample and drain system for the panel shall accommodate flows of 400 to 600 ml/min. 4. A common drain system shall be provided for all instruments. The drain manifold shall be terminated with 1/2" hose barb fitting for connection of a flexible drain tube. 	3			

<p>5. Pressure and flow control shall be via a fixed orifice and constant head devices.</p> <ul style="list-style-type: none"> i. The constant head device shall provide pressure and flow regulation for all sensors downstream from the orifice device. ii. No rotometers or other flow control devices shall be required. iii. Within a pressure range of 20-100 psi, no additional pressure regulation shall be required. iv. The constant head device shall provide a mounting mechanism for the pH and conductivity sensor as well as one additional probe type sensor. 				
<p>B. The panels shall include the following on-line analytical instruments (See Section II for complete instrument descriptions): A turbidimeter, a chlorine residual analyzer, a conductivity cell and a pH sensor. The conductivity and pH sensors shall have built-in temperature measurement and compensation.</p> <ul style="list-style-type: none"> 1. All analytical instruments shall be pre-wired to a common junction box via quick-connect connectors. 2. All analytical sensor inputs and sensor power shall be supplied from the junction box. 3. The junction box shall provide all sensor outputs to the controller and receive all sensor inputs from the controller via a single shielded cable. 4. All devices on the panel shall operate at 230Vac ~50/60 Hz. 5. Total power requirement shall not exceed 500 VA. 6. All instruments shall be powered using a single connection using a modular cord or wiring with conduit. 7. All devices on the panel shall be capable of operating at a pressure of 15 - 60 psi. 				
<p>C. CONTROLLER</p> <p>(Refer to section describing controllers under Section VI for quantities)</p> <p>The controller for the panel shall be a digital device capable of alphanumeric and graphical display with a 1/4 VGA graphical backlit TFT color touch screen. The controller shall consist of two modules, a probe module and a display module.</p> <ul style="list-style-type: none"> 1. The controller shall provide eight separate fully scalable 4-20 mA outputs for connection to 				

<p>recorders, an RTU or PLC.</p> <ol style="list-style-type: none"> 2. The controller shall provide a RS485 Modbus digital output for transmission of all data on a single shielded cable. 3. The controller shall provide for addition of an optional Profibus DP module in place of the Modbus module. 4. The controller shall have a GSM wireless modem. 5. An Ethernet port for direct connection to computer for data downloads shall be provided. 6. The controller shall be capable of direct communication with the Event Monitor Trigger System. 7. The controller shall act as a data logger storing up to 28 days of data in 1- minute increments. 8. In graphical mode, any measurement shall be scalable to periods of one day or one week. 9. The data shall be downloadable to a Windows-based computer in a delimited format for easy viewing and manipulation by standard spreadsheet or database programs. 10. All analog outputs from the controller shall be located on a single terminal barrier strip for ease of field connections. 11. The controller shall provide the ability to program hi and low alarm set points for each measurement. Optional dry contact alarm relay modules shall be available from the manufacturer 12. The display module of the controller shall be removable from the probe module without affecting sensor inputs or sensor outputs and without disruption of any network connection to external devices. 13. The instrument manufacture shall offer an OPC driver designed specifically to communicate with the controller. <ol style="list-style-type: none"> i. The OPC driver shall permit the data from the controller's digital signal to be easily integrated in to the system SCADA. ii. The OPC driver shall be a server and incorporate a separate OPC Logger function to permit simultaneous logging of data to the SCADA and to the OPC Logger for a redundant data path in the event of SCADA failure. iii. The controller shall be powered separate from 				
---	--	--	--	--

the panel and shall operate at 100 to 230 Vac, 50/60 Hz, and 75W. 24Vdc operation also shall be available.

D. The panel shall include a pressure sensor for monitoring water pressure at the sample manifold.

1. The pressure sensor shall be a CVD Pressure Transducer with a 2 wire, 24 AWG, shielded PVC cable to carry the variable 4 – 20 mA output signal.
2. The pressure sensor shall have a measuring range of 0 – 150 psi.
3. The pressure sensor shall have an accuracy of +/-0.25% with +/- 1.5% thermal error bands.
4. The pressure sensor shall be Gems 2200 series, number 68426-00.

3

SECTION II. ANALYTICAL INSTRUMENTS.

All analytical instruments installed on the panel shall be from a single manufacturer to minimize maintenance and support issues.

Instrumentation General Installation

Manufacturer's representative will include a Full-day of start-up service by an Original Equipment Manufacturer (OEM) factory-trained technician.

Contractor will schedule a date and time for start-up.

Contractor will require the following people to be present during the start-up procedure.

- a. General contractor
- b. Electrical contractor
- c. OEM trained personnel to assist with commissioning.

Manufacturer's Service and Start-Up

Contractor will include the manufacturer's services to perform start-up on instrument to include basic operational training and certification of performance of the instrument.

Contractor will include a manufacturer's Service Agreement that covers all the manufacturer's recommended preventative maintenance, regularly scheduled calibration and any necessary repairs beginning from the time of equipment start-up through to end user acceptance / plant turnover and the first 12 months of end-user operation post turnover.

Above Items are to be performed by manufacturer's factory-trained service personnel. Field service and factory repair by personnel not employed by the manufacturer is not allowed.

A. TURBIDITY: INLET (RAW WATER)

1

1.1 Section includes

- A. Turbidity and suspended solids sensor for monitoring water and sludge concentrations and turbidity values.

1.2 **Measurement Procedures**

- A. The method of measuring turbidity and suspended solids will be with a dual-beam infrared/scattered light photometer. LED light source transmits light at 45 degrees to the sensor face.

1. Nephelometric photoreceptors will detect scattered light at 90 degrees to the transmitted beam for turbidity.
2. Back-scatter photoreceptors will detect scattered light at 140 degrees to the transmitted beam for suspended solids.

1.3 **Alternates**

- A. Other methods of turbidity and suspended solids measurement, such as four-beam or surface scatter methods, are not acceptable.

1.4 **System Description**

A. Performance Requirements

1. Measurement range

- a. Turbidity: 0.001 to 4000 NTU
- b. Suspended solids: 0.001 mg/l to 50 g/L

2. Accuracy

- a. Turbidity: Less than 1% of reading or ± 0.001 NTU, whichever is greater
- b. Suspended solids: Less than 5% of reading (depends on homogeneity of municipal activated sludge)

3. Repeatability

- a. Turbidity: Less than 1% of reading
- b. Suspended solids: Less than 3% of reading (depends on homogeneity of municipal activated sludge)

4. Detection limit

- a. Turbidity: 0.001 NTU
- b. Suspended solids: 0.001 mg/L

- 5. Response time: Initial response 1 second
- 6. Signal Averaging Time: User selectable ranging from 1 to 300 seconds
- 7. Units of measure:
 - a. Turbidity: User Selectable NTU, FNU, EBC, FTU and TE/F
 - b. Suspended Solids: User Selectable g/L, mg/L, ppm, or % solids

1.6 Environmental Requirements

A. Operational Criteria

- 1. Sample flow velocity: 3 m/s (9.8 ft./s) maximum
- 2. Sample pressure: 6 bar (87 psi) maximum
- 3. Sample temperature: 0 to 40 degrees C
- 4. Operating temperature: 0 to 40 degrees C

1.7 Warranty

- A. The product includes a one-year warranty from the date of shipment.

1.8 Maintenance Service

A. Scheduled maintenance:

- 1. Clean measurement windows: as experience dictates
- 2. Change wiper blades: from 3 to 6 months (depending on the application)
- 3. Replace probe seals: every two years

2.1 Manufactured Unit

- A. Turbidity and Suspended Solids Sensor consists of a sensor contained in stainless steel with a silicon wiper blade and integral cable.

2.2 Equipment

- A. The sensor provides sample color-independent measurement.
- B. The sensor is equipped with a self-cleaning device to prevent erroneous values and maintenance problems caused by biological activity, scum build-up, and gas bubbles.
- C. The signal average time for the sensor is user-selected from 1 to 300 seconds.
- D. The sensor measures turbidity or turbidity and

suspended.

- E. The sensor must be serviceable.
- F. The sensor is factory calibrated and needs no calibration prior to use.
- G. The sensor shall be capable of insertion in pipe

2.3 Components

A. Standard equipment:

- 1. Sensor with 33 ft. (10 m) cable
- 2. Manual

B. Dimensions

- 1. insertion:
 - a. Length: 12.40 inches (315 mm)
 - b. Diameter: 2.36 inches high (60 mm) C.

- 1. Models for insertion: 5.3 lb. (2.4 kg)

2.4 Accessories

A. Calibration kit

B. Wiper blades

C. Installation:

- 1. Insertion mounting kit
- 2. Sensor adapters

3.1 Preparation

A. **Immersion sensors:**

- 1. Install the sensor with the optical window facing downstream in the direction of the flow to protect the sensor against the oncoming flow of large objects.

B. Insertion sensors:

- 1. Pipe diameter: minimum 4 inches (100 mm) diameter in carbon or stainless steel.
- 2. Install minimum 5 ft. (1.5 m) or three times the pipe diameter (whichever is greater) downstream of pumps, valves, or pipe elbows.

- C. Locate the sensor 33 ft. (10 m) from the controller with the standard sensor cable. (Maximum distance between sensor and controller of 328 ft. (100 m) with optional extension cables.)

2

B. TURBIDITY – AFTER SEDIMENTATION & FINAL WATER

PART 1

1.1 Section includes:

- A. Instrument for monitoring turbidity in water accordance/compliance with DIN EN ISO 7027.

1.2 Measurement Procedures

- A. The method of measuring turbidity will be nephelometric using pulse scattered infrared light at 860nm at a 90° angle in accordance with/compliance with DIN EN ISO 7027.

1.3 Alternates

- A. Other methods of turbidity measurement including those that require a sample cell, those with incandescent light sources, or turbidimeters used for EPA reporting are not acceptable.

1.4 System Description

A. Performance Requirements

1. Range

- a. 0.0001 to 1000 FNU (1 FNU = 1 NTU)

2. Resolution

- a. 0.0001 to 0.9999 / 1.000 to 9.999 / 10.00 to 99.99 / 100 to 1000 FNU (NTU)

3. Precision

- a. ±0.008 FNU or ±1% of reading (0 to 10 FNU)

4. Repeatability

- a. ±0.003 FNU or ±5% of reading (0 to 2 FNU)

5. Response time

- a. 1 to 60 seconds (user adjustable)

1.5 Environmental Requirements

A. Operational Criteria

1. Operating Temperature

- a. 36 to 104 °F (2 to 40°C)

2. Sample Temperature

- a. 122 °F (50 °C) maximum

3. Sample Pressure

a. 87 psi at 68°F (6 bar at 20°C)

4. Sample flow rate

a. Minimum: 0.2 L/min

b. Maximum: 1L/min

1.6 Warranty

A. The sensor includes a one-year warranty from the date of shipment.

1.7 **Maintenance Service**

A. Scheduled Maintenance

1. Every 1200 Cycles

2. Every Two Years

a. Replace desiccant

b. Monitor test equipment with CVM Dry Calibration

PART 2

2.1 Manufactured Unit

A. Unit consists of an 860nm LED light source, detection system, and internal light trap. Sample chamber wiper.

2.2 Equipment

A. The turbidimeter operates continuously.

B. The turbidimeter provides user selectable bubble rejection, alarm and controller output hold, and self-test diagnostics.

C. Wetted materials as follows:

1. Measuring window:

a. Quartz

2. Measuring Chamber:

a. Noryl GFN2

3. Wiper axle:

a. Stainless Steel 1.4571

4. Wiper profile

a. Silicone

2.3 Components

<p>A. Standard Equipment</p> <ol style="list-style-type: none"> 1. Sensor with appropriate cable length 2. User Manual 3. Factory Test Certificate 4. Accessory Set 5. Wiper Set <p>B. Dimensions: 9.9 x 9.4 x 4.3 in. (250 x 240 x 110 mm)</p> <p>C. Weight: 3.3 lbs (1.5 kg)</p> <p><u>PART 3 EXECUTION</u></p> <p>3.1 Preparation</p> <ol style="list-style-type: none"> 1. Mounting 2. Sample inlet <ol style="list-style-type: none"> a. 13 mm ID tubing 3. Drain <ol style="list-style-type: none"> a. 13 mm ID tubing 				
<p>C. <u>CHLORINE ANALYZER:</u> (AFTER SEDIMENTATION AND FINAL)</p> <p>PART 1 GENERAL</p> <p>1.1 Section includes:</p> <ol style="list-style-type: none"> A. Chlorine analyzer for monitoring of free or total residual chlorine <p>1.2 Measurement Procedures</p> <ol style="list-style-type: none"> A. The method of measuring free or total chlorine will be colorimetric. Instrument chemistry will employ N, N-diethyl-p-phenylenediamine (DPD) method. <p>1.3 Alternates</p> <ol style="list-style-type: none"> A. Other methods of chlorine measurement such as amperometric, potentiometric, and iodometric that employ electrodes or other electrochemical techniques are not acceptable. 	2			

1.4 System Description

A. Performance Requirements

1. Measurement range:
 - a. 0 to 5 mg/L (ppm) free or total residual chlorine
2. Accuracy
 - a. $\pm 5\%$ of reading or ± 0.04 mg/L (ppm), whichever is greater
3. Precision
 - a. 5% of reading or 0.01 mg/L (ppm), whichever is greater
4. Minimum detection limit
 - a. 0.02 mg/L (ppm)
5. Resolution
 - a. 0.01 mg/L (ppm)
6. Repeatability
 - a. 0.05 mg/L (ppm)
7. Cycle Time
 - a. 2.5 minutes

1.5 Environmental Requirements

A. Operational Criteria

1. Sample flow rate
 - a. 200 to 500 mL/minute
2. Sample pressure (without conditioning kit)
 - a. 1 to 5 psi (0.07 to 0.34 bar)
3. Sample pressure (with conditioning kit)
 - a. 120 psi (8.27 bar)
4. Sample temperature
 - a. 41 to 104 °F (5 to 40 °C)
5. Operating temperature
 - a. 41 to 104 °F (5 to 40 °C)
6. Operating humidity
 - a. 90% at 40 °C maximum

1.6 Warranty

A. The product includes a one-year warranty from the date of shipment

1.7 Maintenance Service

A. Scheduled Maintenance

1. Monthly

a. Reagent replacement

2. Annually

a. Analyser tubing replacement

B. Unscheduled Maintenance

1. Pump tubing replacement is operating temperature dependent

a. Operating temperature below 80 °F: six-month intervals

b. Operating temperature above 80 °F: three-month intervals

PART 2 PRODUCTS

2.1 Manufactured Unit

A. Chlorine analyser consists of a sample and reagent valve and pump, measurement cell, controller, and is shipped with buffer and indicator solutions.

2.2 Equipment

A. The analyser must be housed in a NEMA 12 enclosure that is IP62 rated with the gasketed door latched.

B. The analyser shall be capable of measuring free or total residual chlorine by changing the tubing and indicator and buffer solutions.

C. A measurement shall be taken every 2.5 minutes and results displayed by a three digit LCD readout in the range of 0 to 5 mg/L.

D. The analyser must operate using 115V or 230V selectable AC power.

E. The analyser must perform a self-test and auto-blanking between analysis points to compensate for sample color, turbidity, and changes in light intensity due to voltage fluctuations or light source aging.

F. The analyser shall operate with an LED light source at a peak wavelength of 510nm.

G. The analyser must be able to operate unattended for 30 days between chemical reagent changes and

measurement cell cleaning.

- H. The analyser has standard optically isolated analog outputs, selectable as 0/4 to 20mA, field programmable over any portion of the analyser range
- I. The analyser has two standard SPDT relay alarms, with contacts rated for 5 amp resistive loads at 230V AC power. Alarm options include concentration set point, analyser system warning, and analyser system shut down.

2.3 Components

A. Standard Equipment

- 1. Free or Total Chlorine analyzer
- 2. One-Month Supply of reagents
- 3. Installation kit
- 4. Maintenance kit
- 5. Sample conditioning kit
 - a. Pressure regulator, strainer, and shut off valve
- 6. Wall mount kit
- 7. User manual

B. Dimensions: 13.5 x 17.9 x 7 inches (343 x 455 x 178 mm)

C. Shipping weight: 16 lbs (7.3 kg)

PART 3 EXECUTION

3.1 Preparation

- 1. Sample inlet
 - a. 0.25 inch OD polyethylene tubing
- 2. Sample outlet
 - a. 0.50 inch ID flexible tubing
- 3. Overflow drain
 - a. 0.50 inch ID flexible tubing
- 4. Air purge quick connect
 - a. 0.25 inch OD polyethylene tubing (optional)

<p>D. pH Analyzer</p> <p>1.1 Section includes</p> <p>Sensor that continuously measures pH in aqueous solutions.</p> <p>1.2 Measurement Procedures</p> <ol style="list-style-type: none"> 1. The method of measuring pH will be with a probe or sensor that uses differential electrode measurement technique using three electrodes. <ol style="list-style-type: none"> a. Two electrodes compare the process value to a stable internal reference standard buffer solution. b. The internal electrode is non-flowing, foul-resistant characteristics. <p>1.3 Alternates</p> <p>A. Other methods of pH measurement including combination probes will not be accepted.</p> <p>1.4 System Description</p> <p>A. Performance Requirements</p> <ol style="list-style-type: none"> 1. Measurement range: 0 to 14 pH 2. Sensitivity: 0.01 pH 3. Stability: 0.03 pH per 24 hours, non-cumulative <p>1.5 Environmental Requirements</p> <p>A. Operating Criteria</p> <ol style="list-style-type: none"> 1. Temperature range: 23 to 221 °F (-5 to 105 °C) 2. Sample flow rate: 3 meters (10 feet) per second, maximum 3. Pressure: 100 pounds per square inch at 221 °F (6.9 bar at 105 °C) 4. Transmission distance: 1000 meters (3240 feet), maximum <p>1.6 Warranty</p> <p>A. The product must include a 30-month pro-rated warranty from the date of shipment.</p> <ol style="list-style-type: none"> 1. 0 to 12 months: 100% free from manufacturer defects 2. 0 to 18 months: replaced at 1/3 current list price for any reason 	3			
---	---	--	--	--

3. 19 to 30 months: replaced at 2/3 current list price for any reason

1.7 Maintenance Service

A. Scheduled maintenance:

1. Condition/site dependent includes:
 - a. Occasional wipe of electrode with mild soap solution
 - b. Soak sensor for 2 to 3 minutes
 - c. Use small bristle brush to scrub measuring end of sensor
2. Twice yearly: replace salt bridge and pH buffer.

2.1 Manufactured Unit

A. pH Sensor consists of:

1. Encapsulated sensor with digital signal processor, pre-amplifier, reference electrode, measuring electrode, ground electrode, and replaceable salt bridge.
2. Integral 10-meter cable
3. Wetted material:
 - a. Ryton®

2.2 Equipment

- A. The probe has a built in Pt 1000 RTD temperature compensator.
- B. Mounting styles are as follows:
 1. 1-inch NPT threads on both ends to mount into:
 - a. Standard 1-inch pipe tee.

2.3 Components

A. Standard equipment:

1. Probe
2. Salt bridge
3. 10-meter integral cable
4. Manual

B. Dimensions

1. Length: 7.73 in. (28.8 cm)
2. Diameter 1.25 in. (3.1 cm) C. Weight: 11 oz. (0.31 cm)

E. CONDUCTIVITY ANALYZER (EC) :

3

1.1 Section includes

System that continuously measures conductivity and/or resistivity in aqueous solutions.

1.2 Measurement Procedures

The method of measurement will be electrodeless/inductive conductivity and resistivity with a probe or sensor.

1.3 System Description

Performance Requirements

Measurement range:

- a. Conductivity: 0 to 200 micro Siemens/cm, up to 0 to 2,000,000 micro Siemens/cm
- b. Temperature: -10 to 200 °C (14 to 392 °F)

1.4 Environmental Requirements

Operational Criteria

- 1. Operating temperature: limited only by sensor body material and mounting hardware
- 2. Pressure and temperature limits:
 - a. PFA Teflon: 200 psi at 392° F (13.8 bar at 200 °C)
- 3. Flow rate: 10 ft./s (3 m/s), maximum

1.5 Warranty

The system must be warranted for 1 year from date of shipment against defects in materials or workmanship.

2.1 Manufactured Unit

Electrodeless Conductivity System consists of:

- a. Submersible probe
- b. Integral cable
- c. Digital gateway device

2.2 Equipment

- A. The probe communicates with the controller digitally via RS-485 MODBUS® connection.
- B. The probe has a built in Pt 1000 RTD temperature compensator.

<p>C. The probe is water resistant.</p> <p>D. The wetted material is:</p> <p> a. PFA Teflon®</p> <p>E. Mounting styles:</p> <p> a. Convertible style:</p> <p>A. To mount into any 2-inch NPT fitting with a union-mount adapter</p> <p>2.3 Preparation</p> <p>A. The system must be mounted directly in the solution to be measured.</p>				
<p>SECTION III - Performance Testing</p> <p>A. All instruments offered as part of the panel must have been manufactured and offered for sale for a minimum of 36 months prior to the date of award of the bid</p>				
<p>SECTION IV - Manufacturer's Start Up and Training.</p> <p>A. The supplier of the panel shall provide the services of a technical representative or service technician and employee from the instrument manufacturer for a minimum of 1 hour but not to exceed 2 hours for start up and configuration of each panel provided.</p> <p>B. The technical representative or service technician and employee of the manufacturer also shall offer a minimum of one (1) eight-hour training session on care, calibration and maintenance of all</p>				
<p>SECTION V - Warranty</p> <p>A. All analytical instruments on the Water Distribution System Monitoring Panel shall carry a warranty for a minimum period of 1 year from the date of invoice for all analytical instruments.</p> <p>B. The warranty shall be the responsibility of the supplier awarded the bid backed by written proof from the manufacturer.</p> <p>C. The Supplier shall provide written proof, backed by the manufacturer, that he is able to service and repair the equipment at a manufacturers approved repair centre in South Africa.</p> <p>D. The Supplier shall provide written proof, backed by the manufacturer, that he has trained and accredited repair technicians is his repair centre.</p>				

**WATER DISTRIBUTION MONITORING PANAL MULTI PARAMETER CONTROLLING UNIT –
DETAIL SPECIFICATION**

	QTY	DETAILS OF OFFER		
		COMPLIANT	NON COMPLIANT	REASON FOR DEVITATION IF NON COMPLIANT
<p><u>SECTION VI</u></p> <p><u>CONTROLLERS</u></p> <p>A multi-parameter controller that works with digital sensors</p> <p>A. Microprocessor-based sensor controller.</p> <p>B. Change digital sensors connected to the controller by unplugging and plugging in sensors as necessary.</p> <p>C. Probe modules of the controller can be networked together to accommodate more than eight sensors on one network.</p> <p>D. Only one display module is accepted for the entire network of probe modules.</p>				
<u>PART 1: CONTROLLER DETAIL - CONTROLLER 1</u>				
<p>The controller accepts up to eight sensor inputs from the following digital sensors in any combination</p> <ol style="list-style-type: none"> 1. Digital pH sensor 2. Turbidimeter 3. Contacting Conductivity Sensor 4. Electrodeless Conductivity Sensor 5. Membrane Dissolved Oxygen Sensor 6. Free Chlorine Amperometric Sensor 7. Ozone Amperometric Sensor 8. Chlorine Dioxide Amperometric Sensor 9. Ammonia Analyzer 10. Ammonium Sensor 11. AN-ISE combination Ammonium and Nitrate Sensor 12. IF10 Free Chlorine Amperometric Sensor 13. CIT10 Total Chlorine Amperometric Sensor 14. Digital PC sc and RC sc Combination pH and ORP 				

<p>Sensors</p> <ol style="list-style-type: none"> 15. Evita Insitu 4100 sc Ammonium and Orthophosphate Sensors 16. Laser Nephelometer 17. Oil in Water Sensor 18. LDO Luminescent Dissolved Oxygen Sensor 19. Luminescent Dissolved Oxygen Sensor 20. NH4D sc Ammonium Sensor 21. N-ISE Nitrate Sensor 22. NO3D Nitrate Sensor 23. Nitrate Sensor 24. Differential pH and ORP Sensors 25. Low and High Range Phosphate Analyzer 26. Turbidity and Suspended Solids Sensor 27. Sludge Level Probe 28. High Range Turbidimeter 29. Suspended Solids/Turbidity Sensor 30. Turbidimeter (Including <i>plus</i> and <i>seawater</i> versions) 				
<p><u>Certifications</u></p> <p>EMC: CE compliant for conducted and radiated emissions CISPR 11 (Class A limits), EMC Immunity EN 61326-1 (Industrial limits)</p> <p>B. Safety: General Purpose UL/CSA 61010-1 with cTUVus safety mark</p> <p>C. Australian C-TICK and Korean KC Markings</p> <p>D. FCC ID QIPMC56/IC ID 267W-MC56</p> <p>E. IP65 dust and water ingress ratings</p>				
<p><u>Environmental Requirements</u></p>				
<p><u>Operational Criteria</u></p> <ol style="list-style-type: none"> 1. Operating temperature: -4 to 131 °F (-20 to 55°C) 2. Storage Temperature: -4 to 158 °F (-20 to 70°C) 3. Humidity Requirements: 0 to 95% relative humidity, non-condensing 				

<p><u>Warranty</u></p> <p>A. Warranted for 12 months from the date of shipment from manufacturer's defects</p> <p>B. The warranty shall be the responsibility of the supplier awarded the bid backed by written proof from the manufacturer.</p> <p>C. The Supplier shall provide written proof, backed by the manufacturer, that he is able to service and repair the equipment at a manufacturers approved repair centre in South Africa.</p> <p>D. The Supplier shall provide written proof, backed by the manufacturer, that he has trained and accredited repair technicians in his repair centre.</p>				
<p><u>PRODUCTS</u></p>				
<p>Manufactured Unit</p> <p>A. The controller is microprocessor-based and is housed in an IP65 rated enclosure.</p> <p>B. The controller is a modular system consisting of:</p> <ol style="list-style-type: none"> 1. Display Module (separate CSI specifications are available for this part of the unit) 2. Probe Module <p>C. The controller has up to eight connections for digital sensors</p>				
<p><u>Equipment</u></p> <p>A. The controller is available with the following power requirements:</p> <ol style="list-style-type: none"> 1. AC powered: 100 to 240 Vac \pm10%, 50/60 Hz; maximum 1000 VA, Category II 2. 24 VDC powered: 18 to 30 VDC, maximum 75 W <p>B. The controller uses a menu-driven operation system.</p> <p>C. The controller display is a ¼ VGA graphical backlit TFT Color Glass/Glass-Touch Screen</p> <ol style="list-style-type: none"> 1. Screen size is 4.5 x 3.4 in (11.4 x 8.6 cm) 2. Screen resolution is 320 x 240 pixels <p>D. The controller is equipped with a real-time clock.</p>				

<p>E. The controller is equipped with two security levels.</p> <p>F. The controller is equipped with a data logger that can output to a storage card or directly to a computer hard drive.</p> <p>G. The controller can be equipped with an SD card reader for data download and controller software upload.</p> <p>H. The controller can have software updated through a direct network connection</p> <p>I. Four electromechanical, UL rated, SPDT relays (Form C) can be installed for user-configurable contacts rated 100 to 250 Vac, 5 Amp at 30 VDC resistive maximum.</p> <p>1. The following can be programmed:</p> <ul style="list-style-type: none"> a. Alarm b. Feeder Control c. Two Point Control d. Pulse Width Modulation Control e. Frequency Control f. Timer g. System Error <p>2. The following can be assigned:</p> <ul style="list-style-type: none"> a. Primary value measurement I b. Secondary value measurement I c. Tertiary value measurement I d. Quaternary value measurement I e. Primary value Measurement II f. Secondary value measurement II g. Tertiary value measurement II h. Quaternary value measurement II i. Real time clock j. Calculated values <p>J. The controller can be equipped with up to twelve 0/4-20mA outputs with a maximum impedance of 500 ohms per probe module.</p> <p>1. The following can be programmed:</p> <ul style="list-style-type: none"> a. Alarms: 				
---	--	--	--	--

<p>1) Low alarm point</p> <p>2) Low alarm point dead band</p> <p>3) High alarm point</p> <p>4) High alarm point dead band</p> <p>5) Off delay</p> <p>6) On delay</p> <p>b. Controls:</p> <p>1) Linear</p> <p>1) PID</p> <p>2) High/Low Phasing</p> <p>3) Set-Point</p> <p>4) Dead band</p> <p>5) Overfeed timer</p> <p>6) Off Delay</p> <p>7) On Delay</p> <p>K. The probe module can be equipped with the following forms of communication:</p> <ol style="list-style-type: none"> 1. MODBUS RS485 2. Profibus DP 3. Ethernet (standard) <p>L. All user settings of the controller are retained for 10 years in non-volatile EEPROM memory.</p> <p>M. The controller is equipped with a system check for:</p> <ol style="list-style-type: none"> 1. Power up test (monitoring and shutdown) 2. Total power draw 3. Memory devices 4. Temperature mother board <p>N. The controller has the option of graphical measurement that tracks measurement values over time.</p>				
--	--	--	--	--

<p><u>Components</u></p> <p>A. Standard Equipment</p> <ol style="list-style-type: none"> 1. Probe Module 2. User Manual <p>B. Dimensions: 9.5 x 4.7 x 12.3 in (242 x120 x315 mm)</p> <p>C. Weight: 14.6 lbs (6.6 kg)</p>				
<p><u>Accessories</u></p> <p>A. Required</p> <ol style="list-style-type: none"> 1. Relay board 2. Profibus DP board 3. Modbus RS485 board 4. 4-20mA Input board 5. 4-20mA Output board 6. Mounting hardware 7. Sun shield 8. DIN rail expansion modules 9. Internal network connector and cables 10. UDG1000™ Universal Data Gateway software 				
<u>EXECUTION</u>				
<p>Preparation</p> <ol style="list-style-type: none"> 1. Mounting <ol style="list-style-type: none"> a. Controller must be panel mounted. b. Installation <p>A. Contractor will install the analyzer in strict accordance with the manufacturer's instructions and recommendation.</p> <p>B. Manufacturer's representative will include a half-day of start-up service by a factory-trained technician.</p>				
<p><u>PART 2: CONTROLLER DETAIL - CONTROLLER 2</u></p> <p>1.1 Section includes:</p> <ol style="list-style-type: none"> A. A modular dual channel controller that works with digital sensors. <p>1.2 Measurement Procedures</p> <ol style="list-style-type: none"> A. Microprocessor-based sensor controller. 	1			

B. Change digital sensors connected to the controller by unplugging and plugging in sensors as necessary.

1.3 Alternates

A. Parameter-specific controllers that do not allow changing parameter configurations in the field are unacceptable.

1.4 Environmental Requirements

A. Operational Criteria

1. Temperature: -4.0 to 140.0 °F (-20.0 to 60.0 °C)
2. Relative humidity: 0 to 95%, non-condensing

1.5 Warranty

A. Warranted for two years from date of shipment from manufacturer defects.

1.6 Maintenance Service

- A. Cleanable controller keypad
- B. Ability to Calibrate mA output signals

PRODUCTS

1.7 Manufactured Unit

- A. The controller is available with the following power requirements:
 1. AC powered: 100 to 240 Vac \pm 10%, 50/60 Hz; 15 W with 7 W sensor/network card load, 37 W with 25 W sensor/network card load.
- B. The controller uses a menu-driven operation system.
- C. The controller display is graphic dot matrix LCD with LED backlighting.
- D. The controller is equipped with a real-time clock.
- E. The controller is equipped with two security levels.
- F. The controller is equipped with a data logger
- G. The controller shall have worded operation menus in 19 languages.
- H. The controller is equipped with an SD card reader for data download and controller software upload.
- I. Two analog 0/4-20 mA outputs are provided with a maximum impedance of 500 ohms.
 1. The controller can be equipped with three additional 4-20 mA outputs with a maximum impedance of 500 ohms.
- J. All user settings of the controller are retained for 10 years in flash memory.
- K. The controller is equipped with a system check for:
 1. Power up test (monitoring and shutdown)
 2. Total power draw
 3. Memory devices
 4. Temperature mother board
- L. The controller has the option of graphical

<p>measurement that tracks measurement values over time.</p> <p>1.8 Equipment</p> <p>A. Materials</p> <ol style="list-style-type: none"> 1. Housing: polycarbonate, aluminum (powder coated), and stainless steel 2. Rating: NEMA 4X enclosure, rated IP66 <p>B. Conduit openings: 0.5 in. NPT</p> <p>1.9 Components</p> <p>A. Standard equipment</p> <ol style="list-style-type: none"> 1. Controller 2. Mounting hardware for wall, pipe, and panel mounting <p>B. Dimensions: 144 x 144 x 180 mm (5.7 x 5.7 x 7.1 in.)</p> <p>Weight: 1.6 kg (3.5 lbs)</p>				
OTHER EQUIPMENT				
<p>PUMPS</p> <ol style="list-style-type: none"> a. All stainless Steel with Float Switch b. 1100W c. 11m Head d. 15500 ltr/Hr e. Dirty & Clean Water capable f. All Electrical connections to be IP67 compliant 	4			
<p>PIPING</p> <p>B. Yellow Nitrile Layflat Hose.</p> <ol style="list-style-type: none"> 1. Made of UV resistant Nitrile Compound. 2. 19mm ID x 24mm OD with 2.5mm wall thickness. 3. Working Pressure 2400 kpa. <ol style="list-style-type: none"> b. Securely connected to Distribution Panel and pump. c. All connections for extensions to be made from Stainless Steel or Brass. e. 100meters in length (Made up of 20mtr lengths.) 	4			
<p>ELECTRICAL EXTENTIONS</p> <ol style="list-style-type: none"> a. 1.5mm Cabtyre 3 Core 100 meters in length b. All connection points to be IP67 compliant. c. 2.0mm Cabtyre 3 Core 100 meters in length to connect trailer to main supply (X1) 	300 Meter 1			
<p>HAND HELD TEST EQUIPMENT FOR COMPLIANCE CHECKING</p> <p>A. Dual Input Multi Parameter Portable meter</p>	1			

<ol style="list-style-type: none"> 1. Must be able to do PH, EC, Temp, TDS, LDO 2. IP67 3. Up to 500 results storing 4. M12 Digital (2) for IntelliCAL probes 5. USB to PC / Flash Stick Output 6. 0.1 / 0.01 / 0.001 Resolution 7. 3 Years warranty 8. CE.WEEE Compliant 9. Protective glove for meter 				
<p>B. Probes for Multi Meter</p>				
<ol style="list-style-type: none"> 1. PH Rugged IntelliCAL probe with 5m cable with Temperature <ol style="list-style-type: none"> a. pH IntelliCal Rugged digital combination non-refillable, gel-filled pH electrode with stainless steel outer body, double junction Ag/AgCl reference, open junction diaphragm, built-in temperature sensor and standard size bulb. b. Measuring range 2 to 14 pH c. 0 to 50 Deg/c Continuous use d. Dimensions – 45mm (D) x 250mm (L) e. 5m Cable f. Junction – Open 	1			
<ol style="list-style-type: none"> 2. PH general purpose IntelliCAL probe with 1m cable with Temperature <ol style="list-style-type: none"> a. Standard digital IntelliCal combination non-refillable, gel-filled pH electrode with epoxy body, double junction Ag/AgCl reference, open junction diaphragm, built-in temperature sensor and standard size bulb. b. Measuring range 2 to 14 pH c. 0 to 50 Deg/c Continuous use d. Junction – Open e. Dimensions – 12mm (D) x 200mm (L) f. 1m Cable 	1			
<ol style="list-style-type: none"> 3. Conductivity Rugged IntelliCAL probe with 5m cable <ol style="list-style-type: none"> a. Rugged graphite 4-pole IntelliCal conductivity cell with Stainless outer body and built-in 				

<p>temperature sensor.</p> <ul style="list-style-type: none"> b. Measuring Range: c. Conductivity - 0.01 micro S/cm to 200 mS/cm, d. Salinity – 0 to 42 g/kg (ppt) e. TDS – 0.0 to 50 000 mg/L f. Resistivity – 2.5 Ohm-cm to 49 MOhm-cm g. -10 to 110 Deg/c Continuous use h. Dimensions – 45mm (D) x 250mm (L) i. 5m Cable <p>4. Conductivity General purpose IntelliCAL probe with 1m cable</p> <ul style="list-style-type: none"> a. Standard graphite 4-pole IntelliCal conductivity cell with Noryl body and built-in temperature sensor. b. Measuring Range: <ul style="list-style-type: none"> a. Conductivity - 0.01 micro S/cm to 200 mS/cm, b. Salinity – 0 to 42 g/kg (ppt) c. TDS – 0.0 to 50 000 mg/L d. Resistivity – 2.5 Ohm-cm to 49 MOhm-cm c. 10 to 110 Deg/c Continuous use d. Dimensions – 14mm (D) x 200mm (L) e. 1m Cable <p>C. Colorimeter for Free & Total Chlorine Testing</p> <ul style="list-style-type: none"> 1. IP67 Rating 2. Single Wave length 3. +2 nm Accuracy 4. 15 nm Spectral Band width 5. 0.23kg in weight 6. Light source - LED <p>D. Turbidity Meter</p> <ul style="list-style-type: none"> 1. Meets EPA Method 180.1 2. 0 – 1000 NTU range 3. +- 2% Accuracy 	1			
---	---	--	--	--

<ol style="list-style-type: none"> 4. +-1% repeatability of reading 5. 0.01 NTU resolution 6. <0.02NTU Stray Light 7. Records up to 500 readings 8. IP67 Housing 9. CE Certified 10. 15ml Sample requirement 11. Weight 530g 12. USB+Power Module (LZV813) <ul style="list-style-type: none"> • Allows linepower: 110-230 Vac, 50/60 Hz • Charges NiMH batteries • Transfers data to Citizen PD-24 printer • Transfers data to computer without additional software (stored in module in XML format) • Enables firmware updates • Allows simple entry of Sample and User IDs with optional barcode scanner 	1			
<p>E. Spectrophotometer</p> <ol style="list-style-type: none"> 1. Fully portable with rechargeable batteries 2. Operating Mode – Transmittance, Absorbance and Concentration 3. Xenon Flash Source Lamp 4. 340 – 800 nm wave Length 5. +-2 nm wavelength accuracy 6. Automatic Wavelength selection 7. +- 0.005 Abs reproducibility 8. 5 nm Spectral bandwidth 9. +-0.003 Abs Photometric accuracy 10. Graphical display 240x160 pixel – LCD 11. Stores 500 measured results 12. 250 Pre-programmed tests loaded 13. Dimensions 98mm x 178 mm x 267mm 14. Weight 1.5kg 				

<p>BACKUP GENERATOR</p> <ol style="list-style-type: none"> 1. 5.5 KVA single phase generator 2. Diesel Engine 3. Diesel Fuel 4. Electric Start with battery 5. Must be able to connect to a auto start system to auto start when power failure occur. 6. Parts to be available locally 7. Service centre to be available locally 8. Quiet operation 9. 20-25 litre fuel tank capacity 10. Must be fitted on trailer and connected to electrical system to start automatically on power failure 	1																					
<p>TRAILER SPECIFICATIONS</p> <p>1. Dimensions</p> <table border="1" data-bbox="82 981 651 1397"> <tr><td>Height - Over All</td><td>2660 mm</td></tr> <tr><td>Height</td><td>2260 mm</td></tr> <tr><td>Length - Body</td><td>3875 mm</td></tr> <tr><td>Length - Over All</td><td>5195 mm</td></tr> <tr><td>Width - Inside</td><td>1530 mm</td></tr> <tr><td>Width - Over All</td><td>2090 mm</td></tr> <tr><td>Ground Clearance</td><td>250 mm</td></tr> </table> <p>2. Doors</p> <table border="1" data-bbox="82 1509 651 1630"> <tr><td>Door - Height</td><td>2000 mm</td></tr> <tr><td>Door - Width</td><td>700 mm</td></tr> </table>	Height - Over All	2660 mm	Height	2260 mm	Length - Body	3875 mm	Length - Over All	5195 mm	Width - Inside	1530 mm	Width - Over All	2090 mm	Ground Clearance	250 mm	Door - Height	2000 mm	Door - Width	700 mm	1			
Height - Over All	2660 mm																					
Height	2260 mm																					
Length - Body	3875 mm																					
Length - Over All	5195 mm																					
Width - Inside	1530 mm																					
Width - Over All	2090 mm																					
Ground Clearance	250 mm																					
Door - Height	2000 mm																					
Door - Width	700 mm																					

<p>3. Features - Exterior</p> <ul style="list-style-type: none"> a. Floor is manufactured from quality CORROSION Resistant sheet metal and rubberized. b. Body made from corrosion resistant steel c. 4x spring-loaded roof hatches for increased ventilation d. Internal overhead light is provided for illuminating the counter and interior e. Storage tray-shelves provided in nosecone f. Two sliding windows on top right side of trailer for increased ventilation g. Burglar proofing on windows provide essential security h. Two adjustable support legs on trailer rear corners for stabilizing on uneven ground i. Retractable and lockable access step for easy entry j. New adjustable polypropylene and PVC jockey wheel k. Multi-function LED lights l. One spare wheel m. Pad-lockable spare wheel bracket mounted on right side mudguard n. Two pad-lockable general-purpose enclosures mounted ahead of the mudguards o. Coupler "Sigma Auto-reverse type" p. Run-in brakes q. Caravan plug outlet for power supply on right back side of trailer r. 14 inch 5 stud wheels s. Pad-lockable generator compartment which is well-ventilated for generator t. Incandescent light in generator compartment. u. Generator compartment equipped with bracket with ratchet straps to secure equipment v. DB Board for 220V AC and 12V DC with necessary contactors and isolators to power all equipment individually w. 5 KW Diesel generator with auto start on power failure mounted in generator compartment <p>4. Features – Interior</p>				
--	--	--	--	--

<ul style="list-style-type: none"> a. 2 x Roof-mounted single fluorescent tube lights for interior illumination. b. 4 x 1850 wall mounted shelf/trays with sides. c. 6 x lockable storage bins secured on the shelf/trays d. 2 x Jerry can holders mounted and secured to the rear wall e. 2 x shelf/surfaces at the front of the trailer. f. 1 x Fire extinguisher g. 1 x 500mm x 500mm x 700mm wastewater receiver fitted with pump to discharge excess water back to supply. h. Back-Up Invertor/UPS <ul style="list-style-type: none"> a. 3 kVA (2100Watts), Pure Sine Wave b. 24V System, LCD Display c. System must run up to 4 hrs d. Run time can be extended by adding batteries. 				
<p>WARRANTY ON FULLY ASSEMBLED TRAILER</p> <p><u>Warranty</u></p> <ul style="list-style-type: none"> A. Warranted for 12 months from the date of shipment from manufacturer's defects B. The warranty shall be the responsibility of the supplier awarded the bid backed by written proof from the manufacturer on all equipment as well as the Trailer. C. The Supplier shall provide written proof, backed by the manufacturer, that he is able to service and repair the equipment, installed in the trailer, at a manufacturers approved repair centre in South Africa. D. The Supplier shall provide written proof, backed by the manufacturer, that he has trained and accredited repair technicians is his repair centre. E. The supplier shall provide written proof, backed by the manufacturer of the equipment installed in the trailer, that he is accredited to provide training on the commissioning and use of the equipment. F. The supplier shall provide on-site training after delivery of the trailer on a date and venue agreed to with the Department. 				

1.5 COMPULSORY BRIEFING SESSION

A Compulsory Briefing session will be held on at Free State Provincial offices in Bloemfontein, 2nd Floor, Bloem Plaza, C/o Charlotte Maxeke Street, to inform bidders of the exact details as stated above.

Phase 3: The 90/10 Principle based on Price and BBEE status level contributor.

in terms of Regulation 5 (2) and 6 (2) of the Preferential Procurement Regulations, 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 (90/10 system)
1	10
2	9
3	8
4	5
5	4
6	3
7	2
8	1
Non-compliant contributor	0

Conditions:

- Suppliers must submit separate detailed quotation/pricing and brochures for each instrument.
- The price will be determined by analyzing the offered total price.
- Bidders are requested to provide a clear agreement regarding joint Venture/consortia. The percentage involvement of each company in the joint venture agreement should be indicated on the agreement. A trust, consortium or joint venture must submit a consolidated B-BBEE Status Level Verification Certificate for every separate bid.
- Bidders are required to submit original and valid B-BBEE Status Level, Verification Certificates or certified copies thereof together with their bids, to substantiate their B-BBEE rating claims.

For Technical Enquiries

G.Janse van Noordwyk

Free State Provincial Office

Tel: 051 405 9000

For SCM Enquiries

Maleka Lebogang

Supply Chain Management

Tel: 012 336 8578

Email: malekal@dwa.gov.za