

TENDER DOCUMENT

FOR

**BID NO: SCMU3-2627-0178-HO SCHEDULED MAINTENANCE OF
VACUUM & COMPRESSED MEDICAL GAS EQUIPMENT AT CLUSTER
ONE (1) – OR TAMBO AND ALFRED NZO DISTRICT – HEALTH
FACILITIES (36 MONTHS)**

THREE VOLUME APPROACH:

**VOLUME 1 – TENDERING PROCEDURES
VOLUME 2 – RETURNABLE DOCUMENTS
VOLUME 3 – DRAFT CONTRACT**

PREPARED FOR:

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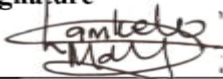
Zutari (Pty) Ltd
No 1 Pearce Street
P.O. Box 19553
Tecoma
5214

NAME OF SUPPLIER: _____

CRS NUMBER: _____

July 2026

DOCUMENT CONTROL SHEET – SCMU3-2627-0178-HO**SCHEDULED MAINTENANCE OF VACUUM & COMPRESSED MEDICAL GAS EQUIPMENT AT CLUSTER ONE (1) – OR TAMBO AND ALFRED NZO DISTRICT – HEALTH FACILITIES (36 MONTHS)**

Drafted By Zutari (PTY) Ltd	Date: 19 June 2026	Name: B Iyer	Signature: 
Recommendation By:	Date: 19 June 2026	Name: L Mdingi	Signature: 
Approved By: Specification Committee	Date: 19 June 2026	Name: K Xayo Or B Tshangana ✓	Signature: 
Approved for Advert by: GM SCM	Date:	Name: C Mgiijima	Signature:

	CONTENTS	
Volume	Number	Heading
Volume 1		Tendering Procedures
	T1.1	Tender Notice and Invitation to Supplier
	T1.2	Tender Data
		Annex C: CIDB Standard Conditions of Tender
Volume 2		Returnable Documents
		Administrative compliance
	SBD1	Invitation to Bid: Part A and B
	T2.2y	Proof of Registration with Centralized Supplier Database
	SBD 4	Declaration of Interest
	SBD 6.1	Preference Points Claim Form in Terms of the Preferential Procurement Regulations 2022
	T2.2v	CIPC - company registration certificate with percentage (%) of ownership and ID copies
	T2.2r	Compulsory Enterprise Questionnaire
	T2.1	List of Returnable Schedules/Documents
	T2.2n	Record of Addenda to Supplier Documents
	T2.2u	CIDB grading certificate – Proof of registration
	T2.2a	Resolution for Signatory
	T2.2b	Resolution of Board of Directors to Enter into Consortium or Joint Venture (JV) Agreements
	Annexure A1	Method Statement (Generic)
	Annexure A2	Method Statement (Summary Task)
	Annexure A3	Method Statement (Programme with Timelines and Resources)
		NB: Mandatory Documents
	C1.1a	Final Summary Page
	C1.1	Form of offer and acceptance
	C2.2	Preliminaries and General & Bill of Quantities
	T2.2c-1	Schedule of Proposed Particulars of Subcontractors
	T2.2c-2	Schedule of Proposed Particulars of Mechanical and Electrical Subcontractors
	T2.2e	Schedule of Key Personnel
	T2.2f	Bank Rating
	T2.2g	Specific Goals claimed (CIPRO Certificate)
	T2.2x	References
	T2.3	Returnable schedules or documents: Annexures related to evaluation
	T2.2z	Valid letter of good standing (COIDA-Compensation for Occupational Injuries and Diseases Act)
	Annexure B1	Key personnel qualifications (Maintenance Manager)
	Annexure B2	Key personnel qualifications (Maintenance Supervisor)
	Annexure B3	Key personnel qualifications (OHS Safety officer)
	Annexure B4	Key personnel qualifications (Skilled installation staff)
	Annexure B5	Key personnel qualifications (Skilled medical gases and vacuum artisan)
	Annexure B6	Proof of Business Address
	Annexure B7	Company Experiences

Volume 3		
	Draft Contract	
	Part C1: Agreement and Contract Data	
	C1.1	Form of Offer and Acceptance
	C1.2	Contract Data
	C1.3	Fixed Performance Guarantee
	Part C2: Pricing Data	
	C2.1	Pricing Instructions
	C2.2	Bills of Quantities
	Part C3: Scope of Work	
	C3.1	Scope of Works
	C3.1a	Standard Specification for the General Maintenance and Repairs
	C3.2	Technical Specification for the General Maintenance and Repairs
	C3.6	Health and Safety Specification
	Part C4: Site Information	
	C4.1	Site Information as per Scope of Works
	C4.2	Supplementary Technical Specification

VOLUME 1: TENDERING PROCEDURES

T1.1: TENDER NOTICE AND INVITATION TO SUPPLIER

**T1.1: TENDER NOTICE AND INVITATION TO SUPPLIER
THE EASTERN CAPE DEPARTMENT OF HEALTH INVITES SUPPLIERS
FOR:**

PROJECT NAME	SCHEDULED MAINTENANCE OF VACUUM & COMPRESSED MEDICAL GAS EQUIPMENT AT CLUSTER ONE (1) – OR TAMBO AND ALFRED NZO DISTRICT – HEALTH FACILITIES (36 MONTHS)
TENDER No.	SCMU3-2627-0178-HO

Any reference to words “Bid” or Bidder” herein and/or in any other documentation shall be construed to have the same meaning as the words “Supplier” or “Tender”.

The attention of Suppliers is drawn to the eligibility criteria in the table below. Suppliers are required to familiarize themselves thoroughly with the conditions of Supplier as contained in the Tender Data (T1.2) and the Standard Conditions of Tender which form part of the Supplier document. Only Suppliers that are responsive to responsiveness criteria contained in the table below are eligible to have their Suppliers evaluated:

☒	Tenderers who are registered with the CIDB for Class ME, 7ME or higher construction work, are eligible to have their tenders evaluated
☒	<u>Joint ventures are eligible to submit tenders provided that:</u> They have a signed joint venture agreement
☒	Only Suppliers who have access to a suitably qualified and experienced maintenance manager who will be the single point of accountability and responsibility for the management of the contract works as described in Annexure B1 shall be eligible to have their Tenders evaluated.
☒	Only Suppliers who have access to a suitably qualified and experienced maintenance supervisor as described Annexure B2 shall be eligible to have their Tenders evaluated.
☒	Only Suppliers who have access to a suitably qualified, experienced, and trade-tested artisan, who holds a valid registration with SAQCC as described in Annexure B5, shall be eligible to have their tenders evaluated.
☒	Suppliers that are responsive to the criteria stated above shall be evaluated further in accordance with the conditions of Supplier as stipulated in the Tender Data (T1.2) and the Standard Conditions of Tender (as amended), which form part of this Tender document.

Preferences are offered to Suppliers in accordance with the points systems as below:

☒ 80/20 Preference point scoring system OR ☒ 90/10 Preference point scoring system
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Preference:		Price:	
SPECIFIC GOALS Status Level:	20 Points	Price:	80 Points
Total must equal:	20 Points	Total must equal:	80 Points

OR

Preference:		Price:	
SPECIFIC GOALS Status Level:	10 Points	Price:	90 Points
Total must equal:	10 Points	Total must equal:	90 Points

a. AVAILABILITY OF SUPPLIER DOCUMENTS:

☒ Tender documents may be freely downloaded from Tender portal www.ehealth.gov.za/tenders OR www.etenders.gov.za

☒ A compulsory clarification meeting with the representatives of the Employer will take place as follows:

Date: 15 July 2026
Venue: Johan Tremble Hall
Frere Hospital
East London
Time: 12:00 – 13:00

b. ENQUIRIES RELATED TO TENDER DOCUMENTS MAY BE ADDRESSED TO:

Procurement Contact:	Ms Thabisa Notshe	E-mail	thabisa.notshe@ehealth.gov.za
Tel. No.	040 608 9641		

Prospective bidders are required to seek additional information through inquiries no later than 7 days before the closing date.

c. DEPOSIT / RETURN OF TENDER DOCUMENTS:

The closing time and date for submission of Tender is 11:00am on the 07 August 2026.

The following must be noted by all Suppliers;

Service Providers must be registered on the National Treasury Central Supplier Data Base and proof of registration must be submitted with the proposal (<https://secure.csd.gov.za>).

Bid response documents must be submitted online via the National Treasury eTender Portal. Ensure timely submission.

No physical documents are to be delivered to Bhisho.

It is the responsibility of the Service Provider to ensure that bid document is submitted on or before closing time.

Technical enquiries shall be directed only in writing to Supply Chain Management enquiries to Thabisa Notshe at Thabisa.notshe@echealth.gov.za within office hours.

Physical, Telegraphic, telephonic, telex, facsimile, e-mail and late submissions will not be accepted.

All bids must be uploaded before the closing time and date stipulated above and must be submitted on e-tender portal (www.etenders.gov.za) No late bid submission will be accepted.

Guide: How to submit a response to the E-tender Portal

1. (<https://www.etenders.gov.za/>)
2. Click "Login"
3. Select "Supplier Login"
4. Type in your Central Supplier Database (CSD) login credentials.
5. Click Browse Opportunities
6. Select Currently Advertised.
7. Click "+" on any tender opportunity you wish to apply for.
8. Click on "Start e-Submission Process"
9. Select Supplier
10. Click "Start response"
11. Check the submission checklist and attached the compulsory documents.
12. Confirm and proceed.

If you experience difficulties on e-Submission please contact:

012 406 9229 /012 406 9222 or email etenders@treasury.gov.za

Issued by:

Supply Chain Management

Bhisho

COMPILED BY:

Section	Department	Date
Engineering and Technical Services	Zutari (Pty) Ltd	July 2026

T1.2: TENDER DATA

T1.2: TENDER DATA

PROJECT NAME	SCHEDULED MAINTENANCE OF VACUUM & COMPRESSED MEDICAL GAS EQUIPMENT AT CLUSTER ONE (1) – OR TAMBO AND ALFRED NZO DISTRICT – HEALTH FACILITIES (36 MONTHS)
TENDER No.	SCMU3-2627-0178-HO

Clause number	
	The conditions of Supplier are the Standard Conditions of Supplier as contained in Annex C of Board Notice 136 of 2015 in Government Gazette No. 38960 of 10 July 2015, Construction Industry Development Board (CIDB) Standard for Uniformity in Construction Procurement. (See www.cidb.org.za) which are reproduced without amendment or alteration for the convenience of Suppliers as an Annex to this Tender Data. The Standard Conditions of Supplier make several references to the tender Data for details that apply specifically to this Tender. The Tender Data shall have precedence in the interpretation of any ambiguity or inconsistency between it and the standard conditions of Supplier. Each item of data given below is cross-referenced to the clause in the Standard Conditions of Supplier to which it mainly applies. The following variations, amendments and additions to the Standard Conditions of Supplier as set out in the Tender Data below shall apply to this Supplier:
C.1.1	<i>Add the following:</i> The employer is the Eastern Cape Department of Health Global Life Center c/o R63 and Phalo Avenue Bhisho
C.1.2	<i>Add the following:</i> Tender documents issued by the Employer comprise of: <u>Volume 1: Tendering Procedures</u> T1.1 Tender Notice and Invitation to Supplier T1.2 Tender Data Annex C: CIDB Standard Conditions of Tender <u>Volume 2: Returnable Documents</u> SBD1 Invitation Bid: Part A and B SBD4 Declaration of Interest SBD6.1 Preference Points Claim Form in Terms of the Preference Regulations 2022 T2.2r Compulsory Enterprise Questionnaire T2.1 List of Returnable Schedules/Documents C1.1a Final Summary Page C2.2: Preliminaries and General & Bills of Quantities T2.2a Resolution of Signatory T2.2b Resolution of Board of Directors to Enter into Consortium or Joint Venture (JV) Agreements T2.2c-1 Schedule of Proposed Particulars of Subcontractors T2.2c-2 Schedule of Proposed Particulars of Mechanical and Electrical Subcontractors T2.2e Schedule of Key Personnel T2.2f Bank Rating T2.2g Specific goals claimed (CIPRO certificate) T2.2n Record of Addenda to Supplier Documents T2.2y Proof of Registration with Centralized Supplier Database T2.2u CIDB grading certificate – Proof of registration T2.2v CIPC – company registration certificate T2.2x References T2.2z Valid Letter of Good Standing

T2.3 Returnable schedules or documents: Annexures related to evaluation.

Annexure A1: Method Statement (Generic)

Annexure A2: Method Statement (Summary Task)

Annexure A3: Method Statement (Programme with Timelines and Resources)

Annexure B1: Key personnel qualifications (Maintenance Manager)

Annexure B2: Key personnel qualifications (Maintenance Supervisor)

Annexure B3: Key personnel qualifications (OHS Safety officer)

Annexure B4: Key personnel qualifications (Skilled installation/maintenance staff)

Annexure B5: Key personnel qualifications (Skilled vacuum and medical gas artisan)

Annexure B6: Proof of business address

Annexure B7: Company Experience

Volume 3: The Draft Contract

Part C1: Agreement and Contract data

C1.1: Form of offer and Acceptance

C1.2: Contract Data

C1.3: Fixed Performance Guarantee

Part C2: Pricing Data

C2.1: Pricing Instructions

C2.2: Bills of Quantities

Part C3: Scope of Works

C3.1 : Scope of Works

C3.1a : Standard Specification for the General Maintenance and Repairs

C3.2 : Technical Specification for the General Maintenance and Repairs

C3.6 : Health and Safety Specification

Part C4: Site Information

C4.1: Site Information as per Scope of Works

C4.2: Supplementary Technical Specification

C.1.4	<i>Add the following:</i> The employer's agent: Zutari (Pty) Ltd
C1.6.1	<i>Add the following to the clause:</i> The Department reserves the right to not accept the tender from the tenderer with the highest number of points, or award any contract.
C1.6.3	<i>Add the following:</i> A two-stage system will not be followed.
C.2.1	<i>Add the following:</i> 1. Only those Tenderers who satisfy the following eligibility criteria are eligible to submit tenders: a) Tenderers who are registered with the CIDB, or are capable of being so prior to the evaluation of submissions, in ac Contractor grading designation equal to or higher thana Contractor grading designation determined in accordance with the sum tendered, ora value determined in accordance with Regulation 25 (1B) or 25 (7A) of the Construction Industry Development Regulations, for Class ME, 7ME or higher construction work, are eligible to have their tenders evaluated. b) Joint ventures are eligible to submit tenders provided that: • Every member of the joint venture is registered with the CIDB. • The lead partner has a Contractor grading designation in Class ME, Grade 7 ME construction work; • The combined Contractor grading designation calculated in accordance with the Construction Industry Development Regulations is equal or higher than the a Contractor grading designation determined in accordance with the sum tendered for Class ME, Grade 7 ME or higher construction work or a value determined in accordance with Regulations 25 (1B) or 25 (7A) of the Construction Industry Development Regulations; and • The joint venture is registered on Central Supplier Database or proof of application • All members of the joint venture must submit copies of the returnable documentation or original where it is stipulated for all members. • In the case of a Partnership/Joint Venture/Consortium the tax clearance must be the Partnership/Joint Venture/Consortium or individual valid tax clearance certificates forall the members of the Partnership/Joint Venture/Consortium. • In the case of a Partnership/Joint Venture/Consortium the CIPRO certificates must be submitted indicating percentage of ownership for specific goals points scoring, failing which the tenderer will score zero points. • The partner of the JV must be registered with CIDB with a grading that is not lower than one level of the required grading.

C.2.2	Add the following to the clause: Accept that the Employer will not compensate the Tenderer for any costs incurred in attending briefing session, negotiation meetings or any meeting or interviews in the office of the Employer or Employer's agent (if required). Revised
C.2.7	For particulars regarding a pre-Tender site inspection meeting, see Tender Notice and Invitation to Supplier T1.1 "A compulsory briefing session will be held, and no compensation will be paid for attendance at this meeting. Tenderers must be represented by a person who is suitably qualified and has experience of comprehending the extent of the work involved and who is at the employ of the prospective tenderer. The tenderer's representative must sign the attendance register in the name of the tendering entity. Addenda will be issue to and tenders will be received only from those tendering entities appearing in the attendance register of the briefing session."
C.2.12	No alternative tenders are allowed.

C.2.13.2	<i>Replace sub-clause C.2.13.2 with the following:</i> Return all returnable documents to the employer after completing them in their entirety by writing in non-erasable ink
C.2.13.3	<i>Add the following:</i> Parts of each Supplier offer communicated on paper shall be submitted as an original, plus 0 (nought) copies.
C.2.13.4	<i>Add the following:</i> The Supplier shall be signed by a person duly authorized to do so. Tenders submitted by joint ventures of two or more firms shall be accompanied by the document of formation of the joint venture, in the form of a joint venture agreement, in which it is defined precisely the conditions under which the joint venture will function, its period of duration, the persons authorized to represent and obligate it, the participation of the several firms forming the joint venture, and any other information necessary to permit a full appraisal of its functioning. Failure to provide the joint venture agreement, bound with the Supplier submission, on the date and time of the closing of the bid, shall render the Supplier non-responsive.
C.2.13.5	<i>Add the following:</i> Tender documents must be clearly marked as per the identification details below: Tender No. SCMU3-2627-0178-HO Title of document: SCHEDULED MAINTENANCE OF VACUUM & COMPRESSED MEDICAL GAS EQUIPMENT AT CLUSTER ONE (1) – OR TAMBO AND ALFRED NZO DISTRICT – HEALTH FACILITIES (36 MONTHS)
C.2.13.6	<i>Add the following:</i> A two-envelope procedure will not be followed.
C.2.13.9	Telephonic, telegraphic, telefax, facsimile or e-mailed tender offers will not be accepted.
C.2.13.10	<i>Add the following:</i> By signing the offer part of C1.1 Form of Offer and Acceptance the Supplier declares that all information provided in the Supplier submission is correct and free of misrepresentation.
C.2.15.1	<i>Add the following to C.2.15.1:</i> The closing time for submission of Supplier offers is as stated in the Tender Notice and Invitation to Supplier. Telephonic, telegraphic, telex, facsimile or e-mailed Supplier offers will not be accepted.
C.2.16.1	<i>Add the following to C.2.16.1:</i> The Supplier offer validity period is 12 weeks .
C.2.17	<i>Insert the following at the end of the last sentence of the note:</i> “.....elect to do so, provided that the competitive position of the preferred Supplier is not affected”

	A Supplier may be rejected as non-responsive if the Supplier fails to provide any clarification requested by the employer within the time for submission stated in the employer's written request for such clarification. The clarification of a Supplier offer includes the provision of the priced bills of quantities (Part C2.2: Bills of Quantities).
C.2.18	<i>Add the following:</i> The tenderer will be required to submit his fully priced Bills of Quantities (complete document inclusive of all parts) together with this tender.

C.3.8	<i>Add the following:</i> Suppliers will be considered non-responsive if, inter alia: a) the Supplier has failed to attend the compulsory briefing meeting. b) the Supplier is submitted by Telegraphic, telephonic, telex, facsimile (faxed) or email media or if the Supplier is submitted late. c) the Supplier does not comply with the eligibility criteria listed in C2.1 above; d) The resolution for signatory is not attached to the Supplier submission on a company letterhead. e) the Supplier has failed to fully complete and sign SBD1, SBD4 & the Compulsory Enterprise Questionnaire. Failure to submit the required information shall be subjected to a request from SCM to the bidder to submit the required information within 7 days of the request. Failure to comply with such request will result in the bid being deemed non-responsive
C.3.11.1	<i>Add the following:</i> This is a two-stage evaluation process: - Stage 1: Administrative compliance and mandatory requirements - Stage 2: Evaluation for price and preference The following procedure will be used to evaluate tender offers received: a) Open and record tender offers received b) Determine whether or not tender offers are complete. c) Determine whether or not tender offers received are responsive, and reject non-responsive tenders. d) Score tender evaluation points for each price e) Confirm that tenderers are eligible for the preferences claimed and, if so, score tender evaluation points for preferencing. f) Calculate total tender evaluation points g) Rank tender offers from the highest number of tender evaluation points to the lowest. h) Perform a risk analysis on the tenderer having the highest ranking/number of points to ascertain if the submission presents an acceptable risk to the employer. i) Recommend the tenderer with the highest number of tender evaluation points for the award of the contract, unless there are compelling and justifiable reasons not to do so. j) In the event where the recommended Bidder has failed to comply with the conditions as set out in the letter of award, the client shall notify the recommended Bidder of his/her failure to comply and recommend for award the next bidder that scored the highest points. The Conditions as set out in the letter of award are as follow: 1. Proof of having All risk, public liability and support insurances as stipulated in the contract. 2. Submission of a Construction Safety, Health and Environmental Plan. 3. Contract Guarantee (as selected in the tender document) k) An appointment letter/acceptance letter does not constitute a contract or commencement date of a contract. The recommended Bidder is required to sign an official contract with the Department. The Employer shall in the evaluation of tender offers take due account of the Tenderer's past performance in the execution of similar engineering works of comparable magnitude, and the degree to which possesses the necessary technical, financial and other resources to enable him to complete the Works successfully with the contract period. The tenderer shall be required to satisfy the Employer and the Engineer as to his ability to perform and complete the Works timeously, safely and with satisfactory quality, and furnish details in section T2.2z of contracts of a similar nature and magnitude which they have successfully executed in the past.

The Employer is restricted in accordance with clause 7.(c)(iii) of the Construction Regulations, 2014, to only appoint a contractor to whom he is satisfied has the necessary competencies and resource to carry out the work safely.

Submitting inferior and inadequate information relating to health and safety shall be regarded as justifiable and compelling reasons not to accept the tender offer of the tenderer scoring the highest number of tender evaluation points.

C.3.11.3	The procedure for the evaluation of responsive tenders is Method 3: Administrative compliance, Price and Specific Goals
C.3.11.7	<i>Add the following:</i> The financial offer will be scored using Formula 2 (Option 1): $N_{FO} = (1 - (P - P_M) / P_M) \times W_1$ Where. N_{FO} = number of Supplier evaluation points awarded for financial offer W_1 = the maximum possible number of Supplier evaluation points Tender P_M = the comparative offer of the most favorable Supplier offer P = the comparative offer of the Supplier offer under consideration
C.3.11.8	Up to 100 minus W_1 (refer C.3.11.7 above) Supplier evaluation points will be awarded to Suppliers according to their SPECIFIC GOALS status level, determined in accordance with section 9(1) of the Broad-Based Black Economic Empowerment Act (No 53 of 2003), and who have submitted original valid or valid, certified copies of SPECIFIC GOALS status verification certificates issued by either a verification agency accredited by the South African Accreditation System (SANS) or a sworn affidavit in terms of the amended SPECIFIC GOALS codes. The points will be awarded as follows, based on the SPECIFIC GOALS status level of the Supplier:

	The specific goals allocated points in terms of this tender	Number of points allocated (80/20 system) (To be completed by the organ of state)	Number of points claimed (80/20 system) (To be completed by the tenderer)
	Historically Disadvantaged Individuals Ownership	20% (4)	
	Women Ownership	20% (4)	
	Youth Ownership	20% (4)	
	Disability Ownership	20% (4)	
	Military Veterans Ownership	10% (2)	
	Locality Ownership (Eastern Cape)	10% (2)	
	TOTAL	100% (20)	
	A trust, consortium or joint venture will qualify for points for their SPECIFIC GOALS status level as a legal entity, provided that the entity submits their SPECIFIC GOALS status level certificate. A trust, consortium or joint venture will qualify for points for their SPECIFIC GOALS status level as an unincorporated entity, provided that the entity submits their consolidated SPECIFIC GOALS scorecard as if they were a group		
OR			
	The specific goals allocated points in terms of this tender	Number of points allocated (90/10 system) (To be completed by the organ of state)	Number of points claimed (90/10 system) (To be completed by the tenderer)
	Historically Disadvantaged Individuals Ownership	20% (2)	
	Women Ownership	20% (2)	
	Youth Ownership	20% (2)	
	Disability Ownership	20% (2)	
	Military Veterans Ownership	10% (1)	
	Locality Ownership (Eastern Cape)	10% (1)	
	TOTAL	100% (10)	
	A trust, consortium or joint venture will qualify for points for their SPECIFIC GOALS status level as a legal entity, provided that the entity submits their SPECIFIC GOALS status level certificate. A trust, consortium or joint venture will qualify for points for their SPECIFIC GOALS status level as an unincorporated entity, provided that the entity submits their consolidated SPECIFIC GOALS scorecard as if they were a group		

Bank Rating

C.3.11.9	Bank Rating Certificate	Bank rating of A: Undoubted for the amount of enquiry – Good to do business with	T2.2f as per returnable list Bank rating certificate issued by the bank.
	T2.2f as per returnable list	Bank rating of B: Good for the amount of the enquiry – Amount is well within the capacity of ordinary business commitments	T2.2f as per returnable list Bank rating certificate issued by the bank.
		Bank rating of C: Good for amount quoted if strictly in the way of business – Unlikely to commit themselves beyond their means	T2.2f as per returnable list Bank rating certificate issued by the bank.

C.3.11.10	<i>Add the following new sub-clause:</i> The Employer will perform a risk analysis in respect of the following: a) reasonableness of the financial offer b) reasonableness of unit rates and prices c) the Suppliers ability to fulfil its obligations in terms of the tender document, that is, that the Supplier can demonstrate that he/she possesses the necessary professional and technical qualifications, professional and technical competence, financial resources, equipment and other physical facilities, managerial capability, reliability, experience, reputation, personnel to perform the contract, etc.
C.3.13.1	Supplier offers will only be accepted if: a) the Supplier is registered and in good standing with the South African Revenue Service (SARS) or proof that he or she has made arrangement with SARS to meet his or her outstanding tax obligations. This will be verified by the Employer on the Centralized Supplier Database. Where the recommended bidder is not tax compliant, the bidder will be notified of the non-compliant status and be granted seven (7) working days to rectify their compliance status with the SARS. The bidder must thereafter provide the Department with proof of its tax compliance which must be verified via the CSD or eFiling. b) the Supplier or any of its directors is not listed on the Register of Supplier Defaulters in terms of the Prevention and Combating of Corrupt Activities Act of 2004 as a person prohibited from doing business with the public sector; c) the Supplier or any of its directors is not listed on the Database of Restricted Suppliers kept by the National Treasury and updated from time to time; d) the Supplier has not: abused the Employer's Supply Chain Management System; e) The Supplier has completed the Compulsory Enterprise Questionnaire and there are no conflicts of interest which may impact on the Supplier's ability to perform the contract in the best interests of the employer or potentially compromise the Supplier process.
C.3.17	<i>Add the following:</i> The number of paper copies of the signed contract to be provided by the Employer is one.

C.4	ADDITIONAL CONDITIONS OF TENDER The additional conditions of Tender are:
C.4.1	Invalid Tender Suppliers shall be considered invalid and shall be endorsed and recorded as such in the Supplier opening record, by the responsible official who opened the Tender, in the following circumstances: 1) if the Supplier offer is not submitted on the Form of Offer and Acceptance bound into this Tender document (form C1.1, Part C1: Agreements and Contract Data); 2) if the Form of Offer and Acceptance has not been completed or has not been signed by the authorized representative of the Supplier 3) if the Form of Offer and Acceptance is signed, but the name of the Supplier is not stated or is indecipherable 4) if the Supplier offer is not completed in non-erasable ink;
C.4.2	Negotiations with preferred Suppliers The Employer may negotiate the final terms of a contract with Suppliers identified through a competitive Supplying process as preferred Suppliers provided that such negotiation: (b) does not allow any preferred Supplier a second or unfair opportunity; (c) is not to the detriment of any other Supplier; and (d) does not lead to a higher price than the Supplier as submitted. Minutes of any such negotiations shall be kept for record purposes
C.4.3	General supply chain management conditions applicable to Supplier In terms of its Supply Chain Management Policy the Employer may not consider a Supplier unless the provider who submitted the Supplier: a) has furnished the Employer with that provider's: - full name; - identification number or company or other registration number; and - tax reference number and VAT registration number, if any; b) has indicated whether: • the provider is in the service of the state, or has been in the service of the state in the previous twelve months; • the provider is not a natural person, whether any of the directors, managers, principal shareholders or stakeholders is in the service of the state, or has been in the service of the state in the previous twelve months; or • whether a spouse, child or parent of the provider or of a director, manager, shareholder or stakeholder referred to above is in the service of the state, or has been in the service of the state in the previous twelve months. Irrespective of the procurement process followed, the Employer is prohibited from making an award to: • a person who is in the service of the state; • a juristic entity of which any director, manager, principal shareholder or stakeholder is in the service of the state; • an advisor or consultant contracted with the Employer; or • a person, advisor or corporate entity involved with the tender specification committee, or a director of such corporate entity. In this regard, Suppliers shall complete Returnable Schedules: Compulsory Enterprise Questionnaire. Failure to complete this schedule will result in the Supplier not being considered further.

C.4.4	Combating abuse of the Supply Chain Management Policy In terms of its Supply Chain Management Policy, the Employer may reject the Supplier of any Supplier if that Supplier or any of its directors has: 1. failed, during the last five years, to perform satisfactorily on a previous contract with the Employer or any other organ of state after written notice was given to that Supplier that performance was unsatisfactory; 2. abused the supply chain management system of the Employer or has committed any improper conduct in relation to this system; 3. been convicted of fraud or corruption during the past five years; 4. will fully neglected, reneged on or failed to comply with any government, municipal or other public sector contract during the past five years; or 5. been listed with the Register of Supplier Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004) or has been listed on National Treasury's database as a person or juristic entity prohibited from doing business with the public sector. In this regard, Suppliers shall complete Part T2.2: Returnable Schedules: Certificate of Independent Supplier Determination and Declaration of Supplier's Past Supply Chain Management Practices. Failure to complete these schedules will result in the Supplier not being considered further.
C.4.6	Claims arising after submission of Supplier No claim for any extras arising out of any doubt or obscurity as to the true intent and meaning of anything contained in the Conditions of Contract, Scope of Work and Pricing Data, will be admitted by the Employer after the submission of any Tender and the Supplier shall be deemed to have: 1. read and fully understood the whole text of the Contract Data, Scope of Work and Pricing Data and thoroughly acquainted himself with the nature of the works proposed and generally of all matters which may influence the Contract. 2. visited the site of any proposed works. 3. requested the Employer or his duly authorized agent to make clear the actual requirements of anything contained in the Scope of Work and Pricing Data, the exact meaning or interpretation of which is not clearly intelligible to the Supplier. 4. received any Addenda to the Supplier documents which have been issued in accordance with the Employer's Supply Chain Management Policy. Before submission of any Supplier, the Supplier should check the number of pages, and if any are found to be missing or duplicated, or the figures or writing indistinct, or if the Pricing Data contain any obvious errors, the Supplier must apply to the Employer's Agent at once to have the same rectified, as no liability will be admitted by the Employer in respect of errors in any Supplier due to the foregoing.
C.4.7	Imbalance in Supplier rates In the event of Supplier rates or lump sums being declared by the Employer to be unacceptable to it because they are either excessively low or high or not in proper balance with other rates or lump sums, the Supplier may be required to produce evidence and advance arguments in support of the Supplier rates or lump sums objected to. If, after submission of such evidence and any further evidence requested, the Employer is still not satisfied with the supplied rates or lump sums objected to, it may request the Supplier to amend these rates and lump sums along the lines indicated by it.

	The Supplier will then have the option to alter and/or amend the rates and lump sums objected to and such other related amounts as are agreed on by the Employer, but this shall be done without altering the Supplier offer as Supplied or, if applicable, the corrected total of prices in accordance with C.3.9.3. Should the Supplier fail to amend his tender in a manner acceptable to the Employer, the Employer may reject the Tender.
C.4.8	The Employer shall not formally issue Tender documents in electronic format as contemplated in C.2.13.2 and C.2.13.3 and shall only issue Supplier documents in hardcopy. An electronic version of the issued Tender documents may be made available to the Supplier, upon written request in terms of this clause, subject to the following: (a) Electronic copies of the contract document, or parts thereof, will only be provided to Suppliers who have been issued with the Tender documents as contemplated in C.1.2 in hardcopy. (b) The electronic version shall not be regarded as a substitute for the issued Tender documents. (c) The Employer shall not accept tender submitted in electronic format. Suppliers may not complete and submit a printed copy of the electronic version of the Tender document or part thereof. Only those Suppliers that have been completed on the issued hard copy Tender document shall be considered. (d) The Employer accepts no responsibility or liability arising from any reliance on or use of the electronic version provided in terms of this clause. The Employer further does not guarantee that the electronic version corresponds with the issued Tender documents in all respects. Suppliers are alerted to the fact that electronic versions of the Tender documents may not reflect any notices or addenda that amend the Tender document. (e) Any non-compliance with these provisions, including effecting any unauthorized alterations to the Supplier document as contemplated in C.2.11, shall render the Tender invalid. The Employer reserves the right to take any action against such Supplier allowed in law including, in circumstances where the Supplier had already been awarded, the right to cancel the contract. (f) In requesting the electronic version of the Tender document or parts thereof, the Supplier is deemed to have read, understood and accepted all of the above conditions.

VOLUME 2: RETURNABLE DOCUMENTS

T2.1 LIST OF RETURNABLE DOCUMENTS

T2.1: LIST OF RETURNABLE SCHEDULES/DOCUMENTS

PROJECT NAME	SCHEDULED MAINTENANCE OF VACUUM & COMPRESSED MEDICAL GAS EQUIPMENT AT CLUSTER ONE (1) – OR TAMBO AND ALFRED NZO DISTRICT – HEALTH FACILITIES (36 MONTHS)
TENDER No.	SCMU3-2627-0178-HO

T2.2: RETURNABLE SCHEDULES REQUIRED FOR SUPPLIER EVALUATION PURPOSES

	Returnable Documents	Number of pages issued	Returnable Document
T2.1	List of Returnable Schedules/Documents	2	☒ Yes ☐ No
T2.2a	Resolution for Signatory	1	☒ Yes ☐ No
T2.2b	Resolution of Board of Directors to Enter into Consortium or Joint Venture (JV) Agreements	2	☒ Yes ☐ No
T2.2c-1	Schedule of Proposed Subcontractors	1	☒ Yes ☐ No
T2.2c-2	Schedule of Proposed Mechanical/ Electrical Subcontractors	1	☒ Yes ☐ No
T2.2e	Schedule of Key Personnel	1	☒ Yes ☐ No
T2.2f	Bank Rating	1	☒ Yes ☐ No
T2.2n	Record of Addenda to Supplier Documents	1	☒ Yes ☐ No
T2.2r	Compulsory Enterprise Questionnaire	3	☒ Yes ☐ No
T2.2u	CIDB Grading Certificate	1	☒ Yes ☐ No
T2.2v	CIPC – company registration certificate	1	☒ Yes ☐ No
T2.2z	Valid Letter of Good Standing (COIDA)	1	☒ Yes ☐ No
SBD 1	Invitation to Bid: Part A and B	2	☒ Yes ☐ No
SBD 4	Declaration of Interest	2	☒ Yes ☐ No
SBD 6.1	Preference Points Claim Form In Terms Of The Preferential Procurement Regulations 2022	4	☒ Yes ☐ No
C1.1a	Final Summary Page	1	☒ Yes ☐ No
C2.2	Fixed Charge and Value related Items Applicable to All Work & Bill of Quantities	31	☒ Yes ☐ No

T2.2: OTHER DOCUMENTS REQUIRED FOR SUPPLIER EVALUATION PURPOSES

No.	Returnable Documents	Number of pages issued	Returnable Document
T2.2g	Specific Goals claimed (CIPRO Certificate)	1	☒ Yes ☐ No
T2.2y	Proof of Registration with Centralized Supplier Database	1	☒ Yes ☐ No
T2.3	Returnable schedules or documents: annexures related to evaluation		☒ Yes ☐ No
Annexure A1	Method Statement (Generic)	1	☒ Yes ☐ No
Annexure A2	Method Statement (Summary Tasks)	1	☒ Yes ☐ No
Annexure A3	Method Statement (Programme with Timelines and planned Resources)	1	☒ Yes ☐ No
Annexure B1	Key Personnel qualification (Maintenance manager)	1	☒ Yes ☐ No
Annexure B2	Key Personnel qualification (Maintenance supervisor)	1	☒ Yes ☐ No
Annexure B3	Key Personnel qualification (OHS Safety officer)	1	☒ Yes ☐ No
Annexure B4	Key Personnel qualification (Skilled installation/maintenance staff)	1	☒ Yes ☐ No
Annexure B5	Key personnel qualifications (Skilled medical gas artisan)	1	☒ Yes ☐ No
Annexure B6	Proof of Business address	1	☒ Yes ☐ No
Annexure B7	Company Experience	1	☒ Yes ☐ No
T2.2x	References	4	☒ Yes ☐ No

(The following list of returnable schedules/documents is duplicated from the tables above however these will not appear in duplicate within the Tender document. The purpose is to bring to the Suppliers' attention the list of returnable documents/schedules that shall be incorporated into the contract)

T2.2: OTHER DOCUMENTS REQUIRED TENDER EVALUATION PURPOSES

No.	Returnable Documents	Number of pages issued	Returnable Document
T2.2n	Record of Addenda to Supplier Documents	1	☒ Yes ☐ No
T2.2e	Schedule of Key Personnel:	1	☒ Yes ☐ No
SBD 6.1	Preference Points Claim Form in Terms of the Preferential Procurement Regulations 2022	4	☒ Yes ☐ No

T2.2: OTHER DOCUMENTS THAT WILL BE INCORPORATED INTO THE CONTRACT

No.	Returnable Documents	Number of pages issued	Returnable Document
C1.1	Form of Offer and Acceptance	2	☒ Yes ☐ No
C1.2	Contract Data	7	☒ Yes ☐ No
C1.3	Fixed Performance Guarantee	3	☒ Yes ☐ No

C2.2	Fixed Charge and Value related Items Applicable to All Work & Bill of Quantities & Final Summary	31	☒ Yes ☐ No
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T2.2: RETURNABLE SCHEDULES REQUIRED FOR SUPPLIER EVALUATION PURPOSES

T2.2a: RESOLUTION FOR SIGNATORY

PROJECT NAME	SCHEDULED MAINTENANCE OF VACUUM & COMPRESSED MEDICAL GAS EQUIPMENT AT CLUSTER ONE (1) – OR TAMBO AND ALFRED NZO DISTRICT – HEALTH FACILITIES (36 MONTHS)
TENDER No.	SCMU3-2627-0178-HO

MUST BE ON COMPANY LETTERHEAD

A: CERTIFICATE OF AUTHORITY FOR SIGNATORY

Signatory for companies shall confirm their authority hereto by attaching a duly signed and dated copy of the relevant resolution of the board of directors to this form. **This must be on a company letterhead.**

An example is given below:

“

Company Letterhead

“By resolution of the board of directors passed at a meeting held on _____

Mr/Ms _____, whose signature appears below, has been duly authorized to

sign all documents in connection with the Supplier for Contract No. _____

and any Contract which may arise there from on behalf of (Block Capitals) _____

SIGNED ON BEHALF OF THE COMPANY: _____

IN HIS/HER CAPACITY AS: _____

DATE: _____

SIGNATURE OF SIGNATORY: _____

WITNESSES:

1. _____ SIGNATURE: _____

2. _____ SIGNATURE: _____”

T2.2b: RESOLUTION OF BOARD OF DIRECTORS TO ENTER INTO CONSORTIA OR JOINT VENTURES

PROJECT NAME	SCHEDULED MAINTENANCE OF VACUUM & COMPRESSED MEDICAL GAS EQUIPMENT AT CLUSTER ONE (1) – OR TAMBO AND ALFRED NZO DISTRICT – HEALTH FACILITIES (36 MONTHS)
TENDER No.	SCMU3-2627-0178-HO

RESOLUTION of a meeting of the Board of *Directors / Members / Partners of:

(Legally correct full name and registration number, if applicable, of the Enterprise)

Held at _____ (place)

On _____ (date)

RESOLVED that:

i) The Enterprise submit a Bid /Supplier, in consortium/Joint Venture with the followingEnterprises:

(List all the legally correct full names and registration numbers, if applicable, of the Enterprises forming the Consortium/Joint Venture)

to the Eastern Cape Department of Health in respect of the following project:

(Project description as per Bid /Supplier Document)

Bid Number: _____ (Bid Number as per Document)

ii) *Mr./Mrs./Ms:

in *his/her Capacity as: _____ (Position in the Enterprise)

and who will sign as follows: _____

be, and is hereby, authorized to sign a consortium/joint venture agreement with the parties listed under item 1 above, and any and all other documents and/or correspondence in connection with and relating to the consortium/joint venture, in respect of the project described under item 1 above.

iii) The Enterprise accepts joint and several liability with the parties listed under item 1 for the due fulfilment of the obligations of the joint venture deriving from, and in any way connected with, the

Contract to be entered into with the Department in respect of the project described under item 1 above.

iv) The Enterprise chooses as its domicilium citandi et executandi for all purposes arising from this joint venture agreement and the Contract with the Department in respect of the project under item 1 above:

Physical address: _____

 _____ Postal Code _____

Postal Address: _____

 _____ Postal Code _____

Telephone number: _____

Fax number: _____

	NAME	CAPACITY	SIGNATURE
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			

Note: * Delete which is not applicable - NB. This resolution must be signed by all the Directors / Members / Partners of the Bidding Enterprise - Should the number of Directors / Members/Partners exceed the space available above, additional names and signatures must be supplied on a separate page	ENTERPRISE STAMP
--	-------------------------

T2.2c-1: SCHEDULE OF PROPOSED SUBCONTRACTORS

T2.2c-1 IS A MANDATORY RETURNABLE DOCUMENT. FAILURE TO COMPLETE AND SUBMIT THIS DOCUMENT WILL RESULT IN DISQUALIFICATION OF THE TENDERER

PROJECT NAME	SCHEDULED MAINTENANCE OF VACUUM & COMPRESSED MEDICAL GAS EQUIPMENT AT CLUSTER ONE (1) – OR TAMBO AND ALFRED NZO DISTRICT – HEALTH FACILITIES (36 MONTHS)
TENDER No.	SCMU3-2627-0178-HO

	We notify you that it is our intention to employ the following subcontractors for work in this contract. If we are awarded a contract, we agree that this notification does not change the requirement for us to submit the names of proposed Subcontractors in accordance with requirements in the contract for such appointments. If there are no such requirements in the contract, then your written acceptance of this list shall be binding between us.			
	Name and address of proposed Subcontractor	Nature and extent of work	Value of Work	Subcontractor CIDB grading
1.				
2.				
3.				

Signed Date

Name Position

Supplier

T2.2c-2: SCHEDULE OF PROPOSED ELECTRICAL/ MECHANICAL SUBCONTRACTORS

**T2.2c-2 IS A MANDATORY RETURNABLE DOCUMENT. FAILURE TO COMPLETE AND SUBMIT
THIS DOCUMENT WILL RESULT IN DISQUALIFICATION OF THE TENDERER**

PROJECT NAME	SCHEDULED MAINTENANCE OF VACUUM & COMPRESSED MEDICAL GAS EQUIPMENT AT CLUSTER ONE (1) – OR TAMBO AND ALFRED NZO DISTRICT – HEALTH FACILITIES (36 MONTHS)
TENDER No.	SCMU3-2627-0178-HO

	We notify you that it is our intention to employ the following subcontractors for work in this contract. If we are awarded a contract, we agree that this notification does not change the requirement for us to submit the names of proposed Subcontractors in accordance with requirements in the contract for such appointments. If there are no such requirements in the contract, then your written acceptance of this list shall be binding between us.			
	Name and address of proposed Subcontractor	Nature and extent of work	Value of Work	Subcontractor CIDB grading
1.				
2.				
3.				

Signed Date

Name Position

Supplier

T2.2e: SCHEDULE OF KEY PERSONNEL

T2.2e IS A MANDATORY RETURNABLE DOCUMENT. FAILURE TO COMPLETE AND SUBMIT THIS DOCUMENT WILL RESULT IN DISQUALIFICATION OF THE TENDERER

PROJECT NAME	SCHEDULED MAINTENANCE OF VACUUM & COMPRESSED MEDICAL GAS EQUIPMENT AT CLUSTER ONE (1) – OR TAMBO AND ALFRED NZO DISTRICT – HEALTH FACILITIES (36 MONTHS)
TENDER No.	SCMU3-2627-0178-HO

The Supplier is referred to clause C.2.1.3 of the Tender Data and shall insert in the spaces provided below details of the key personnel required to be in the employment of the Supplier or a specialist consultant/firm, in order for the Supplier to be eligible to submit a Tender for this project. The Curriculum Vitae of the individual must be appended to this schedule.

Notwithstanding having appended the Curriculum Vitae of the key personnel to this schedule, the Supplier must **also** append to this schedule in terms of clause C.2.1.3, a statement for the individual identified, which indicates any field(s) of specialization and any recent experience that is relevant to this particular project (which may or may not have formed part of the individual's CV). Suppliers should indicate what particular aspect of the project the specialization or experience is relevant to.

Name	Qualifications	No. of Years Specified Experience

Signed _____ Date _____

Name _____ Position _____

Supplier _____

T2.2f: BANK RATING

T2.2f IS A MANDATORY RETURNABLE DOCUMENT. FAILURE TO COMPLETE AND SUBMIT THIS DOCUMENT WILL RESULT IN DISQUALIFICATION OF THE TENDERER

PROJECT NAME	SCHEDULED MAINTENANCE OF VACUUM & COMPRESSED MEDICAL GAS EQUIPMENT AT CLUSTER ONE (1) – OR TAMBO AND ALFRED NZO DISTRICT – HEALTH FACILITIES (36 MONTHS)
TENDER No.	SCMU3-2627-0178-HO

Suppliers must submit a bank rating from a recognized financial institution as required in clause C.3.11.9 of the Tender Data. The bank rating must be attached to this schedule. Failure to comply with the requirements of C.3.11.9 shall result in the Tender not being evaluated further.

Minimum of Grade C bank required

Signed _____ Date _____

Name _____ Position _____

Supplier _____

T2.2n: RECORD OF ADDENDA TO SUPPLIER DOCUMENTS

PROJECT NAME	SCHEDULED MAINTENANCE OF VACUUM & COMPRESSED MEDICAL GAS EQUIPMENT AT CLUSTER ONE (1) – OR TAMBO AND ALFRED NZO DISTRICT – HEALTH FACILITIES (36 MONTHS)
TENDER No.	SCMU3-2627-0178-HO

We confirm that the following communications received from the Employer before the submission of this Supplier offer, amending the Tender documents, have been taken into account in this Supplier offer:		
	Date	Title or Details
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

Attach additional pages if more space is required.

Signed..... Date

Name..... Position

Supplier

*This document must form part of the returnable schedules as it is referenced in the offer portion of the Form of Offer and Acceptance.

T2.2r: COMPULSORY ENTERPRISE QUESTIONNAIRE

PROJECT NAME	SCHEDULED MAINTENANCE OF VACUUM & COMPRESSED MEDICAL GAS EQUIPMENT AT CLUSTER ONE (1) – OR TAMBO AND ALFRED NZO DISTRICT – HEALTH FACILITIES (36 MONTHS)
TENDER No.	SCMU3-2627-0178-HO

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

Section 1: Name of enterprise:

Section 2: VAT registration number:

Section 3: Particulars of sole proprietors and partners in partnerships

Name*	Identity number*	Personal income tax number*

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

Section 5: Particulars of companies and close corporations

Company registration number

Close corporation number

Tax reference number

Section 6: Record of service of the state

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

- | | |
|--|---|
| <p>1 a member of any municipal council</p> <p>2 a member of any provincial legislature</p> <p>Y a member of the National Assembly or the National Council of Province</p> <p>3 a member of the board of directors of any municipal entity</p> <p>4 an official of any municipality or municipal entity</p> | <p>Y an employee of any provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act 1 of 1999)</p> <p>Y a member of an accounting authority of any national or provincial public entity</p> <p>Y an employee of Parliament or a provincial legislature</p> |
|--|---|

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

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

*insert separate page if necessary

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

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

- | | |
|---|--|
| 2 a member of any municipal council | 3 an employee of any provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act 1 of 1999) |
| 3 a member of any provincial legislature | 4 a member of an accounting authority of any national or provincial public entity |
| 4 a member of the National Assembly or the National Council of Province | 5 an employee of Parliament or a provincial legislature |
| 5 a member of the board of directors of any municipal entity | |
| 6 an official of any municipality or municipal entity | |

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

*insert separate page if necessary

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

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

Signed..... Date

Name..... Position

Enterprise
name

* The schedule should be used where Suppliers are subject to the Local Government: Municipal Finance Management Act

T2.2u: CIDB grading Certificate- Proof of Registration

PROJECT NAME	SCHEDULED MAINTENANCE OF VACUUM & COMPRESSED MEDICAL GAS EQUIPMENT AT CLUSTER ONE (1) – OR TAMBO AND ALFRED NZO DISTRICT – HEALTH FACILITIES (36 MONTHS)
TENDER No.	SCMU3-2627-0178-HO

Tenderers must submit valid proof of registration with the Construction Industry Development Board (CIDB) reflecting the required grading designation relevant to this project as per C.2.1 of T1.2: Tender Data

T2.2v: CIPC – Company registration certificate

PROJECT NAME	SCHEDULED MAINTENANCE OF VACUUM & COMPRESSED MEDICAL GAS EQUIPMENT AT CLUSTER ONE (1) – OR TAMBO AND ALFRED NZO DISTRICT – HEALTH FACILITIES (36 MONTHS)
TENDER No.	SCMU3-2627-0178-HO

Tenderer to submit necessary company registration certificate.

T2.2z: Valid Letter of Good Standing

T2.2z IS A MANDATORY RETURNABLE DOCUMENT. FAILURE TO COMPLETE AND SUBMIT THIS DOCUMENT WILL RESULT IN DISQUALIFICATION OF THE TENDERER

PROJECT NAME	SCHEDULED MAINTENANCE OF VACUUM & COMPRESSED MEDICAL GAS EQUIPMENT AT CLUSTER ONE (1) – OR TAMBO AND ALFRED NZO DISTRICT – HEALTH FACILITIES (36 MONTHS)
TENDER No.	SCMU3-2627-0178-HO

Tenderer to submit valid and up to date Letter of Good Standing certificate with COIDA (Compensation for Occupational Injuries and Diseases Act).

PART A INVITATION TO BID

YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS OF THE (NAME OF DEPARTMENT/ PUBLIC ENTITY)					
BID NUMBER:	SCMU3-2627-0178-HO	CLOSING DATE:	07 August 2026	CLOSING TIME:	11:00
DESCRIPTION	SCHEDULED MAINTENANCE OF VACUUM & COMPRESSED MEDICAL GAS EQUIPMENT AT CLUSTER ONE (1) – OR TAMBO AND ALFRED NZO DISTRICT – HEALTH FACILITIES (36 MONTHS)				
BID RESPONSE DOCUMENTS MAY BE SUBMITTED AS PER THE FOLLOWING:					
All bids must be uploaded before the closing time and date stipulated above and must be submitted on e-tender portal (www.etenders.gov.za).					
BIDDING PROCEDURE ENQUIRIES MAY BE DIRECTED TO			TECHNICAL ENQUIRIES MAY BE DIRECTED TO:		
CONTACT PERSON	Thabisa Notshe		CONTACT PERSON	Thabisa Notshe	
TELEPHONE NUMBER	040-608-9641		TELEPHONE NUMBER	040-608-1873	
FACSIMILE NUMBER	N/A		FACSIMILE NUMBER	N/A	
E-MAIL ADDRESS	Thabisa.notshe@echealth.gov.za		E-MAIL ADDRESS	Thabisa.notshe@echealth.gov.za	
SUPPLIER INFORMATION					
NAME OF BIDDER					
POSTAL ADDRESS					
STREET ADDRESS					
TELEPHONE NUMBER	CODE		NUMBER		
CELLPHONE NUMBER					
FACSIMILE NUMBER	CODE		NUMBER		
E-MAIL ADDRESS					
VAT REGISTRATION NUMBER					
SUPPLIER COMPLIANCE STATUS	TAX COMPLIANCE SYSTEM PIN:		OR	CENTRAL SUPPLIER DATABASE No:	MAAA
ARE YOU THE ACCREDITED REPRESENTATIVE IN SOUTH AFRICA FOR THE GOODS /SERVICES OFFERED?	☐ Yes ☐ No [IF YES ENCLOSE PROOF]		ARE YOU A FOREIGN BASED SUPPLIER FOR THE GOODS /SERVICES OFFERED?		☐ Yes ☐ No [IF YES, ANSWER THE QUESTIONNAIRE BELOW]
QUESTIONNAIRE TO BIDDING FOREIGN SUPPLIERS					
IS THE ENTITY A RESIDENT OF THE REPUBLIC OF SOUTH AFRICA (RSA)?				☐ YES	☐ NO
DOES THE ENTITY HAVE A BRANCH IN THE RSA?				☐ YES	☐ NO
DOES THE ENTITY HAVE A PERMANENT ESTABLISHMENT IN THE RSA?				☐ YES	☐ NO
DOES THE ENTITY HAVE ANY SOURCE OF INCOME IN THE RSA?				☐ YES	☐ NO
IS THE ENTITY LIABLE IN THE RSA FOR ANY FORM OF TAXATION?				☐ YES	☐ NO
IF THE ANSWER IS “NO” TO ALL OF THE ABOVE, THEN IT IS NOT A REQUIREMENT TO REGISTER FOR A TAX COMPLIANCE STATUS SYSTEM PIN CODE FROM THE SOUTH AFRICAN REVENUE SERVICE (SARS) AND IF NOT REGISTER AS PER 2.3 BELOW.					

TERMS AND CONDITIONS FOR BIDDING

1. BID SUBMISSION:

- 1.1. BIDS MUST BE SUBMITTED BY THE STIPULATED TIME ON THE PORTAL. LATE BIDS WILL NOT BE ACCEPTED FOR CONSIDERATION.
- 1.2. **ALL BIDS MUST BE SUBMITTED ON THE OFFICIAL FORMS PROVIDED (NOT TO BE RE-TYPED) OR IN THE MANNER PRESCRIBED IN THE BID DOCUMENT.**
- 1.3. THIS BID IS SUBJECT TO THE PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT, 2000 AND THE PREFERENTIAL PROCUREMENT REGULATIONS, NEC3 TERM SERVICE CONTRACT AND, IF APPLICABLE, ANY OTHER SPECIAL CONDITIONS OF CONTRACT.
- 1.4. **THE SUCCESSFUL BIDDER WILL BE REQUIRED TO FILL IN AND SIGN A WRITTEN CONTRACT FORM.**

2. TAX COMPLIANCE REQUIREMENTS

- 2.1 BIDDERS MUST ENSURE COMPLIANCE WITH THEIR TAX OBLIGATIONS.
- 2.2 BIDDERS ARE REQUIRED TO SUBMIT THEIR UNIQUE PERSONAL IDENTIFICATION NUMBER (PIN) ISSUED BY SARS TO ENABLE THE ORGAN OF STATE TO VERIFY THE TAXPAYER'S PROFILE AND TAX STATUS.
- 2.3 APPLICATION FOR TAX COMPLIANCE STATUS (TCS) PIN MAY BE MADE VIA E-FILING THROUGH THE SARS WEBSITE WWW.SARS.GOV.ZA.
- 2.4 BIDDERS MAY ALSO SUBMIT A PRINTED TCS CERTIFICATE TOGETHER WITH THE BID.
- 2.5 IN BIDS WHERE CONSORTIA / JOINT VENTURES / SUB-CONTRACTORS ARE INVOLVED; EACH PARTY MUST SUBMIT A SEPARATE TCS CERTIFICATE / PIN / CSD NUMBER.
- 2.6 WHERE NO TCS PIN IS AVAILABLE BUT THE BIDDER IS REGISTERED ON THE CENTRAL SUPPLIER DATABASE (CSD), A CSD NUMBER MUST BE PROVIDED.
- 2.7 NO BIDS WILL BE CONSIDERED FROM PERSONS IN THE SERVICE OF THE STATE, COMPANIES WITH DIRECTORS WHO ARE PERSONS IN THE SERVICE OF THE STATE, OR CLOSE CORPORATIONS WITH MEMBERS PERSONS IN THE SERVICE OF THE STATE."

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

SIGNATURE OF BIDDER:

CAPACITY UNDER WHICH THIS BID IS SIGNED:
(Proof of authority must be submitted e.g. company resolution)

DATE:

SBD 4: DECLARATION OF INTEREST

PROJECT NAME	SCHEDULED MAINTENANCE OF VACUUM & COMPRESSED MEDICAL GAS EQUIPMENT AT CLUSTER ONE (1) – OR TAMBO AND ALFRED NZO DISTRICT – HEALTH FACILITIES (36 MONTHS)
TENDER No.	SCMU3-2627-0178-HO

BIDDER'S DISCLOSURE

1. PURPOSE OF THE FORM

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

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

2. Bidder's declaration

- 2.1 Is the bidder, or any of its directors / trustees / shareholders / members / partners or any person having a controlling interest¹ in the enterprise?

Employed by the state?

YES/NO

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

Full Name	Identity Number	Name of institution	State

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

- 2.2.1 If so, furnish particulars:

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

- 2.3.1 If so, furnish particulars:

.....

3 DECLARATION

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

- 3.1 I have read and I understand the contents of this disclosure;
- 3.2 I understand that the accompanying bid will be disqualified if this disclosure is found not to be true and complete in every respect;
- 3.3 The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor. However, communication between partners in a joint venture or consortium² will not be construed as collusive bidding.
- 3.4 In addition, there have been no consultations, communications, agreements or arrangements with any competitor

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

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

regarding the quality, quantity, specifications, prices, including methods, factors or formulas used to calculate prices, market allocation, the intention or decision to submit or not to submit the bid, bidding with the intention not to win the bid and conditions or delivery particulars of the products or services to which this bid invitation relates.

3.4 The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.

3.5 There have been no consultations, communications, agreements or arrangements made by the bidder with any official of the procuring institution in relation to this procurement process prior to and during the bidding process except to provide clarification on the bid submitted where so required by the institution; and the bidder was not involved in the drafting of the specifications or terms of reference for this bid.

3.6 I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to bids and contracts, bids that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No 89 of 1998 and or may be reported to the National Prosecuting Authority (NPA) for criminal investigation and or may be restricted from conducting business with the public sector for a period not exceeding ten (10) years in terms of the Prevention and Combating of Corrupt Activities Act No 12 of 2004 or any other applicable legislation.

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

I ACCEPT THAT THE STATE MAY REJECT THE BID OR ACT AGAINST ME IN TERMS OF PARAGRAPH 6 OF PFMA SCM

INSTRUCTION 03 OF 2021/22 ON PREVENTING AND COMBATING ABUSE IN THE SUPPLY CHAIN MANAGEMENT
SYSTEM SHOULD THIS DECLARATION PROVE TO BE FALSE.

.....
Signature

.....
Date

.....
Position

.....
Name of bidder

PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2022

This preference form must form part of all tenders invited. It contains general information and serves as a claim form for preference points for specific goals.

NB: BEFORE COMPLETING THIS FORM, TENDERERS MUST STUDY THE GENERAL CONDITIONS, DEFINITIONS AND DIRECTIVES APPLICABLE IN RESPECT OF THE TENDER AND PREFERENTIAL PROCUREMENT REGULATIONS, 2022

1. GENERAL CONDITIONS

1.1 The following preference point systems are applicable to invitations to tender:

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

1.2 **To be completed by the organ of state**

(delete whichever is not applicable for this tender).

The applicable preference point system for this tender is the **80/20 or 90/10** preference point system.

The lowest/ highest acceptable tender will be used to determine the accurate system once tenders are received.

1.3 Points for this tender (even in the case of a tender for income-generating contracts) shall be awarded for:

- (a) Price; and
- (b) Specific Goals.

1.4 **To be completed by the organ of state:**

The maximum points for this tender are allocated as follows:

	POINTS		POINTS
PRICE	80	OR	90
SPECIFIC GOALS	20		10
Total points for Price and SPECIFIC GOALS	100		100

1.5 Failure on the part of a tenderer to submit proof or documentation required in terms of this tender to claim points for specific goals with the tender, will be interpreted to mean that preference points for specific goals are not claimed.

1.6 The organ of state reserves the right to require of a tenderer, either before a tender is adjudicated or at any time subsequently, to substantiate any claim in regard to preferences, in any manner required by the organ of state.

2. DEFINITIONS

- (a) **“tender”** means a written offer in the form determined by an organ of state in response to an invitation to provide goods or services through price quotations, competitive tendering process or any other method envisaged in legislation;
- (b) **“price”** means an amount of money tendered for goods or services, and includes all applicable taxes less all unconditional discounts;
- (c) **“rand value”** means the total estimated value of a contract in Rand, calculated at the time of bid invitation;

and includes all applicable taxes;

- (d) **“tender for income-generating contracts”** means a written offer in the form determined by an organ of state in response to an invitation for the origination of income-generating contracts through any method envisaged in legislation that will result in a legal agreement between the organ of state and a third party that produces revenue for the organ of state, and includes, but is not limited to, leasing and disposal of assets and concession contracts, excluding direct sales and disposal of assets through public auctions; and
- (e) **“the Act”** means the Preferential Procurement Policy Framework Act, 2000 (Act No. 5 of 2000).

3. FORMULAE FOR PROCUREMENT OF GOODS AND SERVICES

3.1. POINTS AWARDED FOR PRICE

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

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

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

OR

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

Where

P_s = Points scored for price of tender under consideration

P_t = Price of tender under consideration

$P_{\min}$ = Price of lowest acceptable tender

3.2. FORMULAE FOR DISPOSAL OR LEASING OF STATE ASSETS AND INCOME GENERATING PROCUREMENT

3.2.1. POINTS AWARDED FOR PRICE

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

80/20

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

OR

90/10

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

Where

P_s = Points scored for price of tender under consideration

P_t = Price of tender under consideration

$P_{\max}$ = Price of highest acceptable tender

4. POINTS AWARDED FOR SPECIFIC GOALS

- 4.1. In terms of Regulation 4(2); 5(2); 6(2) and 7(2) of the Preferential Procurement Regulations, preference points must be awarded for specific goals stated in the tender. For the purposes of this tender the tenderer will be allocated points based on the goals stated in table 1 below as may be supported by proof/ documentation stated in the conditions of this tender:
- 4.2. In cases where organs of state intend to use Regulation 3(2) of the Regulations, which states that, if it is unclear whether the 80/20 preference point system applies, an organ of state must, in the tender documents, stipulate in the case of—
- (a) an invitation for tender for income-generating contracts, that either the 80/20 or 90/10 preference point system will apply and that the highest acceptable tender will be used to determine the applicable preference point system; or
 - (b) any other invitation for tender, that either the 80/20 or 90/10 preference point system will apply and that the lowest acceptable tender will be used to determine the applicable preference point system,
- then the organ of state must indicate the points allocated for specific goals for both the 80/20 or 90/10 preference pointsystem.

Table 1: Specific goals for the tender and points claimed are indicated per the table below.

(Note to organs of state: Where either the 90/10 or 80/20 preference point system is applicable, corresponding points mustalso be indicated as such.

Note to tenderers: The tenderer must indicate how they claim points for each preference point system.)

The specific goals allocated points in terms of this tender	Number of points allocated (80/20 system) (To be completed by the organ of state)	Number of points claimed (80/20 system) (To be completed by the tenderer)
Historically Disadvantaged Individuals Ownership	20% (4)	
Women Ownership	20% (4)	
Youth Ownership	20% (4)	
Disability Ownership	20% (4)	
Military Veterans Ownership	10% (2)	
Locality Ownership (Eastern Cape)	10% (2)	
TOTAL	100% (20)	

The specific goals allocated points in terms of this tender	Number of points allocated (90/10 system) (To be completed by the organ of state)	Number of points claimed (80/20 system) (To be completed by the tenderer)
Historically Disadvantaged Individuals Ownership	20% (2)	
Women Ownership	20% (2)	
Youth Ownership	20% (2)	
Disability Ownership	20% (2)	
Military Veterans Ownership	10% (1)	
Locality Ownership (Eastern Cape)	10% (1)	
TOTAL	100% (10)	

- a) *Service providers must submit proof of its Specific Goals points claimed / status of contributor.*
- b) *The Specific Goals supporting documents required to verify claimed points may inline with the specified requirements include:*
- *Historically Disadvantaged Individuals Ownership: Proof of ownership (CIPRO certificate) with id no.*
 - *Women Ownership: Ownership: Proof of ownership (CIPRO certificate) with id no.*
 - *Youth Ownership: Ownership: Proof of ownership (CIPRO certificate) with id no.*
 - *Disability Ownership: Proof of ownership (CIPRO certificate) with valid medical documentary proof.*
 - *Military Veterans Ownership: Proof of ownership (CIPRO certificate) with valid proof of veteran status.*
 - *Ownership: Proof of business address (municipal account or valid lease agreement)*
 - *Updated CSD report*

DECLARATION WITH REGARD TO COMPANY/FIRM

- 4.3. Name of company/firm.....
- 4.4. Company registration number:
- 4.5. TYPE OF COMPANY/ FIRM
- Partnership/Joint Venture / Consortium
- One-person business/sole propriety
- Close corporation
- Public Company
- Personal Liability Company
- (Pty) Limited
- Non-Profit Company
- State Owned Company
- [TICK APPLICABLE BOX]

4.6. I, the undersigned, who is duly authorised to do so on behalf of the company/firm, certify that the points claimed, based on the specific goals as advised in the tender, qualifies the company/ firm for the preference(s) shown and I 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 paragraphs 1.4 and 4.2, the contractor may be required to furnish documentary proof to the satisfaction of the organ of state that the claims are correct;
- iv) If the specific goals have been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, the organ of state may, in addition to any other remedy it may have -
 - (a) disqualify the person from the tendering process;
 - (b) recover costs, losses or damages it has incurred or suffered as a result of that person's conduct;
 - (c) cancel the contract and claim any damages which it has suffered as a result of having to make less favourable arrangements due to such cancellation;
 - (d) recommend that the tenderer or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted 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, if deemed necessary.

..... SIGNATURE(S) OF BIDDER(S)	
SURNAME AND NAME:	.....
DATE:	.....
ADDRESS:	.....
	
	
	

T2.2: OTHER DOCUMENTS REQUIRED FOR TENDER EVALUATION PURPOSES

T2.2g: SPECIFIC GOALS CLAIMED (CIPRO CERTIFICATE)

T2.2g IS A MANDATORY RETURNABLE DOCUMENT. FAILURE TO COMPLETE AND SUBMIT THIS DOCUMENT WILL RESULT IN DISQUALIFICATION OF THE TENDERER

PROJECT NAME	SCHEDULED MAINTENANCE OF VACUUM & COMPRESSED MEDICAL GAS EQUIPMENT AT CLUSTER ONE (1) – OR TAMBO AND ALFRED NZO DISTRICT – HEALTH FACILITIES (36 MONTHS)
TENDER No.	SCMU3-2627-0178-HO

Suppliers must attach CIPRO CERTIFICATE.

T2.2y: Proof of Registration with Centralized Supplier Database

PROJECT NAME	SCHEDULED MAINTENANCE OF VACUUM & COMPRESSED MEDICAL GAS EQUIPMENT AT CLUSTER ONE (1) – OR TAMBO AND ALFRED NZO DISTRICT – HEALTH FACILITIES (36 MONTHS)
TENDER No.	SCMU3-2627-0178-HO

Suppliers must attach Full CSD report.

T2.3: RETURNABLE SCHEDULES OR DOCUMENTS: ANNEXURES RELATED TO EVALUATION

Annexure A1: Method Statement (Generic)

PROJECT NAME	SCHEDULED MAINTENANCE OF VACUUM & COMPRESSED MEDICAL GAS EQUIPMENT AT CLUSTER ONE (1) – OR TAMBO AND ALFRED NZO DISTRICT – HEALTH FACILITIES (36 MONTHS)
TENDER No.	SCMU3-2627-0178-HO

Suppliers are required to submit a method statement relevant to the scope of work.

Annexure A2: Method Statement (Summary Task)

PROJECT NAME	SCHEDULED MAINTENANCE OF VACUUM & COMPRESSED MEDICAL GAS EQUIPMENT AT CLUSTER ONE (1) – OR TAMBO AND ALFRED NZO DISTRICT – HEALTH FACILITIES (36 MONTHS)
TENDER No.	SCMU3-2627-0178-HO

Suppliers are required to submit a summary task. The summary task must indicate the major tasks and subtasks of the work. The contractor must indicate how they would approach the works to achieve the required outcomes from start to end of the project.

Annexure A3: Method Statement (Programme with Timelines and Resources)

PROJECT NAME	SCHEDULED MAINTENANCE OF VACUUM & COMPRESSED MEDICAL GAS EQUIPMENT AT CLUSTER ONE (1) – OR TAMBO AND ALFRED NZO DISTRICT – HEALTH FACILITIES (36 MONTHS))
TENDER No.	SCMU3-2627-0178-HO

Suppliers are required to submit Programme with timelines such as a Gantt Chart (quarterly and biannual inspections) and planned resources (human resources and tools) relevant to the scope of work.

Annexure B1: Key Personnel Qualification (Maintenance manager)

PROJECT NAME	SCHEDULED MAINTENANCE OF VACUUM & COMPRESSED MEDICAL GAS EQUIPMENT AT CLUSTER ONE (1) – OR TAMBO AND ALFRED NZO DISTRICT – HEALTH FACILITIES (36 MONTHS)
TENDER No.	SCMU3-2627-0178-HO

ANNEXURE B1 IS A MANDATORY RETURNABLE DOCUMENT. FAILURE TO COMPLETE AND SUBMIT THIS DOCUMENT WILL RESULT IN DISQUALIFICATION OF THE TENDERER

Suppliers are required to submit proof of maintenance manager's experience (CV), qualification, and/or registration documents. All certified documents **must not be older than three (3) months**.

Key Person	Requirements	Returnable
Maintenance Manager Mechanical/Electrical Engineering	1. Electrical/ Mechanical Engineering Degree. 2. Registration as per Act 46 of 2000 (Pr. Eng) (Candidate Registration will not be accepted)	Attach certified copies of qualification and registration certificate with a CV.
	OR	
	1. Electrical / Mechanical Engineering Diploma 2. Registration (Pr. Tech. Eng/ Pr Techni) as per Act 46 of 2000 (Candidate Registration will not be accepted)	Attach certified copies of qualification and registration certificate with a CV.
	OR	
	1. Trade certificate (Mechanical/ Electrical) (Issued by the Department of Labour/ SETA accredited) 2. Minimum experience of 10 years in vacuum and medical gas.	Attach certified copies of qualification with a CV.

Annexure B2: Key Personnel Qualification (Maintenance supervisor)

PROJECT NAME	SCHEDULED MAINTENANCE OF VACUUM & COMPRESSED MEDICAL GAS EQUIPMENT AT CLUSTER ONE (1) – OR TAMBO AND ALFRED NZO DISTRICT – HEALTH FACILITIES (36 MONTHS)
TENDER No.	SCMU3-2627-0178-HO

ANNEXURE B2 IS A MANDATORY RETURNABLE DOCUMENT. FAILURE TO COMPLETE AND SUBMIT THIS DOCUMENT WILL RESULT IN DISQUALIFICATION OF THE TENDERER

Suppliers are required to submit proof of maintenance supervisor's experience (CV), and qualification.

All certified documents **must not be older than three (3) months**.

Key Person	Requirements	Returnable
Maintenance Supervisor Mechanical /Electrical Engineering	1. A Mechanical or Electrical Engineering Diploma or Degree 2. Minimum of five (5) years' post-qualification experience. 3. Minimum of three (3) years of post-qualification experience in vacuum and compressed medical gas maintenance and installation.	Attach certified copies of qualification and proof of experience (CV).
	OR 1. Trade certificate (Mechanical/ Electrical) (Issued by the Department of Labour/ SETA accredited), or higher qualification. 2. Minimum of five (5) years' post-qualification experience. 3. Minimum of three (3) years post-qualification experience in vacuum and medical gas equipment maintenance and installation.	Attach certified copies of qualification and proof of experience (CV).

Annexure B3: Key Personnel Qualification (OHS Safety officer)

PROJECT NAME	SCHEDULED MAINTENANCE OF VACUUM & COMPRESSED MEDICAL GAS EQUIPMENT AT CLUSTER ONE (1) – OR TAMBO AND ALFRED NZO DISTRICT – HEALTH FACILITIES (36 MONTHS)
TENDER No.	SCMU3-2627-0178-HO

ANNEXURE B3 IS A MANDATORY RETURNABLE DOCUMENT. FAILURE TO COMPLETE AND SUBMIT THIS DOCUMENT WILL RESULT IN DISQUALIFICATION OF THE TENDERER

Suppliers are required to submit proof of OHS safety officer's experience (CV) and qualifications. All certified documents must not be older than three (3) months.

Key Person	Requirements	Returnable
OHS Safety Officer	Relevant NQF level 5/ or equivalent with 2 years or more relevant experience in OHS safety.	Attached certified copies of qualification

**Annexure B4: Key Personnel Qualification
(Skilled installation/maintenance Staff)**

PROJECT NAME	SCHEDULED MAINTENANCE OF VACUUM & COMPRESSED MEDICAL GAS EQUIPMENT AT CLUSTER ONE (1) – OR TAMBO AND ALFRED NZO DISTRICT – HEALTH FACILITIES (36 MONTHS)
TENDER No.	SCMU3-2627-0178-HO

**ANNEXURE B4 IS A MANDATORY RETURNABLE DOCUMENT. FAILURE TO COMPLETE AND
SUBMIT THIS DOCUMENT WILL RESULT IN DISQUALIFICATION OF THE TENDERER**

Suppliers are required to submit proof of Skilled installation/maintenance staff experience (CV) and qualifications. All certified documents must not be older than three (3) months.

Annexure B5: Key personnel qualifications (Skilled medical gas artisan)

PROJECT NAME	SCHEDULED MAINTENANCE OF VACUUM & COMPRESSED MEDICAL GAS EQUIPMENT AT CLUSTER ONE (1) – OR TAMBO AND ALFRED NZO DISTRICT – HEALTH FACILITIES (36 MONTHS)
TENDER No.	SCMU3-2627-0178-HO

ANNEXURE B5 IS A MANDATORY RETURNABLE DOCUMENT. FAILURE TO COMPLETE AND SUBMIT THIS DOCUMENT WILL RESULT IN DISQUALIFICATION OF THE TENDERER

Suppliers are required to submit proof of Skilled installation/maintenance staff experience (CV) and qualifications. All certified documents **must not be older than three (3) months**.

Key Person	Requirements	Returnable
Skilled medical gas artisan	1. Medical Gas System Installer (NQF level 5). 2. Valid SAQCC Authorized Practitioner Card. Gas Card Details: Compressed Gas- Industrial. Scope of Work must include: Installation, maintenance and repairs of Medical Gases- Medical Air, Medical Oxygen, Nitrous Oxide, Entenox.	Attached certified copies of qualification and the SAQCC Practitioner Card.

Annexure B6: Proof of Business Address

PROJECT NAME	SCHEDULED MAINTENANCE OF VACUUM & COMPRESSED MEDICAL GAS EQUIPMENT AT CLUSTER ONE (1) – OR TAMBO AND ALFRED NZO DISTRICT – HEALTH FACILITIES (36 MONTHS)
TENDER No.	SCMU3-2627-0178-HO

ANNEXURE B6 IS A MANDATORY RETURNABLE DOCUMENT. FAILURE TO COMPLETE AND SUBMIT THIS DOCUMENT WILL RESULT IN DISQUALIFICATION OF THE TENDERER

Suppliers are required to submit proof of business address (municipal account or valid lease agreement not later than 3 months). All certified documents must not be older than three (3) months.

Annexure B7: Company Experience

PROJECT NAME	SCHEDULED MAINTENANCE OF VACUUM & COMPRESSED MEDICAL GAS EQUIPMENT AT CLUSTER ONE (1) – OR TAMBO AND ALFRED NZO DISTRICT – HEALTH FACILITIES (36 MONTHS)
TENDER No.	SCMU3-2627-0178-HO

ANNEXURE B7 IS A MANDATORY RETURNABLE DOCUMENT. FAILURE TO COMPLETE AND SUBMIT THIS DOCUMENT WILL RESULT IN DISQUALIFICATION OF THE TENDERER

Suppliers are required to submit proof of company experience in the field of vacuum and compressed medical gas systems and associated equipment.

T2.2x References

Bidders must provide references demonstrating their ability to undertake projects similar in scale and complexity to those outlined in this tender document, meeting or surpassing the CIDB grading specified.

T2.2x IS A MANDATORY RETURNABLE DOCUMENT. FAILURE TO COMPLETE AND SUBMIT THIS DOCUMENT WITHOUT A COMPANY STAMP WILL RESULT IN DISQUALIFICATION OF THE TENDERER

Reference No. 1

PROJECT NAME	SCHEDULED MAINTENANCE OF VACUUM & COMPRESSED MEDICAL GAS EQUIPMENT AT CLUSTER ONE (1) – OR TAMBO AND ALFRED NZO DISTRICT – HEALTH FACILITIES (36 MONTHS)
TENDER No.	SCMU3-2627-0178-HO

Sir/Madam,

We are in the process of evaluating_____for the above project.

They have listed you as a reference. Please evaluate the Suppliers performance on the criteria listed below by ticking the appropriate boxes. Please return upon completion as soon as possible. If you have any questions please do not hesitate to contact us.

NAME OF EMPLOYER	NAME OF PROJECT	CONTRACT PERIOD (Start and End Date)	VALUE OF WORK

1. QUALITY

EXCELLENT	VERY GOOD	GOOD	FAIR	POOR
5	4	3	2	1

2. TIME PERFORMANCE

EXCELLENT	VERY GOOD	GOOD	FAIR	POOR
5	4	3	2	1

3. FINANCIAL PERFORMANCE

EXCELLENT	VERY GOOD	GOOD	FAIR	POOR
5	4	3	2	1

4. COMMENTS:

Project Manager/Principal Agent:_____

Tel. No: _____

E-mail Address: _____

Signature: _____ Date: _____

Place Company Stamp Here

Reference No. 2

PROJECT NAME	SCHEDULED MAINTENANCE OF VACUUM & COMPRESSED MEDICAL GAS EQUIPMENT AT CLUSTER ONE (1) – OR TAMBO AND ALFRED NZO DISTRICT – HEALTH FACILITIES (36 MONTHS)
TENDER No.	SCMU3-2627-0178-HO

Sir/Madam,

We are in the process of evaluating_____for the above project.

They have listed you as a reference. Please evaluate the Suppliers performance on the criteria listed below by ticking the appropriate boxes. Please return upon completion as soon as possible. If you have any questions please do not hesitate to contact us.

NAME OF EMPLOYER	NAME OF PROJECT	CONTRACT PERIOD (Start and End Date)	VALUE OF WORK

1. QUALITY

EXCELLENT	VERY GOOD	GOOD	FAIR	POOR
5	4	3	2	1

2. TIME PERFORMANCE

EXCELLENT	VERY GOOD	GOOD	FAIR	POOR
5	4	3	2	1

3. FINANCIAL PERFORMANCE

EXCELLENT	VERY GOOD	GOOD	FAIR	POOR
5	4	3	2	1

4. COMMENTS:

Project Manager/Principal Agent: _____

Tel. No: _____

E-mail Address: _____

Signature: _____ Date: _____

Place Company Stamp Here

Reference No. 3

PROJECT NAME	SCHEDULED MAINTENANCE OF VACUUM & COMPRESSED MEDICAL GAS EQUIPMENT AT CLUSTER ONE (1) – OR TAMBO AND ALFRED NZO DISTRICT – HEALTH FACILITIES (36 MONTHS)
TENDER No.	SCMU3-2627-0178-HO

Sir/Madam,

We are in the process of evaluating_____for the above project.

They have listed you as a reference. Please evaluate the Suppliers performance on the criteria listed below by ticking the appropriate boxes. Please return upon completion as soon as possible. If you have any questions please do not hesitate to contact us.

NAME OF EMPLOYER	NAME OF PROJECT	CONTRACT PERIOD (Start and End Date)	VALUE OF WORK

1. QUALITY

EXCELLENT	VERY GOOD	GOOD	FAIR	POOR
5	4	3	2	1

2. TIME PERFORMANCE

EXCELLENT	VERY GOOD	GOOD	FAIR	POOR
5	4	3	2	1

3. FINANCIAL PERFORMANCE

EXCELLENT	VERY GOOD	GOOD	FAIR	POOR
5	4	3	2	1

4. COMMENTS:

Project Manager/Principal Agent:_____

Tel. No: _____

E-mail Address: _____

Signature:_____Date: _____

Place Company Stamp Here

Reference No. 4

PROJECT NAME	SCHEDULED MAINTENANCE OF VACUUM & COMPRESSED MEDICAL GAS EQUIPMENT AT CLUSTER ONE (1) – OR TAMBO AND ALFRED NZO DISTRICT – HEALTH FACILITIES (36 MONTHS)
TENDER No.	SCMU3-2627-0178-HO

Sir/Madam,

We are in the process of evaluating _____ for the above project.

They have listed you as a reference. Please evaluate the Suppliers performance on the criteria listed below by ticking the appropriate boxes. Please return upon completion as soon as possible. If you have any questions please do not hesitate to contact us.

NAME OF EMPLOYER	NAME OF PROJECT	CONTRACT PERIOD (Start and End Date)	VALUE OF WORK

1. QUALITY

EXCELLENT	VERY GOOD	GOOD	FAIR	POOR
5	4	3	2	1

2. TIME PERFORMANCE

EXCELLENT	VERY GOOD	GOOD	FAIR	POOR
5	4	3	2	1

3. FINANCIAL PERFORMANCE

EXCELLENT	VERY GOOD	GOOD	FAIR	POOR
5	4	3	2	1

4. COMMENTS:

Project Manager/Principal Agent: _____

Tel. No: _____

E-mail Address: _____

Signature: _____ Date: _____

Place Company Stamp Here

VOLUME 3: CONTRACT

PART C1: AGREEMENT AND CONTRACT DATA

C1.1 FORM OF OFFER AND ACCEPTANCE

C1.1 IS A MANDATORY RETURNABLE DOCUMENT. FAILURE TO COMPLETE AND SUBMIT THIS DOCUMENT WILL RESULT IN DISQUALIFICATION OF THE TENDERER

OFFER

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

CONTRACT NUMBER: SCMU3-2627-0178-HO

CONTRACT NAME: SCHEDULED MAINTENANCE OF VACUUM & COMPRESSED MEDICAL GAS EQUIPMENT AT CLUSTER ONE (1) – OR TAMBO AND ALFRED NZO DISTRICT – HEALTH FACILITIES (36 MONTHS)

The Tenderer, identified in the offer signature block below, has examined the documents listed in the Tender Data and addenda thereto as listed in the tender schedules, and by submitting this offer has accepted the conditions of tender.

By the representative of the Tenderer, deemed to be duly authorized, signing this part of this form of offer and acceptance, the Tenderer offers to perform all of the obligations and liabilities of the Contractor under the Contract including compliance with all its terms and conditions according to their true intent and meaning for an amount to be determined in accordance with the Conditions of Contract identified in the Contract Data.

The offered total of the prices inclusive of Value-Added Tax is:

.....
.....
..... Rand (in words)
R (in figures)

This offer may be accepted by the Employer by signing the acceptance part of this form of offer and acceptance and returning one copy of this document to the Tenderer before the end of the period of validity stated in the Tender Data, whereupon the Tenderer becomes the party named as the Contractor in terms of the Conditions of Contract identified in the Contract data.

For and on behalf of the Tenderer:

Name
Capacity
Signature Date:

Name and address of tenderer:

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

Witness Name
Witness Signature Date:

ACCEPTANCE

By signing this part of this form of offer and acceptance, the Employer identified below accepts the Tenderer's offer. In consideration thereof, the Employer shall pay the Contractor the amount due in accordance with the Conditions of Contract identified in the Contract data. Acceptance of the Tenderer's offer shall form an agreement between the Employer and the Tenderer upon the terms and conditions contained in this agreement and in the Contract that is the subject of this agreement.

The terms of the Contract are contained in:

Part C1: Agreements and Contract data (which includes this agreement)

Part C2: Pricing data

Part C3: Scope of work

Part C4: Site Information and drawings and documents or parts thereof, which may be incorporated by reference into the above listed Parts.

Deviations from and amendments to the documents listed in the Tender Data and any addenda thereto, as listed in the returnable schedules as well as any changes to the terms of the offer agreed by the Tenderer and the Employer during this process of offer and acceptance, are contained in the schedule of deviations attached to and forming part of this agreement. No amendments to or deviations from said documents are valid unless contained in this schedule, which must be duly signed by the authorised representative(s) of both parties.

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

Notwithstanding anything contained herein, this agreement comes into effect on the date when the Tenderer receives one fully completed original copy of this document, including the schedule of deviations (if any). Unless the Tenderer (now Contractor), within five (5) working days of the date of such receipt, notifies the Employer in writing of any reason why he cannot accept the contents of this agreement, this agreement shall constitute a binding Contract between the parties.

For and on behalf of the Employer:

Name

Capacity

Signature Date:

Name and address of employer:

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

Witness Name

Witness Signature Date:

SCHEDULE OF DEVIATIONS

Notes:

- The extent of deviations from the tender documents issued by the Employer prior to the tender closing date is limited to those permitted in terms of the conditions of tender.
- A Tenderer's covering letter shall not be included in the final Contract document. Should any matter in such letter, which constitutes a deviation as aforesaid become the subject of agreements reached during the process of offer and acceptance, the outcome of such agreement shall be recorded here.
- Any other matter arising from the process of offer and acceptance either as a confirmation, clarification or change to the tender documents, and which it is agreed by the parties becomes an obligation of the Contract, shall also be recorded here.
- Any change or addition to the tender documents arising from the above agreements and recorded here, shall also be incorporated into the final draft of the Contract.

A Tenderer's covering letter shall not be included in the final Contract document. Should any matter in such letter, which constitutes a deviation as aforesaid, be the subject of agreements reached during the process of offer and acceptance, the outcome of such agreement shall be recorded here.

Subject	.....
Details	.....
.....	
Subject	.....
Details	.....
.....	
Subject	.....
Details	.....
.....	
Subject	.....
Details	.....
.....	
Subject	.....
Details	.....
.....	

..... By
the duly authorized representatives signing this schedule of deviations, the Employer and the Tenderer agree to and accept the foregoing schedule of deviations as the only deviations from and amendments to the documents listed in the Tender Data and addenda thereto as listed in the returnable schedules, as well as any confirmation, clarification or change to the terms of the offer agreed by the Tenderer and the Employer during this process of offer and acceptance.

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

C1.2 Contract Data

Part 1– Data provided by the Employer

Clause	Statement	Data
1. General		
	The conditions of contract are the core clauses and the clauses for main Option: dispute resolution Option and secondary Options of the NEC3 Term Service Contract (April 2013)	A Priced contract with price list W1 Dispute resolution procedure X1 Price adjustment for inflation X13 Performance Bond X17 Low service damages X18 Limitation of liability X19 Task Order X20 Key Performance Indicators
10.1	The Employer is (name):	Eastern Cape Department of Health
	Address	Department of Health Global Life Centre Corner Phalo Avenue and R63 (opposite Engen garage) Bhisho 5605
	Represented By:	Mr Lamkelo Mdingi
	Tel No.	
	Fax No.	
10.1	The Service Manager is (name):	Zutari (Pty) Ltd
	Tel	
	e-mail	
	The Service Manager is (name):	Zutari (Pty) Ltd
11.2(2)	The Affected Property is	OR Tambo and Alfred Nzo District Health Facilities in the Eastern Cape Province as per Service Information

11.2(13)	The service is	Scheduled and Re-Active Maintenance works
11.2(14)	The following matters will be included in Risk register	N/A
11.2(15)	The Service Information is in	The Contract Part C3: Service Information - Scope of Works. Works Information and all documents and drawings to which it makes reference.
12.2	The law of the contract is the law of	the Republic of South Africa
•	The language of this contract is	English
•	The period for reply is	7 days

2. The Contractor's responsibility (If the optional statement for this section is not used, no data will be required for this section)

21.1 The Contractor submits a first Plan for 2 weeks of the Contract Date acceptance within

3. Time

- The starting date is at the Site Handover Meeting Date.
- The service period is 36 Months.

4. Testing and defects

Special testing may be requested by the Service Manager.

5. Payment

- 50.1 The assessment interval is Monthly
- 51.1 The currency of this contract is the South African Rand
- 51.2 The period with which payments are made is 30 Days after submission of a valid TAX Invoice to the Employer
- 51.4 The interest rate is (i) zero percent above the publicly quoted prime rate of interest (calculated on a 365-day year) charged by from time to time by the South African Reserve Bank (as certified, in the event of any dispute, by any manager of such bank, whose appointment it shall not be necessary to prove) for amounts due in Rands

6. Compensation Events

(if the optional statement for this section is not used, no data will be required for this section)

These are additional compensation N/A events

7. Use of Equipment Plant and Materials		No data is required for this section of the conditions of contract.
8. Risks and Insurance		
80.1	These are additional Employer's risks	N/A
83.1	The Employer provides these insurances from the Insurance Table	N/A
83.1	The Employer provides these additional insurances	N/A
83.1	The minimum amount of cover for insurance against loss and damage caused by the Contractor to the Employer's property is	R 5 000 000.00
83.1	The insurance against loss of or damage to the works, Plant and Materials is to include cover for Plant and Materials provided by the Employer to an amount of	R 5 000 000.00
83.1	The minimum amount of cover for insurance in respect of loss of or damage to property (except the Employer's property, Plant and Materials and Equipment) and liability for bodily injury to or death of a person (not an employee of the Contractor) arising from or in connection with the Contractor's Providing the Service for any one event is:	R 5 000 000.00
83.1	The Minimum limit of indemnity for insurance in respect of death of or bodily injury to employees of the Contractor arising out of and in course of their employment in connection with this contract for any one event is:	As prescribed by the Compensation for Occupational Injuries and Diseases Act No. 130 of 1993 and the Contractor's common law liability for people falling outside the scope of the Act with a limit of Indemnity of not less than R 5 000 000.00
9. Termination		No data is required for this section of the conditions of contract.
10. Data for main Option Clauses		
A	Priced Contract with Price List	Option A
20.5	The Contractor prepares forecasts of the final total of the Prices for the whole of the service at intervals of no longer than	4 Weeks
11. Data for Option W1		
W1.1	The Adjudicator is (Name)	The person selected from the ICE-SA Division (or its successor body) of the South African Institution of Civil Engineering Panel of Adjudicators by the party intending to refer a dispute to him. (See www.icesa.org.za)
	Address	
	Tel. No,	
	Fax No.	
	Email	

W1.2(3)	The Adjudicator nominating body is:	The Chairman of ICE-SA a joint Division of the South African Institution of Civil Engineering																		
W1.4(2)	The Tribunal is:	Arbitration																		
W1.4(5)	The Arbitration Procedure is	The latest edition of Rules for the Conduct of Arbitrations published by the Association of Arbitrators (South Africa) or its successor body.																		
	The place where arbitration is to be held is	South Africa																		
	The person or organization who will choose an arbitrator	The Chairman for the time being or his nominee of the Association of Arbitrators (South Africa) or its successor																		
1	If the Parties cannot agree a choice body.or																			
2	If the procedure does not state who selects an arbitrator, is																			
12. Data for Secondary Option Clauses																				
X1	Price Adjustment for Inflation																			
X1.1	The base date for indices is July 2026	Tender Closing Date: 17 April 2026																		
	The proportions used to calculate the Price Adjustment Factor are:																			
	Note: Requirements for CPA/Price inflation is that Prices must be Fixed and Firm for the First 12 months of the contract and only subject to escalation thereafter. A minimum of 10% of the contract price / prices is not adjustable throughout the life of the contract	<table><tr><th>Proportion</th><th>Linked to Index for</th><th>Index prepared by (Source)</th></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td>Non-Adjustable**</td><td></td></tr><tr><td>100%</td><td></td><td></td></tr></table>	Proportion	Linked to Index for	Index prepared by (Source)											Non-Adjustable**		100%		
Proportion	Linked to Index for	Index prepared by (Source)																		
	Non-Adjustable**																			
100%																				
X13	Performance Bond																			
X13.1	The Contractor gives the Employer a performance bond	The Tenderer must provide a Performance Bond in the form of a Fixed Performance Guarantee by means of a Bank Guarantee, or from an Insurer approved by the Service Manager, in the amount of 2.5% of the Awarded Contract Value, once the Contract has been awarded to him. This Bond must be given to the Employer with in four (4) weeks of the Contract Date.																		
X17	Low Service Damages																			
X17.1	The service level table is in	As per Demerit Table in Contact Data – Annexure CD1																		
X18	Limitation of Liability																			
X18.1	The Contractor's liability to the Employer for indirect or consequential loss is limited to	R0.0 (zero Rand)																		
X18.2	For any one event, the Contractor's liability to the Employer for loss of or damage to the Employer's property is limited to	R2 500 000.00																		

X18.3	The Contractor's liability for Defects due to his design of an item of Equipment is limited to	The greater of (a) the total of the Prices at the Contract Date and 1 R2 500 000
X18.4	The Contractor's liability to the Employer for all matters arising under or in connection with this contract, other than the excluded matters, is limited to	N/A
X18.5	The end of liability date is	3 Months after the end of the Service Period.
X19	Task Order The Contractor submits a Task Order programme to the Service Manager within	Authorization to commence with any Task will be done by Task Order. This Task Order will be issued to the Contractor by the Service Manager. Maintenance Turn- around times are stated in the Works Instructions under specification clause GM7.
X20	Key Performance Indicators	Key performance Indicators will be used to monitor Contractor performance on a monthly basis

C1.2 CONTRACT DATA**Part Two – Data provided by the Contractor**

Clause	Statement	Data
10.1	The Contractor is (Name): Address: Tel No. Fax No.	
11.2(8)	The Direct Fee Percentage is _____ % The Subcontracted Fee Percentage Is _____ %	
11.2(14)	The following matters will be included in the Risk Register	
11.2(15)	The Service Information for the Contractor's plan is in:	
21.1	The plan identified in the Contract Data is contained in:	
24.1	The Key Persons are: Name : Job : Responsibilities : Qualifications : Experience	
	Name : Job : Responsibilities : Qualifications : Experience	
		CV's and further key person's data are in _____
A	Priced Contract with Price List	
11.2(12)	The price list is in	
11.2(19)	The tendered total of the Prices is	
X1	Price adjustment for inflation	

X1.1

Proportion	Linked to Index for	Index prepared by (Source)
	Non-Adjustable**	
100%		

Annexure CD1 – Demerit Table and Penalty Calculation System

PROJECT NAME	SCHEDULED MAINTENANCE OF VACUUM & COMPRESSED MEDICAL GAS EQUIPMENT AT CLUSTER ONE (1) – OR TAMBO AND ALFRED NZO DISTRICT – HEALTH FACILITIES (36 MONTHS)
TENDER No.	SCMU3-2627-0178-HO

ANNEXURE CD1: DEMERIT TABLE AND PENALTY CALCULATION SYSTEM

If the Contractor fails to remedy any sub-standard work within the time frame stipulated by the Service Manager, the conditions as per GM 3.1 will apply.

The contractor will incur demerit points for specific measurable poor performance incidents which can lead to the early termination of the Contract as described below.

DESCRIPTION	DEMERIT POINT
Failure to submit the Functional Condition Assessment Report by the due date	1 point/ week that the report is late
Exceeding the maximum allowable response and resolve time for a P1 Breakdown	3 points/ incident
Exceeding the maximum allowable response and resolve time for a P2 Breakdown	2 points/ incident
Exceeding the maximum allowable response and resolve time for a P3 or P4 Breakdown	1 point/ incident
Not meeting the Planned Maintenance Performance KPI	1 point/ incident
Not meeting the Rework Rate KPI	1 point/ incident
Not meeting the Contractor Contactability KPI	1 point/ incident

The demerit points will accumulate and trigger the following actions:

ACCUMULATED DEMERIT POINTS	ACTION
6	Service Manager to discuss Contractor's performance deviation and agree on improvement measures. If improvement measures are successful and the Contractor has been consistently meeting the required KPI targets for the following two months, the demerit points can be cancelled by the Service Manager.

12	Service Manager to issue notice that Contractor is in Breach of Contract and that Contract Can be terminated if the Contractor does not improve his performance in line with the agreed improvement measures.
15	Service Manager to Terminate Contract as per Clause 9 of the NEC3 Term Service Contract.

Poor performance by the Contractor due to late payments by the Employer will not incur demerit points.

Financial penalties, as per the requirements of Secondary Options Clause X17, will be applied on the effected payments at 1% penalty per demerit point by the Service Manager, in the month that the demerit points are allocated to the Contractor.

Annexure CD2 – Key Performance Indicator Listing

PROJECT NAME	SCHEDULED MAINTENANCE OF VACUUM & COMPRESSED MEDICAL GAS EQUIPMENT AT CLUSTER ONE (1) – OR TAMBO AND ALFRED NZO DISTRICT – HEALTH FACILITIES (36 MONTHS)
TENDER No.	SCMU3-2627-0178-HO

ANNEXURE CD2: KEY PERFORMANCE INDICATOR LISTING

The following Key Performance Indicators (KPI's) will be applicable to this Contract and must be monthly updated and reported on by the Service Manager:

KPI Name	KPI Equation			Frequency	Target
Emergency Job Rate	=	$\frac{\text{Total Number of Emergency Jobs Done}}{\text{Total Number of Jobs Done}}$	X 100%	Monthly	<10%
Planned Maintenance Performance	=	$\frac{\text{Total Number of Scheduled Planned Maintenance Jobs Completed}}{\text{Total Number of Planned Maintenance Jobs Scheduled}}$	X 100%	Monthly	100%
Cost Estimation Accuracy	=	$\frac{\text{Total Actual Cost of Work}}{\text{Total Estimated Cost Of Work}}$	X 100%	Monthly	100%
Response Performance	=	$\frac{\text{Number of Service Calls Completed within Targeted Response Time}}{\text{Total Number of Service Calls}}$	X 100%	Monthly	100%
Rework Rate	=	$\frac{\text{Number of Jobs Requiring Rework}}{\text{Total Number of Jobs Done}}$	X 100%	Monthly	0%
SHEQ	=	Number of SHEQ Incidents Involving the Contractor		Monthly	0
Contractor Contactability	=	Number of Times that Contractor was not Contactable by the Call Cen _{tre}		Monthly	0

The Service Manager must also ensure that the following items are routinely inspected and reported on by the Site Representative for each Health Facility:

1. Compliance with general maintenance requirements as specified in the ServiceInformation.

2. Manner in which preventative and corrective maintenance is carried out.
3. Manner in which the Maintenance Control Plan is implemented and updated.
4. Manner in which Task Orders received from the Service Manager is dealt with.
5. Manner in which records are kept as required by the Service Information as well as the Occupational Health and Safety Act, Act No 85 of 1993 as amended.
6. Quality of services carried out for the month prior to the inspection.

Note: The aim of the above inspection is to determine that all the requirements of the specification have been complied with. Should the Service Manager believe that one or more maintenance items referred to above, have been neglected or totally ignored by the Contractor he may decide to implement demerit points as penalty as per X17 for each type of non-compliance found during the inspection.

C1.3: PERFORMANCE GUARANTEE (PRO FORMA)

GUARANTOR DETAILS AND DEFINITIONS

“Guarantor” means:

Physical Address:

“Employer” means:

“Service Provider” means:

“Engineer” means:

“Works” means:

“Site” means:

“Contract” means: The Agreement made in terms of the Form of Offer and Acceptance and such amendments or additions to the Contract as may be agreed in writing between the parties.

“Contract Sum” means: The accepted amount inclusive of tax of R Amount in words:

Guaranteed Sum” means: The maximum aggregate amount of R Amount in words:

Type of Performance Guarantee: Fixed

“Expiry Date” means: Last day of the contract

CONTRACT DETAILS

Employer’s Agent: Interim Payment Certificates, Final Payment Certificate and the Certificate of Completion of the Works as defined in the Contract.

1. FIXED PERFORMANCE GUARANTEE

- 1.1 Where a fixed Performance Guarantee has been selected. The Guarantor’s liability shall be limited to the amount of the Guarantee Sum.
- 1.2 The Guarantor’s period of liability shall be from and including the date on which the Performance Guarantee is signed, up to and including the Expiry Date, or the date of issue by the Employer’s Agent of the Certificate of Completion of the Works, or the date of payment in full of the Guaranteed Sum, whichever occurs first.
- 1.3 The Employer’s Agent and/or the Employer shall advise the Guarantor in writing of the date on which the Certificate of Completion of the Works has been issued.

2. CONDITIONS APPLICABLE TO FIXED PERFORMANCES GUARANTEES

2.1 The Guarantor hereby acknowledges that:

2.1.1. Any reference in this Performance Guarantee to the Contract is made for the purpose of convenience and shall not be constructed as any intention whatsoever to create an accessory obligation or any intention whatsoever to create a suretyship.

2.1.2. Its obligation under this Performance Guarantee is restricted to the payment of money.

2.2. Subject to the Guarantor's maximum liability referred to in 1.1, the Guarantor hereby undertakes to pay the Employer the sum certified upon receipt of the documents identified in 2.2.1 to 2.2.3:

2.2.1. A copy of a first written demand issued by the Employer to the Service Provider stating that payment of a sum certified by the Employer's Agent in an Interim or Final Payment Certificate has not been made in terms of the Contract and failing such payment within seven (7) calendar days, the Employer intends to call upon the Guarantor to make payment in terms of 2.2.2;

2.2.2. A first written demand issued by the Employer to the Guarantor at the Guarantor's physical address with a copy to the Service Provider stating that a period of seven (7) days has elapsed since the first written demand in terms of 2.2.1 and the sum certified has still not been paid;

2.2.3. A copy of the aforesaid payment which entitles the Employer to receive payment in terms of the Contract of the sum certified in 2.2.

2.3. Subject to the Guarantor's maximum liability referred to in 1.1, the Guarantor undertakes to pay to the Employer the Guaranteed Sum or the full outstanding balance upon receipt of a first written demand from the Employer to the Guarantor at the Guarantor's physical address calling up this Performance Guarantee, such demand stating that:

2.3.1. The Contract has been terminated due to the Service Provider's default and that this Performance Guarantee is called up in terms of 2.3; or

2.3.2. A provisional or final sequestration or liquidation court order has been granted against the Service Provider and that the Performance Guarantee is called up in terms of 2.3; and

2.3.3. The aforesaid written demand is accompanied by a copy of the notice of termination and/or the provisional/final sequestration and/or the provision liquidation court order.

2.3.4. It is recorded that the aggregate amount of payments required to be made by the Guarantor in terms of 2.2 and 2.3 shall not exceed the Guarantor's maximum liability in terms of 1.1.

2.3.5. Where the Guarantor has made payment in terms of 2.3, the Employer shall upon the date of issue of the Final Payment Certificate submit an expense account to the Guarantor showing how all monies received in terms of this Performance Guarantee have been expended and shall refund to the Guarantor any resulting surplus. All monies refunded to the Guarantor in terms of the Performance Guarantee shall bear interest at the prime overdraft rate by the Employer's Bank compounded monthly and calculated from the date payment was made by the Guarantor to the Employer until the date of refund.

2.3.6. Payment by the Guarantor in terms of 2.2 or 2.3 shall only be made within seven (7) calendar days upon receipt of the first written demand to the Guarantor.

2.3.7. Payment by the Guarantor in terms of 2.3 will only be made against the return of the original Performance Guarantee by the Employer.

- 2.4. The Employer shall have the absolute right to arrange his affairs with the service provider in any manner which the Employer may consider fit and the Guarantor shall not have right to claim his release from this Performance Guarantee on account of any conduct alleged to be prejudicial to the Guarantor.
- 2.5. The Guarantor chooses the physical address as stated above for the service of all notices for all purposes in connection herewith.
- 2.6. This Performance Guarantee is neither negotiable nor transferable and shall expire in terms of 1.2, where after no claims will be considered by the Guarantor. The original of this Guarantee shall be returned to the Guarantor after it has expired.
- 2.7. This Performance Guarantee, with the required demand notices in terms of 2.2 or 2.3, shall be regarded as a liquid document for the purposes of obtaining a court order.
- 2.8. Where the Performance Guarantee is issued in the Republic of South Africa the Guarantor hereby consents in terms of Section 45 of the Magistrate's Courts Act No 32 of 1944, as amended, to the jurisdiction of the Magistrate's Court of any district having jurisdiction in terms of Section 28 of the said Act of section 28 of the said Act, notwithstanding that the amount of the claim may exceed the jurisdiction of the magistrate's Court.

Signed at Date

.....

Guarantor's signatory (1)

Capacity

Guarantor's signatory (2)

Capacity

Witness signatory (1)

Witness signatory (2)

CIDB ADJUDICATOR'S AGREEMENT

This agreement is made on the day of between:
..... (name of company / organisation) of
.....
..... (address) and.
..... (name of company / organisation) of
.....
..... (address) (the Parties) and.
..... (name) of
.....
..... (address)
(the Adjudicator).

Disputes or differences may arise/have arisen* between the Parties under a Contract dated and known as.
.....

and these disputes or differences shall be/have been* referred to adjudication in accordance with the CIDB Adjudication Procedure, (hereinafter called "the Procedure") and the Adjudicator may be or has been requested to act.

* Delete as necessary

IT IS NOW AGREED as follows:

- i The rights and obligations of the Adjudicator and the Parties shall be as set out in the Procedure.
- ii The Adjudicator hereby accepts the appointment and agrees to conduct the adjudication in accordance with the Procedure.
- iii The Parties bind themselves jointly and severally to pay the Adjudicator's fees and expenses in accordance with the Procedure as set out in the Contract Data.
- iv The Parties and the Adjudicator shall at all times maintain the confidentiality of the adjudication and shall endeavour to ensure that anyone acting on their behalf or through them will do likewise, save with the consent of the other Parties which consent shall not be unreasonably refused.
- v The Adjudicator shall inform the Parties if he intends to destroy the documents which have been sent to him in relation to the adjudication and he shall retain documents for a further period at the request of either Party.

SIGNED

by:

Name: _____

SIGNED by:

Name: _____

SIGNED by:

Name: _____

Witness

Name: _____

Address: _____

Witness:

Name _____

Address: _____

Witness:

Name: _____

Address: _____

Date: _____ Date: _____ Date: _____

Contract Data

1	The Adjudicator shall be paid at the hourly rate of R..... in respect of all time spent upon, or in connection with, the adjudication including time spent travelling.
2	The Adjudicator shall be reimbursed in respect of all disbursements properly made including, but not restricted to: - i Printing, reproduction and purchase of documents, drawings, maps, records and photographs. - ii Telegrams, telex, faxes, and telephone calls. - iii Postage and similar delivery charges. - iv Travelling, hotel expenses and other similar disbursements. - v Room charges. - vi Charges for legal or technical advice obtained in accordance with the Procedure.
3	The Adjudicator shall be paid an appointment fee of R..... This fee shall become payable in equal amounts by each Party within days of the appointment of the Adjudicator, subject to an Invoice being provided. This fee will be deducted from the final statement of any sums which shall become payable under item 1 and/or item 2 of the Contract Data. If the final statement is less than the appointment fee the balance shall be refunded to the Parties.
4	The Adjudicator is/is not* currently registered for VAT.
5	Where the Adjudicator is registered for VAT it shall be charged additionally in accordance with the rates current at the date of invoice.
6	All payments, other than the appointment fee (item 3) shall become due 7 days after receipt of invoice, thereafter interest shall be payable at 5% per annum above the Reserve Bank base rate for every day the amount remains outstanding.

* Delete as necessary

PART C2-1: PRICING DATA

PROJECT NAME	SCHEDULED MAINTENANCE OF VACUUM & COMPRESSED MEDICAL GAS EQUIPMENT AT CLUSTER ONE (1) – OR TAMBO AND ALFRED NZO DISTRICT – HEALTH FACILITIES (36 MONTHS)
TENDER No.	SCMU3-2627-0178-HO

C2.1 Pricing Data

GENERAL NOTES

1. Documents

The Schedule of Quantities form part of the Document and must be read in conjunction with the other parts forming the Document in order to gain the full meanings of the descriptions of the work to be done and materials and equipment to be used.

2. Alterations

No alterations, erasure or addition is to be made in the text of the Schedule of Quantities. Should any alteration, erasure or addition be made, it will not be recognised and the original wording of the Schedule of Quantities will be adhered to.

3. Issue of Schedule of Quantities in Electronic Format

The Engineers will make the Schedule of Quantities available to Tenderers in electronic (Microsoft Excel Workbook) format, upon request.

If utilised for tender submission, the Tenderer will be responsible for ensuring the correctness of all calculations. The Consulting Electrical Engineers cannot be held responsible for any arithmetic inaccuracies in the electronic Schedule of Quantities.

4. Pages

Before submitting his Tender, the Tenderer must check to ensure all pages have been included and are distinct. Should any obvious errors be found the Engineer is to be notified immediately to have them corrected as no liability whatsoever will be admitted by the Engineer in respect of errors in the Tender due to the foregoing.

5. Responsibility

The responsibility for the accuracy of the quantities written into the Schedule of Quantities remains with the person who prepared the Schedule of Quantities. The Tenderer shall be relieved of the responsibility of measuring quantities at the Tender stage, and the Tender Price submitted shall be in respect of the quantities set out in the Schedule of Quantities.

The Tenderer will be required to make his assessment of items such as brackets, fixings, etc., from details stated in the Schedule of Quantities and shall make allowances therefore within the rates tendered.

Tenderers shall make due allowance in their rates for any item of incidental or contingent work, labour and materials not contained in the Schedule of Quantities, but deemed necessary for the successful completion of the Works.

6. Offered rates in the Schedule of Quantities

The rates in the Schedule of Quantities shall be final and no further adjustment will be made.

7. Currency

All the offered rates in the Schedule of Quantities shall be in South African Rands (R). Any items purchased overseas must be converted to local currency with all exchange rates and export charges.

8. Unit Rates

Unless a separate rate for the supply and the installation of any item is specifically called for, the supply and installation costs of any items shall be fully included in the unit price.

The description of each item shall, unless otherwise stated herein, be held to include making, conveying and delivering, unloading, storing, unpacking, hoisting, setting, fitting and fixing in position, cutting and

waste, patterns, models and templates plant, temporary works, return of water establishment charges, profit and all other obligations arising out of the Conditions of Contract.

9. Variations

Variations in the scope and extent of the work included in the Schedule of Quantities shall be allowed in order to meet the Employer's requirements and shall be measured and costed at the rates entered in the Schedule of Quantities, where appropriate, forming an addition to or deduction from the total of the Schedule of Quantities. Any items or variations for which rates have not been added in the Schedule of Quantities shall be agreed and priced as non-scheduled items in accordance with the provisions of the contract.

The rules governing the extent and costing of the variations shall be those provided for in the Conditions of Contract and Variations to Sub-contract.

Variations to the planning before the work has been executed shall be priced as above. Alterations to work already executed cannot necessarily be priced as above and must be reviewed on its merits.

The appropriate portions of the Preliminary & General Costs are to be adjusted proportionately to the nett additions or omissions of the variations to the contract

10. Preliminary and General

Tenderers are to note that no allowances have been made in the Schedules of Quantities for the pricing of "Preliminary & General" items.

Tenderers shall therefore, include the "Preliminary & General" component of their Tender Price in their tendered rates for the respective items of equipment / Work.

11. Provisional Sums

All Provisional Sums shall be expended only as directed by the Client and Engineer and any balance remaining shall be deducted from the amount of the Sub-contract sum. No work for which Provisional Sums are provided shall be commenced without written instructions from the Engineer.

All Provisional Sums may be utilised in full or in part. These Provisional Sums may be deleted in full or in part if not required.

12. Contingency Sums

All Contingency Sums shall be expended only as directed by the Client and Engineer. No work for which Contingency Sums are provided shall be commenced without written instructions from the Engineer.

All Contingency Sums may be utilised in full or in part. These Contingency Sums may be deleted in full or in part if not required.

13. Dayworks

The rates included for daywork shall not form part of the Tender Price, but Tenderers shall note that this item must be regarded as provisional and will only be payable to the Sub-contractor if and when a written order to this effect has been issued.

14. Value Added Tax

This Schedule of Quantities shall be priced nett, excluding VAT.

VAT shall only be added at the Summary at the end of the Schedule of Quantities for the Principal Contract.

15. Adjustment

The Employer reserves the right to adjust arithmetical errors in the extension of rates and totals in the Tender, and the Tenderer will be informed of the effect of any corrections on his Tender Sum prior to the award of the Contract. In no case will tendered rates be adjusted when correcting such errors.

In the event of there being tendered rates or prices which are declared by the Employer to be unacceptable to him, because they are either excessively low or high or not in proper balance with other rates, the Tenderer may be required to produce evidence and advance arguments in support of the tendered rates or prices objected to. If after submission of such evidence and any further evidence requested, the Employer is still not satisfied with the tendered rates or prices objected to, he may request the Tenderer to amend these rates and prices along the lines indicated by him.

The Tenderer may or may not thereupon alter and amend the rates and prices objected to and such other related prices as are agreed to by the Employer. Should the Tenderer fail to amend his Tender in a manner acceptable to the Employer, or at all, it may prejudice his Tender.

In the case of Tenders with Schedule of Quantities, the total corrected Tender Price in the Tender Form shall constitute the Sub-contract Sum. Tenderers are advised to check their extensions and additions. In the case of a Lump Sum Tender, the original uncorrected Tender Price shall be considered. The Engineer shall negotiate adjustments to the rates tendered in order to correct the arithmetical extension or addition, whilst the Tender Price as submitted, remains unaltered.

In either case, the Tenderer shall be notified of any arithmetical error in his Tender, and shall be given the opportunity to withdraw the Tender at this stage.

16.Quantification

The successful Tenderer and the Employer or his Agent may agree that the total of any Schedule, including any variations by way of additions thereto or deductions there from, represents a fair and accurate quantification of the items set out in the Schedule of Quantities and the parties may agree final payment on that basis. In the event of any dispute as to the quantities, the disputed item or items shall be adjusted where necessary.

17.Ordering

The quantities in this Schedule of Quantities shall not be used for ordering materials. The onus is on the successful Tenderer to order the correct quantities of materials as per the drawings.

18.Payment

The measurement and payment of Work done shall be made in accordance with the unit price rates, and rates of pay listed in the Schedule of Quantities. No payment will be made for any item of associated work not specifically detailed in the Schedule of Quantities.

PROJECT NAME	SCHEDULED MAINTENANCE OF VACUUM & COMPRESSED MEDICAL GAS EQUIPMENT AT CLUSTER ONE (1) – OR TAMBO AND ALFRED NZO DISTRICT – HEALTH FACILITIES (36 MONTHS)
TENDER No.	SCMU3-2627-0178-HO

C2.2 Schedules of Quantities

C2.2 IS A MANDATORY RETURNABLE DOCUMENT. FAILURE TO COMPLETE AND SUBMIT THIS DOCUMENT WILL RESULT IN DISQUALIFICATION OF THE TENDERER.

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ASSET TYPE

VACUUM & COMPRESSED MEDICAL GAS

SCHEDULE NUMBER	DESCRIPTION	TENDER AMOUNT
1B-1	OR TAMBO & ALFRED NZO - FIXED CHARGE AND VALUE RELATED ITEMS APPLICABLE TO ALL WORK	
1B-2	OR TAMBO & ALFRED NZO - FIXED CHARGE AND VALUE RELATED ITEMS APPLICABLE TO ALL WORK (continued)	
1B-3	OR TAMBO & ALFRED NZO - FIXED CHARGE AND VALUE RELATED ITEMS APPLICABLE TO ALL WORK (continued)	
1B-4	OR TAMBO & ALFRED NZO - FIXED CHARGE AND VALUE RELATED ITEMS APPLICABLE TO ALL WORK (continued)	
1B-5	OR TAMBO & ALFRED NZO - FIXED CHARGE AND VALUE RELATED ITEMS APPLICABLE TO ALL WORK	
1B-6	OR TAMBO & ALFRED NZO - FIXED CHARGE AND VALUE RELATED ITEMS APPLICABLE TO ALL WORK (continued)	
2B-1	OR TAMBO & ALFRED NZO - FUNCTIONAL REPAIR SCHEDULE	
2B-2	OR TAMBO & ALFRED NZO - FUNCTIONAL REPAIR SCHEDULE (continued)	
2B-3	OR TAMBO & ALFRED NZO - FUNCTIONAL REPAIR SCHEDULE (continued)	
2B-4	OR TAMBO & ALFRED NZO - FUNCTIONAL REPAIR SCHEDULE	
3B	OR TAMBO & ALFRED NZO - MAINTENANCE SERVICE SCHEDULE	
4	TERM REPAIRS SUBJECT TO APPROVAL OF QUOTATION OF THE WORKS	
5	REPLACEMENT OF EQUIPMENT SUBJECT TO APPROVAL	
6	REPLACEMENT OF EQUIPMENT SUBJECT TO APPROVAL	
	Add contingencies (10%)	
SUBTOTAL AMOUNT OF WORKS (EXCL VAT)		
ALLOWANCE FOR VAT AT 15%		
TOTAL AMOUNT OF WORKS (INCL VAT) ENTER THIS AMOUNT FORM OF OFFER		

SCHEDULED MAINTENANCE OF VACUUM & COMPRESSED MEDICAL GAS AT CLUSTER ONE (1) – OR TAMBO AND ALFRED NZO DISTR

CONTRACT REF. NO:

Cluster/District: OR TAMBO & ALFRED NZO DI

ASSET TYPE:

VACUUM & COMPRESSED MEDICAL GAS

Cluster 1

SCHEDULE 1B-1 :

FIXED CHARGE AND VALUE RELATED ITEMS APPLICABLE TO ALL WORK

ITEM Nr.	PAYMENT REFERS	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
1	GM 2.5	VERIFICATION OF ASSETS ON SITE : Verify assets on site vs Asset Register (C4.1), and compile plant layout line drawings as per GM 2.5 (1) and (2).		A	B	A*B
1.1		Mthatha Regional Hospital	Item	1		
1.2		Nelson Mandela Academic Hospital	Item	1		
1.3		Bedford Orthopaedic Hospital	Item	1		
1.4		Ngangelizwe CHC	Item	1		
1.5		Bhaziya CHC	Item	1		
1.6		Mbekweni CHC	Item	1		
1.7		Mhlakulo CHC	Item	1		
1.8		Mqanduli CHC	Item	1		
1.9		St Barnabas Hospital	Item	1		
1.10		Dr Malizo Mpehle Memorial Hospital	Item	1		
1.11		Makhotyana CHC	Item	1		
1.12		Canzibe Hospital	Item	1		
1.13		St Lucys Hospital	Item	1		
1.14		Qumbu CHC	Item	1		
1.15		Tombo CHC	Item	1		
1.16		Ngcwanguba CHC	Item	1		
1.17		Isilimela Hospital	Item	1		
1.18		Zithulele Hospital	Item	1		
1.19		Port St Johns CHC	Item	1		
1.20		Madzikane KaZulu Memorial Hospital	Item	1		
1.21		Bambisana Hospital	Item	1		
1.22		Sipetu Hospital	Item	1		
1.23		St Elizabeth Hospital	Item	1		
1.24		Mount Ayliff Hospital	Item	1		
1.25		Ntabankhulu CHC	Item	1		
1.26		Flagstaff CHC	Item	1		
1.27		Holy Cross Hospital	Item	1		
1.28		St Patricks' Hospital	Item	1		
1.29		Taylor Bequest Hospital	Item	1		
1.30		Khotsong TB Hospital	Item	1		
1.31		Maluti CHC	Item	1		
1.32		Greenville Hospital	Item	1		
TOTAL CARRIED FORWARD TO SUMMARY						

SCHEDULED MAINTENANCE OF VACUUM & COMPRESSED MEDICAL GAS AT CLUSTER ONE (1) – OR TAMBO AND ALFRED NZO DISTRICT – HEALTH F
 CONTRACT REF. NO: Cluster/District: OR TAMBO & ALFRED NZO D
 ASSET TYPE: VACUUM & COMPRESSED MEDICAL GAS Cluster 1

Scheduled 1B-2: FIXED CHARGE AND VALUE RELATED ITEMS APPLICABLE TO ALL WORK (continued)

ITEM Nr.	PAYMENT REFERS	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
2	GM 2.5 & 3.2	VERIFICATION OF SPARE PART INVENTORY ON SITE : Find and verify all spares for the asset type that is currently available on site		A	B	A*B
2.1		Mthatha Regional Hospital	Item	1		
2.2		Nelson Mandela Academic Hospital	Item	1		
2.3		Bedford Orthopaedic Hospital	Item	1		
2.4		Ngangelizwe CHC	Item	1		
2.5		Bhaziya CHC	Item	1		
2.6		Mbekweni CHC	Item	1		
2.7		Mhlakulo CHC	Item	1		
2.8		Mqanduli CHC	Item	1		
2.9		St Barnabas Hospital	Item	1		
2.10		Dr Malizo Mpehle Memorial Hospital	Item	1		
2.11		Makhotyana CHC	Item	1		
2.12		Canzibe Hospital	Item	1		
2.13		St Lucys Hospital	Item	1		
2.14		Qumbu CHC	Item	1		
2.15		Tombo CHC	Item	1		
2.16		Ngcwanguba CHC	Item	1		
2.17		Isilimela Hospital	Item	1		
2.18		Zithulele Hospital	Item	1		
2.19		Port St Johns CHC	Item	1		
2.20		Madzikane KaZulu Memorial Hospital	Item	1		
2.21		Bambisana Hospital	Item	1		
2.22		Sipetu Hospital	Item	1		
2.23		St Elizabeth Hospital	Item	1		
2.24		Mount Ayliff Hospital	Item	1		
2.25		Ntabankhulu CHC	Item	1		
2.26		Flagstaff CHC	Item	1		
2.27		Holy Cross Hospital	Item	1		
2.28		St Patricks' Hospital	Item	1		
2.29		Taylor Bequest Hospital	Item	1		
2.30		Khotsong TB Hospital	Item	1		
2.31		Maluti CHC	Item	1		
2.32		Greenville Hospital	Item	1		
TOTAL CARRIED FORWARD TO SUMMARY						

SCHEDULED MAINTENANCE OF VACUUM & COMPRESSED MEDICAL GAS AT CLUSTER ONE (1) – OR TAMBO AND ALFRED NZO DISTRICT – HEAL
 CONTRACT REF. NO: Cluster/District: OR TAMBO & ALFRED NZO D
 ASSET TYPE: VACUUM & COMPRESSED MEDICAL GAS Cluster 1

SCHEDULE 1B-3: FIXED CHARGE AND VALUE RELATED ITEMS APPLICABLE TO ALL WORK (continued)

ITEM Nr.	PAYMENT REFERS	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
3	GM 2.7	COMPILING OF CONDITIONAL AND PERFORMANCE INSPECTION REPORT: Compile a inspection report on the current status and operation of the existing equipment on site. The report shall be in line with the inspection report template included in this tender.		A	B	A*B
3.1		Mthatha Regional Hospital	Item	1		
3.2		Nelson Mandela Academic Hospital	Item	1		
3.3		Bedford Orthopaedic Hospital	Item	1		
3.4		Ngangelizwe CHC	Item	1		
3.5		Bhaziya CHC	Item	1		
3.6		Mbekweni CHC	Item	1		
3.7		Mhlakulo CHC	Item	1		
3.8		Mqanduli CHC	Item	1		
3.9		St Barnabas Hospital	Item	1		
3.10		Dr Malizo Mpehle Memorial Hospital	Item	1		
3.11		Makhotyana CHC	Item	1		
3.12		Canzibe Hospital	Item	1		
3.13		St Lucys Hospital	Item	1		
3.14		Qumbu CHC	Item	1		
3.15		Tombo CHC	Item	1		
3.16		Ngcwanguba CHC	Item	1		
3.17		Isilimela Hospital	Item	1		
3.18		Zithulele Hospital	Item	1		
3.19		Port St Johns CHC	Item	1		
3.20		Madzikane KaZulu Memorial Hospital	Item	1		
3.21		Bambisana Hospital	Item	1		
3.22		Sipetu Hospital	Item	1		
3.23		St Elizabeth Hospital	Item	1		
3.24		Mount Ayliff Hospital	Item	1		
3.25		Ntabankhulu CHC	Item	1		
3.26		Flagstaff CHC	Item	1		
3.27		Holy Cross Hospital	Item	1		
3.28		St Patricks' Hospital	Item	1		
3.29		Taylor Bequest Hospital	Item	1		
3.30		Khotsong TB Hospital	Item	1		
3.31		Maluti CHC	Item	1		
3.32		Greenville Hospital	Item	1		
TOTAL CARRIED FORWARD TO SUMMARY						

SCHEDULED MAINTENANCE OF VACUUM & COMPRESSED MEDICAL GAS AT CLUSTER ONE (1) – OR TAMBO AND ALFRED NZO DISTRICT – HEALTH
 CONTRACT REF. NO: Cluster/District: OR TAMBO & ALFRED NZO D
 ASSET TYPE: VACUUM & COMPRESSED MEDICAL GAS Cluster 1

SCHEDULE 1B-4: FIXED CHARGE AND VALUE RELATED ITEMS APPLICABLE TO ALL WORK (continued)

ITEM Nr.	PAYMENT REFERS	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
4	GM 2.7	COMPILING OF OPERATING AND MAINTENANCE MANUALS : Compile three sets of O&M Manuals per site per asset type and asset model as per information from the Asset Register C4.1		A	B	A*B
4.1		Mthatha Regional Hospital	Item	1		
4.2		Nelson Mandela Academic Hospital	Item	1		
4.3		Bedford Orthopaedic Hospital	Item	1		
4.4		Ngangelizwe CHC	Item	1		
4.5		Bhaziya CHC	Item	1		
4.6		Mbekweni CHC	Item	1		
4.7		Mhlakulo CHC	Item	1		
4.8		Mqanduli CHC	Item	1		
4.9		St Barnabas Hospital	Item	1		
4.10		Dr Malizo Mpehle Memorial Hospital	Item	1		
4.11		Makhotyana CHC	Item	1		
4.12		Canzibe Hospital	Item	1		
4.13		St Lucys Hospital	Item	1		
4.14		Qumbu CHC	Item	1		
4.15		Tombo CHC	Item	1		
4.16		Ngcwanguba CHC	Item	1		
4.17		Isilimela Hospital	Item	1		
4.18		Zithulele Hospital	Item	1		
4.19		Port St Johns CHC	Item	1		
4.20		Madzikane KaZulu Memorial Hospital	Item	1		
4.21		Bambisana Hospital	Item	1		
4.22		Sipetu Hospital	Item	1		
4.23		St Elizabeth Hospital	Item	1		
4.24		Mount Ayliff Hospital	Item	1		
4.25		Ntabankhulu CHC	Item	1		
4.26		Flagstaff CHC	Item	1		
4.27		Holy Cross Hospital	Item	1		
4.28		St Patricks' Hospital	Item	1		
4.29		Taylor Bequest Hospital	Item	1		
4.30		Khotsong TB Hospital	Item	1		
4.31		Maluti CHC	Item	1		
4.32		Greenville Hospital	Item	1		
TOTAL CARRIED FORWARD TO SUMMARY						

SCHEDULED MAINTENANCE OF VACUUM & COMPRESSED MEDICAL GAS AT CLUSTER ONE (1) – OR TAMBO AND ALFRED NZO DISTRICT – HEALTH F
 CONTRACT REF. NO: Cluster/District: OR TAMBO & ALFRED NZO DISTI
 ASSET TYPE: VACUUM & COMPRESSED MEDICAL GAS Cluster 1

SCHEDULE 1B-5: FIXED CHARGE AND VALUE RELATED ITEMS APPLICABLE TO ALL WORK (continued)

ITEM Nr.	PAYMENT REFERS	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
5	SS 8 & 9	OPERATOR AND MAINTAINER TRAINING : Provide Operator and Maintainer training as per SS8 and SS9		A	B	A*B
5.1		Mthatha Regional Hospital	Item	1		
5.2		Nelson Mandela Academic Hospital	Item	1		
5.3		Bedford Orthopaedic Hospital	Item	1		
5.4		Ngangelizwe CHC	Item	1		
5.5		Bhaziya CHC	Item	1		
5.6		Mbekweni CHC	Item	1		
5.7		Mhlakulo CHC	Item	1		
5.8		Mqanduli CHC	Item	1		
5.9		St Barnabas Hospital	Item	1		
5.10		Dr Malizo Mpehle Memorial Hospital	Item	1		
5.11		Makhotyana CHC	Item	1		
5.12		Canzibe Hospital	Item	1		
5.13		St Lucys Hospital	Item	1		
5.14		Qumbu CHC	Item	1		
5.15		Tombo CHC	Item	1		
5.16		Ngcwanguba CHC	Item	1		
5.17		Isilimela Hospital	Item	1		
5.18		Zithulele Hospital	Item	1		
5.19		Port St Johns CHC	Item	1		
5.20		Madzikane KaZulu Memorial Hospital	Item	1		
5.21		Bambisana Hospital	Item	1		
5.22		Sipetu Hospital	Item	1		
5.23		St Elizabeth Hospital	Item	1		
5.24		Mount Ayliff Hospital	Item	1		
5.25		Ntabankhulu CHC	Item	1		
5.26		Flagstaff CHC	Item	1		
5.27		Holy Cross Hospital	Item	1		
5.28		St Patricks' Hospital	Item	1		
5.29		Taylor Bequest Hospital	Item	1		
5.30		Khotsong TB Hospital	Item	1		
5.31		Maluti CHC	Item	1		
5.32		Greenville Hospital	Item	1		
TOTAL CARRIED FORWARD TO SUMMARY						

SCHEDULED MAINTENANCE OF VACUUM & COMPRESSED MEDICAL GAS AT CLUSTER ONE (1) – OR TAMBO AND ALFRED NZO DISTRICT – HEALTH F
 CONTRACT REF. NO: Cluster/District: OR TAMBO & ALFRED NZO DI
 ASSET TYPE: VACUUM & COMPRESSED MEDICAL GAS Cluster 1

SCHEDULE 1B-6: FIXED CHARGE AND VALUE RELATED ITEMS APPLICABLE TO ALL WORK

ITEM Nr.	PAYMENT REFERS	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
6	GM 3	MAINTENANCE CONTROL PLAN : Compiling of a detailed Maintenance Control Plan for each Health Facility included in this Tender (See SS 3 for facility listing)		A	B	A*B
6.1		Mthatha Regional Hospital	Item	1		
6.2		Nelson Mandela Academic Hospital	Item	1		
6.3		Bedford Orthopaedic Hospital	Item	1		
6.4		Ngangelizwe CHC	Item	1		
6.5		Bhaziya CHC	Item	1		
6.6		Mbekweni CHC	Item	1		
6.7		Mhlakulo CHC	Item	1		
6.8		Mqanduli CHC	Item	1		
6.9		St Barnabas Hospital	Item	1		
6.10		Dr Malizo Mpehle Memorial Hospital	Item	1		
6.11		Makhotyana CHC	Item	1		
6.12		Canzibe Hospital	Item	1		
6.13		St Lucys Hospital	Item	1		
6.14		Qumbu CHC	Item	1		
6.15		Tombo CHC	Item	1		
6.16		Ngcwanguba CHC	Item	1		
6.17		Isilimela Hospital	Item	1		
6.18		Zithulele Hospital	Item	1		
6.19		Port St Johns CHC	Item	1		
6.20		Madzikane KaZulu Memorial Hospital	Item	1		
6.21		Bambisana Hospital	Item	1		
6.22		Sipetu Hospital	Item	1		
6.23		St Elizabeth Hospital	Item	1		
6.24		Mount Ayliff Hospital	Item	1		
6.25		Ntabankhulu CHC	Item	1		
6.26		Flagstaff CHC	Item	1		
6.27		Holy Cross Hospital	Item	1		
6.28		St Patricks' Hospital	Item	1		
6.29		Taylor Bequest Hospital	Item	1		
6.30		Khotsong TB Hospital	Item	1		
6.31		Maluti CHC	Item	1		
6.32		Greenville Hospital	Item	1		
TOTAL CARRIED FORWARD TO SUMMARY						

SCHEDULED MAINTENANCE OF VACUUM & COMPRESSED MEDICAL GAS AT CLUSTER ONE (1) – OR TAMBO AND ALFRED NZO DISTRICT – HEALTH
 CONTRACT REF. NO: Cluster/District: OR TAMBO & ALFRED NZO DIS
 ASSET TYPE: VACUUM & COMPRESSED MEDICAL GAS Cluster 1

SCHEDULE 2B-1: FUNCTIONAL REPAIR SCHEDULE

ITEM Nr.	PAYMENT REFERS	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
1	GM 2.5	FUNCTIONAL CONDITION ASSESSMENT : Perform Functional Condition Assessment (Inspection and Testing) on all listed assets at all Health Facilities included in the Tender		A	B	A*B
1.1		Mthatha Regional Hospital	Item	1		
1.2		Nelson Mandela Academic Hospital	Item	1		
1.3		Bedford Orthopaedic Hospital	Item	1		
1.4		Ngangelizwe CHC	Item	1		
1.5		Bhaziya CHC	Item	1		
1.6		Mbekweni CHC	Item	1		
1.7		Mhlakulo CHC	Item	1		
1.8		Mqanduli CHC	Item	1		
1.9		St Barnabas Hospital	Item	1		
1.10		Dr Malizo Mpehle Memorial Hospital	Item	1		
1.11		Makhotyana CHC	Item	1		
1.12		Canzibe Hospital	Item	1		
1.13		St Lucys Hospital	Item	1		
1.14		Qumbu CHC	Item	1		
1.15		Tombo CHC	Item	1		
1.16		Ngcwanguba CHC	Item	1		
1.17		Isilimela Hospital	Item	1		
1.18		Zithulele Hospital	Item	1		
1.19		Port St Johns CHC	Item	1		
1.20		Madzikane KaZulu Memorial Hospital	Item	1		
1.21		Bambisana Hospital	Item	1		
1.22		Sipetu Hospital	Item	1		
1.23		St Elizabeth Hospital	Item	1		
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1.26		Flagstaff CHC	Item	1		
1.27		Holy Cross Hospital	Item	1		
1.28		St Patricks' Hospital	Item	1		
1.29		Taylor Bequest Hospital	Item	1		
1.30		Khotsong TB Hospital	Item	1		
1.31		Maluti CHC	Item	1		
1.32		Greenville Hospital	Item	1		
TOTAL CARRIED FORWARD TO SUMMARY						

SCHEDULED MAINTENANCE OF VACUUM & COMPRESSED MEDICAL GAS AT CLUSTER ONE (1) – OR TAMBO AND ALFRED NZO DISTRICT – HEAL
 CONTRACT REF. NO: Cluster/District: OR TAMBO & ALFRED NZO DIS
 ASSET TYPE: VACUUM & COMPRESSED MEDICAL GAS Cluster 1

SCHEDULE 2B-2: FUNCTIONAL REPAIR SCHEDULE (continued)

ITEM Nr.	PAYMENT REFERS	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
2	GM 2.5.(5)	COMPILING OF PRICED SPARE PART LISTS : Compile detailed, comprehensive priced spare parts lists for each site and asset type (based on Contrcator's cost price). NOTE: The Employer retains the right to negotiate the offered spare part prices, if they are not in line with national price norms.		A	B	A*B
2.1		Mthatha Regional Hospital	Item	1		
2.2		Nelson Mandela Academic Hospital	Item	1		
2.3		Bedford Orthopaedic Hospital	Item	1		
2.4		Ngangelizwe CHC	Item	1		
2.5		Bhaziya CHC	Item	1		
2.6		Mbekweni CHC	Item	1		
2.7		Mhlakulo CHC	Item	1		
2.8		Mqanduli CHC	Item	1		
2.9		St Barnabas Hospital	Item	1		
2.10		Dr Malizo Mpehle Memorial Hospital	Item	1		
2.11		Makhotyana CHC	Item	1		
2.12		Canzibe Hospital	Item	1		
2.13		St Lucys Hospital	Item	1		
2.14		Qumbu CHC	Item	1		
2.15		Tombo CHC	Item	1		
2.16		Ngcwanguba CHC	Item	1		
2.17		Isilimela Hospital	Item	1		
2.18		Zithulele Hospital	Item	1		
2.19		Port St Johns CHC	Item	1		
2.20		Madzikane KaZulu Memorial Hospital	Item	1		
2.21		Bambisana Hospital	Item	1		
2.22		Sipetu Hospital	Item	1		
2.23		St Elizabeth Hospital	Item	1		
2.24		Mount Ayliff Hospital	Item	1		
2.25		Ntabankhulu CHC	Item	1		
2.26		Flagstaff CHC	Item	1		
2.27		Holy Cross Hospital	Item	1		
2.28		St Patricks' Hospital	Item	1		
2.29		Taylor Bequest Hospital	Item	1		
2.30		Khotsong TB Hospital	Item	1		
2.31		Maluti CHC	Item	1		
2.32		Greenville Hospital	Item	1		
TOTAL CARRIED FORWARD TO SUMMARY						

SCHEDULED MAINTENANCE OF VACUUM & COMPRESSED MEDICAL GAS AT CLUSTER ONE (1) – OR TAMBO AND ALFRED NZO DISTRICT – HEALTH
 CONTRACT REF. NO: Cluster/District: OR TAMBO & ALFRED NZO DIS
 ASSET TYPE: VACUUM & COMPRESSED MEDICAL GAS Cluster 1

SCHEDULE 2B-3: FUNCTIONAL REPAIR SCHEDULE (continued)

ITEM Nr.	PAYMENT REFERS	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
3	GM 2.5	COMPILING OF DETAILED REPAIR SCHEDULE : Compile detailed, comprehensive repair schedule including defect description, recommended repair method, detailed quote including priced spare parts, outsourced work, and provisional work program, for each Health Facility and asset type.		A	B	A*B
3.1		Mthatha Regional Hospital	Item	1		
3.2		Nelson Mandela Academic Hospital	Item	1		
3.3		Bedford Orthopaedic Hospital	Item	1		
3.4		Ngangelizwe CHC	Item	1		
3.5		Bhaziya CHC	Item	1		
3.6		Mbekweni CHC	Item	1		
3.7		Mhlakulo CHC	Item	1		
3.8		Mqanduli CHC	Item	1		
3.9		St Barnabas Hospital	Item	1		
3.10		Dr Malizo Mpehle Memorial Hospital	Item	1		
3.11		Makhotyana CHC	Item	1		
3.12		Canzibe Hospital	Item	1		
3.13		St Lucys Hospital	Item	1		
3.14		Qumbu CHC	Item	1		
3.15		Tombo CHC	Item	1		
3.16		Ngcwanguba CHC	Item	1		
3.17		Isilimela Hospital	Item	1		
3.18		Zithulele Hospital	Item	1		
3.19		Port St Johns CHC	Item	1		
3.20		Madzikane KaZulu Memorial Hospital	Item	1		
3.21		Bambisana Hospital	Item	1		
3.22		Sipetu Hospital	Item	1		
3.23		St Elizabeth Hospital	Item	1		
3.24		Mount Ayliff Hospital	Item	1		
3.25		Ntabankhulu CHC	Item	1		
3.26		Flagstaff CHC	Item	1		
3.27		Holy Cross Hospital	Item	1		
3.28		St Patricks' Hospital	Item	1		
3.29		Taylor Bequest Hospital	Item	1		
3.30		Khotsong TB Hospital	Item	1		
3.31		Maluti CHC	Item	1		
3.32		Greenville Hospital	Item	1		
TOTAL CARRIED FORWARD TO SUMMARY						

SCHEDULED MAINTENANCE OF VACUUM & COMPRESSED MEDICAL GAS AT CLUSTER ONE (1) – OR TAMBO AND ALFRED NZO DISTRICT – HEA
 CONTRACT REF. NO: Cluster/District: OR TAMBO & ALFRED NZO DIS
 ASSET TYPE: VACUUM & COMPRESSED MEDICAL GAS Cluster 1

SCHEDULE 2B-4: FUNCTIONAL REPAIR SCHEDULE

ITEM Nr.	PAYMENT REFERS	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
4	GM 2.6	COMPILE FUNCTIONAL CONDITION ASSESSMENT REPORT: Compile Functional Condition Assessment Report for all asset types at all Health Facilities included in the Tender		A	B	A*B
4.1		Mthatha Regional Hospital	Item	1		
4.2		Nelson Mandela Academic Hospital	Item	1		
4.3		Bedford Orthopaedic Hospital	Item	1		
4.4		Ngangelizwe CHC	Item	1		
4.5		Bhaziya CHC	Item	1		
4.6		Mbekweni CHC	Item	1		
4.7		Mhlakulo CHC	Item	1		
4.8		Mqanduli CHC	Item	1		
4.9		St Barnabas Hospital	Item	1		
4.10		Dr Malizo Mpehle Memorial Hospital	Item	1		
4.11		Makhotyana CHC	Item	1		
4.12		Canzibe Hospital	Item	1		
4.13		St Lucys Hospital	Item	1		
4.14		Qumbu CHC	Item	1		
4.15		Tombo CHC	Item	1		
4.16		Ngcwanguba CHC	Item	1		
4.17		Isilimela Hospital	Item	1		
4.18		Zithulele Hospital	Item	1		
4.19		Port St Johns CHC	Item	1		
4.20		Madzikane KaZulu Memorial Hospital	Item	1		
4.21		Bambisana Hospital	Item	1		
4.22		Sipetu Hospital	Item	1		
4.23		St Elizabeth Hospital	Item	1		
4.24		Mount Ayliff Hospital	Item	1		
4.25		Ntabankhulu CHC	Item	1		
4.26		Flagstaff CHC	Item	1		
4.27		Holy Cross Hospital	Item	1		
4.28		St Patricks' Hospital	Item	1		
4.29		Taylor Bequest Hospital	Item	1		
4.30		Khotsong TB Hospital	Item	1		
4.31		Maluti CHC	Item	1		
4.32		Greenville Hospital	Item	1		
TOTAL CARRIED FORWARD TO SUMMARY						

JSTER ONE (1) – OR TAMBO AND ALFRED NZO DISTRICT – HEALTH FACILITIES (36 MONTHS)

TRACT REF. NO:

Cluster/District:

OR TAMBO & ALFRED NZO DIST

SSSET TYPE:

VACUUM & COMPRESSED MEDICAL GAS

Cluster 1

EDULE 3B :

MAINTENANCE SERVICE SCHEDULE

ITEM Nr.	PAYMENT REFERS	DESCRIPTION	UNIT	SERVICE QTY	EQUIPMENT QTY	RATE	AMOUNT
1	GM 3.2	MAINTENANCE WORKS : Standard servicing and planned Maintenance Costs including all parts, consumables and lubricants, labour, travelling, accommodation and subsistence allowances (Price per machine)		A	B	C	A*B*C
1.1		Bambisana Hospital: Vacuum Tank Unit					
1.1.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.1.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		
1.1.3		Statutory Inspection (3 yearly) If no records are found on site a statutory inspection must be done ASAP after site hand over.	No	2	1		
1.2		Bambisana Hospital: Oxygen Bank (2*10 manifold)					
1.2.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.2.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		
1.3		Bambisana Hospital: Nitrous Oxide Bank (1*2 manifold)					
1.3.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.3.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		
1.4		Bedford Orthopaedic Hospital: High Pressure Compressor					
1.4.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.4.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		
1.5		Bedford Orthopaedic Hospital: High Pressure Vacuum Pump					
1.5.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	2		
1.5.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	2		
1.6		Bedford Orthopaedic Hospital: Oxygen Bank (2*8 manifold)					
1.6.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.6.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		
1.7		Bedford Orthopaedic Hospital: Nitrous Oxide Bank (2*4 manifold)					
1.7.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.7.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		

JSTER ONE (1) – OR TAMBO AND ALFRED NZO DISTRICT – HEALTH FACILITIES (36 MONTHS)

TRACT REF. NO:

Cluster/District:

OR TAMBO & ALFRED NZO DISTRICT

SET TYPE:

VACUUM & COMPRESSED MEDICAL GAS

Cluster 1

SCHEDULE 3B :

MAINTENANCE SERVICE SCHEDULE

ITEM Nr.	PAYMENT REFERS	DESCRIPTION	UNIT	SERVICE QTY	EQUIPMENT QTY	RATE	AMOUNT
1	GM 3.2	MAINTENANCE WORKS : Standard servicing and planned Maintenance Costs including all parts, consumables and lubricants, labour, travelling, accommodation and subsistence allowances (Price per machine)		A	B	C	A*B*C
1.8		Bhaziya CHC: Vacuum Pump					
1.8.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.8.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		
1.9		Bhaziya CHC: Vacuum Tank (50L)					
1.9.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.9.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		
1.9.3		Statutory Inspection (3 yearly) If no records are found on site a statutory inspection must be done ASAP after site hand over.	No	2	1		
1.10		Flagstaff CHC: Vacuum Compressor Tank Unit					
1.10.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.10.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		
1.10.3		Statutory Inspection (3 yearly) If no records are found on site a statutory inspection must be done ASAP after site hand over.	No	2	1		
1.11		Greenville Hospital: Vacuum Compressor Tank Unit					
1.11.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.11.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		
1.11.3		Statutory Inspection (3 yearly) If no records are found on site a statutory inspection must be done ASAP after site hand over.	No	2	1		
1.12		Greenville Hospital: Oxygen Bank (2*2 manifold)					
1.12.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.12.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		
1.13		Holy Cross Hospital: High Pressure Vacuum Tank					
1.13.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.13.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		

ITEM Nr.	PAYMENT REFERS	DESCRIPTION	UNIT	SERVICE QTY	EQUIPMENT QTY	RATE	AMOUNT
1	GM 3.2	MAINTENANCE WORKS : Standard servicing and planned Maintenance Costs including all parts, consumables and lubricants, labour, travelling, accommodation and subsistence allowances (Price per machine)		A	B	C	A*B*C
1.13.3		Statutory Inspection (3 yearly) If no records are found on site a statutory inspection must be done ASAP after site hand over.	No	2	1		
1.14		Holy Cross Hospital: High Pressure Vacuum Pump					
1.14.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	2		
1.14.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	2		
1.15		Holy Cross Hospital: Oxygen Bank (2*15 manifold)					
1.15.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.15.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		
1.16		Holy Cross Hospital: Nitrous Oxide Bank (2*8 manifold)					
1.16.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.16.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		
1.17		Khotsong TB Hospital: Vacuum Pump					
1.17.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.17.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		
1.18		Khotsong TB Hospital: Vacuum Tank					
1.18.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.18.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		
1.18.3		Statutory Inspection (3 yearly) If no records are found on site a statutory inspection must be done ASAP after site hand over.	No	2	1		
1.19		Khotsong TB Hospital: Oxygen Bank (2*5 manifold)					
1.19.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.19.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		

JSTER ONE (1) – OR TAMBO AND ALFRED NZO DISTRICT – HEALTH FACILITIES (36 MONTHS)

TRACT REF. NO:

Cluster/District:

OR TAMBO & ALFRED NZO DISTRICT

SSSET TYPE:

VACUUM & COMPRESSED MEDICAL GAS

Cluster 1

CHEDULE 3B :

MAINTENANCE SERVICE SCHEDULE

ITEM Nr.	PAYMENT REFERS	DESCRIPTION	UNIT	SERVICE QTY	EQUIPMENT QTY	RATE	AMOUNT
1	GM 3.2	MAINTENANCE WORKS : Standard servicing and planned Maintenance Costs including all parts, consumables and lubricants, labour, travelling, accommodation and subsistence allowances (Price per machine)		A	B	C	A*B*C
1.20		Mbekweni CHC: Vacuum Pump					
1.20.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.20.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		
1.21		Mbekweni CHC: Vacuum Tank (50L)					
1.21.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.21.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		
1.21.3		Statutory Inspection (3 yearly) If no records are found on site a statutory inspection must be done ASAP after site hand over.	No	2	1		
1.22		Mhlakulo CHC: Vacuum Pump					
1.22.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.22.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		
1.23		Mhlakulo CHC: Vacuum Tank (50L)					
1.23.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.23.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		
1.23.3		Statutory Inspection (3 yearly) If no records are found on site a statutory inspection must be done ASAP after site hand over.	No	2	1		
1.24		Mqanduli CHC: Vacuum Pump					
1.24.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.24.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		
1.25		Mqanduli CHC: Vacuum Tank (50L)					
1.25.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.25.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		
1.25.3		Statutory Inspection (3 yearly) If no records are found on site a statutory inspection must be done ASAP after site hand over.	No	2	1		
1.26		Makhotyana CHC: Vacuum Pump					

JSTER ONE (1) – OR TAMBO AND ALFRED NZO DISTRICT – HEALTH FACILITIES (36 MONTHS)

TRACT REF. NO:

Cluster/District:

OR TAMBO & ALFRED NZO DISTRICT

SET TYPE:

VACUUM & COMPRESSED MEDICAL GAS

Cluster 1

SCHEDULE 3B :

MAINTENANCE SERVICE SCHEDULE

ITEM Nr.	PAYMENT REFERS	DESCRIPTION	UNIT	SERVICE QTY	EQUIPMENT QTY	RATE	AMOUNT
1	GM 3.2	MAINTENANCE WORKS : Standard servicing and planned Maintenance Costs including all parts, consumables and lubricants, labour, travelling, accommodation and subsistence allowances (Price per machine)		A	B	C	A*B*C
1.26.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.26.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		
1.27		Makhotyana CHC: Vacuum Tank (50L)					
1.27.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.27.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		
1.27.3		Statutory Inspection (3 yearly) If no records are found on site a statutory inspection must be done ASAP after site hand over.	No	2	1		
1.28		Canzibe Hospital: Nitrous Oxide (1*2 manifold)					
1.28.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	2		
1.28.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	2		
1.29		Canzibe Hospital: Oxygen Bank (1*2 manifold)					
1.29.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	2		
1.29.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	2		
1.30		Canzibe Hospital: Oxygen Bank (2*5 manifold)					
1.30.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	2		
1.30.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	2		
1.31		Canzibe Hospital: Dental Compressor					
1.31.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.31.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		
1.32		Qumbu CHC: Vacuum Pump					
1.32.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.32.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		

JSTER ONE (1) – OR TAMBO AND ALFRED NZO DISTRICT – HEALTH FACILITIES (36 MONTHS)

TRACT REF. NO:

Cluster/District:

OR TAMBO & ALFRED NZO DISTRICT

SSET TYPE:

VACUUM & COMPRESSED MEDICAL GAS

Cluster 1

SCHEDULE 3B :

MAINTENANCE SERVICE SCHEDULE

ITEM Nr.	PAYMENT REFERS	DESCRIPTION	UNIT	SERVICE QTY	EQUIPMENT QTY	RATE	AMOUNT
1	GM 3.2	MAINTENANCE WORKS : Standard servicing and planned Maintenance Costs including all parts, consumables and lubricants, labour, travelling, accommodation and subsistence allowances (Price per machine)		A	B	C	A*B*C
1.33		Qumbu CHC: Vacuum Tank (50L)					
1.33.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.33.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		
1.33.3		Statutory Inspection (3 yearly) If no records are found on site a statutory inspection must be done ASAP after site hand over.	No	2	1		
1.34		Tombo CHC: Vacuum Pump					
1.34.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.34.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		
1.35		Tombo CHC: Vacuum Tank (50L)					
1.35.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.35.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		
1.35.3		Statutory Inspection (3 yearly) If no records are found on site a statutory inspection must be done ASAP after site hand over.	No	2	1		
1.36		Ngcwanguba CHC: Vacuum Pump					
1.36.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.36.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		
1.37		Ngcwanguba CHC: Vacuum Tank (50L)					
1.37.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.37.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		
1.37.3		Statutory Inspection (3 yearly) If no records are found on site a statutory inspection must be done ASAP after site hand over.	No	2	1		
1.38		Isilimela Hospital: Vacuum Pump					
1.38.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.38.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		
1.39		Isilimela Hospital: Vacuum Tank (1000L)					

ITEM Nr.	PAYMENT REFERS	DESCRIPTION	UNIT	SERVICE QTY	EQUIPMENT QTY	RATE	AMOUNT
1	GM 3.2	MAINTENANCE WORKS : Standard servicing and planned Maintenance Costs including all parts, consumables and lubricants, labour, travelling, accommodation and subsistence allowances (Price per machine)		A	B	C	A*B*C
1.39.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.39.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		
1.39.3		Statutory Inspection (3 yearly) If no records are found on site a statutory inspection must be done ASAP after site hand over.	No	2	1		
1.40		Isilimela Hospital: Oxygen Bank (2*4 manifold)					
1.40.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.40.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		
1.41		Isilimela Hospital: Oxygen Bank (2*5 manifold)					
1.41.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.41.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		
1.42		Isilimela Hospital: Nitrous Oxide (1*2 manifold)					
1.42.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	2		
1.42.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	2		
1.43		Madzlkane KaZulu Memorial Hospital: Medical Air Compressors					
1.43.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	2		
1.43.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	2		
1.44		Madzlkane KaZulu Memorial Hospital: Receiver Tanks					
1.44.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	2		
1.44.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	2		
1.45		Madzlkane KaZulu Memorial Hospital: Filtration, control system and air dryers					
1.45.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	2		

JSTER ONE (1) – OR TAMBO AND ALFRED NZO DISTRICT – HEALTH FACILITIES (36 MONTHS)

TRACT REF. NO:

Cluster/District:

OR TAMBO & ALFRED NZO DISTRICT

ASSET TYPE:

VACUUM & COMPRESSED MEDICAL GAS

Cluster 1

SCHEDULE 3B :

MAINTENANCE SERVICE SCHEDULE

ITEM Nr.	PAYMENT REFERS	DESCRIPTION	UNIT	SERVICE QTY	EQUIPMENT QTY	RATE	AMOUNT
1	GM 3.2	MAINTENANCE WORKS : Standard servicing and planned Maintenance Costs including all parts, consumables and lubricants, labour, travelling, accommodation and subsistence allowances (Price per machine)		A	B	C	A*B*C
1.45.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	2		
1.46		Madzlkane KaZulu Memorial Hospital: Oxygen Bank (2*12 manifold)					
1.46.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.46.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		
1.47		Madzlkane KaZulu Memorial Hospital: Nitrous Oxide (2*2 manifold)					
1.47.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.47.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		
1.48		Dr Malizo Mpehle Hospital: Vacuum Pumps					
1.48.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	2		
1.48.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	2		
1.49		Dr Malizo Mpehle Hospital: Receiver Tanks					
1.49.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	2		
1.49.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	2		
1.50		Dr Malizo Mpehle Hospital: Filtration, control system and air dryers					
1.50.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	2		
1.50.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	2		
1.51		Dr Malizo Mpehle Hospital: Medical Air Bank (2*12 manifold)					
1.51.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.51.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		
1.52		St. Barnabas Hospital: Medical Air Compressors					

ITEM Nr.	PAYMENT REFERS	DESCRIPTION	UNIT	SERVICE QTY	EQUIPMENT QTY	RATE	AMOUNT
1	GM 3.2	MAINTENANCE WORKS : Standard servicing and planned Maintenance Costs including all parts, consumables and lubricants, labour, travelling, accommodation and subsistence allowances (Price per machine)		A	B	C	A*B*C
1.52.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	2		
1.52.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	2		
1.53		St. Barnabas Hospital: Receiver Tanks					
1.53.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	2		
1.53.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	2		
1.54		St. Barnabas Hospital: Filtration, control system and air dryers					
1.54.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	2		
1.54.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	2		
1.55		St. Barnabas Hospital: Scavenger pump set					
1.55.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.55.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		
1.56		St. Barnabas Hospital: Oxygen Bank (2*8 manifold)					
1.56.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.56.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		
1.57		St. Barnabas Hospital: Oxygen Bank (2*1 manifold)					
1.57.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.57.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		
1.58		St. Barnabas Hospital: Nitrous Oxide (2*2 manifold)					
1.58.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.58.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		

ITEM Nr.	PAYMENT REFERS	DESCRIPTION	UNIT	SERVICE QTY	EQUIPMENT QTY	RATE	AMOUNT
1	GM 3.2	MAINTENANCE WORKS : Standard servicing and planned Maintenance Costs including all parts, consumables and lubricants, labour, travelling, accommodation and subsistence allowances (Price per machine)		A	B	C	A*B*C
1.59		Mount Ayliff Hospital: Oxygen Bank (1*2 manifold)					
1.59.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	4		
1.59.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	4		
1.60		Mount Ayliff Hospital: Oxygen Bank (2*2 manifold)					
1.60.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.60.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		
1.61		Mount Ayliff Hospital: Nitrous Oxide (1*2 manifold)					
1.61.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	2		
1.61.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	2		
1.62		Mthatha Regional Hospital: High Pressure Vacuum Pump					
1.62.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	3		
1.62.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	3		
1.63		Mthatha Regional Hospital: Solid Air Vacuum Pump					
1.63.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.63.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		
1.64		Mthatha Regional Hospital: Ingersoll Rand Compressor					
1.64.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	3		
1.64.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	3		
1.65		Mthatha Regional Hospital: Bulk Oxygen Tank					
1.65.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		

JSTER ONE (1) – OR TAMBO AND ALFRED NZO DISTRICT – HEALTH FACILITIES (36 MONTHS)

TRACT REF. NO:

Cluster/District:

OR TAMBO & ALFRED NZO DISTRICT

SSSET TYPE:

VACUUM & COMPRESSED MEDICAL GAS

Cluster 1

SCHEDULE 3B :

MAINTENANCE SERVICE SCHEDULE

ITEM Nr.	PAYMENT REFERS	DESCRIPTION	UNIT	SERVICE QTY	EQUIPMENT QTY	RATE	AMOUNT
1	GM 3.2	MAINTENANCE WORKS : Standard servicing and planned Maintenance Costs including all parts, consumables and lubricants, labour, travelling, accommodation and subsistence allowances (Price per machine)		A	B	C	A*B*C
1.65.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		
1.66		Mthatha Regional Hospital: Oxygen Bank (2*10 manifold)					
1.66.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.66.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		
1.67		Nelson Mandela Academic Hospital: Vacuum Tank (4000L)					
1.67.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.67.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		
1.67.3		Statutory Inspection (3 yearly) If no records are found on site a statutory inspection must be done ASAP after site hand over.	No	2	1		
1.68		Nelson Mandela Academic Hospital: Vacuum Tank (2000L)					
1.68.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.68.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		
1.68.3		Statutory Inspection (3 yearly) If no records are found on site a statutory inspection must be done ASAP after site hand over.	No	2	1		
1.69		Nelson Mandela Academic Hospital: Medical Air Tank (750L)					
1.69.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	3		
1.69.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	3		
1.70		Nelson Mandela Academic Hospital: High Pressure Vacuum Pump					
1.70.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.70.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		
1.71		Nelson Mandela Academic Hospital: High Pressure Compressor					
1.71.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.71.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		
1.72		Ngangelizwe CHC: Oxygen Bank (2*6 manifold)					

JSTER ONE (1) – OR TAMBO AND ALFRED NZO DISTRICT – HEALTH FACILITIES (36 MONTHS)

TRACT REF. NO:

Cluster/District:

OR TAMBO & ALFRED NZO DISTRICT

SSSET TYPE:

VACUUM & COMPRESSED MEDICAL GAS

Cluster 1

SCHEDULE 3B :

MAINTENANCE SERVICE SCHEDULE

ITEM Nr.	PAYMENT REFERS	DESCRIPTION	UNIT	SERVICE QTY	EQUIPMENT QTY	RATE	AMOUNT
1	GM 3.2	MAINTENANCE WORKS : Standard servicing and planned Maintenance Costs including all parts, consumables and lubricants, labour, travelling, accommodation and subsistence allowances (Price per machine)		A	B	C	A*B*C
1.72.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.72.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		
1.73		Ngangelizwe CHC: High Pressure Vacuum Pump					
1.73.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.73.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		
1.74		Ngangelizwe CHC: Vacuum Tank					
1.74.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.74.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		
1.74.3		Statutory Inspection (3 yearly) If no records are found on site a statutory inspection must be done ASAP after site hand over.	No	2	1		
1.75		Ntabankhulu CHC: Oxygen Bank (2*4 manifold)					
1.75.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.75.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		
1.76		Ntabankhulu CHC: Vacuum Pump					
1.76.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.76.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		
1.77		Ntabankhulu CHC: Vacuum Tank					
1.77.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.77.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		
1.77.3		Statutory Inspection (3 yearly) If no records are found on site a statutory inspection must be done ASAP after site hand over.	No	2	1		
1.78		Maluti CHC: Oxygen Bank (2*4 manifold)					
1.78.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.78.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		

JSTER ONE (1) – OR TAMBO AND ALFRED NZO DISTRICT – HEALTH FACILITIES (36 MONTHS)

TRACT REF. NO:

Cluster/District:

OR TAMBO & ALFRED NZO DISTRICT

ASSET TYPE:

VACUUM & COMPRESSED MEDICAL GAS

Cluster 1

SCHEDULE 3B :

MAINTENANCE SERVICE SCHEDULE

ITEM Nr.	PAYMENT REFERS	DESCRIPTION	UNIT	SERVICE QTY	EQUIPMENT QTY	RATE	AMOUNT
1	GM 3.2	MAINTENANCE WORKS : Standard servicing and planned Maintenance Costs including all parts, consumables and lubricants, labour, travelling, accommodation and subsistence allowances (Price per machine)		A	B	C	A*B*C
1.79		Maluti CHC: Vacuum Pump					
1.79.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.79.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		
1.80		Maluti CHC: Vacuum Tank					
1.80.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.80.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		
1.80.3		Statutory Inspection (3 yearly) If no records are found on site a statutory inspection must be done ASAP after site hand over.	No	2	1		
1.81		Port St Johns CHC: Vacuum Compressor Unit					
1.81.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.81.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		
1.82		Port St Johns CHC: Oxygen Bank (1*2 manifold)					
1.82.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.82.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		
1.83		Port St Johns CHC: Nitrous Oxide Bank (1*2 manifold)					
1.83.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.83.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		
1.84		Sipetu Hospital: High Pressure Vacuum Compressor					
1.84.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	2		
1.84.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	2		
1.85		Sipetu Hospital: Pressure Tank Fabricators					
1.85.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	2		
1.85.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	2		
1.86		Sipetu Hospital: Oxygen Bank (2*3 manifold)					

JSTER ONE (1) – OR TAMBO AND ALFRED NZO DISTRICT – HEALTH FACILITIES (36 MONTHS)
TRACT REF. NO:
Cluster/District:
OR TAMBO & ALFRED NZO DISTRICT
SSSET TYPE:
VACUUM & COMPRESSED MEDICAL GAS
Cluster 1
SCHEDULE 3B :
MAINTENANCE SERVICE SCHEDULE

ITEM Nr.	PAYMENT REFERS	DESCRIPTION	UNIT	SERVICE QTY	EQUIPMENT QTY	RATE	AMOUNT
1	GM 3.2	MAINTENANCE WORKS : Standard servicing and planned Maintenance Costs including all parts, consumables and lubricants, labour, travelling, accommodation and subsistence allowances (Price per machine)		A	B	C	A*B*C
1.86.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.86.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		
1.87		Sipetu Hospital: Nitrous Oxide Bank (2*3 manifold)					
1.87.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.87.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		
1.88		Sipetu Hospital: Medical Gas (Afrox 2*8 manifold)					
1.88.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.88.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		
1.89		St Patricks' Hospital: Oxygen Gas Bank (2*8 manifold)					
1.89.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.89.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		
1.90		St Patricks' Hospital: Nitrous Oxide Gas Bank (2*3 manifold)					
1.90.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.90.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		
1.91		St Patricks' Hospital: Medical Air Bank (2*4 manifold)					
1.91.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.91.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		
1.92		Tayler Bequest Hospital: High Pressure Vacuum Pump					
1.92.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.92.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		
1.93		Tayler Bequest Hospital: Oxygen Gas Bank (2*5 manifold)					
1.93.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	2		

JSTER ONE (1) – OR TAMBO AND ALFRED NZO DISTRICT – HEALTH FACILITIES (36 MONTHS)

TRACT REF. NO:

Cluster/District:

OR TAMBO & ALFRED NZO DISTRICT

SSSET TYPE:

VACUUM & COMPRESSED MEDICAL GAS

Cluster 1

SCHEDULE 3B :

MAINTENANCE SERVICE SCHEDULE

ITEM Nr.	PAYMENT REFERS	DESCRIPTION	UNIT	SERVICE QTY	EQUIPMENT QTY	RATE	AMOUNT
1	GM 3.2	MAINTENANCE WORKS : Standard servicing and planned Maintenance Costs including all parts, consumables and lubricants, labour, travelling, accommodation and subsistence allowances (Price per machine)		A	B	C	A*B*C
1.93.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	2		
1.94		Tayler Bequest Hospital: Nitrous Oxide Gas Bank (1*2 manifold)					
1.94.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.94.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		
1.95		St Elizabeth Hospital: High Pressure Vacuum Compressor (11kW)					
1.95.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	4		
1.95.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	4		
1.96		St Elizabeth Hospital: Compressor Driers (0.66 kW)					
1.96.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	4		
1.96.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	4		
1.97		St Elizabeth Hospital: Vacuum Tank (4000 L)					
1.97.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.97.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		
1.97.3		Statutory Inspection (3 yearly) If no records are found on site a statutory inspection must be done ASAP after site hand over.	No	2	1		
1.98		St Elizabeth Hospital: Vacuum Tank (2500 L)					
1.98.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.98.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		
1.98.3		Statutory Inspection (3 yearly) If no records are found on site a statutory inspection must be done ASAP after site hand over.	No	2	1		
1.99		Zithulele Hospital: Vacuum Pump (Royles)					
1.99.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.99.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		
1.100		Zithulele Hospital: Oxygen Gas Bank (1*2 manifold)					

JSTER ONE (1) – OR TAMBO AND ALFRED NZO DISTRICT – HEALTH FACILITIES (36 MONTHS)
TRACT REF. NO:
Cluster/District:
OR TAMBO & ALFRED NZO DISTRICT
SET TYPE:
VACUUM & COMPRESSED MEDICAL GAS
Cluster 1
SCHEDULE 3B :
MAINTENANCE SERVICE SCHEDULE

ITEM Nr.	PAYMENT REFERS	DESCRIPTION	UNIT	SERVICE QTY	EQUIPMENT QTY	RATE	AMOUNT
1	GM 3.2	MAINTENANCE WORKS : Standard servicing and planned Maintenance Costs including all parts, consumables and lubricants, labour, travelling, accommodation and subsistence allowances (Price per machine)		A	B	C	A*B*C
1.100.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.100.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		
1.101		Zithulele Hospital: Nitrous Oxide Gas Bank (1*2 manifold)					
1.101.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.101.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		
1.102		Zithulele Hospital: Afrox Gas Bank (2*8 manifold)					
1.102.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.102.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		
1.103		St Lucys Hospital: Oxygen Bank (5*2 manifold)					
1.103.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.103.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		
1.104		St Lucys Hospital: Oxygen Bank (1*2 manifold)					
1.104.1		Minor Service Cost : Price per Three Monthly Service / Inspection per machine, as per tasks from the Three Monthly Service Inspection Guideline in C6.	No	9	1		
1.104.2		Major Service Cost : Price per Annual Service / Inspection per machine, as per tasks from the Annual Service Inspection Guideline in C6.	No	3	1		

SCHEDULED MAINTENANCE OF VACUUM & COMPRESSED MEDICAL GAS AT CLUSTER ONE (1) – OR TAMBO AND ALFRED NZO DISTRICT -

CONTRACT REF. NO:

Cluster/District: OR TAMBO & ALFRED NZO DISTRICT
Cluster 1

ASSET TYPE: VACUUM & COMPRESSED MEDICAL GAS

SCHEDULE 4 : TERM REPAIRS SUBJECT TO APPROVAL OF QUOTATION OF THE WORKS

ITEM Nr.	PAYMENT REFERS	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
1	GM 2.8	LABOUR RATES APPLICABLE TO UNSCHEDULED WORK: Labour rates that Contractor will charge for additional adhoc work that is not contained in Schedules 1 to 3.				
1.1		Technician	R/Hr	500		
1.2		Senior Artisan (Trade Tested & Additional Certification)	R/Hr	500		
1.3		Artisan (Trade Tested)	R/Hr	500		
1.4		Utility Man (Non-Trade Tested)	R/Hr	500		
1.5		Artisan Aid	R/Hr	500		
1.6		General Worker	R/Hr	500		
2	GM 2.8.3	TRAVELLING : Travelling cost will be as per the rates for reimbursable expenses published monthly by the National Department of Public Works at the time of rendering the service/repair.				
2.1		Vehicle Travelling Estimate	Km	120,000		
3	GM 2.8.3	ACCOMMODATION AND SUBSISTENCE : Daily Rates per person that the Contractor will claim for approved trips lasting more than one day at a time.				
3.1		Accommodation	Per/night	60		
3.2		Subsistence	Per/day	60		
4	GM 2.5 (10), GM 2.8.1 & GM 2.10.3	PROVISION TO COVER REPAIRS DURING THE TERM OF THE CONTRACT : Lump Sum Provision to cover repairs and breakdowns during the course of the Contract in addition to the agreed routine servicing of the Assets.	PSum	1	R 4,000,000.00	R 4,000,000.00
5	GM 2.8.1 & Clause 11.2(8)	DIRECT FEE PERCENTAGE (MARK-UP) ON MATERIALS AND SERVICES THAT IS NOT INCLUDED IN PRICE LISTS : Mark-up on proven cost for materials and/or Outsourced Services based on the Provisional sum listed in Item 4. above. (Apply % to provisional sum in Item 4 above when pricing the tender)	%		R4,000,000.00	
6	GM 2.15	ENVIRONMENTAL MANAGEMENT PLAN : The Contractor must compile a basic Environmental plan specific to the type of work that he will be performing at the Health Facilities as per C3.2	Item	1		
7	GM 2.15	OCCUPATIONAL HEALTH AND SAFETY ACT COMPLIANCE COST : The Contractor must comply to the project Health and Safety Specification specific to the type of work that he will be performing on site as per C3.2	Month	36		
8	Clause 83.1	INSURANCE : LIMITATION OF LIABILITY (Amounts applicable for whole Contract)				
8.1		Provision for General Contractor's Insurance (Minimum liability limit must be equal to R2,000 000) to cover requirements of Clause 83.1 in Contract Data	Month	36		
9	X13	PERFORMANCE BOND (Amounts applicable for whole Contract)				
9.1		Provision for a Performance bond of not less than 2,5% of the Tender Value	Month	36		

10	SS15	IN-SERVICE TRAINING OF GRADUATES AND INTERNS : Provisional Sum to pay the costs associated with employing nominated Interns and Graduates for the duration of the Contract				
10.1		Interns(1 Interns @R6000 per month)	Months	36		
10.2		Graduates(1 Graduates @R8000 per month)	Months	36		
11	GM 6	PROVISION FOR SPECIAL TESTING BY SERVICE MANAGER : Lump sum provision for doing special tests at the Health Facilities as per the prerogative of the Service Manager	PSum	1	R 765,000.00	R 765,000.00
11.1	Clause 11.2(8)	Direct Fee Percentage (Mark-up) to be charged by Contractor on amounts above	%		R 765,000.00	
12	GM 2.6	MAINTENANCE DOCUMENTATION SITE STORAGE CONSOLE: Provisional sum to supply and install O&M Manual, Log Books, and site Maintenance Records at each equipment type location as directed by the Service Manager	PSum	1	R 34,000.00	R 34,000.00
12.1	Clause 11.2(8)	Direct Fee Percentage (Mark-up) to be charged by Contractor on amounts above	%		R 34,000.00	
TOTAL CARRIED FORWARD TO SUMMARY						

SCHEDULED MAINTENANCE OF VACUUM & COMPRESSED MEDICAL GAS AT CLUSTER ONE (1) – OR TAMBO AND ALFRED NZO DISTRICT – HEALTH FACILITIES (36 MONTHS)

CONTRACT REF. NO:

Cluster/District: **OR TAMBO & ALFRED NZO DISTRICT**
Cluster 1

ASSET TYPE: VACUUM & COMPRESSED MEDICAL GAS

SCHEDULE 5 : REPLACEMENT OF EQUIPMENT SUBJECT TO APPROVAL

ITEM Nr.	PAYMENT REFERS	DESCRIPTION	No. of Facilities	UNIT	QTY	SUPPLY RATE	INSTALL RATE	AMOUNT
	GM 2.5	Indicate Supply, Delivery, Installation and Commissioning of Vacuum and Compressed Medical Air Equipment						
1		Health Facility Type: CHC/ Clinics						
1.1		Vacuum Equipment						
		Packaged duplex medical vacuum unit – 2×0.75 kW, 100 L/min free-air displacement per pump, oil-free liquid-ring, 316 SS receiver 50 L, factory-wired & tested. SANS 10019 / HTM 02-01 compliant. Includes base-frame, drip-tray, interconnecting pipework, isolation valves	7	Set	1			
1.2		Compressed Medical Air Equipment						
		Packaged duplex oil-free medical air system – 2×1.1 kW scroll compressors, 80 L/min FAD @ 4.5 bar per pump, 316 SS receiver 60 L, refrigerant dryer, 3-stage coalescing/particulate/activated-carbon filtration, factory-wired & tested. SANS 10019 / ISO 7396-1 compliant. Oil-free Class 0 air. Includes base-frame, pressure regulator to 4 bar(g), safety valve.	7	Set	1			
2		Health Facility Type: Medium-sized Hospitals						
2.1		Vacuum Equipment						
		Packaged triplex medical vacuum unit – 3×2.2 kW, 350 L/min free-air per pump, oil-free liquid-ring, 316 SS receiver 150 L, factory-wired & tested, IP55 panel. SANS 10019 compliant. Auto-alternation, soft starters, overload protection included.	4	Set	1			
2.2		Compressed Medical Air Equipment						
		Packaged triplex oil-free medical air system – 3×3.0 kW scroll, 250 L/min FAD @ 4.5 bar per pump, 316 SS receiver 200 L, refrigerant dryer, 3-stage filtration (1 µm coalescing / 0.01 µm coalescing / activated carbon), IP55 panel, auto-alternation, soft starters. SANS 10019 / ISO 7396-1 oil-free Class 0. Integrated dew-point alarm output. Factory FAT tested.	4	Set	1			
3		Health Facility Type: Large-sized Hospitals						
3.1		Vacuum Equipment						
		Packaged quadruplex medical vacuum unit – 4×5.5 kW, 700 L/min per pump, oil-free liquid-ring, 316 SS receiver 300 L, Siemens/Allen-Bradley PLC, touchscreen HMI, IP55 MCC panel, factory FAT tested. SANS 10019 / NFPA 99 comparable. Auto-alternation, soft starters, 4 hr battery-back UPS on controls.	5	Set	1			
3.2		Compressed Medical Air Equipment						
		Packaged quadruplex oil-free medical air system – 4×7.5 kW scroll/screw, 600 L/min FAD @ 5 bar per pump, 316 SS receiver 400 L, dual-train refrigerant dryers (duty/standby), 3-stage filtration ×2 trains, Siemens/AB PLC, touchscreen HMI, IP55 MCC panel, factory FAT tested. SANS 10019 / ISO 7396-1 oil-free Class 0. Auto-alternation, soft starters, 4-hr UPS on controls, full alarm output matrix.	5	Set	1			
TOTAL								

SCHEDULED MAINTENANCE OF VACUUM & COMPRESSED MEDICAL GAS AT CLUSTER ONE (1) – OR TAMBO AND ALFRED NZO DISTRICT – HEALTH FACILITIES (36 MONTHS)

CONTRACT REF. NO:

Cluster/District: **OR TAMBO & ALFRED NZO DISTRICT**
Cluster 1

ASSET TYPE: **VACUUM & COMPRESSED MEDICAL GAS**

SCHEDULE 6: **REPLACEMENT OF EQUIPMENT SUBJECT TO APPROVAL**

ITEM Nr.	PAYMENT REFERS	DESCRIPTION	No. of Facilities	UNIT	QTY	SUPPLY RATE	INSTALL RATE	AMOUNT
	GM 2.5	Indicate Supply, Delivery, Installation and Commissioning of Medical Gas Manifold Equipment						
1		Health Facility Type: CHC/ Clinics						
1.1		Medical Oxygen Equipment						
		Semi-automatic duplex O ₂ manifold unit – 2×2-position cylinder banks, integral changeover, 420 kPa NRV-protected outlet, SS manifold bar, pressure gauges per bank, factory-assembled & tested. SANS 10019 / ISO 7396-1. Brass/SS wetted parts. Changeover indicator light included.	7	Set	1			
2		Health Facility Type: Medium-sized Hospitals						
2.1		Medical Oxygen Equipment						
		Automatic duplex O ₂ manifold – 2×4-position cylinder banks, fully auto changeover (no manual intervention), 420 kPa NRV-protected outlet, digital pressure display per bank, SS manifold bar, IP54 panel, factory-tested	4	Set	1			
2.2		Nitrous Oxide Equipment						
		Automatic duplex N ₂ O manifold – 2×4-position banks, fully auto changeover, 420 kPa, N ₂ O-compatible brass/SS wetted parts, digital pressure display per bank, IP54 panel, factory-tested	4	Set	1			
2.3		Medical Air Equipment						
		Automatic duplex medical air manifold (backup) – 2×4-position banks, fully auto changeover, 420 kPa, SS manifold bar, digital pressure displays, IP54 panel, factory-tested. Auto-interface to compressor plant alarm for seamless switchover.	4	Set	1			
3		Health Facility Type: Large-sized Hospitals						
3.1		Medical Oxygen Equipment						
		Automatic duplex O ₂ manifold with emergency reserve – 2×6-position primary banks + 1×4 position emergency bank, PLC auto-changeover (primary→secondary→emergency), 420 kPa, Modbus output, IP55 MCC panel, digital displays, factory FAT tested	5	Set	1			
3.2		Nitrous Oxide Equipment						
		Automatic duplex N ₂ O manifold with emergency reserve – 2×6-position primary banks + 1×4-position emergency bank, PLC auto-changeover, 420 kPa, N ₂ O-compatible, Modbus output, IP55 panel, digital displays, factory FAT tested	5	Set	1			
3.3		Medical Air Equipment						
		Automatic duplex medical air manifold with emergency reserve (backup) – 2×6-position primary + 1×4-position emergency bank, PLC auto-changeover, 420 kPa, Modbus output, IP55 panel, digital displays, factory FAT tested. PLC interface to compressor plant for auto-switchover on plant failure.	5	Set	1			
TOTAL								

PROJECT NAME	SCHEDULED MAINTENANCE OF VACUUM & COMPRESSED MEDICAL GAS EQUIPMENT AT CLUSTER ONE (1) – OR TAMBO AND ALFRED NZO DISTRICT – HEALTH FACILITIES (36 MONTHS)
TENDER No.	SCMU3-2627-0178-HO

DECLARATION (In respect of completeness of Tender)

Department of Health
Eastern Cape Department of Health
Global Life Centre
c/o R63 and Phalo Avenue
Bhisho

I/We, the undersigned, do hereby declare that these are the properly priced Schedules of Quantities forming Part C2.2 of this Contract Document which contains 30 pages numbered 1 to 31 and in consecutive order in Volume 3 and the number of pages in consecutive order in Volume 2 as stated on page 27 and 28 thereof, upon which my/our tender for **TENDER NO. SCMU3-2627-0178-HO: SCHEDULED MAINTENANCE OF VACUUM & COMPRESSED MEDICAL GAS EQUIPMENT AT CLUSTER ONE (1) – OR TAMBO AND ALFRED NZO DISTRICT – HEALTH FACILITIES (36 MONTHS)**

has been based.

SIGNED ON BEHALF OF TENDERER:

DATE:

PART C3: SCOPE OF WORKS

C3.1: SCOPE OF WORKS

PROJECT NAME	SCHEDULED MAINTENANCE OF VACUUM & COMPRESSED MEDICAL GAS EQUIPMENT AT CLUSTER ONE (1) – OR TAMBO AND ALFRED NZO DISTRICT – HEALTH FACILITIES (36 MONTHS)
TENDER No.	SCMU3-2627-0178-HO

This specification is for the repair, maintenance and proper functioning of the listed Medical Gas equipment for the duration of the Contract period:

1.	Mthatha Regional Hospital
2.	Nelson Mandela Academic Hospital
3.	Bedford Orthopaedic Hospital
4.	Ngangelizwe CHC
5.	Bhaziya CHC
6.	Mbekweni CHC
7.	Mhlakulo CHC
8.	Mqanduli CHC
9.	St Barnabas Hospital
10.	Dr Malizo Mpehle Memorial Hospital
11.	Makhotyana CHC
12.	Canzibe Hospital
13.	St Lucys Hospital
14.	Qumbu CHC
15.	Tombo CHC
16.	Ngcwanguba CHC
17.	Isilimela Hospital
18.	Zithulele Hospital
19.	Port St Johns CHC
20.	Madzikane KaZulu Memorial Hospital
21.	Bambisana Hospital
22.	Sipetu Hospital
23.	St Elizabeth Hospital
24.	Mount Ayliff Hospital
25.	Ntabankhulu CHC
26.	Flagstaff CHC
27.	Holy Cross Hospital
28.	St Patricks' Hospital
29.	Taylor Bequest Hospital
30.	Khotsong TB Hospital
31.	Maluti CHC
32.	Greenville Hospital

ASSET REGISTER FOR VACUUM AND COMPRESSED MEDICAL GAS: CLUSTER 1

Item No.	Facility Name	Asset Type	Asset Size	Asset Quantity
1	Ngangelizwe CHC	Oxygen gas cylinders	2x6 Manifold	1
2	Ngangelizwe CHC	Vacuum Pump	0.5 m3	1
3	Ngangelizwe CHC	Vacuum Tank	N/A	1
4	Bhaziya CHC	Vacuum Pump	100L/min	1
5	Bhaziya CHC	Vacuum Tank	50L	1
6	Mthatha General Hospital	Vacuum Pump	1380kPa: 0.1m Bar	3
7	Mthatha General Hospital	Solid Air Vacuum Pump	N/A	1
8	Mthatha General Hospital	Compressors (Ingersoll Rand)	150kPa	3
9	Mthatha General Hospital	Bulk Oxygen Tank	N/A	1
10	Mthatha General Hospital	Oxygen gas manifold	2x10 manifold	1
11	Zitulele Hospital	Afrox gas manifolds	2x8 manifold	1
12	Zitulele Hospital	Cylinder nitrous oxide gas	1x2 manifold	1
13	Zitulele Hospital	Cylinder oxygen gas	1x2 manifold	1
14	Zitulele Hospital	Vacuum Pump (Royle's)	1.5 m3	1
15	Nelson Mandela Academic Hospital	Vacuum Tank	4000L	4
16	Nelson Mandela Academic Hospital	Vacuum Tank	2000L	3
17	Nelson Mandela Academic Hospital	Vacuum Pump	7.5kW	1
18	Nelson Mandela Academic Hospital	Medical Air Tank	750L	3
19	Nelson Mandela Academic Hospital	Compressor (OKS GmbH)	N/A	1
20	Bedford Orthopaedic Hospital	High Pressure Vacuum Pumps	N/A	2
21	Bedford Orthopaedic Hospital	High Pressure Compressor	N/A	1
22	Bedford Orthopaedic Hospital	Medical Oxygen Gas cylinders	2x8 manifold	1
23	Bedford Orthopaedic Hospital	Medical Nitrous Oxide Gas cylinders	2x4 manifold	1
24	Flagstaff CHC	Compressor Tank Unit	50L, 2.238kW, Pmax: 8 bar	1
25	Holy Cross Hospital	Vacuum Tank	N/A	1
26	Holy Cross Hospital	Vacuum Pump	7.5 kW	2
27	Holy Cross Hospital	Oxygen gas cylinders	2x15 manifold	1
28	Holy Cross Hospital	Nitrous Oxide cylinders	2x8 manifold	1
29	St Elizabeth Hospital	Vacuum Compressor	11 kW	4
30	St Elizabeth Hospital	Compressor driers	0.66 kW	4
31	St Elizabeth Hospital	Vacuum Tank	4000L	2
32	St Elizabeth Hospital	Vacuum Tank	2500L	2
33	Port St Johns CHC	Vacuum Compressor tank Unit	N/A	1
34	Port St Johns CHC	1x2 Oxygen gas cylinders	1x2 manifold	1
35	Port St Johns CHC	1x2 Nitrous Oxide cylinders	1x2 manifold	1
36	Bambisana Hospital	Vacuum Tank Unit	N/A	1
37	Bambisana Hospital	2x5 oxygen bank	2x10 manifold	1
38	Bambisana Hospital	1x2 Nitrous Oxide cylinders	1x2 manifold	1
39	Sipetu Hospital	Vacuum compressor	N/A	2
40	Sipetu Hospital	Pressure Tank Fabricators	500 L	2
41	Sipetu Hospital	2x3 oxygen cylinders	2x3 manifold	1
42	Sipetu Hospital	2x3 nitrous oxide	2x3 manifold	1
43	Sipetu Hospital	2x8 cylinder (Afrox)	2x8 manifold	1

44	Khotsong TB Hospital	Vacuum Pump	N/A	1
45	Khotsong TB Hospital	Vacuum Tank	N/A	1
46	Khotsong TB Hospital	Oxygen gas cylinder bank	2x15 manifolds	1
47	Tayler Bequest Hospital	Vacuum Pump	N/A	1
48	Tayler Bequest Hospital	Nitrous oxide gas cylinder	1x2 manifold	1
49	Tayler Bequest Hospital	Oxygen gas cylinder bank	2x5 manifold	2
50	Greenville Hospital	Vacuum Tank Unit	1.0 hPa (mbar)	1
51	Greenville Hospital	Oxygen gas cylinder bank	2x2 manifold	1
52	St Patricks' Hospital	Oxygen gas cylinder bank	2x8 manifold	1
53	St Patricks' Hospital	Nitrous oxide gas cylinder	2x3 manifold	1
54	St Patricks' Hospital	Medical Air	2x4 manifold	1
55	Mount Ayliff Hospital	Oxygen gas cylinder bank	1x2 manifold	4
56	Mount Ayliff Hospital	Nitrous oxide gas cylinder	1x2 manifold	2
57	Mount Ayliff Hospital	Oxygen gas cylinder bank	2x2 manifold	1
58	Mbekweni CHC	Vacuum Pump	N/A	1
60	Mbekweni CHC	Vacuum Tank	50 L	1
61	Mahluko CHC	Vacuum Pump	N/a	1
62	Mahluko CHC	Vacuum Tank	50 L	1
63	Mqanduli CHC	Vacuum Pump	N/A	1
64	Mqanduli CHC	Vacuum Tank	50L	1
65	Makhotyana CHC	Vacuum Pump	N/A	1
66	Makhotyana CHC	Vacuum Tank	50 L	1
67	Canzibe Hospital	Nitrous oxide (1* 2 manifold)	N/A	2
68	Canzibe Hospital	Oxygen Bank (2*5 manifold)	N/A	2
69	Canzibe Hospital	Dental Compressor	N/A	1
70	Qumbu CHC	Vacuum Pump	N/A	1
71	Qumbu CHC	Vacuum Tank	50 L	1
72	Tombo CHC	Vacuum Pump	N/A	1
73	Tombo CHC	Vaccum Tank	50L	1
74	Ngcwanguba	Vaccum Tank	50L	1
75	Isilimela Hospital	Vacuum Pump	N/A	1
76	Isilimela Hospital	Vacuum Tank	1000 L	1
77	Isilimela Hospital	Oxygen Bank (2*4manifold)	N/A	1
78	Isilimela Hospital	Nitrous Oxide 1*2 manifold	N/A	2
79	Madzikane Kazulu memorial Hospital	Medical Air compressor	N/A	2
80	Madzikane Kazulu memorial Hospital	Reciever Tank	N/A	2
81	Madzikane Kazulu memorial Hospital	Filtrarion control system and air dryer	N/A	2
82	Madzikane Kazulu memorial Hospital	Oxygen Bank (2*12manifold)	N/A	1
83	Madzikane Kazulu memorial Hospital	Nitrous oxide (2* 2 manifold)	N/A	1
84	Dr Malizo Mpehle Hospital	Vacuum Pump	N/A	2
85	Dr Malizo Mpehle Hospital	Reciever Tank	N/A	2
86	Dr Malizo Mpehle Hospital	Filtrarion control system and air dryer	N/A	2
87	Dr Malizo Mpehle Hospital	Medical Air Bank (2*12 mabfold)	N/A	1
88	St Barnabas Hospital	Medical Air compressor	N/A	2
89	St Barnabas Hospital	Reciever Tank	N/A	2
90	St Barnabas Hospital	Filtrarion control system and air dryer	N/A	2
91	St Barnabas Hospital	Scavenger Pump set	N/A	1

92	St Barnabas Hospital	Oxygen Bank (2*8 manifold)	N/A	1
93	St Barnabas Hospital	Oxygen Bank (2*1 manifold)	N/A	1
94	St Barnabas Hospital	Nitrous Oxide (2*2 manifold)	N/A	1
95	Ntabankulu CHC	Oxygen Bank (2*4 manifold)	N/A	1
96	Ntabankulu CHC	Vaccum Pump	N/A	1
97	Ntabankulu CHC	Vaccum Tank	N/A	1
98	Maluti CHC	Oxygen Bank (2*4 manifold)	N/A	1
99	Maluti CHC	Vacuum Pump	N/A	1
100	Maluti CHC	Vaccum Tank	N/A	1
101	Zithulele Hospital	Vacuum Pum (Royles)	N/A	1
102	Zithulele Hospital	Oxygen Gas Bank (1*2 manifold	N/A	1
103	Zithulele Hospital	Nitrous Oxide Gas Bank (1*2 manifold)	N/A	1
104	Zithulele Hospital	Afrox Gas Bank (2*8 manifold)	N/A	1
105	St Lucys Hospital	Oxygen Bank (5*2 manifold	N/A	1
106	St Lucys Hospital	Oxygen Bank (1*2 manifold)	N/A	1



PART C3.1a

EASTERN CAPE DEPARTMENT OF HEALTH

STANDARD SPECIFICATION

FOR THE

GENERAL MAINTENANCE AND REPAIRS

OF

VACUUM AND COMPRESSED MEDICAL GAS EQUIPMENT AT

VARIOUS HOSPITALS AND HEALTH FACILITIES IN

THE

CLUSTER ONE (1) - OR TAMBO AND ALFRED NZO DISTRICTS

OF THE EASTERN CAPE PROVINCE

CONTENTS

GM 1 GENERAL

GM 2 MAINTENANCE REQUIREMENTS

GM 2.1 CALL CENTRE

GM 2.2 ASSET TYPE LEAD CONSULTING ENGINEER

GM 2.3 CONTRACTOR'S RESPONSIBILITIES

GM 2.4 TASK ORDERS

GM 2.5 FUNCTIONAL CONDITION ASSESSMENT

GM 2.6 FUNCTIONAL CONDITION ASSESSMENT REPORT

GM 2.7 OPERATING AND MAINTENANCE MANUALS

GM 2.8 RATES

GM 2.9 REPAIR WORK

GM 2.10 MAINTENANCE WORK

GM 2.11 SUPPLY OF LABOUR, EQUIPMENT AND MATERIAL

GM 2.12 SITE MAINTENANCE RECORD KEEPING

GM 2.13 SERVICE SHEETS

GM 2.14 VOLTAGE SURGES DUE TO LIGHTING AND OTHER CAUSES

GM 2.15 SHEQ: SAFETY, HEALTH, ENVIRONMENTAL AND QUALITY

GM 3 MAINTENANCE CONTROL PLAN

GM 3.1 WORK QUALITY

GM 3.2 PRELIMINARY MAINTENANCE CONTROL PLAN

GM 3.3 MAINTENANCE CONTROL PLAN

GM 4 COMMUNICATION

GM 5 PERFORMANCE MEASUREMENT

GM 6 SPECIAL TESTING OF AN INSTALLATION

GM 7 MAXIMUM MAINTENANCE DOWN-TIME

GM 8 MEASUREMENT AND PAYMENT

STANDARD SPECIFICATION FOR THE GENERAL MAINTENANCE AND REPAIRS OF ELECTRICAL AND MECHANICAL INSTALLATIONS

GM 1 GENERAL

The successful Contractor will be responsible for, and is expected to, maintain all the plant and installations detailed in the Price List and the Inventory of Equipment attached to this Contract.

The intention of this comprehensive maintenance Contract is to assess the current condition of vacuum and compressed medical gas equipment, repair what is needed, and maintain all equipment included as part of the Contract, in such a manner that, except for normal wear and tear, their condition don't deteriorate during the initial Service Period of 36 (thirty six) months. Instruction to proceed with any work related to this Contract shall be authorized by means of a Task Order from the Service Manager.

As skills transfer are an integral part of this Contract the Employer's Operating and Maintenance staff will be responsible for all operating and daily inspections on the equipment, unless otherwise specified in the relevant asset specific Supplementary Specification and/or Relevant Price List.

The Contractor is required to provide pricing for the following items in the Contract as expanded on in this specification for each asset type and equipment quantity as covered by this Tender:

1. Verify the Assets and update the Asset Inventory List that is provided with this Contract;
2. Compile a Preliminary Maintenance Control Plan (Annexure I) to determine what routine servicing should take place on each type of equipment covered by the Contract, and at what frequency the services should take place during the Contract Period if this does not correlate to the Price List service frequency proposed by the Service Manager. With reference to the Price List and C3.1b Supplementary Specification requirements, the Contractor must submit an all-inclusive price and quantity of, for each Service Activity required. Service Activities may include Operations, Minor Services, Major Services or Statutory Inspections as detailed in the Supplementary Specification related to this bid as well as the Price List.
3. Cost to do a full functionality test and condition assessment of all equipment and installations included in the Contract (after Contract award), and provide a priced key spare part pricelist for this equipment;
4. Cost to provide a detailed Functional Condition Assessment Report based on the findings from the functionality test and condition assessment process.

It is to be noted that the aim of the maintenance Contract is NOT to replace random components at the beginning of the Contract in anticipation of a possible breakdown during the Service Period. Only known defects shall be repaired once approved by the Service Manager. It is the Contractor's responsibility to decide if he/she wants to visit each site and familiarize themselves with the actual condition of each installation before submitting a Tender, or to rely on the information as contained in the Inventory of Equipment that is attached to this Contract.

Maintenance of the installation shall be performed in accordance with the vacuum and compressed medical gas equipment **Service Information** which will include:

1. This Standard Specification for the General Maintenance and Repairs of Electrical and Mechanical Installations,
2. The Technical Specifications that may be applicable,
3. The Supplementary Specification for this Asset Type,
4. The Operating and Maintenance Manuals (where applicable) for this Asset Type,
5. Relevant Inspection Check sheets for this Asset Type,
6. The Maintenance Control Plan per Health Facility,
7. All relevant SANS Standards and Legislation that is referred to in the above listed documents, and
8. All relevant drawings forming part of this Contract.

The main mechanical and electrical sections of a facility with their subsections as set out in the Service Information and in the Price List will each be deemed "an installation". Maintenance, as specified, will be applicable to all these installations.

All Contractors are to undergo an approximately three-hour long Contractor's induction process before being allowed to work at any of the sites. This induction shall cover the General Rules for Contractors on Site, the penalty system applicable to this Contract, as well as the minimum work quality standards for the work to be done on site.

Major equipment replacement, major upgrades and/or redesigned functionality will be handled outside of this Contract via a separate projects program, and are therefore not part of this Contract. The maintenance and repair work phase will run parallel to each other at the same time.

GM 2 MAINTENANCE REQUIREMENTS

- i The Contractor will adhere to the Task Order and when completed, contact the Service Manager for formal approval and signing off, of the Task Order. The Engineering Representative will assist the Service Manager in verifying completed work.
- ii The Contractor is expected to be fully aware of his obligations in so far as this Contract is concerned and he shall attend to the maintenance procedure within the time limits specified for each class of maintenance procedure.
- iii The completed Task Order will be returned to the Service Manager, who will forward it to the Call Centre to log the completed Task Order into the system. When the completed Task Order is logged into the system the job will be closed.
- iv When a maintenance procedure cannot be completed within the specified downtime the Contractor should apply in writing to the Service Manager for an extension of time with reasons for the delay. This application should be submitted as soon as the details of the maintenance procedure and availability of spare parts are known.

- v The Call Centre Manager will submit a weekly response performance report to the Service Manager, who will make a decision on the implementation of penalties which will depend on the nature of each breakdown, as well as valid claims on delays received from the Contractor. The recorded report date and time as well as the recorded completion date and time will be regarded as sufficient and final proof for the proper administration of this aspect of the Contract.

GM 2.2 SERVICE MANAGER

Eastern Cape Department of Health's agent will be appointed as **Service Manager** (Project Manager) to manage and administrate all work and financial aspects related to this particular bid. He/she will be supported on the ground by an Engineering Representative to verify workmanship and compliance of completed activities to Contract requirements. The Service Manager will be responsible for the following:

1. Perform duties as per the NEC3 Term Services Contract Standard Clauses;
 - i. Ensure that either he/she, or the Facility Specific Site Representative, visit the Facility and compile reports on the status of the Facility infrastructure that forms part of this bid;
2. Liaise with the Call Centre and check on call outs;
3. Determine routine maintenance work to be done, and issue Task Orders for routine maintenance and repairs/refurbishment/upgrades (that was accepted by the Employer), to the relevant Contractor;
4. Consult and co-ordinate with the Program Lead Consulting Engineer as needed on specific maintenance aspects, designs and specifications to be done;
5. Assess the completed work for the assessment period, consider the payment applications lodged by the Contractor during this period, Certify the payment due, and issue a Payment Certificate for the accepted work as per the Standard Contract clauses;
6. Monitor the logging of regular maintenance work done;
7. Prepare reports on maintenance and repair work done;
8. Liaise with the hospital Site Representative regarding all work to be done on this asset type at the facility;
9. Liaise with management of the facility;
10. Obtain approvals from the Employer where required for

GM 2.3 CONTRACTOR'S RESPONSIBILITIES

The Contractor shall maintain the complete installation as specified in the **Service Information** for the full Contract period subject to the agreed repairs and performance criteria.

Maintenance implies and shall include routine preventative maintenance on a schedule as approved by the Service Manager, corrective maintenance, as well as breakdown maintenance of all components of the specified installation.

The Contractor shall be responsible to perform all tasks as specified in this specification, subject to the requirements of the NEC3 Term Service Contract Standard Clauses. In addition, the Contractor must:

1. Record work done, performance indicators, defects identified and/or corrected, and spares used;
2. Obtain work done sign-off on site as well as from the Engineering Representative;
3. Submit completed Task Orders and invoices to the Service Manager;
4. Attend scheduled project meetings with the Service Manager.

The Contractor shall, as part of his maintenance responsibilities repair or replace faulty equipment upon logging of a breakdown, within the down-time as defined in Paragraph GM 7, and against the Tendered rates as provided for in the Price List, and within the down-time as specified in the applicable Task Order. In the event of any repair item for which a rate is not available in the Price List, the rate as specified in the Task Order will apply.

GM 2.4 TASK ORDERS

All works required to be done by the Contractor will be instructed by issuing of a **Task Order** by the **Service Manager**. No Works shall be conducted without a Task Order.

The Call Centre may issue breakdown and defects correction/repair Task Orders to the Contractor at any time during the Service Period, but they must all be copied to the Service Manager. The time for the completion of the Breakdown Task Order will be as per the allowable response times in Table 1 in Section GM 7.

If the exact nature and possible cost of rectifying a breakdown is not known when the Breakdown Task Order is issued to the Contractor, the task order will be issued with provisional information and costs estimates. The Contractor shall respond to such a Breakdown Task Order by traveling to the site to evaluate the breakdown (scope of repair work), estimate the realistic cost as well as downtime and provide feedback to the Service Manager to form the basis of the revised Task Order.

Should the Contractor not be able to complete the Breakdown Task Order within the agreed and approved time for completion, it shall be the Contractor's responsibility to obtain an extension of time from the Call Centre Manager. The written report shall clearly state the reasons for requiring the extension, as well as the actual extension period required.

Should the actual time for completion of the Breakdown Task Order exceed the agreed time allowed, including any extension of time, the Contractor shall be liable for damages at the rate stated in the Task Order.

The Service Manager will issue Task Orders for the routine maintenance services, and approved repair/upgrade work once the Maintenance Control Plan has been approved and updated with the relevant information from the Repair Schedule as per GM 3.

Routine maintenance, approved repairs and breakdown repairs will all be done parallel to each other on the equipment as per the Maintenance Control Plan and Call Centre priorities.

GM 2.5 FUNCTIONAL CONDITION ASSESSMENT

Immediately after handing over of the site, and having attended the Contractor's Induction Training Session, the Contractor shall start with a **detailed functional test and condition assessment process** of the specified installation/equipment at each Health Facility and **submit a detailed report** to the Service Manager regarding the functionality, performance and condition of the equipment. It is this Contract's intention that this task be completed within **two weeks** of each site handover to the Contractor, but the Service Manager will arrange and agree specific deliverable dates for each Health Facility with the Contractor in this regard as part of the Contractor's Maintenance Control Plan.

The following work shall be carried out during the time allowed for the execution of the Functional Condition Assessment:

- **Verify the Asset Data** from the Asset Inventory List in C4.1, obtain the additional asset information that might be required for a specific piece of equipment, and update the Inventory of Mechanical and Electrical Equipment for each Health Facility with make and model numbers, capacities and general condition, year of manufacture (age), additional equipment to be added to the list, and equipment to be deleted from the list (i.e. equipment not on site anymore), etc., as per the fields provided in the format provided by the Service Manager after Contract award.
- **Prepare a clear A4 size line drawing** of the building/ward/room in which the plant is installed, typically as per one of the two examples below, and show positions of the equipment schematically on this drawing. Please provide basic information regarding the general condition of the room/facility/building where the asset is located (this will assist to provide information to the facility repair teams), next to, or below the line drawing; One line drawing per location per Health Facility must be provided and can be hand drawn, provided that the drawing is clear, neat and all info is readable. Where applicable the position of the equipment on the walls must be shown
- Record the number/name of each piece of equipment on the line drawing. If no name/number exists on the equipment itself, allocate a descriptive number (i.e. Washer) and mark this on the equipment with a black permanent marker pen. Reference shall be made to this ID number in the defects listed in the Repair Schedules for each item of equipment to identify the equipment accurately.
- **Verify what spare parts (if any) are available** on site for the equipment covered by the Contract, as well as the condition there-off;
- **Compile a Priced Spare Part List**, (based on the Contractor's cost price for the spares) for the relevant spare parts required for a repair of all the types of equipment listed in the Asset Inventory, and indicate on this list what spares should be kept in stock on site for use by the site maintenance staff. The Employer however retains the right to negotiate the offered spare part prices with like type spares prices solicited through the Tender process, if they are not in line with national price norms.
- **Inspect the condition and test the functionality** of all components of the installation to confirm the extent of the repair work required (if any). If the equipment is not in an operable state record this and proceed with item 7 below;
- **Verify if the equipment meets current standard technical specifications** for the specific application (*for example: a split system air conditioner may be functionally good and serviceable, but does not meet the criteria to operate inside an operating theatre or infection control area*). Advise on an alternative if applicable. Please consult the Facility Manager when doing the assessment to get information regarding any issues that they are experiencing with the equipment.
- **Verify the estimated remaining service life** for the equipment based on the equipment's age and current condition. If the equipment is old and in a bad state it might be more cost effective to replace the unit rather than rebuilding it. Please advise in this regard;
- Should it be impossible to determine the details of the defect without dismantling the machine/equipment item, the Contractor shall nevertheless prepare an estimate with a cost breakdown for repairs he/she anticipates will be needed. After a written instruction has been received to repair the machine/equipment item, the final cost will be determined after the machine/equipment item has been dismantled for repairs. **Equipment shall not be dismantled for inspections during the equipment functional condition assessment period.**
- **Compile a detailed Repair Schedule for each separate equipment unit (machine).** This Repair Schedule will consist out of a clear identification of the equipment unit, a detailed

description of what is wrong with the equipment unit, a detailed repair or replacement method statement (and explanation on why it is recommended that the unit be replaced if applicable), and an accurate detailed quote, with estimated lead times and a high-level project plan to enable the work to proceed if the approval to do so is granted by the Service Manager via a Task Order. (See GM 2.8 for the rates requirements)

- The Employer does not guarantee that any, or all, of the repairs/replacements recommended via the repair schedules, will be accepted for implementation by the Contractor. Accepted Repair Schedules will however become part of the Final Maintenance Control Plan once approved by the Employer, and will then be included in the work scheduled for this Contract. Depending on the cost and complexity, equipment replacement recommendations might be transferred to the Repair Project Work Stream of the Employer's Mechanical and Electrical Equipment Repair Programme.
- **Compare the identified defects of each item of equipment with the components already included under the standard minor and major services scopes** in the Contract Price List, and remove costing for these from the repair requirements. Include all identified defects into the Functional Condition Assessment Report, but only price the defects not covered by the standard servicing scope of works. (See GM 3.2 (3) for costing of the standard services)
- Where applicable, **obtain copies of Statutory Inspection and Test Reports** from the Health Facility (if available) and attach these to the Defects Inspection Report.
- **Submit the detailed Functional Condition Assessment Report** to the Services Manager who shall thereafter demarcate any areas to be repaired and forward this information to the Contractor. Once approval is granted, the Service Manager will instruct the Contractor about the repair work to be done.

GM 2.6 FUNCTIONAL CONDITION ASSESSMENT REPORT

A Functional Condition Assessment Report must be compiled for each Health Facility, and shall contain the following:

1. The updated Asset Inventory List (both hard and electronic copies) completed in the Excel Format provided by the Service Manager after Contract Award;
2. Clear location identifiable layout line drawings of the equipment, with ID numbers and brief room/facility/building condition description as per GM 2.5 (2)
3. A list of spare parts, and their condition, that is currently available on site;
4. A priced spare part list of the typical spare parts that might be needed to do repairs on the equipment if it should breakdown or fail. The Contractor must also indicate on this spare part price list which consumable spare parts (i.e. fanbelts, filters, oil, fuses, light globes, etc.) that can be replaced by the site maintenance staff, should be kept in stock at the Health Facility;
5. A summary of the equipment per Health Facility indicating:
 1. Condition;
 2. If the equipment meets current technical specifications;
 3. Estimated remaining Service life before replacement will be due; and
 4. Recommended work to be done (i.e. service only, minor repairs required, major repairs required, replacement or upgrade recommended).
6. A Repair Schedule for each repair that is required. This information will be used to populate the Task Orders for accepted repairs, or feed the Tender document information in case it is moved to the Project Work Stream;

7. A description of the defect for which repair work is not easily identifiable with an estimate of the final cost for repairs. This item will typically apply to breakdowns or defects where the machine or equipment must be de-commissioned and at least partially dismantled before the extent of the work can be fully established;
8. Compile a list of equipment for which a Statutory Inspection and Test is, or will become due during the Contract period. Copies of previous Inspection and Test Certificates to be attached to the report (if available).

Should the Contractor not be able to complete the Functional Condition Assessment Report within the period as specified GM 2.5, it shall be his responsibility to obtain extension of the Functional Condition Assessment period from the Service Manager. The written report shall clearly state the reasons for the extension, as well as the actual extension required. An extension of time shall only be considered by the Service Manager if the Engineering Representative believes the Contractor has carried out the already completed portion of the report with the due diligence and attention to detail.

Should the actual time for the completion of the report exceed the specified time for completion, including any extension granted, the Contractor shall be liable to a payment reduction for the difference between actual and approved completion periods. The value of the payment reduction for each health facility shall be as specified in Section X18 of the Secondary Options Clauses of the Contract.

After the repair phase work and costs have been accepted, the Contractor shall commence with the known and approved repair work only after site access for repair work has been approved and the Task Order issued. The Contractor shall complete the work within the period allowed for the repair work as specified in the applicable Task Order.

GM 2.7. OPERATING AND MAINTENANCE MANUALS

The Contractor shall, where specified, and as part of the repairs to each installation, compile and submit a comprehensive Operating and Maintenance Manual based on the Original Equipment Manufacturer's requirements. The Contractor shall ensure through training that the operating and maintenance personnel of the Health Facility are conversant with the instructions as presented in the Operating and Maintenance Manual, as per SS 8 and SS 9.

The Operating and Maintenance Manual, as accepted by the Service Manager, shall be used as a basis for preventative maintenance. The Contractor shall perform all preventative and corrective maintenance as described in the Operating and Maintenance Manual. This shall be in accordance with the Standard and Supplementary Specifications.

The Operating and Maintenance manuals must be based on the updated Inventory of Equipment (C4.1) data after completion of the Functional Condition Assessment, and shall be updated with respect to Make, Model Number, Capacity and any other relevant data.

The Contractor must provide three (3) sets of each required Operating and Maintenance Manual as follows:

1. One set to be installed at a suitable position on a short chain, against a wall in the room/area where the equipment is located, or as otherwise instructed by the Service Manager for outside and spread out equipment;

2. Two sets to the Services Manager.

The Operating and Maintenance Manuals must be delivered as soon as possible after the Functional Condition Assessment Report has been completed. Also see Section GM 3.3 (15).

Where several of the same equipment is in the same room/area, only one set of three Operating and Maintenance Manuals is required. If the same equipment is spread out throughout the health facility the Contractor must install one Operating and Maintenance Manual near each one, or group of the equipment unless otherwise instructed by the Service Manager. This does not apply to equipment like split air conditioners, etc. for which only one set of three Operating and Maintenance Manuals per make and model will be required. The Service manager will instruct the Contractor where to install the chained Operating and Maintenance Manual for equipment like air conditioners.

The Contractor will be required to install several Document Consoles (storage and writing platform units) with sleeve anchors or bolts, into the walls at different locations of each Health Facility, to secure and store the chained manuals and maintenance logs. A Provisional sum will be included for this in the Price List.

GM 2.8. RATES

Scheduled work is all planned routine servicing of the equipment at the all-inclusive Contracted Rates contained in Schedule 3 of the Contract. Unscheduled work is all repairs, breakdowns, special maintenance activities, special tests and/or replacement tasks, that is ordered via a Task Order by the Service Manager, in addition to the scheduled work. Payment for this work will be based on the Contracted Rates from Schedule 4.

Where no rates exist in the Contract, the itemized breakdown shall be accompanied by documentary proof from the Supplier, Manufacturer, Engineering Works, etc., where materials were bought or services out-sourced from. The Employer however retains the right to verify and test these rates against the market.

The Contractor shall submit quotes for all Unscheduled work with an itemized breakdown of the total cost involved for acceptance by the Service Manager, in a quotation as detailed below:

GM 2.8.1 MATERIALS AND OUTSOURCED SERVICES

Unscheduled:	List	all items with quantities and rates as per quotations or price lists obtained from suppliers or service providers (proven reasonable cost), and attach a copy of the quotation/price list to the quotation. Apply the Direct Fee Percentage (Mark-up %) to all proven reasonable material costs and outsourced services. Direct Fee % (Mark-up %): Mark up percentage on proven cost to cover P's & G's, overheads, profit, etc. as per Schedule 4 based on NEC3 TSC Contract Data.
Scheduled:		All materials required for Scheduled Servicing are included into the pricing for the Service as per Schedule 3.

GM 2.8.2 LABOUR

Unscheduled:	List time required for travelling to and back from site (subject to conditions contained in GM 2.8.3 below), actual repair and/or replacement, testing and commissioning time of all
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unscheduled items at the applicable labour rates as stated in Schedule 4. No Direct Fee % will be applicable to Contracted labour rates.

Scheduled: Cost is included in Service costs as per Schedule 3.

GM 2.8.3 TRANSPORT AND ACCOMMODATION

Unscheduled:

Traveling and Accommodation claims will be subject to the condition contained in GM 2.8.4 below. Travelling cost will be as per the rates for reimbursable expenses published monthly by the National Department of Public Works applicable at the time of rendering the service/repair. Allow for the actual distance travelled (and specify the reason for the traveling). All travel time and disbursements need to be supported by a Google Maps route planner printout for proof of travelling distance and time. Kilometre claims can be claimed from point of departure to destination and back, but must be linked to the indicated kilometres as per the Google Map attached and referenced to. The Contractor must submit proof of registration to verify the engine cubic capacity of the vehicle, in respect of any vehicle to be claimed for. Allow for the actual accommodation and disbursements (and specify the reason for the accommodation requirement) at the rates as per Schedule 4. **Trips must be combined with Scheduled Servicing trips where possible, to minimize additional expenditure. Trips will be in accordance with the approved Maintenance Control Plan.**

GM 2.8.4 The Employer requires that the Contractor be based in a location inside the Cluster or District Area that the Contract is awarded for.

The home base (departure point) must therefore be located inside the Cluster Area. If the Contractor does not have a home base in the Cluster Area, the traveling rates (for both distance and labour) will be calculated based on a location inside the Cluster which will typically be the largest Town or City located inside the Cluster or District, as may be applicable as instructed by the Service Manager.

GM 2.8.5 PROVISIONAL SUMS

It is the Employer's sole discretion to decide on spending any, all or none of the Provisional Amounts listed in the different Price List Schedules of this Contract.

GM 2.9 REPAIR WORK

GM 2.9.1 Definitions

1. Defect

For this maintenance Contract, a defect shall mean a deficiency in any component of an installation which impairs the functionality of that component or equipment. Worn parts of a component which do not impair the functionality and/or performance of the component will not be regarded as a defect.

Defects may be classified in the following three groups:

1.1 Type A defect

Those deficiencies which can be rectified by proper maintenance only, i.e. set parameters of a control system, proper lubrication, balancing, alignment, set pressures on safety valves, cleaning and de-staining, etc.

1.2 Type B defect

Those deficiencies which can only be rectified by replacing parts of, or the complete component as in the case of a breakdown or where a certain amount of upgrading is necessary such as the provision of anti-vibration mountings, removal of rust and re-painting, etc.

1.3 Type C defect

Those deficiencies which are visible but which do not impair on the functionality of the installation or system yet, such as structural cracks in parts of a component, rust, bad workmanship during a previous Contract, etc.

Components in which abnormal noise and/or vibration is present shall be serviced in accordance with the Manufacturer's recommendations and if the noise and/or vibration persists, the deficiency will be classified as a defect.

2. Repairs

Repairs of an installation shall mean the elimination of the deficiencies classified as types B and C defects in Paragraph (1.) above.

The specific repair phase commences as indicated on the Task Order issued by the Service Manager for each approved repair. The repairs must be completed within the period as determined by the Task Completion Date as stated in the Task Order. Delay damages for late completion will be applicable as indicated on the Task Order.

Depending on the nature of the work and availability of funds access may be given at any time during the Service Period and not necessarily directly after site hand-over.

A representative of the user department or person in charge of the plant, system or building shall endorse the schedule after completion of the maintenance or servicing procedure to the effect that the maintenance or service is, to his opinion, completed satisfactorily and shall countersign the service schedule. Where necessary the Site Representative will inspect the work done and report his findings to the Service Manager.

GM 2.9.2 Scope of Repair Work

The repair work shall be completed within the time allowed for repairs for each installation as defined in the applicable Task Order. If the work is to be carried over two or more financial year's the work will be segmented and prioritized according to the Final Maintenance Plan. The Contractor will be informed of the work to be completed within each financial year. **The starting date for repair work for the current financial year will be the date of acceptance of the measured Price List from the Functional Condition Assessment Report.** The starting dates for subsequent years will be on 1 April of that particular year.

All repair work shall be executed using resources (labour, equipment materials and spare parts) that comply with the requirements of GM 2.11.

The said repair work shall be executed in accordance with the relevant codes of practice, standards, regulations, municipal laws and by-laws, manufacturers' specifications and codes of practice included in this specification.

GM 2.10 MAINTENANCE WORK

Maintenance work commences with the acceptance of the Tender bid and expires at the end of the Service Period. As compensation, the Contractor is paid the **remeasured** Contracted quantities, distributed in agreed intervals and amounts over the Service Period as per the Final Maintenance Control Plan, at the rate Contracted for the applicable maintenance work, subject to the requirements of GM 8.

GM 2.10.1 ROUTINE PREVENTATIVE MAINTENANCE

This entails the rendering of services and servicing of equipment according to a predetermined Maintenance Control Plan to:

- i. Repair, lubricate, clean and service components of equipment, units or parts thereof for each installation at pre-scheduled intervals regardless of condition;
- ii. Re-adjust, reset, clean, balance, corrosion protect all components of equipment, units or parts thereof for each installation, and
- iii. Carry out all necessary and implied actions to maintain installations in a functional condition (i.e. replace or clean filters, replace or top up fluids, etc.)

Preventative maintenance shall be aimed at prevention or at least minimization of breakdowns.

GM 2.10.2 CORRECTIVE MAINTENANCE

This entails regular observation of the equipment, identifying impending breakdowns, maladjustment or anomalies of equipment, units or parts of installations and subsequent action to restore installations to a fully functional condition before a breakdown occurs.

The Maintenance Procedures for Corrective Maintenance shall be compiled by the Contractor and is included in the Maintenance Control Plan for each system or plant. Inspection items shall include, inter alia, the following:

Checking for:

- Unusual noise and vibration;
- Abnormal surface temperature of machines such as electric motors;
- High temperatures of equipment and wiring inside switchboards;
- Incorrect settings or operation of safety devices;
- Alarm conditions of any instrument or control panel;
- Gas or fluid leaks from the equipment or associated piping systems.

The frequency of corrective maintenance shall be determined by the Contractor himself in line with the recommendations from the Operating and Maintenance Manuals, and actual operational environment where the equipment is operating. This may vary from once every day for high-risk, sensitive installations to once a month for low-risk installations such as exhaust fans and office air conditioners. The frequency of corrective maintenance must be accepted by the Service Manager in the Maintenance Control Plan.

GM 2.10.3 BREAKDOWN MAINTENANCE

This entails repair and/or replacement of defective equipment, units or parts of installations following a breakdown that leaves the installation inoperable or unsafe, and subsequent action to restore the installation to their normal functional condition, within the maximum down-time allowed.

Breakdown repairs will be controlled via the Call Centre and approved Breakdown Repair Task Order process as per GM 2.1. A provisional amount will be included in the Contract Price List Schedules to cover Break Down Task Order expenditure.

GM 2.10.4 COMMENCEMENT OF SERVICE PERIOD

The Contractor shall accept full maintenance responsibilities for each installation from the date on which the site has been handed over to the Contractor. **An annual maintenance service shall be carried out on all installations during the period in which the Defects Inspection Report is compiled, or as soon as possible thereafter.** If the current statutory compliance of a qualifying asset cannot be verified with the correct documentation of proof, a statutory inspection must be performed immediately after the first annual service has been completed.

For equipment or installations where the complete installation is shut down for the repair phase, no maintenance services will be required during the repair period.

GM 2.11 SUPPLY OF LABOUR, EQUIPMENT AND MATERIAL

1. Labour

Only competent, qualified personnel shall be allowed to execute all maintenance work.

2. Equipment

All tools, equipment and consumables required for performing maintenance work shall be supplied by the Contractor at his own cost (except where otherwise agreed to in writing and provided by the Employer). The Contractor may use already installed Employer equipment such as crawl beams and crawls, etc. provided that they obtain written approval from the site Maintenance/Technical Manager to do so. Such site approval will be based on the serviceability of the equipment, and upon confirmation of the Contractor's competency compliance in being able to use and operate this equipment during maintenance.

3. Materials and Parts

All materials, spare parts, components, equipment and appurtenances necessary for the complete maintenance of each installation shall be supplied and installed by the Contractor **at the rates and quantities as instructed by the Service Manager**, after the Functional Condition Assessment Report as specified in GM 2.5 has been accepted.

Only original parts as specified by the Original Equipment Manufacturer may be used for replacement purposes. Generic or alternative parts will only be allowed if they comply fully with all the specifications of the original parts, but may only be used upon written acceptance by the Service Manager.

Substitute electronic components will be acceptable, **PROVIDED** that they are equal to, and

of the same quality as, or superior to, the original components and are accepted, in writing, by the Service Manager.

All parts, spares and materials which are used, shall conform to the applicable SANS Specifications and shall, where possible, carry the SANS mark of approval.

Substitute parts, as well as the serial numbers (where available) of the original and new components, shall be entered on the service sheets and in the maintenance/repair log-book.

The Contractor shall obtain, and cede any supplier's or factory guarantee of repaired or replaced components to the Employer. All workmanship, new equipment, materials, components, systems, etc. used for servicing and repairs shall be guaranteed for 12 months unless otherwise agreed to in writing with the Service Manager. The guarantee cards for repaired or replaced components or equipment shall also be attached to service sheets and the maintenance/repair log-book. New equipment and system installations will in addition to the above requirements also have a twelve (12) month defects liability period, valid from the date of successful commissioning and hand over to the Employer as acceptance by the Service Manager.

All scrapped and/or removed parts and equipment that might be installed elsewhere, or that will not be returned to service again, must remain on site after removal or disassembly of the equipment as they remain the property of the Employer. The Maintenance/Technical Manager of the facility will indicate to the Contractor where to place these items after removal. Removal of any parts and/or equipment for whatever reason from site, may only occur with the written approval to do so by the Maintenance/Technical Manager subject to the rules and regulations that the Employer has in this regard.

GM 2.12 SITE MAINTENANCE RECORD KEEPING

The Contractor shall provide and maintain hard-cover A4 size maintenance files for each installation for the duration of the Service Period. Copies of all schedules, checklists, breakdown reports, preventative maintenance records, component replacement records, service sheets, etc. shall be filed in these.

An A4 size register book shall be kept for all work performed on the equipment, to state the service technician's name, surname, date of work performed, and a short description of the work performed. This book must be installed on a short chain next to the relevant Operating and Maintenance Manual as per GM 2.7.

Copies of the site maintenance records and all service sheets, shall be submitted to the Service Manager at each monthly meeting, while copies of the service sheets must also accompany all claims and invoices.

Statutory Logbooks must be supplied and maintained on site for all statutory equipment such as pressure vessels, boilers and lifts.

GM 2.13 SERVICE SHEETS

Every service, repair, test, inspection, etc. related to the maintenance portion of the Contract, shall be fully described on a service sheet which must be completed and signed by the Contractor and attached to the Task Order when it is returned to the Service Manager. The following minimum information shall appear on service sheets:

- The company name and address;

- A unique work sheet serial number;
- The corresponding Task Order unique number;
- The district and health facility names;
- The building/area name or alternatively the building/area code;
- The plant identity code and description;
- The nature of the call, i.e. P1, P2, P3 or P4 (see GM 7);
- A general description of the problem or purpose of the work to be done, alternatively the complaint as received by the Call Centre;
- A statement as to whether the individual system is operational or not in terms of the specification;
- Should the system not be operational (in case of a breakdown) the response time and repair time shall be recorded individually and details of a preliminary service sheet shall be forwarded to the Call Centre Manager;
- The description of the repairs/replacements carried out on each machine/equipment item on that specific system;
- A list of materials used for each machine/component. Where scheduled items are used, only the description can be listed. For non-scheduled items, a copy of the quotation must be attached to the service sheet;
- A detailed report on the extent of the work done together with the total cost involved;
- Suggestions to avoid similar future problems;
- A list of the Contractor's personnel responsible for the work with the date, starting time, completion time, distance travelled, and any accommodation and S&T costs;
- Signature and name of the responsible Employer site technician/artisan/engineer and the Site Representative, confirming the work was completed to the required quality and performance standards, and that the equipment is operational again;
- Signature and telephone number of the User of the equipment or the person who initiated a call or Task Order (if it was a defect, or breakdown).

Service sheets shall also be used for normal routine maintenance services and other non-maintenance activities such as training of the health facility's operating and maintenance personnel and administration duties of heads of firms when managing the Contract.

The Service sheets shall be completed in three categories as follows:

1. **For repairs on machines:** The same data as above must be captured with one service sheet to be completed for each repair (See below for grouping of like type equipment for servicing).
2. **For normal maintenance on an installation:** The same data as above must be captured with one service sheet to be completed for each service (See below for grouping of like type equipment for servicing).
3. **For Administration and Training:** In this case only the name of the Head of the Company is required on the service sheet with no other reference to Building- or Plant codes or machine ID numbers. A full description of the service provided must be included.

Copies of the completed Service Sheet and Task Orders must be attached to all invoices and shall be submitted to the Service Manager for discussions and acceptance.

An example of the Service Sheet is attached to the Contract Documentation as C7.

The standard requirement for normal services carried out on a specific plant is to complete one service sheet for all the equipment within any one building. This standard requirement applies to installations where all such machines can be serviced within a period of approximately five working days, but all equipment serviced must be listed on the service sheet.

For larger installations where the time required for a maintenance service is more than five working days, the machines may be grouped together to form several groups within the building with the provision that each group can be serviced within a period of approximately five working days. One service sheet shall be completed for each group in a building, but all equipment included in the group must be listed on the service sheet.

For smaller installations where the complete installation inside a building can be serviced in less than one working day, the installations in more than one building may be grouped together, but all the equipment covered by the service sheet must be listed.

The definition of the groups must be determined by the Contractor and clearly specified in the Maintenance Control Plan for acceptance by the Service Manager.

GM 2.14 VOLTAGE SURGES DUE TO LIGHTING AND OTHER CAUSES

The area in which most of the sites are situated is known for heavy lightning storms. Damage caused by voltage surges due to lightning, phase imbalance, low and high voltages, power failures, etc. will be dealt with in the same manner as any other breakdown. Contractors are advised to investigate available surge protection systems, if any, on each plant during the Functional Condition Assessment stage, and to decide for themselves whether additional protection will be required or not.

The provision of additional surge protection systems shall form part of the repair activities, if accepted by the Service Manager, and the cost thereof must be allowed for in the Functional Condition Assessment Report.

Contractors may as an alternative provide and install one or more Universal Disturbance

Analysers to record any voltage surges at their own cost. Breakdowns caused by voltage surges which can be proved beyond any doubt will be dealt with in the same manner as operational damage and other normal breakdowns.

GM 2.15 SHEQ: SAFETY, HEALTH, ENVIRONMENTAL AND QUALITY

The Contractor must comply with all the Safety, Health, Environmental and Quality requirements as per C3.2 and GM 3.1, and must provide pricing to cover all the applicable requirements under this specification. The Contractor must take note of any specific Safety, Health and/or Environmental risks that might be highlighted in section SS 13.

GM 3 MAINTENANCE CONTROL PLAN

The Contractor is responsible to compile a detailed Preliminary Maintenance Control Plan (Annexure I) as per GM 3.2 which he need to submit with his Tender Bid. This plan must contain the details of what maintenance will be done (itemized), how often, what resources will be involved, what spares and consumables will be used, how long it will take to perform the work, and the cost breakdown per service for a specific Asset Type. The Service Manager gave service interval recommendations in Schedule 3, but the Contractor can recommend alternative intervals for consideration and approval by the Service Manager.

After Contract Award the Contractor will be required to expand the Preliminary Maintenance Control Plan to a Health Facility specific plan for each asset type with the assistance of the Service Manager.

GM 3.1 WORK QUALITY

Maintenance quality control shall be the responsibility of the Contractor who shall introduce a Maintenance Control Plan to assist him in ensuring that all preventative, corrective and breakdown maintenance is performed as described in the Service Information. The Contractor will be responsible to correct any sub-standard work that is discovered after the Contractor has done his work. The rework will be for the Contractor's own account and must be signed off by the Site Representative after completion.

If the Contractor fails to remedy any sub-standard work within the time frame stipulated by the Service Manager, the Service Manager may at his/her discretion appoint another Contractor to execute the repair work. In this case, the replacement Contractor will be paid with the funds that were earmarked for the first Contractor to do the work, and the first Contractor will not be paid for that specific work.

GM 3.2 PRELIMINARY MAINTENANCE CONTROL PLAN

A preliminary version of the Maintenance Control Plan, based on the Asset Inventory Data, must be submitted with the Contractor's Tender bid. This plan is a high-level plan on what maintenance tasks the Contractor will be performing on all the equipment across all Health Facilities covered by the Contract and must be completed on the forms of Annexure I. The information from the Preliminary Maintenance Control Plan will be expanded into that of the final Maintenance Control Plan as specified in Section GM 3.3 below. Details contained in this preliminary Maintenance Control Plan shall include:

1. A Maintenance Schedule containing all the different tasks that will be performed on all the equipment covered by this Contract, and captured on the **Preliminary Annual Equipment Maintenance Schedule** Form contained in Annexure I.
2. A brief Capacity Statement where the Contractor describes his company's capacity and experience that will be applicable to this Contract. This must include a description and location of his home base (workshop/home/bakki based, number of staff with qualifications and experience, what staff and/or Sub-Contractors will be used to support on the Contract, available tools and/or specialized equipment, transport capacity and where staff will be based, as well as capacity/ability to repair defective equipment (i.e. overhauling a pump or compressor);

3. A detailed **Maintenance Task Planning Sheet** (See Annexure I) for each of the Minor, Major, and other, service activities priced in the Price List. This Maintenance Task Planning Sheet will describe the pricing and details of scheduled maintenance activities to be performed during services conducted as per the recommendations of the **Preliminary Annual Equipment Maintenance Schedule**, and will also be used to populate the respective Task Order. These prices must be all inclusive and must include all labour, service parts, lubricants and consumables, special equipment (if required), accommodation (if applicable) and any travelling and subsistence costs, etc. that might be applicable to do the service. The service price must indicate clearly if more than one piece of equipment will be combined for servicing during a single trip to avoid double payment for Travel and Subsistence related payments by the Employer.
4. The service methodology;
5. Preliminary grouping of equipment for maintenance purposes as per GM 2.13 (if applicable);
6. A breakdown of which sub-Contractors will be used (as per T2.2c), and for what activities, by the Contractor in rendering the services required by this Contract **Sub-Contractors must also be registered on the Treasury Central Supplier Database**

GM 3.3 MAINTENANCE CONTROL PLAN

One Maintenance Control Plan must be compiled for each Health Facility covered by the Contract. The Maintenance Control Plan shall be based on the Contractor's Preliminary Maintenance Control Plan information, and updated with the findings and data from the Functional Condition Assessment process. The Maintenance Control Plan shall be bound in a neat, A4 sized, ring bound document with a cover page and back cover and an original copy presented to the Service Manager. The contents of the document shall be indexed.

The Maintenance Control Plan will become the main plan for all work to be done under this Contract, as per the Main Contract Clauses, after the Contract has been awarded.

When the documents are compiled, the Contractor may reproduce relevant paragraphs from any of the specifications forming part of the Contract documents, or Operating and Maintenance Manuals, but should there be any discrepancies between such paragraphs and paragraphs in the Maintenance Control Plan and those in the Contract documents, those in the Contract documents shall be regarded as being correct and shall apply.

The Maintenance Control Plan shall also contain the following in addition to the items listed in Section GM 3.2:

1. Detailed Maintenance Schedule per equipment type, per Health Facility on the **Annual Equipment Maintenance Schedule Asset Specific** Form;
2. Remeasured service quantities for the routine services of Schedule 3 in the Price List, based on actual equipment condition and the ability to perform a service on them or not in their current condition. **The Contractual payments will be based on these remeasured quantities, accepted by the Service Manager, and not on the original Tendered quantities which might have been based on incorrect information at the time;**
3. A risk register containing all the foreseen risks that can have an impact on the cost and/or deliverables of this Contract as per the NEC3 Term Service Contract Standard Contract Clauses numbers 11.2(14), 16.1, and 16.4;
4. A summary of the repair and maintenance work to be carried out in terms of the Contract giving details of the conditions of the various installations at the facility affected by the activities under the Contract.
5. Details of how the Contractor intends to carry out the various types of maintenance work

especially breakdown maintenance should breakdowns occur.

6. Details of the procedures agreed upon between the Service Manager and the Contractor on how breakdown calls will be handled (Call Centre process).
7. A list of organisations and persons directly involved with the Contract or whose requirements must be considered during the entire Service Period. Each person's position within his organisation as well as the applicable phone numbers shall be given. (See T2.2c)
8. Details of monthly meetings (dates, times and venues) to be held between the Contractor, Employer Representative and Site Representative.
9. Service Sheets and Reports to be submitted after every routine inspection (a copy of all reports, checklists, breakdown records, etc. for each system of an installation shall be kept on the site in a hardcover file);
10. A priced spare parts list for relevant spares that might be required for repairs and/or breakdowns for each equipment type. The Employer retains the right to negotiate the listed prices based on price comparisons with like type spares prices solicited through the Tender process;
11. A recommended spares list for items that should be held in stock at the facility;
12. Copies of the Repair Schedules from the Functional Condition Assessment process that has been approved to proceed;
13. An updated Cost Forecast of the estimated final total of the Prices for the whole of the services in consultation with the Service Manager at intervals as stated in the Contract Data Clause 20.5;
14. Procedures to address complaints and logged breakdowns.
15. Details of reports in electronic format, summarizing all inspections, together with inspection data such as nature of test, names of persons carrying out tests and inspection results. Detail of repairs and replacements, together with testing of repaired equipment shall also be reflected in this report, and shall be obtained from the service sheets.
16. Assistance to be given to the Service Manager and Engineering Representative with decisions regarding material, equipment and other recommendations.
17. An updated list of the inventory of equipment complete with the ID number (if available), make and model number, serial number, year of manufacture/age and capacity.
18. The Maintenance Control Plan shall be upgraded when its contents are no longer representative of actual conditions.
19. The Contractor shall check the contents of existing Operating and Maintenance Manuals (if available) and shall update or modify them and then incorporate applicable data into his own manuals. Where no manuals exist, the Contractor shall draw up his own Operating and Maintenance Manuals based on the OEM Operating and Maintenance manuals as per the requirements of GM 2.7.
20. The way maintenance data as recorded on service sheets will be captured and processed for submission to the Services Manager, for invoicing, and as part of the maintenance report. Pertinent data contained in the Operating and Maintenance Manuals may be transferred to the Maintenance Control Plan to make it a document which can be used as an independent handbook for maintenance work in future.

The Maintenance Control Plan (Paragraph GM 3.3) will provide, after agreement between the Contractor and the Service Manager, with the assistance of the Site Representative, for the following communication procedure to be implemented:

1. The Contractor shall establish a telephone and fax line and a cellular telephone connection to ensure that he can be reached at any time.
2. Should the Service Manager determine or suspect that preventative, corrective or breakdown maintenance is required, a call shall be logged through any communication channel available to reach the Contractor as soon as possible. This will be followed up with a Task Order.
3. Maximum down times will be as described in Paragraph GM 7.
4. All breakdown calls from the Health Facility will be reported to the Call Centre who will follow the procedure as detailed in Section GM 2.1.

GM 5 PERFORMANCE MEASUREMENT

The Contractor's performance shall be measured against the criteria specified in Section X20 of the Secondary Options Clauses of the Contract and C1.2b Annexure CD.

Poor performance by the Contractor will lead to penalties being imposed by the Service Manager as per X17 and C1.2b Annexure CD, and can lead to early termination of the Contract.

GM 6 SPECIAL TESTING OF AN INSTALLATION

An amount has been allowed in the Price List to cover the cost of additional tests that the Service Manager may request at his own discretion from time to time on the equipment and installations covered by this Contract. The Service Manager will have the sole authority to spend the amount or part thereof under sub-paragraph.

The Service Manager reserves the right to select, at random, component equipment and trade practices to be tested by the Contractor or independent authorities for compliance with specifications as specified in this Contract document.

The Contractor shall provide all equipment, tools and instruments required for such testing.

The Service Manager shall upon completion of the tests or inspections issue an inspection report including any corrective actions (if any) to be taken by the Contractor.

The Contracted markup percentage will be paid to the Contractor on the value of each payment made to the approved testing authority if any special testing is ordered by the Service Manager.

GM 7 MAXIMUM MAINTENANCE DOWN-TIME

After a breakdown, defect or complaint has been logged the Contractor will be expected to remedy the defect in the system/component with as little delay as possible, notwithstanding the maximum down-time allowed and listed in the following paragraphs or as stipulated in the Task Order. **Should the Contractor not respond within the maximum down-time, the Service Manager may arrange, at the cost of the Contractor, for the necessary repair work to be done by others.**

The Contractor shall respond to a breakdown registration by traveling to the site to evaluate the breakdown (scope of repair work), estimate the realistic cost as well as downtime and provide feedback to the Service Manager and Site Representative to form the basis of a Task Order.

Should the Contractor not be able to complete the required repair work within the maximum down-time period allowed, it shall be his responsibility to obtain extension of down-time from the Service Manager. The written report shall clearly state the reasons for the extension, as well as the actual extension required.

Extension of down-time will only be granted by the Service Manager if:

1. The maximum down-time is unreasonable in relation to the scope of the repair work required.
2. The delivery time of a new component/subassembly/machine or spares required for the repair of the defective component/subassembly does not enable the Contractor to successfully complete the repair work within the maximum breakdown down-time allowed.

Should the actual down-time exceed the maximum down-time, the Contractor shall be penalized as per X17 and C1.2b Annexure CD.

PRIORITY	DESCRIPTION	RESPONSE
P1	Emergency (Life Threatening)	Immediate response from the time of logging a call and the emergency to be resolved (at least temporarily) within 8 hours
P2	Urgent	Immediate response from the time of logging a call and to be resolved within 12 hours
P3	Planned Maintenance Repairs	Scheduled Maintenance is to be scheduled and performed within 3 business days of the scheduled date
P4	Emergency Facility Repairs	7 Days planning and execution subject to supply chain regulations

Table 1: Maximum allowable response times

"Maximum down-time" shall mean the period of time allowed to repair a breakdown, and "actual down-time" shall mean the measured period from the instant when the breakdown was reported or located until the installation has been repaired to its functional specification.

A guideline classification for typical P1, P2, P3 and P4 breakdowns for each installation are specified in the Supplementary Specification for each asset type.

The job card (Task Order) issued for the repair will state whether the repair is regarded as P1, P2, P3 or P4 and it will be required of the Contractor to react accordingly.

GM 8 MEASUREMENT AND PAYMENT

Measurement and payment will be done as per the Secondary Options Clauses of the Contract. See X1, X13, X17, X18, X19 and X20, supplemented by C1.2b Annexure CD.



PART C3.2

EASTERN CAPE DEPARTMENT OF HEALTH

TECHNICAL SPECIFICATION

FOR THE

GENERAL MAINTENANCE AND REPAIRS

OF

VACUUM AND COMPRESSED MEDICAL GAS EQUIPMENT AT

VARIOUS HOSPITALS AND HEALTH FACILITIES IN

THE

CLUSTER ONE (1) - OR TAMBO AND ALFRED NZO DISTRICTS

OF THE EASTERN CAPE PROVINCE

1.1 General

This specification has been written in such a manner as to be as generic as possible. Tenderers are to ensure that all pipework, accessories and ancillaries are included to ensure the final installation performs as described below and on the drawings. Tenderers must have a fully equipped repair and maintenance workshop with manufacturer approved staff within the major town and to support the installation for a minimum duration of the defects liability period.

Time is of essence in this contract and the Contractor will be required to observe strictly all rules of security imposed by the Client. In this regard identification documents of all workmen may be requested for security purposes by the Clients Security Department.

All work related to this contract will be required to be executed timeously necessary to meet the targeted completion dates.

The work shall entail the following:

- Decommissioning and safe removal of the existing units, which shall be handed over to the client.
- Installation of new unit/s to the facility as required.
- Associated builders work including but not limited to AHU plinths, holes through walls, coring, plastering, painting etc.

All personnel engaged under this Contract shall remain within the designated work areas associated with the installation. Access to, and presence within, other parts of the building where no installation activities are scheduled shall be strictly prohibited.

Equipment that is to be supplied/offered by the Contractor is to be approved by the Engineer prior to commencing with any purchase action.

Tenderers, however, are free to offer alternative equipment that in their opinion would be equal to or an improvement upon that specified.

Where such alternatives are offered, price variations compared with the main offer shall be clearly stated, as also the advantages claimed for such a substitution. Such price variations shall be shown in a covering letter, separate from the Schedule of Prices.

NOTE: The Contractor must refer to the drawings for the pricing of the Materials. All equipment schedules are clearly incorporated within the drawings forming part of the tender documents.

The successful tenderer shall endeavour to ensure timeous delivery of all equipment and products

1.2 Site and Site Inspection

The tenderer is advised to visit the site and familiarise themselves with the nature and extent of the project prior to submission of the tender.

1.3 Completion Date

The project duration and completion dates are stipulated in the contract data included in this document. The Contractor will be required to keep up with the main contract in accordance with the main contractor's program and to complete the Medical Gas installation concurrently with the main contract.

1.4 Design Criteria

The medical gas systems shall be selected in accordance with the ambient conditions of the facility and the following must be confirmed with the Engineer prior to installation:

1.5 Program

Directly after acceptance of his tender, the Contractor shall submit time schedules for each activity for which he is responsible to the main contractor, for the inclusion thereof in the main contractor's program.

A copy of the program (and revisions thereto) shall be submitted to the Engineer well within time and at regulated intervals. The following items shall be programmed in consultation with the Main Contractor:

- Mechanical Installation and Shop drawings

- Builder's work drawings

- Electrical drawings (relating to mechanical works)

- Approval of drawings

- Equipment detail submission for approval

- Ordering of material

- Piping installation

- Approval of first fix

- Plant equipment installation

- Second fix

- Electrical installation

- Commissioning and testing

- Final inspection

1.6 Regulations and Standards

The work shall comply with all the requirements of all relevant standards and codes published by the South African Bureau of Standards. Where South African Standards are not available, the relevant British or American standards shall be complied with and the Tenderer shall specifically state in his tender on which standards his tender is based, should he deviate in any way from the requirements of this specification.

The latest issues of the following Standards and Code of Practice shall, amongst others, be applicable and the work shall be performed and completed in accordance with these:

Regulation	Description
SANS 11064	The preparation of steel surfaces for coating;
SANS 1200 HC	Corrosion protection of structural steelwork;
SANS 1091	National colour standard;
SANS 60601-1	Medical electrical equipment Part 1: General requirements for basic safety and essential performance;
SANS 60601-1-2	Medical electrical equipment Part 1-2: General requirements for safety – Collateral standard: Electromagnetic compatibility – Requirements and tests;
SANS 12944-4	Paints and varnishes – Corrosion protection of steel structures by protective paint systems Part 4: Types of surface and surface preparation;
SANS 10006	Colour marking and identification of medical gas cylinders and anaesthetic apparatus;
SANS 7396-1	Medical gas pipeline systems Part 1: Pipeline systems for compressed medical gases and vacuum;
SANS 7396-2	Medical gas pipeline systems Part 2: Anaesthetic gas scavenging disposal systems;
SANS 10238	Welding and thermal cutting processes – Health and safety;
SANS 1453	Copper tubes for medical gas and vacuum services;
SANS 1409	Outlet sockets and probes for medical (gas and vacuum) services used in hospitals;
SANS 1067-1	Copper-based fittings for copper tubes Part 1: Compression fittings;
SANS 1067-2	Copper-based fittings for copper tubes Part 2: Capillary solder fittings;
SANS 1062	Pressure and vacuum gauges;
SANS 1186	Symbolic safety signs Parts 1 – 5;
CKS 605	Pressure regulators for medical gases;
R158	The Regulation pertaining to the control of Private Hospitals;
OH&S	Act The Occupation Health and Safety Act, Act 85 of 1993.

- ▶ South African government, Provincial and Local Authorities Ordinances, Regulations, By laws, Rules and other statutory requirements. I.e.

Municipal by-laws and any special requirements of the supply authorities of the area and district concerned.

The local fire-brigade regulations.

- ▶ Where trade names and references to catalogues are found in the specification, the intension is to set a particular standard of equipment. Where "other approved" equipment is specified, the Tenderer shall obtain written approval from the Engineer before he may deviate from the specified equipment. This approval must be obtained at tender stage.
- ▶ The Contractor shall work strictly according to this specification and shall ensure that only the best quality material is used, and that the installation is handed over as a complete working system.
- ▶ Unless otherwise specified in the detail technical specification, the following standard guidelines and regulations (including amendments) of the organizations indicated shall form part of this specification.

United Kingdom department of health specifications

HTM02-01: Medical gas pipeline systems. Part A - Design, installation, validation, and verification.

- ▶ Where a specification or standard is not specifically referred to, it will be assumed that the relevant BS, BS EN or ISO listed in order of preference will apply. The SI ("Le Systeme International d' Unites") – Metric System of Units will apply.
- ▶ Note to tenderers:

Tenderers shall indicate in their tender submission whether their tender and/or equipment as applicable complies with any of the above specifications and carries the BS mark.

No claims for extras in respect of failure by the Contractor to comply with any of the above regulations will be considered.

Where conflict exists between any of the above regulations and the specification, the said conflict must be referred to the Consulting Engineer in writing for his ruling.

The contractor shall be responsible for serving all notices and paying all fees due in terms of the laws and regulations mentioned.

GENERAL SPECIFICATION

1.7 General

This installation shall be suitable in all respects for operation under the atmospheric conditions and electricity supply as outlined in the schedules. The onus is on the tenderer to ascertain any other local conditions or peculiarities which might affect the working of the plant, and no allowance in price or standards of materials or workmanship will be made for any ignorance on the part of the tenderer in this respect. This applies to the nature and construction of the building, details of which can be obtained from the Architects.

All materials and workmanship supplied under this contract shall be of the highest quality. Installation work shall be done in accordance with the best modern Engineering practice, and where installations are required for medical and/or advanced research proposes, reliability and accuracy in operation are the major requirements. The Engineer shall have the right to reject and demand satisfactory replacement at the Contractor's cost, or any part of it, which, is his opinion, does not conform to the highest standards of material and workmanship. The installation shall be required to run for long continuous periods, and it is essential that all installations shall be capable of operating continuously and satisfactorily over such periods.

1.8 Visit to Site

Contractors must acquaint themselves with local site conditions such as access area available on site, type of ground, space available for onsite fabrication, storage, transport, loading and unloading facilities, scaffolding, tackles and tools needed, as no claims by the Contractor, which may arise from ignorance of the site conditions, will be considered.

1.9 Material and Workmanship

The contract works shall be executed in accordance with the specified standards and level of workmanship, to the satisfaction of the Consulting Engineer.

All materials shall be of the quality specified and the Contractor shall, upon request of the Engineer, furnish him with proof to his satisfaction that the materials are of the specified quality. In this regard, the Contractor shall submit documentary evidence and details of the plant, equipment and diagrams to the Consulting Engineer prior to ordering the equipment.

All materials and equipment used for the installations shall be new and undamaged.

The Contractor shall, if requested by the Engineer, provide samples of material and equipment for approval. If judged necessary by the Engineer, such samples, may only be returned after the completion of the installation, in order to ensure that the quality of the installed product is the same as that of the approved sample.

1.10 Minimum Requirement

The conditions and/or specifications in this section shall be regarded as the absolute minimum requirement. More stringent similar conditions and/or specifications stated in the Detailed Technical Specification shall take preference to those in these Standard Mechanical Specifications. If the conditions and/or specifications contained herein are at variance with anything contained in the detailed technical specification, the latter shall take preference, otherwise these Standard Mechanical Specifications shall apply as if duly included.

1.11 Proprietary Materials

The Contractor's attention is drawn to the Detailed Technical Specification and Bills of Quantities generally which forms an integral part of the specification, specifically to the following clauses:

Where the term "or other approved" is used in connection with proprietary materials or articles, it is to be understood that approval shall be at the discretion of the Employer.

Where brand or trade names are referred to in the Detailed Technical Specification and Bills of Quantities, these shall indicate the quality and type of material or fitting required and no substitution of materials so specified will be permitted unless the authority of the Employer has been obtained in writing before tender close.

1.12 Finishing And Tidying

In view of the intense concentration of construction activities likely to be experience during the contract period, progressive and systematic finishing and tidying will form an essential part of this contract. On no account must spoil, rubble, materials, equipment or unfinished operations be allowed to accumulate in such a manner as to unnecessarily impede the activities of other and in the event of this occurring, the Employer shall have the right to withhold payment for as long as may be necessary

in respect of the relevant works in the area(s) concerned without prejudicing the rights of others to institute claims against the Contractor on the ground of unnecessary obstruction.

Finishing and tidying must be done on a daily basis and not simply be left to the end of the contract. All finishing and tidying shall be carried out to the best advantage of the project as a whole.

1.13 Cleanliness

All piping, sub-assemblies and fittings shall be delivered to site in a clean degreased condition with end caps in place and properly packed to avoid contamination.

While the installation is in progress, open pie ends shall be kept closed until the joint is made.

All temporary dead ends shall be properly sealed by flattening and soldering.

1.14 Scaffolding and Plant

All plant required for the execution of the contract shall be supplied by the Contractor under this contract.

The Contractor shall provide his own scaffolding. For installation purposes the Tenderer shall allow for his own lifting equipment, cranes etc. which may be necessary to complete the installation as none of these facilities will be available on site.

1.15 Supervisory Staff and Identification

All artisans and labour members of the mechanical contractor and subcontractor staff will wear clothing adequately marked with the relevant contractor's name, at all times while on the premises.

The work shall be done by, or at all times be under the personal supervision of a qualified artisan (or qualified technician) in the respective trade. Details of this operation and prospective work shall be given at the time of tendering in a cover letter.

1.16 Quality of Materials and Workmanship

All the work shall be done by a specialist with a proven record of knowledge and proficiency of this type of installation.

All materials shall be new, undamaged and free from rust or other defects. Only material of the best quality, which has been approved by the Engineer, shall be used.

All materials shall be corrosion protected as the site is at the coast. Where corrosion of material may be expected from contact with water or sewage or from any other cause, the Contractor shall supply materials which are resistant to corrosion. Any materials showing signs of corrosion, tuberculation or pitting before expiry of the defect's liability period shall be replaced by the Contractor at his own expense with materials to the Engineer's approval.

The Contractor shall, upon the request of the Engineer, furnish him with documentary proof to his satisfaction that the material is of the quality specified. Samples of materials for testing, if required, shall be supplied by the Contractor, free of charge.

Where applicable, all material shall be in accordance with the relevant standard specifications of the South African Bureau of Standards (SABS).

The installation shall be carried out according to the latest modern engineering practices.

The Engineer reserves the right to reject any work or part thereof that, according to his judgement, does not meet the highest standards of material and workmanship and to enforce replacement of the work at the expense of the Contractor.

1.17 Completeness

The medical gas contractor shall ensure and be responsible for the complete medical gas installation, operation and performance, including items, adjustments and/or other services which are required, but not specifically mentioned in the specification. The complete installation, performance and operation shall upon practical completion, be complete in all respects, and shall be to the total satisfaction of the Engineer.

1.18 Rating of Equipment

The Contractor shall supply the sizes and rating of all the equipment offered to the Engineer for approval prior to purchasing or ordering such equipment. All equipment offered shall operate well within the manufacturer's ratings, and equipment to be operated beyond these limits will not be considered.

1.19 Space Requirements and Access

The Contractor shall ensure, prior to ordering, that the equipment offered by them can be installed in the available space as shown on the drawings. Should it be found at a later stage that the equipment offered does not fit, all costs arising from the rectification of this problem shall be for the Contractor's account.

The equipment shall be installed in such a manner that complete access is provided for operating and maintenance purposes. Tenderers shall also ensure that the equipment offered by them will pass through available building openings. Large equipment shall be made up in sections and each section shall be small enough for access through doors and other building openings. All additional costs involved for modification of equipment or to change the manufacturer of equipment in order to allow access shall be for the account of the Contractor.

1.20 Co-Ordination of Installation Information

The mechanical drawings and schedules supplied are of a schematic nature and unless specific dimensions to mechanical equipment is shown, the contractor shall co-ordinate the installation of equipment and fittings on site before installation. Should an agreement not be reached, or if the equipment and fittings cannot be installed in the obvious locations to conform to the design, the Engineer's ruling shall be obtained beforehand.

The cost of relocation of equipment or fittings due to the lack of co-ordination shall be for the contractor's own account.

1.21 Approval of Equipment

The Contractor shall, prior to ordering or manufacturing of equipment and materials, submit a comprehensive file of the intended materials and equipment for approval by the Consulting Engineer. (I.e. no separate or sporadic submittals will be accepted)

The equipment submittal file shall consist of:

- ▶ Cover page stating the project name, the client, the consulting engineer and the contractor with contact persons and details.
- ▶ The index page stating the contents and marked section dividers.
- ▶ General: a brief description of the project and the equipment offered
- ▶ Introduction: brief history of the contractor, experience, personnel proposed for the project with brief CV and project photos where the equipment proposed was used.
- ▶ Table of the equipment capacity of all equipment contained in the submittal showing the following:
 - Design conditions
 - Equipment name and designation
 - Area served.
 - Operating capacity
 - Dimensions (length, width, height, and weight)
 - Starting current, running current and voltage
 - Noise level
 - Compliance with specification including deviation and percentage deviation from specified.
 - Detail of the equipment offered (this section is to be repeated for every single item of equipment offered).
 - General: name of equipment offered, previous project where equipment was used with reference from the client
 - The Equipment: all technical specifications, photos where applicable, service interval and estimated operating life in years of the equipment. The technical specifications as a minimum shall state:
 - Capacities
 - Material of manufacture and type of finishes
 - Make
 - Model number

- Manufacturer details
- Estimated delivery date.
- Noise levels
- System resistance calculation for chilled water, hot water and outside air ventilation systems at equipment flow rates and selected attenuators, valves and fittings.
- Operating conditions and performance curves **WITH SELECTION POINT** at system resistance curve where applicable (which shall include compressor, scavenging pump, and vacuum pump selections)
- Compliance with specifications
Electrical requirements and loading
- Energy efficiency measures of the equipment offered.
- Any special sustainable design and details included in the equipment.
- The completed schedule of information in the tender document
- Any other documentation that the Engineer asks for to enable the Engineer to assess that equipment offered meets the requirement of the specification.

The approved information herein shall form the basis for the operating and maintenance manual.

Once installation has commenced with the appropriate approvals for using any type and make of article or equipment, the same type and make of article or equipment shall be used throughout the project for that specific application unless otherwise specified.

1.22 Drawings

1.22.1 Definitions

1.22.1.1 Schematic Drawing

A line diagram describing the interconnection of components in a complex system. The main features of a schematic drawing are as follows:

Two-dimensional layout drawing with divisions to show the distribution of the system between building levels, or an isometric style layout indicating the distribution of systems across individual floor levels. The drawing is not necessarily constructed to scale. The drawing included all functional components which will make up the system. The drawing includes appropriate services distribution sizes not shown elsewhere.

1.22.1.2 Detailed Design Drawing

A drawing showing the intended locations of plant items and service routes in such detail as to indicate the design intent. The drawing will not indicate the precise position of services but should be feasible to install the services within the general routes indicated. It should be possible to produce co-ordination drawings or installation drawings without major re-routing of the services.

1.22.1.3 Working Drawing or Installation Drawing

A drawing showing the inter-relationship of engineering services, their relation to the structure and building fabric and including all components of the works as required for the successful installation of the systems. These drawings are normally developed from the tender or detail design drawings.

Working/installation drawings shall include provision for all supports and fixings, insulation, standard fittings and components as necessary to install the works and shall incorporate shop drawing information and manufacturer's drawing information.

Drawings shall comprise of plan layouts to scale of at least 1:50, accompanied by cross sections to a scale of at least 1:20 for all congested areas and plant room layout to a scale of at least 1:20, accompanied by cross-sections and elevations to a scale of at least 1:20.

1.22.1.4 Shop Drawing

Drawing prepared by a fabricator or supplier specific to the project. Including supplier's drawings for ductwork, prefabricated pipework, sprinkler systems, control and switchgear panels and associated internal wiring.

1.22.1.5 Builder's Work Drawing

Drawing to show requirements for building works necessary to facility the installation of the engineering services (other than where it is appropriate to mark out on site). All building requirements are to be indicated on these drawings to meet the dimensional requirements of the equipment and materials installed by the Contractor.

1.22.1.6 Controls Logic Diagrams

Diagrams, drawings and/or schematic details of all control components and instruments showing the layout with each item uniquely identified together with a description of the control's operation and details of the associated interlocking.

1.22.1.7 Electrical Drawings

Drawings showing the construction and internal wiring diagrams of the starters, panels and/or other devices. These include switchboard layouts, circuit diagrams, interconnection diagrams, and cable and equipment schedules (if applicable to the installation).

1.22.1.8 As-Built Drawings

The drawings shall show the building and services installation as installed at the date of practical completion. The main features of the drawings should be as follows:

Provide a record of the locations of all the systems and components installed including pumps, fans, valves, strainers, terminals, electrical switchgear, distribution and components.

Use a scale of no less than that of the installation drawings.

Have marked on the drawings the position of access points for operating and maintenance purposes.

1.23 Drawing Submission Requirements

The dimensions and positions of equipment shown on the Engineer's drawings are schematic and for tender purposes only. The drawings are not suitable for manufacturing purposes. The responsibility for dimensional and layout accuracy remains with the Contractor. The exact positions will be pointed out on site where necessary.

Any work done by the Contractor without an approved drawing shall be at the Contractor's own risk, and any changes required to conform with the contract documents or co-ordinate his work with other trades, shall be for the account of the Contractor.

The approval of drawings by the Engineer shall not relieve the Contractor of his responsibility to carry out the work in terms of the contract documents.

The following drawings shall be submitted by the Contractor, unless agreed otherwise with the Consulting Engineer.

1.23.1 Mechanical Installation Drawings and Shop Drawings

The Contractor shall prepare his own set of working/installation drawings covering all aspects of the contract works and shall submit these and all shop drawings for comment and approval.

A minimum of two (2) copies of these drawings shall be submitted to the Engineer for approval prior to installation and two (2) copies of the drawings shall be submitted once approved.

The drawings shall be submitted prior to any installation work commencing on site. A period of 5 working days upon receipt of the drawings by the Engineer shall be allowed for the commenting and evaluation of the drawings.

The contractor shall make any necessary amendments without delay. Unless and until it is confirmed that resubmission is not required, resubmit for further checking and comment, and incorporate any necessary amendments all as before.

All symbols used shall be in accordance with BS 1553: 1977 or other approved and nationally or internationally acceptable Standards. Unless otherwise specified, all routes shall be superimposed on the Architectural Drawings, showing the runs and fixing details.

Any work done by the Contractor without an approved signed drawing, will be at the risk of the Contractor.

The Contractor shall update all drawings ("record drawings") once the installation has been completed. One (1) set of paper prints and one (1) set in an acceptable electronic format shall be supplied to the Engineer as part of the O & M Manual.

1.23.2 Builder's Work Drawings:

The Contractor shall submit the builder's work drawings to the Engineer, for approval, within two (2) weeks of appointment. Builders work drawings shall include openings as well as plinth requirements.

1.23.3 Electrical Drawings (Relating to Mechanical Works):

The Contractor shall submit the electrical and Instrumentation drawings to the Engineer, for approval, within two (2) weeks of appointment. These drawings shall clearly show the actual electrical loads and requirements of all final and actual equipment to be installed. These drawings to contain as a minimum:

- Schematic Control Diagrams.

- General Arrangement Drawing of Control Board.

- Single line diagrams

1.24 Operation Manuals & Maintenance Instructions

1.24.1 General

The contractor shall submit one (1) draft hard copy and one (1) digital copy of the operation and maintenance manuals and as-built drawings to the engineer prior to commissioning or at an alternative agreed date, for checking, evaluation and comment purposes and shall allow at least ten (10) working days for the commenting process. The contractor shall incorporate all comments and re-submit the revised manuals. The contractor shall allow for

temporary inserts and clearly list items such as commissioning data that are not yet available for inclusion in the manuals. Such information shall be submitted as soon as possible and no later than one (1) week before the planned practical completion date.

The comment and approval of the manuals shall be a pre-requisite for practical completion and no practical completion shall be given without fully approved Operating and Maintenance manuals inclusive of all relevant drawings and other documentation as stated in this specification.

The contractor shall submit the commented, approved and finalised Operation and Maintenance manuals and As-Built drawings at or prior to practical completion. Three (3) hard copies and three (3) digital copies shall be submitted.

The operation manuals shall be sturdily bound in a strong hard cover. Material in the manual shall be clear, legible and well-arranged and provided with an index.

Documentation shall make it possible to comprehend the extent and purpose of the works and the method of operation thereof.

Documentation shall set out the extent to which maintenance and servicing is required and how, in detail, it should be executed.

Documentation shall provide sufficient, readily accessible and proper information to enable spares and replacements to be ordered.

Information in the documentation shall be correlated so that the terminology and the references used are consistent with those used in the physical identification of the component parts of the installations.

The contractor shall show, as required, throughout the execution of the works that complete and accurate records are being maintained and that the record documents are being progressively compiled as the work on site proceeds.

1.24.2 Operation and Maintenance Manual Content

The operating and maintenance manuals shall include:

- An index page.
- A full description of each of the systems installed, written to ensure that the Employer's staff fully understand the scope and facilities provided.
- A description of the mode of operation of all systems including services capacity and restrictions.
- Diagrammatic drawings of each system indicating principal items of plant, equipment, valves, etc.
- Details of how-to re-commission so that complex plant services within the building can be re-commissioned without any historic knowledge of the systems.
- Full size and reproduced A3 copies of all drawings together with an index.
- Legend of all colour-coded services.
- Schedules (system by system) of plant, equipment, valves, etc. stating their location, duties and performance figures. Each item must have a unique number cross-referenced to the record and diagrammatic drawings and schedules.
- The name, address and telephone number of the manufacturer of every item of plant and equipment together with catalogue list numbers.
- Manufacturer's technical literature for all items of plant and equipment, assembled specifically for the project, excluding irrelevant matter and including detailed drawings, electrical circuit details and operating and maintenance instructions.

- A copy of all Test Certificates, Inspection and Test Records, Commissioning and Performance Testing Records (including, but not limited to, electrical circuit tests, corrosion tests, type tests, start and commissioning tests) for the installation and plant, equipment, valves, etc., used in the installations.
- A copy of all manufacturers' guarantees or warranties, together with maintenance agreements offered by sub-contractors and manufacturers.
- Copies of Insurance & Inspecting Authority Certificates and Reports.
- Starting up, operating and shutting down instructions for all equipment and systems installed.
- Control sequences for all systems installed.
- Schedules of all fixed and variable equipment settings established during commissioning.
- Procedures for seasonal changeovers and/or precautions necessary for the care of apparatus subject to seasonal disuse.
- Detailed recommendations for the preventative maintenance frequency and procedures which should be adopted by the Employer to ensure the most efficient operation of the systems.
- Details of lubrication systems and lubrication schedules for lubrication items.
- Details of regular tests to be carried out.
- Details of procedures to maintain plant in safe working condition.
- Details of the disposal requirements for all items in the works.
- A list of normal consumable items.
- A list of recommended spares to be kept in stock by the Employer, being those items subject to wear and deterioration and which may involve the Employer in extended deliveries when replacement is required at some future date.
- A list of any special tools needed for maintenance cross reference to the particular item for which required.
- Procedures for fault finding.
- Emergency procedures, including telephone numbers for emergency services.
- Back-up copies of any system software.
- Documentation of the procedures for updating and/or modifying software operating systems and control programmes.
- Instruction for the creation of control procedure routines and graphic diagrams.
- Details of the software revision for all software items, as commissioned.
- Contractual and legal information including but not limited to details of local and public authority consents; details of design team, consultants, installation contractors and associated sub-contractors; start date for installation, date of practical completion and expiry date for the defects liability period; details of warranties for plant and systems including expiry dates, addresses and telephone numbers.
- The manuals must contain all commissioning datasheets and certification.
- Provide electronic copies of all Operating and Maintenance documentation in disk format, fully indexed.

1.25 Maintenance And Guarantee

All equipment supplied and work done as part of this contract shall be maintained and guaranteed for a period of one year from date of practical completion.

The Contractor is responsible for all material and labour during this period.

The Contractor shall visit the installation uninterrupted and to the scheduled maintenance as prescribed in the operating instructions. On completion of the monthly visit a full report shall be prepared and submitted to the Engineer within seven (7) days from the visit.

In case of breakdown, the Contractor shall react, and repair the installation to the satisfaction of the Engineer, within an agreed upon time. Breakdowns shall be categorised depending on the severity of the breakdown. The reaction times for each category shall be agreed with the client.

Should the contractor not react within the agreed upon time, the Engineer shall commission another Contractor and the cost thereof shall be recovered from the defaulting Contractor.

1.26 Systems Used Prior To Practical Completion

Systems that have been commissioned, completed and approved may not be used before practical completion without the prior written approval of the Employer or his representatives.

Systems to be used before practical completion for the benefit of the Contractor and/or Sub-contractor must have all defective consumable elements (including lamps and tubes) replaced by new, not more than seven (7) days prior to the practical completion.

No system shall be put into use prior to handover to the employer, except for testing and commissioning, unless in accordance with the following procedure:

Following the receipt of written instructions, the contractor shall operate designated parts of the works, provided that such operations are practicable and does not prejudice the contractor's responsibilities and obligations.

Additionally, and with adjustment to the contract sum, the contractor shall, if instructed, provide comprehensive insurance for any plant being operated, provide maintenance of the installation and re-instate the installation to as new condition prior to handover to the Employer and allow the defects liability period to commence on handover.

1.27 Payment Claims

In addition to the conditions of contract, the Contractor shall attach to his application for payment an explanation of material cost and labour cost. The following information is required with respect to material and labour:

- Estimated percentage delivered/completed at date of the previous claim;
- Estimated percentage delivered/completed at date of current claim;
- Total cost claimed at date of previous claim

1.28 Construction and Site Issues

1.28.1 Construction, Plant, etc.

Contractors shall include an amount for the supply of all scaffolding, ladders, trestles, dust sheets and everything necessary for the proper performance of the contract, for clearing and removal of all rubbish due to the work, for the protection of the work from damage due to the building operations, other contracts and the weather. In existing buildings Contractors shall in particular take adequate precautions to the satisfaction of the Engineer to prevent damage to existing apparatus during erection operation.

1.28.2 Material, Offloading and Storage.

Contractors must take due allowance in their tenders for the off-loading of materials and the storage and safe custody thereof according to manufacturer's specifications on or off site until such can be accommodated or is required on site.

1.28.3 Inspection of Locally Manufactured Supplies

Where locally manufactured plant or materials are offered, the Employer reserves the right to inspect such plant or goods during manufacture and to reject items that do not conform to the owner's requirements. Where a number of units are ordered by the owner the Contractor shall notify the representative of the Employer when one unit has been completed so that the representative of the Employer may inspect and approve it.

1.28.4 Ordering Materials

The Contractor is warned to place all orders for materials or special articles as early as possible as he will be held solely responsible for any delay in the delivery of such goods.

1.28.5 Packing

The Contractor will be held responsible for packing all plant and other goods in such a manner as to ensure freedom from any loss or damage in transit. Unless otherwise specifically agreed upon, receptacles will not be returned or paid for and no additional charges will be allowed for packing or packing materials.

1.28.6 Samples for Test

The Contractor shall furnish, without delay, such samples for testing, or other purposes, as called for, or may be called for, by the Engineer, who may reject all materials or workmanship not corresponding with the approved sample.

Notwithstanding that samples and approved brands of materials, etc. are exhibited or included in classified lists at the offices of the owner, the Engineer may retest any samples, brands of materials, etc. included in the contract and reject articles and materials, etc. that do not strictly comply with the specification.

1.28.7 Damage to Buildings and the Misuse of Facilities

Any damage done to the buildings, roads and landscaped areas by the Contractor, or his workmen, shall be made good by the Contractor. Should the Contractor, or his personnel, be granted leave by the Employer to utilise on-site facilities and such facilities be misused or damaged, the facilities shall be cleaned and/or repaired to the satisfaction of the Employer (It should be understood however, that the provision of facilities (toilets, etc.) in terms of the Preliminary and General costs called for in the tender document, are the responsibility of the Contractor). If the Contractor fails to attend to such damage, the Employer will take care of remedial work required and shall deduct the cost of such work from the contract monies due to the Contractor.

1.28.8 Protection of Owner's Equipment

The Contractor shall ensure that any computers or other valuable equipment of the owner is sufficiently protected against work or dust by means of temporary coverings or sealed-off partitions.

1.28.9 Arrangements with Supply Authorities

The Contractor shall apply for and complete all the formalities necessary for compliance with any statutory requirements as necessary. He shall also make himself available for all statutory authority inspections in order to complete all the formalities and tests. Inspection fees shall be allowed for in the tender.

1.28.10 Variations and Omissions.

Tenderers shall list any deviations between their tender submitted and the specification. If nothing is listed, this tender shall be regarded to meet the specification in all respects. All deviations must be accompanied by a full set of technical literature.

1.29 Coding, Labelling and Notices.

The Contractor shall supply and install all coding, labelling and notices as required under this Clause.

The wording shall be in English.

To reduce the possibility of incorrect labels and/or notices, the Contractor shall submit a schedule of labels and notices to the Consulting Engineer for approval. Costs to rectify inscriptions, resulting from the failure by the Contractor to obtain approval, will be for his account.

1.30 Painting and Marking

1.30.1 General

All steelwork, piping, lagging, etc. supplied under this contract shall be painted as required under this clause:

Exposed portions of boilers, calorifiers, cylinders, etc. in the plant room shall be properly cleaned, primed and painted two coats of heat resistant paint.

All other exposed metal parts such as pumps, belt guards, all piping, pipe lagging, fittings, dampers, fans, coils, motors, pumps, packaged units, control panels, steelwork, exposed ducts and lagging, expansion tanks, make-up tanks, cooling tower, unit shelters, etc. shall be cleaned, primed, undercoated and finished in a high-quality gloss paint of approved colour.

All external equipment exposed to the weather must be cleaned, primed and painted with two coats of epoxy paint.

The lagged surface of calorifier, headers and pipes shall be primed, undercoated and finished in a high-quality gross of approved colour. Un-lagged steam piping shall be painted with heat resistant paint.

1.30.2 Piping, Pumps, Valves, Fittings etc

The colour code for pipelines and machines is based on the following:

- BS 1710-1975 : Identification of pipelines

All un-lagged black piping, holder bolts, supports anchors fittings, etc. shall be painted in accordance with British Standard Specification No. BS 1710.

In enclosed horizontal or vertical ducts, surfaces, mezzanine spaces and basements where pipelines are already painted or galvanised or are lagged, painting may be restricted to 150 mm long lengths at a maximum spacing of 4 m, and at all branches, tees, valves, and at the entry from such ducts, spaces, etc.

Except where otherwise specified all piping on surfaces shall be painted with a primer, an undercoat and a finishing coat in an approved high quality gloss paint. to the colour indicated in the schedule. This also applies to all holder bolts, supports, anchors, fittings and valves. Where only 150 mm lengths of the pipe are painted the colour and specification of the painting shall be in terms of this clause.

Pump sets, valves, fittings, etc. shall be painted the same basic colour as the pipelines, except those of firefighting services, which shall be painted red.

1.30.3 Bands

The length of the band shall be same as the final pipe diameter, but not less than 100 mm. Where three strips are required per band, each strip shall be one third of the final pipe diameter but not less than 35 mm. Where 150 mm lengths alone are colour painted, the 50 mm band shall be centrally placed on the 150 mm length.

1.30.4 Arrows

The direction of flow shall be indicated with a 25 x 100 mm long black arrow at intervals of approximately 4 m and at valves and junctions. Flow lines shall be marked with an F and return lines with an R at each arrow.

1.30.5 Service Outlets

Where outlets require identification the colour identification shall take the form of coloured centre pieces on hand wheels or cocks, and/or other suitable approved marking on the neck of the outlet fittings as specified. The colour shall primarily be that of the pipe colour and where banding is used, the colour shall be that of the band and stroke.

1.31 Inspections, Commissioning, and tests.

1.31.1 Inspections

The Engineer shall have general supervision and direction of the Works. Supervision shall comprise such periodic visits as the Engineer may consider necessary to inspect the Works for conformity with the Contract documentation and to provide clarification and further information as necessary.

The Engineer shall have the power at any time to inspect and examine any part of the Works or any materials intended for use in or on the Works, either on the site or at any factory, workshop or other place where such parts or materials are being constructed or manufactured or at any place where such parts or materials are lying or from where they are being obtained and the Contractor shall give all such facilities as the Engineer may reasonable require to be given for such inspection and examination.

The Contractor shall not be liable for the cost of inspecting materials at the place of manufacture, construction or storage nor be responsible for any travelling or accommodation costs arising out of the execution of such inspection, etc.

1.31.2 Commissioning

The Tenderer shall allow in his tender price for the proper and full commissioning of this contract. Should undue problems be encountered at any time, the Contractor may be requested by the Client to obtain the services of a representative of the manufacturer of specified items of equipment, at no cost to the Client.

1.31.3 Notice of Testing and Commissioning

The Client shall receive not less than two weeks advance notice of any tests to be witnessed by the Client.

1.32 Test Equipment

The Contractor shall supply all test equipment, test facilities and everything necessary, at his cost, to perform tests. The Contractor shall record and **document** all measurements taken during testing and shall do the necessary adjustments until the Engineer is satisfied with the results.

The contractor shall provide proof of calibration of any instrument on the engineer's request.

The Engineer shall be notified one (1) week in advance of any tests so that he may witness such tests. Unless otherwise specified, the Contractor will be required to perform the following tests:

1.33 Procedure

1.33.1 Physical Completion

After physical completion of the erection phase of the installations, the Engineer will issue a Snags List certifying that commissioning can proceed. Items which would not influence the commissioning process could, at the discretion of the Engineer, be attended to during commissioning stage.

1.33.2 Commissioning Stage

After commissioning the Engineer will issue a second snags List (the Commissioning Snags List). Any outstanding work will be recorded on this list.

1.33.3 Engineer's Certificate

After completion of all outstanding items and receipt of all manuals and drawings as recorded on the commissioning snags list the Engineer will issue a Practical Completion this certificate will accompany a certificate of acceptance by the Client's representative.

The one-year maintenance and guarantee period will commence on the date of the Practical Completion.

1.33.4 Commissioning

The Commissioning of the entire installation shall be carried out timeous. The workshop drawings, to be produced by the Contractor, are to be perused and approved, in principle, by the Contractor's Commissioning Engineer who is to confirm that the installation as indicated can be commissioned.

The commissioning of the installation shall be in terms of the following codes, or any other code approved by the Engineer.

The Contractor shall submit the Commissioning program to the Engineer, at least four (4) weeks prior to the commencement of commissioning.

The power connections to the various installed equipment must be energised to facilitate commissioning of the installation.

To enable this switch-on to take place the installation must be substantially complete.

The Contractor shall inform the Engineer within (4) weeks of his appointment, what time allocation has been allowed for commissioning purposes. This must be reflected on the Critical Path Schedule to be submitted by the Contractor.

1.33.5 Training and Maintenance

The Contractor shall provide a suitably qualified and trained person to train the Employer's staff in the correct operation and maintenance of the installation. The Contractor shall allow for this person to be full time on site as called for in the maintenance contract conditions.

1.34 Failure of Works, Site or Commissioning Tests.

Should the engineer be notified to attend official tests as laid down, and should the equipment fail the test for any reason whatsoever, such that the engineer's Representative is required to re-witness the test, the time, transport and disbursement by the engineer's Representative in so doing will be for the Contractor's account, which amount may be deducted, at the discretion of the engineer, from monies due to the Contractor.

1.35 Quality Testing of Equipment.

The client reserves the right to arrange for testing of any piece of equipment at will, to check on compliance with the relevant specifications. Should the particular piece of equipment pass the test, the cost of such testing will be borne by the client.

However, should it fail the test, the cost of the test, rectification of the shortcomings, retesting and repetition of the same test on the remaining like items will be for the Contractor's account.

1.36 Inspection During Manufacture.

The Contractor will advise the engineer when the items to be supplied are in the course of manufacture. The engineer and client reserve the right to inspect any items during manufacture and witness any performance tests or do factory acceptance tests that may be required thereon. The Contractor shall give the engineer and client at least two weeks advance notice of works tests. All test equipment shall be supplied by the supplier.

Quality shall be verified to conform to tender specification, submittals and tests which shall include:

- Noise levels per specification and submittals (in simulated environment)
- Flowrates at simulated system pressure
- Concentration of oxygen (purity) at flow rate in consideration of oxygen generators

1.37 Testing.

The Contractor shall be responsible for carrying out all tests laid down in the specific sections elsewhere in this document, in addition to those listed hereafter and in the Detail Specification.

Testing and balancing shall not begin until the system has been completed and is in full working order. The plant shall be tested and operated to meet the performance figures and duties specified.

All safety features and interlocks will be tested.

The Contractor will be responsible for all costs incurred in the testing, including the supply, calibration and use of all instruments and tools, but not the supply of water or power on site.

All instruments and test equipment used shall be provided by the Contractor and shall be accurately calibrated and maintained in good working order. All test instruments used for tests to be witnessed by the Client's Representative shall be provided with calibration certificates, which must be available to the Client's Representative.

Specific attention is drawn to the fact that calibration certificates will be required for the following:

Watt meters, ammeters, voltmeters, frequency meters, pressure gauges, flow meters, orifices plates, temperature gauges and dynamometers.

All instruments shall be of above standard grade, and test pressure gauges shall not be less than 150 mm in diameter. The maximum scale of the instrument shall not exceed 1.5 times the full test requirement.

It is essential that the Contractor inspects and tests all equipment before requesting the Client to inspect or witness acceptance tests thereof.

All acceptance tests, whether in the manufacturer's works or on site, must be carried out in the presence of the Client's Representative.

Should the Client wish to verify the calibration of any instruments, the Contractor shall make the necessary arrangements for the instrument to be re-calibrated by a recognised authority. Should the instrument prove to be correctly calibrated, the cost of the re-calibration test will be borne by the Client. Should the instrument prove to be in error, the cost of the tests will be borne by the Contractor.

Two copies of the complete test reports shall be submitted to the Client, prior to the first delivery of the project reports shall cover all tests carried out on individual sections, including such works tests as may have been conducted. All reports shall be neatly typed.

1.37.1 Scope of Tests.

The Contractor shall allow for testing and commissioning of the complete installation, which shall include the following procedures in accordance with HTM 0201 Appendix A:

- a) Cleaning of the Medical Gas Pipeline by the Project Contractor.

- b) Safety tests, i.e., pressure and gas continuity tests by the responsible persons team specified in the addendum and duly appointed.
- c) Purity tests by the Hospital Anaesthetist and Hospital Medical Pipeline Technician duly appointed.

1.37.2 Cleaning of System.

After installation of the medical gas outlets, but before the system is handed over, each gas system shall be cleaned by the Contractor with nitrogen. The piping shall first be blown through to clear all dirt and moisture with nitrogen. The nitrogen shall be supplied by a recognised medical gas supplier. This blowing out shall be done in the presence of the Responsible Person or his duly authorised representative. All air for this purpose shall be supplied by the Contractor. Each system shall, after cleaning, be blown out with the gas it is to serve to clear the system of all nitrogen. These gasses will be supplied by the Hospital.

1.37.3 Pressure Testing Medical Gas Piping.

After fitting the medical gas outlets, a pressure of 600 kPa shall be applied, using medical compressed air. This pressure shall be maintained over 24 hours without dropping pressure, using a recording pressure meter. All pipes can be inter-connected during the test period.

The vacuum system shall be similarly tested using nitrogen. If, however, the outlet valves are of the type that do not seal with reversed pressure, the system shall be brought to full vacuum with a pump, the isolating valve connecting the system to the tank closed and the height of the mercury column marked. This shall not drop by more than 25mm in the twenty-four-hour test period.

Tests shall also be carried out to prove the alternating duty and sequencing of the vacuum pumps.

Alternatively, the pressure tests may be as follows as indicated in the supplementary specifications:

- a) Pressure test of the pipeline system with base block of terminal unit. This test should last over 24 hours at 600 kPa and shall be recorded. Pressure drop is not allowed.
- b) Pressure test of the complete system after final installation:
 - i. Put all pressure gas pipes under operation pressure.
 - ii. Switch pressure and vacuum sources off and close valves.
 - iii. Mark positions of gauge needles
 - iv. Close all stop cocks.
 - v. Check pressure gauges after 1 hour. Permissible drops in pressure lines 0,1 bar.
 - vi. Pressure tests shall be witnessed with the appointed hospital representative.

1.37.4 Pressure Vessels

Pressure vessels shall be certified in accordance with the requirements set out in the relevant BS standard. Receivers shall be supplied with full documentation per BS standard.

1.37.5 Gas Continuity Test by Team of Responsible Persons

The test shall be carried out after the correct gasses have been connected to ensure that the outlet supplies the correct gas and that the correct safety keyed probe only fits that particular outlet. This test shall be carried out by putting only one system under pressure at a time. Each network shall be brought to a pressure of 400 kPa. The vacuum system shall be similarly tested to at least -50 kPa.

Probes connected to a pressure meter for each gas is to be provided by the Contractor to carry out these tests.

All similar medical gas outlets shall be checked with each test. Only the one under pressure shall indicate the pressure at the appropriate medical gas outlet. Gas banks not under test during this test shall be disconnected. This test shall be done at the

time of “taking over” under supervision and in the presence of the responsible persons. All isolating valves shall be operated at the time of test to certify that they are correctly installed.

1.37.6 Purity Tests

These tests on the medical gasses shall be done by the appointed responsible persons, i.e. a Hospital Anaesthetist and an Anaesthetic Technician for all the outlets including the theatres, induction and delivery rooms, etc.

1.38 Test Certificate.

The Contractor shall ensure that copies of all relevant test certificates, inspection reports, materials analysis certificates and similar data as may be required under various sections of this specification, or by Government Licensing and Inspection Authorities or Local Authorities, shall be provided before handing over the plant. Acceptance of the plant will be delayed if such certificates are not available. In particular, attention is drawn to pressure vessel and boiler construction and materials test certificates.

1.39 Pipes and Fittings.

Pipe routes as shown on the drawings are approximate and final routes shall be determined on site, with consideration to the structures and other services. Pipes must be installed as close as possible to the structure and at a safe distance from other services and electrical outlets and equipment.

No pipes through brick or concrete walls will be allowed without the use of a sleeve. These could either be built in by the builder or neatly drilled in by the gas Contractor. Approval for the final pipe positions must be obtained from the Consulting Engineer before the work is commenced.

Pipes have to be of the best quality and must comply with the requirements of BS 2871/72-C106 for medical grade piping must be marked as such and shall be suited for the conveyance of medical gasses. All tubing to be identified in accordance with HTM 02-01: 2012 and the ends of the tubes shall be protected with red caps to prevent the ingress of foreign matter during storage and transportation.

Nominal pipe sizes are being used in the specification, on the drawings and in the Bill of Quantities.

The exact pipe sizes are as follows:

Nominal diameter mm	Exact outside diameter	Grade
10	9,53	Medical
12	12,70	Medical
15	15,88	Medical
19	19,05	Medical
22	22,23	Medical
28	58	Medical
35	34,93	Medical
41	41,28	Medical
54	53,98	Medical
66	66,68	Medical

Nominal diameter mm	Exact outside diameter	Grade
79	79,38	Medical

Pipe fittings must comply with relevant BS. Capillary fittings must be used in all instances except where compression fittings must be used to remove items.

Pipe sleeves through walls, concrete beams, slabs etc. must be of the same material as the pipe.

Only the saddle type clamps made from stainless steel, bronze or copper will be allowed to be used in the outside. Nylon clamps may be used in the hospital only after approval by the Engineer.

The spacing of pipe supports must be in accordance with HTM 02-01: 2012. In addition, unless specified else ware vertical supports shall be provided as per following table:

Outside diameter of pipe	Maximum internal vertical runs
Up to 10mm	1.0m
From 12mm – 15mm	1.2m
From 19mm – 40mm	2.4m
Over 40mm	2.4m

No pipes shall be fixed to suspended ceilings. It will be fixed to the structure or be supported by means of approved PVC or aluminium brackets.

Copper pipes must be isolated from steel supports by means of nylon PVC, or copper strips.

Only manufactured capillary couplings must be used, Swaged couplings will not be allowed.

Refer to detail technical specification for seismic considerations.

Brazing Alloy

Copper to copper (similar or equal to Copper-flow no. 1) is to be used for the welding of all capillary fittings and silver solder for brass to copper fittings.

The only brazing allowed to be used shall be Sil-Fos containing at least 15% silver and conforming to the following requirements:

Official specifications

U/K	:	BS 1845: 1977
USA	:	ASTM B260-S6T
Germany	:	DIN 8513

Melting range (°C)

644 to 700

In brazing copper alloys, an aqueous paste of Tenacity Flux No. 4A shall first be applied to the joint locality with a brush. Copper needs no flux unless the length of joint penetration required is exceptional. The joint shall then be heated rapidly to about 700°C before the alloy is laid along it and flowed in. Heating should be discontinued or should be transferred to a fresh portion of the joint as soon as proper penetration has been achieved. It is not good practice to keep the alloy molten for longer

than is necessary. Completed joints showing poor penetration are not likely to be made satisfactory by reheating and addition of more brazing material.

Making of Joints

The joint should be heated quickly using an oxy-acetylene flame heat source. Alternatively, an oxygen and LPG heat flame source may be used (Portapack units shall not be permitted). The penetration of the alloy into the joint shall be approximately 15 mm but not less than 10 mm.

Great care must be taken not to apply more heat than necessary to melt the alloy.

The Contractor shall be requested to have joints cut out and have them analysed by a metallurgic laboratory if the integrity of the joints made are in question. These test will be performed at the cost of the Contractor.

If it is found that the material has been damaged by excessive heat, all joints will have to be replaced at the expense of the Contractor.

1.40 Cleaning.

All pipes and fittings must be kept clean during erection and sections of piping must be cleaned by blasting with medical compressed air or nitrogen before closing up.

While busy with the erection all pipe ends must be kept closed with end caps till the connections are going to be made.

After the installation has been completed, the entire system shall be cleaned by blasting with medical compressed air or nitrogen.

1.41 Line Pressures.

The line operating pressures for the different gasses will be as follows:

Oxygen	400 kPa
Nitrous Oxide	400 kPa
Carbon Dioxide	400 kPa
Vacuum	Minus 70 kPa
Compressed air (low pressure)	400 kPa
Compressed air (high pressure)	800 kPa

During commissioning, all pressure controlling equipment shall be adjusted to ensure that the above conditions are met.

1.42 Isolating Valves.

All isolating valves for gasses shall be 3-piece stainless steel ball valves suitable for the gas handled. They shall be suitable for a working pressure of 1000 kPa gauge. Valves and gas cocks shall comply with BS 5156:1990.

Valves for the vacuum service shall be of the through-way BALL cock type with neoprene or nylon rings and with a clear indication of the "OPEN" and "CLOSED" positions. Globe valves which positively open the seats are also acceptable. They shall, however, only be mounted with their spindles horizontal. Diaphragm valves and taper through-way valves are not permissible for the vacuum service.

All valves for gas and vacuum up to and including 19mm shall be provided with a mounting flange. Pipelines shall be properly secured by holder bats in close proximity on either side of each valve.

Valves shall be secured into the pipeline by one of the following methods:

- a) Gas Line Service Up to 25 mm Diameter

- i. Capillary silver soldered joints. This method is only acceptable for valves specially made for this type of coupling and with the correct size of sockets for the pipe i.e. 0,025 – 0,1 mm clearance.
 - ii. Flare nut compression ring connections for valves specially fitted with them.
 - iii. Screw connection. Here O-ring or taper unions with silver solder capillary outer-halves for connection to the piping shall be used.
- b) Vacuum Line Service Up to 25 mm Diameter
- i. Capillary silver soldered joints. This method is only acceptable for valves specially made for this type of coupling and with the correct size of sockets for the pipe i.e., 0,025 – 0,1 mm clearance.
 - ii. Flare nut compression ring connections for valves specially fitted with them.
 - iii. Screw connection. Here O-ring or taper unions with silver solder capillary outer-halves for connection to the piping shall be used.

Only methods (b) and (c) above shall be used for vacuum valves.

For valves 25 mm diameter and over, valves shall be flange coupled. Flanges on pipelines shall be silver soldered and neoprene gaskets shall be installed between flanges.

Shut off valve handles which are normally open shall be blue and valves normally closed shall have red handles.

1.43 Safety Valves.

Safety valves shall be provided in the positions shown on the drawings or as required for a complete, safe and compliant installation and shall conform to BS 6759 Part 2: 1984. The safety valves upstream of the plant room pressure regulator shall be set to open at 9.5 bar and shall be capable of discharging 700 l/s at this pressure.

The safety valves shall be constructed with a brass housing and a bonnet of cast iron, powder coated. The valve cone shall be brass and the spring of stainless steel and the disc seal of Viton.

The safety valves shall be of a reputable make and shall conform to the relevant safety standards and codes.

Safety valves shall not be installed with isolating valves.

1.44 Non-Return Valves

Non-return valves shall be suitably rated for operation at 10 bar (gauge). These valves shall be of the swing type check valve with full port opening.

1.45 Pressure Reducing Regulators

Two pressure reducing regulators for surgical tools will be fitted in the main distribution pipeline after the dryers. These regulators shall be located in the compressed air plant room and shall be installed in parallel and work simultaneously. They shall each be capable of passing the design flow for high-pressure air and shall be capable of reducing the system pressure to 7 bar (gauge), manually adjustable. This shall supply the high pressure compressed air system.

A further two pressure reducing regulators will be fitted in the main distribution pipeline after the dryers. These regulators shall be located in the compressed air plant room and shall be installed in parallel and work simultaneously. They shall each be capable of passing the full design flow for the low-pressure medical air and shall be capable of reducing the system pressure to 4 bar (gauge), manually adjustable. This shall supply the low pressure compressed air system.

A single pressure reducing regulator shall be installed in the supply from the reserve cylinder bank and shall reduce cylinder pressure to 7bar.

The pressure reducing regulators shall have a brass housing, valve piston and piston guide. The spring bonnet shall be a high-quality synthetic material with a spring steel adjustment spring. It shall have a NBR sealing washer, diaphragm and O-rings. An integral pressure gauge will indicate the reduced system pressure.

Compressed air regulators shall conform to CKS 605: 1987.

Each regulator shall be fitted with a self-seating safety valve on the outlet side of the regulator, as well as two pressure gauges, to SANS 1062: 2010, indicating the high and low pressures.

The regulators shall also be fitted with separate and dedicated filters to protect (where relevant):

- the inlet port of the regulator

- the outlet port of the regulator
- the pressure relief valve seat
- each pressure or flow gauge fitted.

1.46 Pressure Gauges

Pressure gauges shall comply with SANS 1062: 2010. The working pressure range of the gauges shall not exceed 65% of the full-scale range.

These gauges shall be 100mm diameter in size and shall indicate pressure in bar (gauge). The pressure gauges shall be liquid filled to prevent damage due to vibration and pressure surges and shall be fitted to the piping with gauge cocks for maintenance.

1.47 Isolating Valves Cabinet.

The isolating valve box shall be installed where shown and as detailed on the drawings.

The box shall be constructed of 1,2 mm thick galvanised sheet steel with a baked enamel finish. All isolating valves shall be mounted on a 1,6 mm back-plate. A hinged access door shall be provided complete with switchboard panel type push-button lock.

An engraved name plate shall be fitted to the door of the valve box to read as follows (Vinyl stickers [Red wording on white background will also be accepted]):

AUTHORISED PERSONS ONLY
MEDICAL GAS
ISOLATING VALVES
DO NOT CLOSE

Engraved ivorene name plates shall be provided inside the cabinet to identify each valve and the valves shall be painted according to the colours specified in BS EN 13792:2002.

A notice indicating the room or ward fed shall be fixed inside the box.

Line pressures shall be indicated per gas and emergency connections provided.

After manufacture, all valve boxes shall be degreased and painted as hereinafter specified. Colours shall be white.

Valve boxes shall be installed with their lower edge not less than 2 m above floor level.

1.48 Service Outlet Points.

Service outlet points shall be similar or equal to Amico or other equal approved and must accept only British Standard type gas-specific probes (quick connects) BS 5682.

Outlet points, which are grouped, shall be in the sequence as seen from the front from left to right:

Oxygen, Nitrous Oxide, Carbon dioxide, Vacuum, Compressed Air (Low), Compressed Air (High).

The mating parts of the plug and socket joint shall be of a different shape for each service, so that it is impossible to insert a plug of one service into the socket for another.

Wall mounted outlet points shall be $\pm 1,5$ m above the floor.

Pendant mounted points will be as per detailed drawing.

All piping is surface mounted and no piping chased in the walls will be allowed.

Scavenging points shall be stainless steel, tapered and mounted on the theatre pendant where indicated. This point will be suitable for scavenging applications and will be supplied where indicated.

1.49 Pendants.

Pendants must be similar or equal to the design shown on the drawing.

Alternative designs based on the manufacturer’s standard will also be considered provided that full details will be submitted with the tender.

Provision on the underside of the pendant must also be made to accommodate the gas outlet points. Provision must be made for 2 x O₂, 1 x N₂O, 2 x V, 1 x CA (low), and 1 x scavenging. The correct number of points shall be indicated on the theatre layout drawings and described in the technical part of the specification.

Easy accessibility to the inside of the pendant for the installation and for maintenance of the equipment is of vital importance and only pendants with this facility shall be acceptable.

Pendants shall be epoxy coated. The final colour shall be brilliant white unless specified otherwise elsewhere.

1.50 Painting of Systems.

1.50.1 General Requirements

All paints must carry the BS make for industrial use and must be approved by the Engineer.

With the exception of plant rooms, the paint in the rest of the buildings the specified paint for the particular area with respect to both colour and quality. Details may be obtained from the architect or main Contractor.

Piping shall remain closed off during the entire process and when Nitrogen shall be constantly flowing through the piping to prevent oxidation during welds.

1.50.2 Pipelines

Pipelines must be painted in accordance with HTM 02-01: 2012:

- a) Where pipes run below the ceiling and in plant rooms, the full pipes must be painted in the relevant colours.
- b) Pipes above the ceiling must be identified by painting the bands ± 100 mm long at regular intervals, particularly at T-junctions as well as identification stickers.

1.51 Oxygen Generator Installation

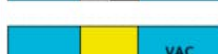
1.51.1 System Description

The oxygen generator will be referred to as a “Pressure Swing Absorber” - (PSA). Essentially “pressure swing” refers to the process of pressurization and pressure release between two cylinders filled with Zeolite to absorb Nitrogen and release oxygen from the air.

The PSA plant is dependent on a dedicated compressed air plant complete with refrigerant dryer to pressurize the system to around 7 to 8 bar (specialist specific).

Oxygen shall be supplied directly to:

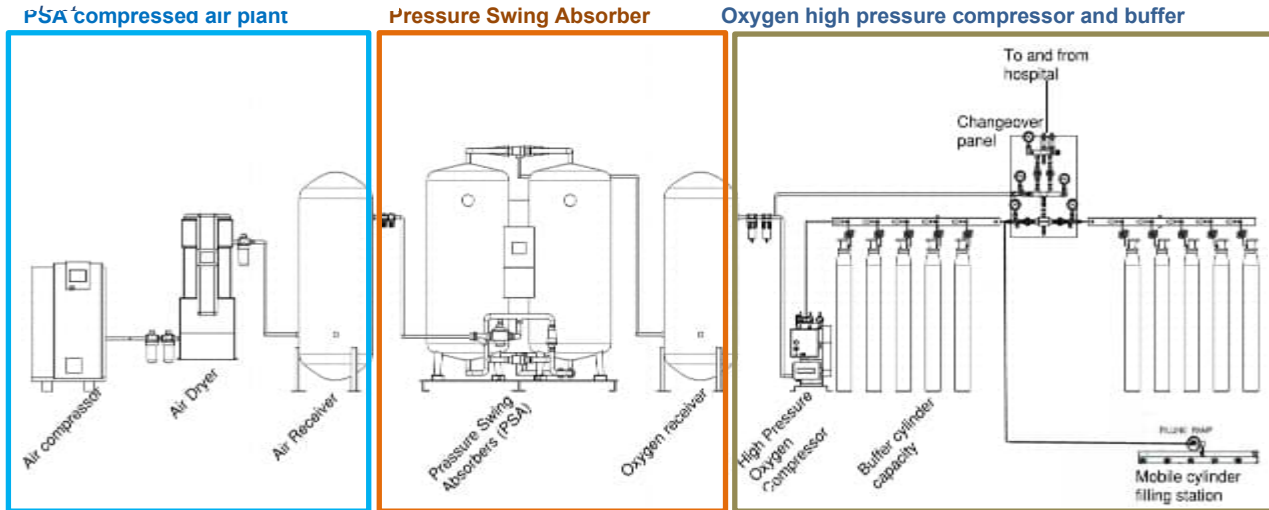
- The hospital.
- A high-pressure (170 – 200bar) oxygen compressor to refill a high-pressure cylinder bank during off-peak periods for utilization during peak demand periods and in the event of a PSA failure.

	O ₂	OXYGEN	
	N ₂ O	NITROUS OXIDE	approved by
	O ₂ /N ₂ O 50/50	OXYGEN/NITROUS OXIDE MIXTURE 50%/50%	must match and quality.
	MA	MEDICAL AIR	
	SA	SURGICAL AIR	welded internal
	VAC	MEDICAL VACUUM	
	AGS	AGS SYSTEM	
	He/O ₂ 79/21	HELIUM/OXYGEN MIXTURE 79%/21%	length of
	SN	SURGICAL NITROGEN (Alternative label N ₂)	above colour junctions, as
	EXHAUST	EXHAUST FROM PSVs ETC	
	CO ₂	CARBON DIOXIDE	

- Filling station for mobile cylinders and 50 litre (water capacity) cylinders for the respective movement of patients, emergency connection to valve boxes and building up emergency capacity.

The entire process is depicted below in figure 15.1:

Figure 15.1 Oxygen generation



1.51.2 Essential Service Protection.

The following items shall be deemed standard in terms of failure mitigation.

1.51.2.1 Air Compressor Failure:

A single compressor will be dedicated to the oxygen generator. The compressor is deemed to be the highest risk item to the oxygen generator plant due to the number of moving parts. Failure may be total failure, or failure to produce the specified quality of compressed air.

Loss of pressure or reduced quality of compressed air shall be picked up by the onboard sensor of the oxygen generator. In the situation that inferior air quality is sensed, an onboard (to PSA) inlet valve shall close to protect the PSA.

The valve closure and or shut down will be sent as a major failure alarm to the BMS.

The medical air plant has n+2n capacity. In the event of failure, the two standby medical air compressors shall provide standby to the oxygen generator. However, restart of an oxygen generator may take up to 4 hours to reach its purity level again.

The changeover is a manual process by the facility manager to access the cause of shut down to ensure the lines are clean and safe changeover can take place. During this time and the 4-hour restart the high-pressure oxygen cylinder banks shall provide Oxygen to the hospital.

The dedicated PSA compressor supply line shall be provided with valves and fittings to enable flushing of the dirty line while running on the medical air compressors.

1.51.2.2 High Pressure Compressor Failure:

A single high-pressure oxygen compressor shall fill the cylinders. Without this compressor the hospital will not be able to continue to provide for maximum peak flow without depleting the cylinder capacity.

A high-pressure oxygen compressor shall be made visible through the BMS by trending the loss of cylinder pressure i.e., alarming on a higher rate than usual.

Should the failure involve major repairs, filled cylinders should be ordered immediately to prevent the loss of the full service within 6-8 days.

1.51.2.3 PSA Failure:

The BMS system shall alarm on “no response” or specific error codes from the PSA.

The 52 connected cylinders and ± 100 spare cylinders should provide more than 3-6 day of supply should the PSA fail (based on HTM pipe flow calculations deemed conservative). The suppliers shall have all components in stock and parts should be flown in.

1.52 Vacuum Installations.

1.52.1 Vacuum Pumps

Vacuum pumps shall either be of the single stage reciprocating type, claw or of the screw type, as specified in the Detailed Specification.

Reciprocating type vacuum pumps shall be of the dry, air-cooled type with the following design features:

- Inlet air muffler or similar type sound attenuator.
- Cast iron, completely sealed crankcase with large oil sump.
- Precision honed, deep radial finned cylinders, separately cast and individually flanged to the crankcase.
- Removable cylinder heads.
- Stainless steel valves.
- Full-floating piston rings.
- Fan type flywheel for enhanced cooling and stable operation.
- Splash lubrication of running parts.
- Totally enclosed belt guard.
- V-belt driven with provision for compressor speed adjustment.
- Unloaders for low load starting.

The vacuum pump motor and belt drive shall be mounted on a fabricated steel baseplate.

Screw type vacuum pumps shall be step less air-cooled type with the following design features:

- 100% step less capacity control system.
- Direct driven pump - No V-belts
- Effective oil filtration system Less than 3 ppm oil carry-over.
- All components accommodated in a well-ventilated epoxy powdered coated steel housing.

Each compressor shall be equipped with an air inlet muffler or similar type sound attenuator.

The compressor may be V-belt driven. All belts shall be in matched sets and to BS 3790: 2006. The drive motor shall be mounted on slide rails for adjusting belt tension. The pulleys shall be of cast iron or steel and correctly grooved. All drives shall be equipped with an easily removable guard which shall be painted to BS standard colour code.

1.52.2 Installation of Vacuum Pumps.

Compressor motor assemblies shall be mounted on 100 mm high concrete plinths on anti-vibration mountings. The anti-vibration mountings shall be of the spring-flex type unless specified otherwise. The Contractor shall take the necessary precautions to ensure that no vibration from the equipment is transmitted to the structure.

When erected on existing concrete floors, bases for mounting compressor units shall consist of a top reinforced concrete slab at least 100 mm thick, preferably with a 100 x 50 x 3 mm lip channel frame to form the top edges, trowelled to a smooth finish and coloured to suit the plant room floor.

All piping attached to the compressor in an outlet opening shall be braided flexible pipe connectors.

1.52.3 Exhaust Gas Piping.

Exhaust gasses shall be safely piped to the outside of the building and above the nearest roof structure using copper tubing. A suitable muffler shall attenuate the noise to an acceptable level. The top of the pipe must be bent in the form of an inverted "u".

1.52.4 Pipe Connections.

The connection between the vacuum receiver and the piping distribution network shall be below the outlet of the receiver and placed on the side of the receiver. The pipe connections between the tank and the vacuum pumps shall include soft seated check valves and flexible pipe connectors.

1.52.5 Vacuum Tank (Receiver).

The vacuum tank of the capacity specified shall be of welded construction and equipped with the necessary inlet and outlet pipe connections. The connections shall be flanged or screwed. The tank shall be fitted with a hand-controlled drain valve.

The tank shall be painted with a suitable metal primer, undercoat and final enamel coat in the colour as the vacuum piping.

A vacuum gauge with a diameter of at least 50 mm with an isolating valve must be installed on the tank. It must be possible to isolate the gauge. The gauge must be calibrated in Pa from 0 to minus 100 kPa below atmospheric pressure.

The vessel shall be designed and constructed to UK rules for unfired pressure vessels, PD 5500.

1.52.6 Vacuum Traps.

Vacuum traps with a capacity of at least 2 litres must be fitted on vacuum lines inside the building.

The jar shall be manufactured from glass and shall be easily removable without the interruption of the service. The jar must be transparent and be able to be sterilised at 160°C.

Positions of traps are indicated on the drawings.

1.52.7 Vacuum Traps/Bacterial Filter.

Bacterial filters and moisture traps will be provided in the vacuum plant room. These filters and traps will be installed in parallel as shown and each filter and trap shall be sized for the full vacuum flow to allow the removal of one trap and filter for servicing without interrupting the vacuum supply.

A combination bacterial filter with glass vacuum trap must be installed on the pipe entering the plant room before entering the vacuum receiver. The maximum penetration of the filter shall not be more than 0,05% if subjected to the Sodium Flame Test according to BS 3928.

The pressure drop over each filter shall not exceed 50mm Hg. Each filter housing shall be fitted with a pressure differential indicator clearly indicating when the filter cartridge must be replaced.

If the moisture trap is not made from a see-through material, the vessel will be fitted with a sight glass to indicate the level of liquid.

1.53 Cylinder Gas Bank Manifolds and Plant

1.53.1 General

The cylinder gas bank shall comprise two banks of gas cylinders main and reserve, connected to a manifold. Both main and reserve banks shall be connected to the system, in such a way that only one bank will supply the system at any one time. When the operating bank becomes depleted or should the supply pressure fall, the system shall automatically engage the reserve bank.

Each bank shall supply the system through its own pressure reducer. A master pressure regulator shall ensure the correct line pressure no matter which bank is in operation. Each pressure regulator shall be fitted with a safety valve set to operate at 1½ times the working pressure and be vented to atmosphere, outside the manifold room.

The gas cylinder banks shall be placed in the room indicated on the drawings and shall be of the capacities indicated in the supplementary specification. On site manufacture of manifolds is not permitted.

Pressure gauges indicating the cylinder and supply line pressures shall be incorporated in the manifold and on all pressure reducers.

A service point (i.e., a medical gas outlet) shall be connected into the main line from each pressurised gas line immediately after the main line valve. The service point height shall be about 1,5 metres above the finished floor level.

The following pressure control and change over equipment has been approved:

- Fully automatic change-over manifold similar or equal to the Cumbria Regent Panel or other equal approved.

1.53.2 Manifold Materials

The fittings used on the manifold will consist of forged bronze while the tubing shall be of heavy gauge copper. Pigtailed shall preferably be of stainless steel braided reinforced flexible connections suitable for use with oxygen. If not obtainable then annealed copper pigtailed will be acceptable. All the high-pressure side equipment of the manifold shall withstand a test pressure of 40 MPa gauge.

1.53.3 Manifold Equipment

The manifold shall accommodate the number of cylinders specified and shall be arranged as shown on the drawings.

The regulator assembly, which shall operate on the fully automatic change over system, shall be as shown on the supplementary drawings and shall include:

Two pressure regulators to reduce the cylinder pressure shall be installed one each for the left and right hand bank. The final layout and setting of the regulators will be shown on the detail drawings and described in the technical specification.

The gas standard diagrams show the position of pressure gauges. At least five pressure gauges must be installed:

- a) One high pressure gauge for each bank
- b) one pressure gauge for each bank to indicate the intermediate pressure; and
- c) one pressure gauge to indicate the low pressure on the distribution systems i.e. the line pressure.

All pressure gauges shall have a full-scale deflection of not more than twice normal working pressure and all shall be fitted with safety glass.

The whole manifold regulator assembly etc., shall be securely bolted to a channel iron frame or directly to the wall and shall not be enclosed. All piping must be surface mounted on the front of the frame. The frame must be powder coated in the relevant colour of the gas.

All gas cylinders shall stand against a rack with individual safety chains for each cylinder to prevent these from falling over. These shall encircle the cylinders at about 2/3 of their height. Safety chains shall be secured with eye bolts and shall have a deep hook on one end passing through an eye bolt.

The Contractor shall supply full details of capacities by means of manufacturer's graphs for reducing and safety valves.

1.53.4 Active Bank Indication Panels

All automatic change over valves shall be fitted with active back indication panels. Active bank indication panel shall be fitted below the automatic change over valves. Sensing on the valve shall be done with magnetic switches inserted into this valve. The panel shall contain at least the following:

- Battery power supply (12 V acid free sealed re-chargeable) with sufficient capacity to operate the system for 48 hours.
- Battery charger capable of taking the connected load and charging the battery.

- Battery test button to test the 12 V supply. The 230 V mains supply to be interrupted when this test is performed.
- Panel test button to test all the LED's.
- Electric main supply indication LED (green).
- Active bank LED's indicating which bank of cylinders is selected (green).
- Surge and lightning protection for the entire panel (input and output).
- The LED's are to be 6mm complete with grommets; continuous green.

1.53.5 Pigtail Connections

Pigtails for connecting the manifold to the cylinders shall be long and flexible enough to allow easy connection to the cylinders without having to strain the tube.

Each outlet for connecting the manifold to the pigtail shall have a screw-down header valve. Pigtails shall be connected to these valves with high pressure gas connections.

Alternatively, every cylinder connection on the manifold shall be provided with a separate non-return valve and screw-down header valve.

All components shall be cleaned for oxygen use and pressure tested to a minimum of 300 bar and supplied with certificate.

The Contractor shall supply full details of capacities by means of manufacturer's graphs for reducing and safety valves.

1.53.6 Cylinder Racks

All active, spare and empty cylinders shall be sturdily supported by means of steel racks fixed to walls and floors so as to produce a sturdy structure.

Where required steel columns shall extend to the ceiling slab and beams across to nearest wall to ensure that racks that are not adjacent to walls are properly supported.

The cylinders shall be held in place with individual chains fixed to the racks, but with one end that can be unhooked by hand to replace the cylinders.

1.53.7 Cleaning

After assembly, the manifold header fittings and connections, shall be blown out with medical compressed air or nitrogen. A brass or copper plate shall be mounted on the manifold stating test pressure, date of manufacture and manufacturer's name. A certificate shall be submitted to the duly appointed Engineer/Technologist/Technician (Mechanical) to this effect.

1.53.8 Operating Instruction

Detailed, clearly printed instructions on how to operate the manifold and including any drawings which may be necessary shall be provided by the Contractor. These shall be mounted in glass fronted frames fixed to the wall above the manifold by the Contractor.

1.53.9 Pressure Gauges

All pressure gauges shall be 100 mm diameter gauges, calibrated in kPa, with a range of as follows:

Medical Gasses	0 to 1000 kPa
Vacuum	-100 kPa to 0 kPa
Medical Air (Low Pressure)	0 to 1000 kPa
Medical Air (High Pressure)	0 to 1500 kPa

All pressure gauges shall be equipped with safety glass. The operating pressure shall be appropriately marked on the face of the gauge.

1.54 Identification of Plant and Equipment

The whole of the plant including motors, control equipment, compressors etc., shall be identified e.g., Pump 1A, Compressor C1, etc.

All electrical switchgear panels, electrical and electronic control panels and control equipment such as control valves, motors, dampers etc., shall be labelled and identified in accordance with the approved wiring diagram or approved control schematic diagram.

Labelling shall be done in white print on black hard plastic labels, which shall be glued onto panel covers and equipment. No label shall be less than 50 mm high unless those on and in switchboards where it is permitted to use smaller labels to suit the application.

Labelling shall be done in English only.

After commissioning of plant, all pressure gauges, flow meters, thermometers, etc., shall be identified with reference to operation pressures, temperatures etc.

1.55 Manuals and Literature

At the stage of performance testing, the Contractor shall submit to the Consulting Engineer, three copies of maintenance and operating instructions each containing the following:

- a. A full set of electrical drawings of the final installation.
- b. A full set of control drawings of the final installation.
- c. The model number and make of all equipment installed together with the supplier's name and address as well as recommended filter change-out pressures.
- d. Literature on all equipment installed including wiring diagrams, recommended spare parts lists together with the model number etc., and the name and address of the supplier.
- e. A list of all control components installed together with model numbers.
- f. All workshop drawings of the plant as installed.
- g. Routine maintenance procedure.
- h. Trouble-shooting checklist.
- i. All wiring diagrams. Additionally, a copy of the wiring diagram is to be framed and hung in the plant room.

All wiring diagrams are to be correct in every respect and checked before being submitted i.e., they are to be correct for the operation of the plant as specified and installed.

All the above relevant information shall be properly filed and indexed in an appropriate file.

1.56 Electrical Services for Medical Gas Installations

1.56.1 Requirements

The electrical equipment and installation shall conform fully to the requirements of BS 7671:2008+A3:2015.

1.56.2 Supply

A three phase, 50 hertz electrical supply will be provided by others at the points shown on the drawings. The supply will terminate in a bare ended cable. This tender shall include for the supply points and all other cabling, conduits, cable racks, trays, switchgear, panels, distribution boards, etc., necessary for the satisfactory operation of every part of the installation as well as for the connection of the supply cable into this panel. Three-pin socket outlets will be provided for 220 volt equipment where necessary.

1.56.3 Control Panel

A motor control and switchgear board shall be supplied and installed in each plant room at the position indicated. Each board shall be fitted with the following: -

- a. A main isolator.
- b. A set of copper busbars of adequate size, if the peak current on the board exceeds 50 amperes per phase.
- c. Individual motors shall be supplied through a circuit breaker and suitable D.O.L., automatic Star-Delta, or slip ring starter.
- d. All other equipment shall be supplied through a circuit breaker.
- e. In the case where the rupturing capacity of a circuit breaker is lower than the rupturing capacity of the electric feed system at the specific point, the circuit breaker shall be protected by H.R.C. fuses of adequate size.

All starters shall be equipped with auxiliary contacts, which shall be brought to an easily accessible terminal block for the purpose of remote control (if specified). An ammeter with suitable scale shall be fitted to each motor above 7,5 kW output on at least one phase and shall be installed in the panel next to the relevant switchgear.

Switchgear panels and boards shall be factory pre-wired so that the only "on site" connections to be made will be the main connection, the supply to each motor, and the control system connections to the terminal block.

Each item on the board, switches, instrument control, etc., shall be clearly labelled in white print on black, hard plastic labels, which shall be neatly glued onto the back panel of the Board.

All switchgear and distribution boards shall be of the metal clad surface type, with a framework, which is electrically continuous and properly bonded to earth.

The boards shall be equipped with hinged steel doors adequately braced each with a flush lock and two keys.

All boards shall be treated with two layers of rust inhibiting paint.

Switches, pushbuttons, and indication lamps and gauges shall be so installed that they remain fastened to the doors when doors are opened.

The layout of each board as well as the wiring diagrams and details of the switchgear provided shall be approved by the Consulting Engineer before any manufacture is commenced.

All wiring in distribution boards shall be labelled to ease the later tracing of circuits, these shall correspond to drawing labelling.

1.56.4 Wiring

All boards which are to be mounted outdoors, shall be weather proof and guaranteed by the manufacturers for such outdoor operation.

The wiring of the plant shall be carried out by the Contractor in surface work in the plant rooms and concealed work in all finished spaces. Wiring shall be done by means of solid drawn or lap-welded screwed tubing and PVC insulated copper conductors, or in multicore PVC/SWA/PVC cable. The main runs of conduit or cable shall

preferably be carried out at high level (if possible, in false ceiling spaces). Distribution shall be vertically down to the required points. All electric conduit and conduit fittings must be thoroughly inspected for defects before installation, and all sharp edges and burrs removed. Bushes and locknuts are to be used where conduit enters switch boxes.

The proposed location of tubing and cables shall be approved by the Consulting Engineer before commencement of work.

Conduit to be installed under plaster finish shall be installed in good time so as not to delay the Building Contractor or cause finished plaster to be chased.

All electrical cables shall be fastened to cable racks or shall be laid in cable ducts. Cables carried in racks shall as far as possible be laid parallel and shall be neatly installed. Descents shall be firmly secured with provision for the swinging of flexible tubing or cables were attached to moving machines and electrical motors.

Sizes of conduit, conductors and cables shall be at least equal to those laid down in the relevant tables of the Code of Practice.

Flexible conduit and cables shall be provided wherever it is necessary to avoid transmission of vibration. No joints in cables or wires will be permitted in a conduit. The ends of cables shall be properly made off. Terminal lugs shall be used wherever special clamp-washers or sleeve terminals are not provided on equipment. Conductor strands may not be cut away or reduced in size, and care must be taken to select switchgear, etc., with terminals of adequate size for looping, etc., where necessary.

No open wiring will be permitted at any point in the system, with the exception of the copper bus-bars in the switchgear boards. These shall be taped up with PVC tape with the relevant phase colours.

1.56.5 Boxes

Where boxes are used in concrete or masonry, approved removable cover plates shall be supplied. For 100 mm x 100 mm boxes, standard blank metal switch-type cover plates may be used, but for larger boxes, removable cover plates of metal or other approved material must be supplied with bevelled edges and must be neatly painted.

Cover plates shall be large enough to overlap and cover any gaps between the draw box and the masonry or concrete and must be finished off to match the surroundings so as not to mar the architectural appearance of the building.

1.56.6 Electric Motors and Starters

All electric motors, except slip-ring motors used in the entire contract shall be of the totally enclosed type and shall comply with the requirements of BSS 5000 Part 99 and BSS 5000 Part 2 as amended for continuously rated machines.

All electric motors supplied under this contract shall be of the continuously rated type, with due rating allowance made for the prevailing atmospheric conditions and altitude. All motors up to 1.9 kW output may be single phase suitable for operation on 220/230 volts, 50 hertz. Motors above 1.9 kW shall be 3 phase suitable for operation on 380/230 volts, 50 hz supply and shall be of the squirrel cage induction type (except where specified otherwise.)

In cases where the rotational inertia of driven equipment (fans, pumps, compressors, etc.) is such that the run-up time to full speed is longer than 10 seconds, motors above 5 kW output shall be of the slip-ring type, with suitable starters and dust proof removable covers over the sliprings.

Motors up to 7.5 kW output may be started direct-on line. All other motors (apart from those that are slip-ring) shall be supplied with automatic star-delta starters.

All motors shall be provided with starters acceptable to the supply authority. The starters shall be fitted with all protective devices required to completely protect the motors concerned, including the following:

- a) Isolator to isolate the motor and starter.
- b) Adjustable overload trip on each pole, with time lags.
- c) Under volt trips (for motors above 5.5 kW) are to be installed on starters other than D.O.L.

Some of the motors may be required to be started by remote control. Starters for these motors shall be suitable for such operation.

All electric motors and equipment installed outside of plant rooms shall be equipped with a local lock-stop switch within two meters from the motor if the motor is started from the machine room or remotely.

Electric motors shall be selected to have a capacity of 1,2 times the actual capacity required by the electrically driven machine.

1.56.7 Wiring In Conduit

No joints shall be allowed and all looping must be done through approved connectors at fitting points.

The live phase shall be connected at the switching point. All wiring in conduit shall conform to the requirements of BS 7671:2008+A3:2015. Not more than one circuit shall be accommodated in one circuit unless special permission is obtained from the Engineer. Before any wires are drawn into the conduit, a swab is to be drawn through to clear any water, dirt, etc.

1.56.8 PVA Insulated Cables

LT cables with PVC insulation must conform to the requirements of BS 50525: 1011.

1.56.9 Solid Conduit

All conduits shall be of heavy gauge steel, screwed and conform to BS 4568-1:1970. No conduit shall be less than 20 mm in diameter.

All joints shall be screwed, and all outlets fitted with rustproof iron boxes. Conduit must be either screwed and lock-nutted on both sides and bushed on the inside of the box or board to which it is attached.

The whole conduit system shall be electrically and mechanically continuous over all joints by means of screwed couplings, well bonded and efficiently earthed by means of earthing terminals and earth continuity conductors. The Contractor must keep in touch with the builder and install all conduit so as not to delay his work and to ensure the closest co-operation. Every effort must be made to avoid running conduit in "U"-form, but where this is unavoidable, provision should be made, if possible, to drain the conduit.

All chasing of brickwork, etc., for conduit shall be carried out under this contract.

1.56.10 Miniature Circuit Breakers

All miniature circuit breakers of the single and double pole type shall be 250-volt grade, and triple pole breakers shall be 600-volt grade. Circuit breakers shall be of the Heinemann FW or other equal approved make.

MCB's may be secured directly to the front panel in which case this panel shall be hinged and wiring taped together to allow for easy movement of the panel. Preferably the MCB's shall be mounted on a metal frame attached to the board casing, access being given to the MCB's and connections by a removable or hinged panel, suitably slotted for toggles, etc.

1.56.11 Fuses

Where circuits are scheduled to be fed through fuses, these shall be mounted directly on the panel. All rewire able fuses shall be of the porcelain bridge type, of approved manufacture, connected through bushed insulated holes in the panel. An I.C. fuse board unit may be used instead of separate fuses. Connections shall be made through the back of the panel so that no surface wiring results. Tinned copper fuse wire shall be fitted to suit the loading indicated in the schedules, where rewire able fuses are used, and cartridge fuses shall be fitted with the appropriate cartridges.

1.56.12 Chasing Of Concrete Columns, Beams And Slabs

The Contractor must take particular care that all pipes, boxes, etc., in columns, beams or slabs are fitted before the concrete is cast. Where, however, through unforeseen circumstances it becomes necessary to chase columns, beams, or slabs, the permission of the Engineer must first be obtained. Where this is not done, the Contractor will be held responsible for any damage to the structure which may result.

1.56.13 Earthing

The whole installation shall be efficiently earthed to the satisfaction of the Engineer, the Inspector of Factories, the Supply Authority, and strictly in accordance with the British Code of Practice for the Wiring of premises. Any points proposed as earthing points by the Contractor shall first be approved by the Engineer before connection.

1.56.14 Flexible Connections

Flexible connections shall be of "Kopex" manufacture or approved type. All flexible connections shall be properly earthed to ensure earth continuity.

**SCHEDULED MAINTENANCE OF VACUUM AND
COMPRESSED MEDICAL GAS EQUIPMENT IN CLUSTER
1 – HEALTH FACILITIES**

**PART C3.6: Health and Safety
Specification**

Occupational Health and Safety Specification

Issued in terms of the Occupational Health and Safety Act, 1993 Construction regulations 2014

PROJECT NAME	SCHEDULED MAINTENANCE OF VACUUM & COMPRESSED MEDICAL GAS EQUIPMENT AT CLUSTER ONE (1) – OR TAMBO AND ALFRED NZO DISTRICT – HEALTH FACILITIES (36 MONTHS)
LOCATIONS	VARIOUS HEALTH FACILITIES IN ALFRED NZO AND O.R. TAMBO DISTRICT
DISTRICT	CLUSTER ONE (1) – ALFRED NZO AND O. R. TAMBO DISTRICT
BID NO	SCMU3-2627-0178-HO

TABLE OF CONTENTS

1	SCOPE.....	3
1.1	BACKGROUND	4
2	DEFINITIONS.....	5
2.1	LIST OF ABBREVIATIONS	5
2.2	KEY REFERENCES.....	6
3	INTERPRETATION	6
3.1	PURPOSE OF THE PROJECT SPECIFIC HEALTH AND SAFETY SPECIFICATION (PSHSS)	6
3.2	REQUIREMENTS.....	7
4	GENERAL REQUIREMENTS.....	7
4.1	RISKS	7
4.2	SPECIFIED HAZARDOUS CHEMICAL SUBSTANCES	8
4.3	OCCUPATIONAL HEALTH & SAFETY MANAGEMENT	8
4.4	HEALTH AND SAFETY PLAN FRAMEWORK.....	8
4.5	APPOINTMENT OF COMPETENT PROJECT PERSONNEL	8
4.6	MAINTENANCE MANAGER / SUPERVISORS.....	8
4.7	CONSTRUCTION HEALTH AND SAFETY OFFICER	8
4.8	HEALTH AND SAFETY REPRESENTATIVE	9
4.9	OTHER APPOINTMENTS	9
5	GENERAL RISK MANAGEMENT	9
5.1	HEALTH RISKS AND MEDICAL SURVEILLANCE.....	9
5.2	HAZARDOUS BIOLOGICAL AGENTS.....	9
5.3	NOISE AND DUST CONTROL AND RISK	10
5.4	EMERGENCY PROCEDURES	10
5.5	FIRST AIDERS AND FIRST AID EQUIPMENT	10
5.6	FIRES AND EMERGENCY MANAGEMENT	10
5.7	INCIDENT MANAGEMENT AND COMPENSATION CLAIMS	11
5.8	PERSONAL PROTECTIVE EQUIPMENT (PPE) AND CLOTHING.....	11
5.9	OCCUPATIONAL HEALTH AND SAFETY SIGNAGE	11
5.10	INDUCTION OF EMPLOYEES AND VISITORS, GENERAL H&S TRAINING	12
6	COMMUNICATION ON THE PROJECT	12
7	AUDITING	12
8	SITE ACCESS POINTS AND SECURITY CONTROL	12
9	CARE OF WORKERS ON SITE (WELFARE)	12
10	DISCIPLINE, ALCOHOL AND SUBSTANCE ABUSE.....	13
11	WORKING AT HEIGHTS	13
12	ASBESTOS.....	13
14	ELECTRICAL.....	13
15	INSPECTION AND HAND TOOLS	14
16	LADDERS AND LADDER WORK.....	14
17	SUBCONTRACTORS.....	14
18	DELIVERY OF MATERIALS.....	14
19	HOARDING	14

OHS Spec prepared by: N. Mcopele, Occupational Health and Safety Manager,
ECDOH for repair and fixed term scheduled maintenance of vacuum and compressed medical gas equipment.

20	NON-CONFORMANCES	15
21	HEALTH AND SAFETY FILE	15
ANNEXURE A	CONTRACTOR'S MONTHLY HEALTH AND SAFETY REPORT	
ANNEXURE B	REQUIREMENTS FOR THE SAFETY PLAN ASSESSMENT	
ANNEXURE C	LEGAL APPOINTMENTS	
ANNEXURE D	SAFETY SPECIFICATION AND BASELINE RISK ASSESSMENT ISSUE REGISTER	
ANNEXURE E	OHS BILL OF QUANTITIES	
ANNEXURE F	BASELINE RISK ASSESSMENT	

1 SCOPE

This health and safety specification in respect to the services for Cluster One (1) – Alfred Nzo and O. R. Tambo Districts. This specification is for the repair and fixed term maintenance of vacuum and compressed medical gas equipment at various healthcare facilities within the O. R. Tambo & Alfred Nzo District.

The facilities that will require maintenance of vacuum, compressed medical gas and associated equipment are listed below:

1.	Mthatha Regional Hospital
2.	Nelson Mandela Academic Hospital
3.	Bedford Orthopaedic Hospital
4.	Ngangelizwe CHC
5.	Bhaziya CHC
6.	Mbekweni CHC
7.	Mhlakulo CHC
8.	Mqanduli CHC
9.	St Barnabas Hospital
10.	Dr Malizo Mpehle Memorial Hospital
11.	Makhotyana CHC
12.	Canzibe Hospital
13.	St Lucys Hospital
14.	Qumbu CHC
15.	Tombo CHC
16.	Ngcwanguba CHC
17.	Isilimela Hospital
18.	Zithulele Hospital
19.	Port St Johns CHC
20.	Madzikane KaZulu Memorial Hospital
21.	Bambisana Hospital
22.	Sipetu Hospital
23.	St Elizabeth Hospital
24.	Mount Ayliff Hospital
25.	Ntabankhulu CHC
26.	Flagstaff CHC
27.	Holy Cross Hospital

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28.	St Patricks' Hospital
29.	Taylor Bequest Hospital
30.	Khotsong TB Hospital
31.	Maluti CHC
32.	Greenville Hospital

1.1 Background

This specification is for the repair and fixed term maintenance of vacuum, compressed medical gas and associated equipment at various health facilities listed in table above of the Cluster One (1) – Alfred Nzo and O. R. Tambo Districts.

1. Afrox Gas Bank (2*8 manifold)
2. Bulk Oxygen Tank
3. Compressor Driers (0.66 kW)
4. High Pressure Compressor
5. High Pressure Vacuum Compressor
6. High Pressure Vacuum Compressor (11kW)
7. High Pressure Vacuum Pump
8. High Pressure Vacuum Tank
9. Ingersoll Rand Compressor
10. Medical Air Bank (2*4 manifold)
11. Medical Air Tank (750L)
12. Medical Gas (Afrox 2*8 manifold)
13. Nitrous Oxide (1*2 manifold)
14. Nitrous Oxide Bank (1*2 manifold)
15. Nitrous Oxide Bank (2*3 manifold)
16. Nitrous Oxide Bank (2*4 manifold)
17. Nitrous Oxide Bank (2*8 manifold)
18. Nitrous Oxide Gas Bank (1*2 manifold)
19. Nitrous Oxide Gas Bank (2*3 manifold)
20. Oxygen Bank (1*2 manifold)
21. Oxygen Bank (2*10 manifold)
22. Oxygen Bank (2*15 manifold)
23. Oxygen Bank (2*2 manifold)
24. Oxygen Bank (2*3 manifold)
25. Oxygen Bank (2*5 manifold)
26. Oxygen Bank (2*6 manifold)
27. Oxygen Bank (2*8 manifold)
28. Oxygen Gas Bank (1*2 manifold)
29. Oxygen Gas Bank (2*5 manifold)
30. Oxygen Gas Bank (2*8 manifold)
31. Pressure Tank Fabricators
32. Solid Air Vacuum Pump
33. Vacuum Compressor Tank Unit
34. Vacuum Compressor Unit
35. Vacuum Pump

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36. Vacuum Pump (Royles)
37. Vacuum Tank
38. Vacuum Tank (2000L)
39. Vacuum Tank (2500 L)
40. Vacuum Tank (4000 L)
41. Vacuum Tank (4000L)
42. Vacuum Tank (50L)
43. Vacuum Tank Unit

The scope provides the overarching framework within which the Principal Contractor is required to demonstrate compliance with certain requirements for occupational health and safety established by the Occupational Health and Safety Act 85 of 1993 during construction work;

- Establishes the way the Principal Contractor is to manage the risk of health and safety incidents during construction; and
- Establishes the way the Client or Clients Agent will interact with The Principal Contractor.

This specification establishes general requirements to enable the Principal Contractor to satisfy aspects of the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993) and the Construction Regulations, 2014. The Principal Contractor is required to develop, implement and maintain a site-specific health and safety plan. The Client is required to provide certain site-specific information to the Principal Contractor or a health and safety specification for the works to enable such a plan to be formulated. Accordingly, this specification on its own cannot ensure compliance with the requirements of the Act.

The Construction Regulations, 2014, requires a client to stop any contractor from executing construction work which is not in accordance with the contractor's health and safety plan for the project or which poses to be a threat to the health and safety of persons.

2 DEFINITIONS

As per the Occupational Health and Safety Act (85 of 1993) and the relevant regulations and applicable standards.

2.1 List of Abbreviations

AIA	Authorized Inspection Authority
CC	Compensation Commissioner
CHSA	Construction Health and Safety Agent
CHSO	Construction Health and Safety Officer
CR	Construction Regulations (CR 2014)
DoL	Department of Labour
GAR	General Administration Regulations
GSR	General Safety Regulations
HCSR	Hazardous Chemical Substances Regulations
HIRA	Hazard Identification Risk Assessment
H&S	Health and Safety
OHSA	Occupational Health and Safety Act No. 85 of 1993 (as amended)
OHSS	Occupational Health and Safety Specification
PA	Principal Agent
PSHSS	Project Specific Health and Safety Specification
PC	Principal Contractor
PPE	Personal Protective Equipment
SANS	South African National Standards (Authority)
SDS	Safety Data Sheet

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2.2 Key References

- Occupational Health and Safety Act No. 85 of 1993 and Regulations (as amended).
- Construction Regulations 2014.
- Compensation for Injury and Occupational Diseases Act No. 100 of 1993 (as amended).
- SANS 7396 .
- This standard, derived from the International Organization for Standardization (ISO) 7396, is the primary standard for medical gas pipeline systems in South Africa.
- Scope of SANS 7396: It covers the design, installation, performance, and testing of medical gas pipeline systems, ensuring patient safety.

Other relevant standards:

- SANS 7396 is the primary standard, other SANS standards address specific aspects of medical gas systems, such as SANS 1409 and 1453.
- Pressure Equipment Regulations (PER): The PER, published in 2009, incorporates SABS (South African Bureau of Standards) standards and codes of practice related to all gases, including medical gases.
- SANS 10019: This standard contains specific requirements for SCUBA cylinders and PIN Index valves for medical gas cylinders up to all gases, including medical gases.
- SANS 1825: This standard is related to the inspection and testing of gas cylinders.
- SANS 10263: This standard specifies requirements for the safe handling and storage of industrial and medical gas cylinders.
- SANS 10087: These standard lays down the guidelines for the installation, maintenance and repair of gas appliances and systems in homes, businesses and other establishments.

3 INTERPRETATION

The Act and its associated regulations shall have precedence in the interpretation of any ambiguity or inconsistency between it and this specification.

3.1 PURPOSE OF THE PROJECT SPECIFIC HEALTH AND SAFETY SPECIFICATION (PSHSS)

The PSHSS is a performance specification to ensure that the Client and any bodies that enter into formal agreements with the Client / Agents, Professional Service Consultants (Engineers, Quantity Surveyors etc.), Principal Contractors and Contractors achieve an acceptable level of OHS performance.

No advice, approval of any document required by the PSHSS, such as hazard identification and risk assessments, or any other form of communication from the Client shall be construed as acceptance by the Client of any obligation that absolves the Principal Contractor from achieving the required level of performance and compliance with legal requirements. Furthermore, there is no acceptance of liability by the Client, which may result from the Principal Contractor failing to comply with the PSHSS, i.e. the Principal Contractor remains responsible for achieving the required performance levels.

A Mandatory Agreement in terms of Section 37.2 of the OHSA will be signed between parties prior to any works commencing. The PSHSS highlights the aspects to be implemented over and above the minimum requirements of current legislation. Requirements may be changed should new risks or issues are identified that could not have been foreseen during the planning phase of the project, or during the implementation phase. Any new legislation or standards (legislated or determined by the Client) that are promulgated or accepted during the contract will automatically be applied.

It should be noted that this OHSS in no way relieves the Contractor of any of his responsibilities set out in the Act and Regulations

3.2 REQUIREMENTS

A project specific H&S Plan in response to this PSHSS will be subject to approval by the Client or Client's Agent. This must include all supporting documentation as required to verify the H&S system:

4 GENERAL REQUIREMENTS.

4.1 RISKS

Principal Contractor to provide a detailed risk assessment for the maintenance works in the facilities. The items noted are for information only and must be expanded as required by the project.

Summary of Risk on the project:

- a) Driving on public roads/ Driver not competent or medically and psychologically fit/ under the influence of drugs and/or alcohol/ Pre-start check not completed.
- b) Working at heights
- c) Offloading equipment, machinery, materials
- d) Storage of Materials and Tools
- e) Mechanical failure/ not maintained as per maintenance schedule/ Wear and Tear
- f) Loss of Gas Supply (Interruption)
- g) Contamination of Pipeline (Foreign Matter)
- h) High Pressure / Stored Energy
- i) Exposure to Vacuum (Implosion)
- j) Exposure to Biohazards (Vacuum System)
- k) Environmental / Noxious Gases
- l) Handling Heavy Equipment and Material
- m) Sharp Object
- n) Confined Spaces (Pits/Tunnels)
- o) Slips and falls (wet surfaces)
- p) Exposure to dust
- q) Plant and Equipment
- r) Overhead systems and services (Working near)
- s) Lifting Operations
- t) Cleaning
- u) Chemical Hazards
- v) Plumbing
- w) Equipment Erection
- x) Equipment Fixing
- y) Fire / Explosion
- z) Electrical Shock (Plant Rooms)
- aa) Exposed Moving Parts
- bb) Excessive Noise (>82dB)

Existing structures at health facilities and surrounding land use (with a significant impact on Health & Safety):

- a) Access
- b) Exposure noise
- c) Exposure to dust
- d) Waste Management
- e) Contact with Biohazardous Waste
- f) Barricading / Demarcating / Hoarding
- g) Security
- h) Epidemic and Pandemic Control
- i) Infection Prevention

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j) Fraternization

4.2 SPECIFIED HAZARDOUS CHEMICAL SUBSTANCES

The PC is to supply the products required as per the bill of quantities-, materials safety data sheets (MSDSs) for each of the products envisaged to be utilized on the project.

4.3 OCCUPATIONAL HEALTH & SAFETY MANAGEMENT

It should be noted that this OHSS in no way relieves the Contractor of any of his responsibilities set out in the Act and Regulations.

The file must be submitted for approval to the Client or Clients Agent before any maintenance/ repair/ replacement work commences on the project.

It should be noted that this OHSS in no way relieves the Contractor of any of his responsibilities set out in the Act and Regulations.

4.4 HEALTH AND SAFETY PLAN FRAMEWORK

The H&S aspects related to the project outlined in the previous sections are to be taken into account when drawing up the H&S Plan. The PC is required to demonstrate competence by providing an H&S system that will address the requirements of the project.

The Client or Clients Agent may from time-to-time request additions or systems as they relate to the works or legislative requirements at the time.

4.5 APPOINTMENT OF COMPETENT PROJECT PERSONNEL

The CEO (OHSA S16.1) of the PC will take overall responsibility for the appointment of competent staff for the duration of the project. Should the CEO not be personally involved in the project, the H&S responsibilities are to be delegated to the Site Agent (OHSA 16.2). Knowledge and training in H&S are required, and certificates indicating H&S training as well as experience to be included in CVs.

All other legal appointments are to be made with relevance to the type of work required.

4.6 MAINTENANCE MANAGER / SUPERVISORS

Competent **FULL TIME** Maintenance Managers (CR 8.1) must be appointed to manage part or all the works and have training and/or experience in the area of responsibility. All site supervisors must show evidence of appropriate training in H&S, and an understanding or training in areas of responsibility (i.e., risk assessments, method statements etc.). Multiple competent Assistant Maintenance Managers (CR8.2) may be appointed where justified by the scope and complexity of the works.

Curriculum Vitae (CVs) are to be submitted for approval by the Client or Client Agent. The Maintenance Supervisor will be held responsible for the safety of working teams and subordinates, housekeeping and stacking and storage of materials. The Maintenance Supervisor must, as a minimum, have a supervision course.

If the Maintenance Manager (CR8.1) changes throughout the project. The Principal Contractor must ensure to provide the proposed Maintenance Manager CV and certificates for approval and ensure that the appointment letter as well as proof of competency is available in the Health and Safety File.

4.7 CONSTRUCTION HEALTH AND SAFETY OFFICER

Competent registered **Part-Time** Safety Officer to be appointed for the duration of the project.

The HSO must provide a CV and relevant certificates/qualifications. The officer will be required to compile a monthly report, see **Annexure A**.

The site supervisor may not act as the Officer.

Should any of the key personnel be replaced the principal contractor is required to submit the CV, applicant's competency certificates and a valid registration certificate for approval by the Client or Clients Agent

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4.8 HEALTH AND SAFETY REPRESENTATIVE

Irrespective of the number of employees on the project, the PC must appoint **Full-Time Health and Safety Representatives**, who at least has completed the necessary health and safety representative course. The H&S representatives will liaise and report to the full-time health and safety officer.

4.9 OTHER APPOINTMENTS

Not limited too but other legal appointments must be made as per the OHS Act 85 of 1993 and related regulations.

5 GENERAL RISK MANAGEMENT

5.1 HEALTH RISKS AND MEDICAL SURVEILLANCE

All workers (including those of Contractors) are required to be in possession of a medical certificate of fitness issued by a registered Occupational Medical Practitioner prior to commencing work. Medical surveillance will commence at pre-employment.

Many of the processes may be labour intensive and ergonomic risks are to be noted. All workers (including Contractors) are to be included in the medical surveillance programme.

Workers will be exposed to biological risk, noise, dust, and physical risks from extended periods of work of a repetitive nature, materials specified and the general nature of the business.

Environmental monitoring results and risk assessments are to be made available to the occupational health professionals doing the medical surveillance. The use of occupational risk exposure profiling (OREPS) and job descriptions are to be used to determine specific exposures for management.

All workers (including Contractors) are required to be in possession of a medical certificate of fitness prior to commencing work.

Employees required to perform work at heights or from fall risk position must be medically fit to perform such work, such employee's medicals must specify "Fall Risk" or "Working at heights" in the exposure section of the annexure 3 template.

Annual medical surveillance is required (unless identified as being required more frequently e.g. Noise, Dust, Asbestos etc.), as well as exit medical.

Arrangements for keeping medical records for the required time are to be noted.

It is preferable that the PC has a medical surveillance plan.

5.2 HAZARDOUS BIOLOGICAL AGENTS

Employees might be exposed to biological risks during the execution of the project by the mere fact that the project will be undertaken at the health facility, the following should be considered before the project proceed:

1. **Identify the HBAs:** Determine which HBAs are present in the workplace and classify them into the appropriate groups (Group 1, Group 2, Group 3, or Group 4) based on their potential to cause human disease.
2. **Evaluate the Risks:** Assess the potential risks associated with each HBA. This includes considering the likelihood of exposure, the severity of the potential health effects, and the number of people who could be affected.
3. **Implement Control Measures:** Based on the risk evaluation, implement appropriate control measures to minimize or eliminate the risks. This may include engineering controls, administrative controls, and personal protective equipment (PPE).

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ECDOH for repair and fixed term scheduled maintenance of vacuum and compressed medical gas equipment.

4. **Monitor and Review:** Continuously monitor the effectiveness of the control measures and review the risk assessment regularly to ensure it remains up-to-date and effective.

By following these steps, you can effectively manage the risks associated with HBAs and ensure the safety and health of individuals who might be exposed to these agents.

Hepatitis A & B vaccination is required for all contractor's employees that will be working in areas where they will have direct contact with patients' body fluids e.g. working inside clinical areas.

5.3 NOISE AND DUST CONTROL AND RISK

All plant from plant hire companies (suppliers) or that of the PC is to be compliant with the Noise Induced Hearing Loss Regulations when visiting the facilities.

Audiometric testing of all workers is noted as required in the medical surveillance programme for all permanent workers prior to work/maintenance activities commences.

Suitable SANS approved hearing protective equipment shall be issued and worn where applicable.

The PC must ensure that the health facilities will be fully operational and take extra care and planning is communicated to the Facility Management to ensure that noise and dust does not interfere with daily activities.

5.4 EMERGENCY PROCEDURES

An emergency plan and procedure that is appropriate to the risks is required prior to commencement of the project. It is advised that the system should be simple and easy for any worker to follow.

The emergency plan is to ensure the inclusion of local service providers where possible. Such arrangements should be made with these persons prior to the commencement of the project.

Local emergency telephone numbers must be displayed and made part of the emergency procedure.

The general principals of emergency management are to be applied as it applies to the hierarchy of control and management. The PC must consult with the Client in preparation of the emergency as facilities will be operational.

Fire Prevention and Emergency Preparedness

A Fire Risk Assessment must be conducted before maintenance activities begins and updated throughout the project as site conditions change.

Principal Contractor must ensure compliance with fire prevention, emergency preparedness, and fire-fighting measures as outlined in General Safety Regulations 2025 (GSR) and the Construction Regulations, 2014.

5.5 FIRST AIDERS AND FIRST AID EQUIPMENT

Irrespective of the number of employees on the project, the PC will appoint at least 1 **First Aiders** who will be trained to **Level 3**.

First aiders shall be available and accessible on the project always and be able to work as a team when responding to any emergency on the project.

Appropriately stocked first aid kits, at least to the requirements of the Annexure to the GAR, are to always be available to assure continual availability in every vehicle used to work on sites.

THIS SHOULD BE AVAILABLE FOR EVERY TEAM AND EMERGENCY FIRST-AID EQUIPMENT MUST BE AVAILABLE IN THE VEHICLES USED FOR MAINTAINING EQUIPMENT WITH THE TRAINED FIRST AIDER AVAILABLE IN EACH WORKING TEAM AT THE FACILITY WHERE MAINTENANCE/ REPAIRS ARE TAKING PLACE.

5.6 FIRES AND EMERGENCY MANAGEMENT

Attention to emergency planning and procedures is very important. Requirement in terms of identified risks:

- Fire;

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- Public Safety;
- Falls from heights,
- Hot Works (Permit from the project).

The emergency plan is to ensure the inclusion of local service providers where possible. Such arrangements should be made with these persons prior to the commencement of the project; the emergency plan is to include the risks of fire on site and related to any specific activities.

Fire extinguishers will be appropriate for the risk and in sufficient numbers to deal with the type of fires that could occur. All mobile plants are to have appropriate, accessible fire extinguishers. Hot work permits are required for any such activities.

If the Fire Warning / Alarm is deactivated or not working- a communication session is required with the Health Facility Management and avail Mobile Air Horn for Staff.

5.7 INCIDENT MANAGEMENT AND COMPENSATION CLAIMS

All incidents and accidents are to be investigated. All serious incidents involving any form of disabling injury or fatality are to be reported to the Client /Client or Clients Agent immediately. This shall be confirmed in writing following the incident.

Any person who contracts an Occupational Disease will need to be reported to the Compensation Commissioner as an occupational disease where their work is to monitor and in contact with others. Such details are provided in the Compensation for Injuries and Diseases Act (COIDA).

Failure to comply with emergency provisions will be considered a serious offence, and the operation or project may be stopped if deemed inadequate for the work at the time of assessment or inspection.

5.8 PERSONAL PROTECTIVE EQUIPMENT (PPE) AND CLOTHING

The PC is to provide PPE to all employees free of charge.

The wearing of the identified SANS approved PPE at all times is non-negotiable.

- Hard hats.
- Protective footwear.
- Overalls fitted with reflective strips that ensure worker visibility.
- Eye protection (if required)
- Hearing protection.
- Reflective jackets for Supervisors (no bibs).
- Respiratory protection (minimum of FFP2).
- Safety Gloves
- Any other necessary PPE identified from SDS's and/or risk assessments.

5.9 OCCUPATIONAL HEALTH AND SAFETY SIGNAGE

On-site H&S signage is required. Signage shall be posted up at fixed or temporary working areas, or other potential risk areas/operations. These signs shall be in accordance with the requirements of the General Safety Regulations or SANS requirements as amended.

Signs shall be posted at areas of work on site indicating that a construction/maintenance site is being entered and that persons should take note of H&S requirements. The Principal Contractor must ensure that members of the public that need to access the facility will not be able to gain access to the area where maintenance or repair work is taking place. It should be noted that the facility will be fully operational, and the area where maintenance/ repair works are taking place should be properly and securely barricaded at all times.

5.10 INDUCTION OF EMPLOYEES AND VISITORS, GENERAL H&S TRAINING

A simple, formal induction program is to be prepared which is site specific. Inductions must be carried out for all workers and visitors (including Client) to the site.

DSTi training is required to ensure workers are familiar with the risks and H&S measures of the work or tasks to be done. Any person found on site without proof of induction in the H&S File will be removed from site until the proof is supplied and, and a penalty issued per non-compliance.

5.11 Area closure for maintenance

Blocking access to patients and employees:

Care should be taken to ensure that construction or maintenance activities are always being separated from employees as well as patients are reallocated were necessary.

6 COMMUNICATION ON THE PROJECT

All H&S communication during the project between the Client or Clients Agent and the PC will be done in writing, including the issue and responses to non-conformances and H&S audit results.

7 AUDITING

At the request of the Client or the Client's Agent, contractor documentation may be audited to ensure compliance with the Construction Regulations and project-specific requirements.

The Principal Contractor (PC) must ensure that all Health & Safety (H&S) files and related documentation from their Contractors are maintained accurately and made available for auditing when requested by the Client or Client's Agent. The Client or Clients Agent may act or require further outcomes if non-compliances are noted, or unsafe acts are noted on site.

Audit frequency will be determined by the Client or Client's Agent and may be adjusted based on project needs or concerns identified. The format and content of all documentation submitted for audit must be acceptable to the Client or Client's Agent.

The PC is responsible for facilitating access to these files and ensuring that Contractors comply with any corrective actions or documentation requirements identified during audits. Compliance with legislative requirements and the systems provided by the PC to manage the H&S on site will be measured. Full compliance is required. Time limits for corrective actions will be set and must be adhered to.

8 SITE ACCESS POINTS AND SECURITY CONTROL

Facility access - Entry to facilities may only be through pre-arranged security-controlled access points.

- Work areas should be Demarcated
- Signage in Place
- Access Controlled
- All Electrical to have **LOCK OUT** Procedure in place
- Follow the above but not limited to the above

9 CARE OF WORKERS ON SITE (WELFARE)

Adequate toilets, clean, safe drinking water and decent shelter must be afforded to workers at all times.

It is the responsibility of the contractor to inform and agree with the Health Facilities Management for the use of Ablutions and Water.

10 DISCIPLINE, ALCOHOL AND SUBSTANCE ABUSE

All employees (management included) are to follow instructions given in the interest of H&S. Disciplinary action is to be imposed on those who do not follow such instructions or company rules or policies.

No person can work or access any facility if under the influence of alcohol or other substances that could impact on their own or others safety.

11 WORKING AT HEIGHTS

A practical site-specific fall protection plan and rescue plans per CR 10 needs to be compiled by a competent person as per unit standard 229994.

Only competent persons may be allowed to work at heights.

All employees working at heights shall be in possession of working at heights certificate US 229998.

No Homemade structures or ladders will be permitted on the project.

Surroundings to be clear of rubble.

Fall protection, fall prevention, and fall rescue plans to be in place and communicated to site employees.

Ladders to be structurally sound and not broken and in accordance with GSR 13A.

Correct personal protective equipment to be used (safety harness and lanyard) to be used.

Construction regulation 10 of 2014 to be implemented when working at heights and to prevent any person from falling from heights.

Trestle tables are not to be used.

Failure to comply with the above will lead to a fine as stipulated below.

12 ASBESTOS

Where a suspected asbestos containing material is identified at any of the health facilities, the contractor will notify the Engineering Representative/ Service Manager or Client for further instruction.

All Asbestos work will be done in accordance with the Asbestos Abatement Regulations 2020.

14 ELECTRICAL

In addition to the requirements of the Electrical Machinery Regulations and the General Machinery Regulations, any electrical distribution board used for construction work shall be fitted with suitable earth leakage protection.

Leads must be properly and firmly connected.

Plugs and sockets shall be in good and safe condition.

All electrical apparatus, other than electrical hand tools, shall have a physical "lock out" system which will prevent any operation other than that authorized by a supervisor.

A "lock out" sign shall be displayed when the apparatus is not in use.

Method statements and safe work procedures will be required for all work involving electrical apparatus.

Ensure that main power supply and gas line in service duct to be identified and method statement to be submitted to Electrical & Mechanical Engineer for approval.

A Certificate of Compliance (CoC) must be issued for any work carried out on the electrical infrastructure as part of the maintenance contract for all vacuum and compressed medical gas equipment within any of the health facilities, including installations, modifications, or repairs as per the SANS 10142: Wiring Code.

15 INSPECTION AND HAND TOOLS

No handmade or damaged tools may be used on the project.

The Principal Contractor needs to exercise control over all contractors on the project. Hand tools may only be used for its intended purpose.

A competent person must be appointed to inspect hand tools weekly at the contractor's premises.

Inspections need to be recorded on a register and each tool identified with a unique number.

Inspection of equipment and tools.

The following items of equipment must be regularly inspected and maintained and appropriate records kept on file and must be readily available for the Client's audit.

- 1.1. First Aid dressing registers
- 1.2. Fire equipment
- 1.3. Portable electrical equipment
- 1.4. Stacking and storage inspections
- 1.5. Hazardous Chemical Substances (HCS)
- 1.6. Ladders
- 1.7. Excavations
- 1.8. Construction vehicles and mobile plant.
- 1.9. Health and Safety Representatives checklists.

Not limited to just the above items.

16 LADDERS AND LADDER WORK

The Principal Contractor shall appoint a competent person in writing to inspect all ladders weekly and record such findings in a register.

Ladders are to extend one meter above a landing and must be secured at the top and have a secure, non-slip base.

All ladders that do not comply with Health and Safety standards are to be removed from the site immediately.

Electrical contractors to use Fiberglass ladder for non-conducting purposes.

17 SUBCONTRACTORS

The PC is to ensure that every sub-contractor will comply with the health and safety specifications.

All subcontractors' health and safety files must be approved by the Principal Contractor prior to any work commencing.

Contractor and SMMEs to be Audited by Principal contractor on monthly basis.

18 DELIVERY OF MATERIALS

The PC must reasonably manage all deliveries of material to site. Stacking and storage of materials to be properly coordinated. Deliveries to be made on the contractors' premises.

The PC is to consider the neighbours and public in all its activities related to this construction work.

Facility services, namely Gas, are not to be affected by construction activities.

19 HOARDING

Adequate hoarding to be done to reduce dust and noise and prevent public entrance to the facilities.

Security features must accompany the hoarding to maintain a secure environment for the existing occupants.

No Unauthorized person signage should be installed and various entrances.

Maintenance of Hoarding to be done at regular intervals.

20 NON-CONFORMANCES

Should, at any time, the work, or part of the works, be stopped due to unsafe acts or non-compliance with the Clients OHS Spec or PCs H&S Plan; the PC shall have no claim for extension of time or any other compensation.

The following constitute examples of the types of non-conformances that will attract penalties, please note some of the activities might not be applicable on this project:

Minor: Penalty: R50/count	Medium: Penalty: R500/count and a non-conformance	Severe Penalty: R5000/count, a non-conformance and/or activity stoppage
Non-use of PPE supplied	Toilets not supplied or regularly serviced; lack of drinking water	Contractors working without Health and Safety Plan approval
Non completion of registers for plant and equipment on site	Contractors not audited	Workers transported in contravention of the OHS plan or legal requirements
Lack of H&S signage at work areas	Working without training or the appropriate H&S method statements	Invalid Letters of Good Standing
Tools and equipment identified in poor condition during inspections	Legal non-conformances identified during the previous audit and not addressed within the agreed time frame	Non-compliance with traffic accommodation requirements: layout or physical conditions
	No monthly OHS report at monthly meeting to report on	Fall protection harness not tied off / not worn
	No certificates of fitness for workers as required	Any breach of legal requirements

21 HEALTH AND SAFETY FILE

The documentation submitted and approved following the awarding of the contract will be used to form the H&S file. The H&S file is required to be laid out in a logical manner, and documentation filed within the file is to be easily accessible.

The following completed information shall be included (but not be limited to) as part of the index:

- The Project-Specific Health and Safety Specification. (from Client)
- The H&S Plan and the approval by Client;
- Appointment by Client;
- Mandatory agreement with Client;
- H&S specifications issued;
- Record of Competencies (CVs) and appointments;
- Training Records;
- Method statements;
- Risk assessments;
- Safe work procedures;
- Emergency and injury management;
- Safety data sheets
- Medical surveillance records;
- Registers; and
- Employee records (who is on the project at various health facilities)

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ECDOH for repair and fixed term scheduled maintenance of vacuum and compressed medical gas equipment.



ANNEXURE A

CONTRACTORS MONTHLY HEALTH AND SAFETY REPORT

(To be submitted by the end of the first week of each month and be available with each audit)

CONTRACT NUMBER:		PROJECT NAME:	CONTRACT DETAILS:
1	GENERAL ACTIVITIES FOR THE MONTH (detail each area of work)		
2	NUMBER OF WORKERS (Permanent and local, contractors)		
3	TRAINING DONE (supplier, no of people, type)		
4	INCIDENTS / ACCIDENT (list number and details, attach reports)		
6	NON-CONFORMANCES (closed out or active)		
7	CONTRACTORS (list, approval status)		
8	AUDITS COMPLETED (internal and external)		
9	CRITICAL ISSUES		
10	GENERAL		

Health and Safety Officer: _____ Signature: _____ Date: _____

Maintenance Manager: _____ Signature: _____ Date: _____

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ECDOH for repair and fixed term scheduled maintenance of vacuum and compressed medical gas equipment.

ANNEXURE B – REQUIREMENTS FOR THE SAFETY PLAN ASSESSMENT

The Contractor must note that the information below is pertinent to the compilation of their safety plan response to this project-specific safety specification and it would be preferred if the Safety Plan is written in the order of the assessment documented below.

Please note that some of the items might not be applicable on this project.

No	Item	Notes
1	Project Directory	Please state details of Project Client, Project Manager / Principal Agent, Safety Agent, Consulting Engineer, etc. (Name, address, contact details).
2	Contractors Directory	Please indicate if you will be using Contractors on this project, if yes, include their details, trade, and FEM details.
3	Other Parties Directory	Please indicate contact details for any services applicable (electricity, water, etc.) as well as Department of Labour and Emergency Services.
4	Project Safety Statement	The Project Safety Statement must be included in the Safety Plan.
5	Health and Safety standards for the project (OHS Act, construction regulations, basic conditions of employment, etc.)	Health and Safety standards must be included in the Safety Plan.
6	Project Particulars	Scope of works must be included in the Safety Plan. This is critical.
7	Existing environment – Structures and Surroundings, Services (Electrical, Water, Sewerage, etc.), Traffic Arrangements, Parking, Access to Facilities, Storage of Plant and Materials	Please include these items in the plan. The items must be Project Specific, the location of services and services that will be affected must be mentioned.
8	Management Structure for safety on the Project	A structured organogram with names of the responsible people must be included.
9	Appointed Persons, Supervision	The required appointments must be identified. A list of the appointed persons must be included in the Safety Plan.
10	Security Procedures	Please indicate if a security company will be appointed and include the contact information in the Safety Plan.
11	Registers list and inspection frequency	A list of the Inspection Registers that will be on file must be included in the Safety Plan.
12	Design Co-ordination	Please indicate your procedure for implementation of design changes by designer on the project, and the procedures for liaison and implementation of temporary works design on the project.



No	Item	Notes
13	Contractor Co-ordination	Mention must be made of how Contractors will be coordinated on site to ensure that they work together and not adversely affected health and safety.
14	Housekeeping, stacking and storage	Housekeeping policies and procedures must be included in the Safety Plan.
15	Waste Disposal Arrangements	Waste disposal arrangements procedures must be included in the Safety Plan.
16	Noise and dust control	Please indicate if any noisy operations (more than 85 decibels) will be carried out and what measures will be used to reduce noise exposure to workforce.
17	Training Requirements	Training requirements must be identified and recorded.
18	Plant and Equipment	A list of plant and equipment to be used on the project must be included in the Safety Plan.
19	Safety Monitoring Arrangements	The name, contact details of the Safety Officer must be included in the Safety Plan. State how often the Safety officer will be at the various facilities (note safety specification requirement in section 1.7).
20	Information for Contractors	State how information will be given to Contractors on the project.
21	Consultation/communication arrangements with Employees	State how information will be given to employees e.g., notice board.
22	Selection of Contractors Procedures	Principal contractor must state what health and safety procedures they will use to assess the competence and resources of their contractors on the project.
23	Activities with risk to Health and Safety (Risk Assessment)	A Baseline Risk Assessment must be included in the Safety Plan; it must address the Risks identified in the Safety Specification as well as the risk of any other hazards that the Principal Contractor is aware of that are relevant to the project.
24	Hazardous Substances	Must be listed in the Safety Plan and addressed in the Risk Assessment.
25	First Aid and Medical Procedures	Please indicate name of first aider, position of first aid box, location of nearest medical facility and emergency numbers.
26	Fire and Emergency Procedures	List of emergency telephone numbers must be drawn up and included in the Safety Plan. The position of Fire Extinguishers, Assembly Point location, fire drill frequencies, numbers of fire marshals, etc.
27	Accident and Incident Reporting and investigation	State the Accident and Incident Reporting and investigation procedures of your company.
28	Welfare and Site Facilities	Elaborate on toilets and eating areas, water provision, how will workers be protected during wet weather conditions etc.
29	Site Rules	The Site Rules must be included in the Safety Plan.

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ECDOH for repair and fixed term scheduled maintenance of vacuum and compressed medical gas equipment.



No	Item	Notes
30	Personal Protective Equipment	The necessity must be identified by Risk Assessments.
31	Health & Safety File arrangements	Please indicate arrangements for the return of the Health and Safety File to the safety agent at the end of the project.

No	Item	Notes
32	Method Statements/Safe System of Works	A list of Method Statements/Safe System of Works must be included in Safety Plan for all High-risk activities
33	Permits and wayleaves	List of activities that Principal Contractor anticipates will require permits and wayleaves (including those stated in the safety specification) to be included.
34	Fall Prevention and Protection Plan and Fall Rescue Plan	A copy of the Fall Prevention and Protection Plan, fall rescue plan and fall risk assessment must be included in the Safety Plan.
35	Demolition method statement	A copy of the Demolition Method Statement must be included in the Safety Plan.
36	Confined spaces	The Principal Contractors' procedures for managing access, egress and work in confined spaces must be specified in the Safety Plan. Includes permit procedures, air monitoring, PPE, etc.
37	Safety Representatives and Safety Committees	When a project has more than 20 employees a designated employee must be chosen by the labourers to represent them. A safety committee must be established if 2 or more safety representatives are appointed. Please note Safety Specification requirements regarding this section (section 2.12).
38	Have the significant hazards from the safety specification been addressed?	See section 1.9 of the Specifications and ensure practical measures have been detailed in the safety plan.
39	Safety File - Safety Policies in File and Signed by 16(1) CEO.	Safety Policies must be signed and explained to employees.
40	Safety File - A copy of the valid Letter of Good standing from FEM / Workman's Compensation must be on file.	A copy of the valid Letter of Good standing from FEM / Workman's Compensation must be on file.
41	Safety File - Signed copy of the 37.2 Mandatary Agreement	A 37.2 Mandatary Agreement needs to be signed between the Client and the Principal Contractor.
42	Safety File - Appointment letter from Client (as well as 5.1.K)	The Client must appoint the Principal Contractor in writing.
43	Safety File – Notification / Permit	A copy of the Annexure 2 Notification (and proof of submission) to Department of Labour must be available. This can be in the form of a Department stamp, email, or copy of Construction Work Permit.

ANNEXURE C – LEGAL APPOINTMENTS

The contractor shall make the following appointments, as required:

Chief Executive Officer (OSH Act 16(1))
Contract Director/Manager (OSH Act 16(2))
Maintenance Manager (CR 8(1))
Construction Supervisor (CR 8(7))
Assistant Construction Supervisor (CR 8(8))
Construction Safety Officer (CR 8(5))
Safety Representative (where > 20 employees on site)
Temporary work Designer (CR 12(1))
Temporary work Supervisor (CR12(2))
Construction risk assessor (CR 9(1))
Excavation Supervisor (CR13(1)(a))
Demolition Supervisor (CR14(1))
Scaffold Supervisor (CR16(1))
Suspended Platform Supervisor (CR17(1))
Material Hoist Inspector (CR19(8)(a))
Material Hoist Operator (CR19(6))
Bulk Mixing Plant Supervisor (CR20(1))
Bulk Mixing Plant Operator (CR20(2))
Controller of Explosive Actuated Fastening Devices Nails, Cartridges or Studs Issue and Collection (CR21(2)(g)(1))
Construction Vehicle and Mobile Plant Operator (CR23(1)(d)(i))
Controller of Temporary Electrical Installations (CR24(c))
Stacking Supervisor (CR28(a))
Fire Extinguishing Equipment Inspector (CR29(h))
Fall Protection Plan Developer (CR 10(1)(a))
Incident Investigator (OSH Act 9(2))

**ANNEXURE D – SAFETY SPECIFICATION AND BASELINE RISK ASSESSMENT
ISSUE REGISTER**

Date of Original Safety Specification Compilation	Compiled By	Issue Date
January 2024	N. Mcopele	January 2025

Revision Summary	Revised By	Revision Date
1	N. Mcopele	10 April 2026
2		
3.		

Acknowledgement:

I, _____ representing.

_____(Contractor), have satisfied myself with the content of this Health and Safety Specification and shall ensure that our employees and contractors on the project comply with the requirements of this document, our safety documentation and health and safety legislation.

Signature of Contractor

Date

Comments:



ANNEXURE E – OHS BILL OF QUANTITIES

DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
				R	C
Preparation of principal contractor's project-specific health and safety plan and safety file	Lump sum	Lump sum			
DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
				R	C
Provision of medical certificates of fitness for employees (Annexure 3)	Lump sum	Lump sum			
Provision of personal protective equipment (PPE) by to employees e.g. • Work suits with reflective strips. • hard hats (where applicable) • protective footwear • hearing protection • respiratory protection • safety eyewear • gloves • Spill Kits etc.	Lump sum	Lump sum			



DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
				R	C
Provision of First Aid Boxes per bakkie as per legal requirements	Lump sum	Lump sum			
Provision of sufficient fire extinguishing equipment per bakkie.	Lump sum	Lump sum			
Provision for safe disposal of waste, spill kits, safe housekeeping, and storage practices	Lump sum	Lump sum			
Compilation of consolidated Safety File at Close Out stage and handover of file to the client in a digital format	Lump sum	Lump sum			
SUMMARY TOTAL OHS COST PROVISION					



ANNEXURE F –BASELINE RISK ASSESSMENT

**BASELINE RISK ASSESSMENT BID NO: SCMU3-2627-0178-HO: SCHEDULED MAINTENANCE OF VACUUM,
COMPRESSED MEDICAL GAS AND ASSOCIATED EQUIPMENT AT CLUSTER ONE (1) – OR TAMBO AND ALFRED NZO
DISTRICT – HEALTH FACILITIES (36 MONTHS)**

Risk Rating multiplier: Low = 1; Medium = 2; High = 3

low	med	high
1	4	12
2	6	18
3	8	27

The baseline risk assessment is to highlight hazards emanating from project risks identified.

					Baseline risk			
Reference	Area	Hazard	Risks identified as present	Describe the obvious control measures to be part of design	Likely consequences of an incident	Frequency of Exposure	Probability of harm	Risk rating and risk category
SCOPE AREA OF MAINTENANCE PROGRAMME								
		Driving on public roads/ Driver not competent or medically and psychologically fit/ under the influence of drugs and/or alcohol/ Pre-start check not completed	Financial loss/ Damage to equipment/ Injuries to employees/ Damage to property/ Possible fatalities	All drivers must be authorised in writing, be in possession of valid Competence and Medical Certificate. All employees shall undergo a mandatory alcohol level test. Driver must perform pre-ignition check and ensure checklist completed before leaving workshop/office. Under no circumstances shall anyone tamper with the safety devices / mechanisms on the machinery. No loading of passanger in Load cab of bakkies. Driver to ensure that bakkie are kept in good state. Maintained as per maintenance schedule. All Occupants in bakkie to ensure seatbelt is engaged at all times.	2	2	2	8

BASELINE RISK ASSESSMENT BID NO: SCMU3-2627-0178-HO: SCHEDULED MAINTENANCE OF VACUUM, COMPRESSED MEDICAL GAS AND ASSOCIATED EQUIPMENT AT CLUSTER ONE (1) – OR TAMBO AND ALFRED NZO DISTRICT – HEALTH FACILITIES (36 MONTHS)

Risk Rating multiplier: Low = 1; Medium = 2; High = 3

low	med	high
1	4	12
2	6	18
3	8	27

The baseline risk assessment is to highlight hazards emanating from project risks identified.

Reference	Area	Hazard	Risks identified as present	Describe the obvious control measures to be part of design	Baseline risk			
					Likely consequences of an incident	Frequency of Exposure	Probability of harm	Risk rating and risk category
CR10		Working at heights	Fall from heights / tools and equipment falling / struck by	All access equipment is properly constructed (inspections record must be maintained) Only trained personnel construct, dismantle or control the access equipment All access equipment must have full toe boards and guardrails - comply with SANS 10085 on erection, use and dismantling of scaffolding No access equipment may be loaded above the level of the guardrail No access equipment to be loaded above its safe working load Where work involves leaning out on an open leading edge, then all personnel are to be fitted with full body harness. The harness must be connected at all times All fall arrest equipment to be correctly maintained Ensure if ladders are being used for access, they are either footed or tied. Also, the ladder must be set at the correct level of 1 in 4 or approximately 75°	3	1	1	3

BASELINE RISK ASSESSMENT BID NO: SCMU3-2627-0178-HO: SCHEDULED MAINTENANCE OF VACUUM, COMPRESSED MEDICAL GAS AND ASSOCIATED EQUIPMENT AT CLUSTER ONE (1) – OR TAMBO AND ALFRED NZO DISTRICT – HEALTH FACILITIES (36 MONTHS)

Risk Rating multiplier: Low = 1; Medium = 2; High = 3

low	med	high
1	4	12
2	6	18
3	8	27

The baseline risk assessment is to highlight hazards emanating from project risks identified.

Reference	Area	Hazard	Risks identified as present	Describe the obvious control measures to be part of design	Baseline risk			
					Likely consequences of an incident	Frequency of Exposure	Probability of harm	Risk rating and risk category
		Offloading equipment, machinery, materials	Falling and moving objects or machinery Ergonomic strain, crush, death	Check test certificate Check examination certificate Check inspection have been carried out Check certificates for lifting equipment (chains, slings, shackles, etc.) Ensure lifting gear is rated to carry load (SWL) Ensure materials being lifted are properly packaged and slung. Be aware that there should be a minimum clearance of 600mm between any slewing parts of a crane and any fixed installation to prevent being trapped. Access to the work area during lifting operations is to be restricted to those involved with and trained in the work in hand. Do not allow members of the public to gain access to the area. Only trained banksmen to be used. The crane driver and the banksman are to ensure that the signals given are clearly understood.	2	2	2	8

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		Storage of Materials and Tools	Injury / Property damage / Theft / Security Issues	Proper separated demarcated storage to be allocated to the contractor. Materials to be stored in demarcated storage bins. At least one fire extinguisher must be made available.	2	2	2	8

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		Mechanical failure/ not maintained as per maintenance schedule/ Wear and Tear	Financial loss/ Damage to equipment/ Injuries to employees/ Damage to property/ Possible fatalities	Establish and strictly adhere to a documented preventive maintenance schedule based on manufacturer recommendations. Conduct routine inspections (daily, weekly, monthly) to check for signs of wear, leaks, unusual noises, or performance issues. Ensure only trained and competent personnel perform maintenance and repairs. Use original equipment manufacturer (OEM) parts for replacements to maintain integrity and compliance. Keep detailed logs of all maintenance activities, including dates, findings, and corrective actions. Implement pre-use equipment checks to ensure safety systems (e.g., pressure release valves, seals) are functioning properly. Establish a clear protocol for users to report malfunctions or signs of mechanical failure immediately. Regularly assess equipment lifespan and replace aging units before failure risk becomes critical.	2	2	2	8

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		Loss of Gas Supply (Interruption)	Cessation of supply to ICU, Theatres, A&E. Loss of suction or oxygen for routine care. Failure of automatic changeover to reserve banks.	Strategic placement of zone valves to isolate specific areas without shutting down entire wings. Automatic changeover to reserve banks; secondary backup available on-site. Design includes bypass loops for major plant maintenance.	3	2	2	12
		Contamination of Pipeline (Foreign Matter)	Introduction of oil, grease, or particulates into the system causing fire risk or patient hypoxia. Blockage of suction lines leading to equipment failure. Incorrectly reconnecting pipes.	System installed/ maintained specifically for "Oxygen Service" cleanliness. Physical keyed couplings (e.g., DISS or Ohmeda) prevent hooking up the wrong gas type. Final line filters (0.01 micron) and bacterial filters at point of use.	3	1	2	6

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		High Pressure / Stored Energy	Sudden release of high-pressure gas (e.g., 7-10 bar in pipelines) causing whipping hoses or striking personnel. Catastrophic failure of a gas cylinder if dropped or heated.	Designed to vent excess pressure safely to atmosphere. Rigid bracketing to prevent pipe movement. High-pressure cylinders stored in secured, well-ventilated cages.	3	1	1	3
		Exposure to Vacuum (Implosion)	Implosion of glass suction jars/bottles if system pressure is suddenly restored incorrectly. Failure of a large vacuum receiver tank due to corrosion (rare).	Dampen pressure fluctuations. Vacuum receivers designed with internal coatings or rust-resistant materials. Design of medical suction equipment includes filters and traps.	2	1	1	2

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		Exposure to Biohazards (Vacuum System)	Contact with residual bodily fluids, aerosolized pathogens, or contaminated dust inside the vacuum pipeline or receiver during pump maintenance or filter changes.	Bacterial filters installed at the inlet of the vacuum plant and at terminal units to capture contaminants. Designed drain legs on receivers to safely remove liquids without breaking the line. Vacuum pumps usually located in isolated plant rooms, not patient areas.	3	2	2	12
		Environmental / Noxious Gases	Heat stress from compressor motors. Oil mist discharge (if oil-sealed pumps) or noise pollution. Entrainment of exhaust fumes into the medical air intake.	Cooling systems in plant rooms. Vacuum pump exhausts routed to safe, external locations away from air intakes. Soundproofing on pumps.	1	2	1	2

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		Handling Heavy Equipment and Material	Employees exposed to ergonomics risk resulting in suffering from muscle strain when picking up the tools or equipment alone or in the wrong manner. Moving heavy vacuum pumps, compressors, or gas cylinders (Yokes/Cylinders). Awkward postures while working on manifolds.	At least 2 employees carry the equipment Employees trained in ergonomics (lifting techniques). Ergonomics risk assessment to be conducted by a competent person. Good communication. Equipment has handles (cage) to make handling easy. Employees to use their upper legs to pick up the equipment and not their lower back. Design includes overhead lifting points in plant rooms. Purpose-built trolleys for cylinder transport. Equipment laid out with sufficient clearance for maintenance access.	3	2	2	12
		Sharp Object	Injuries to the body when making contact with exposed sharp parts on the equipment.	Safety guards are in place and in good working condition. Correct PPE to be used. To make sure that all parts are in place and not loose before picking up.	3	2	2	12

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		Confined Spaces (Pits/Tunnels)	Entry into valve pits, ceiling voids, or under-floor ducts to access pipework leading to asphyxiation or entrapment.	Strategically placed access panels to avoid entry into confined tunnels. Preference for above-ground pipe routing where possible. Passive ventilation in below-ground pits.	3	1	1	3
		Slips and falls (wet surfaces)	Fractures, head injuries	Use anti-slip flooring; clean up spills promptly; place warning signage	2	3	2	3

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GMR (General Machinery Regulations)		Plant and Equipment	Injury / Property damage / Theft / Security Issues	Implement traffic protection measures Trained and competent operators must be used Check plant and vehicles on daily basis before use and record inspections. Maintain vehicles in safe condition. Medical certificates of fitness required for construction plant. Crossing of road by construction vehicles or machines must be limited to the practical minimum Plant and vehicles must be fitted with amber rotating beacons and reverse alarms. Wear appropriate protective clothing/equipment, e.g., goggles, gloves, ear defenders, etc. as appropriate.	3	3	3	27

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CR14e		Overhead systems and services (Working near)	Contact with live services causing injury to personnel Damage caused to services	Maintain safe clearance levels Establish presence of any services via proper walk-through survey of site and/or means of service drawings Wear personal protective clothing Ensure height of plant/vehicles does not compromise or exceed clearance levels for overhead services Obtain information on clearance levels from service provider	1	1	1	1
CR19.3a		Lifting Operations	Falling material Crushing by materials Hand injuries to the slinger Toppling crane	Use only trained and authorized personnel for all lifting operations. Ensure lifting equipment and accessories are certified, inspected, and well-maintained. Conduct a risk assessment and have a lifting plan in place before starting. Inspect the load for weight, stability, and secure attachment before lifting. Establish exclusion zones and maintain clear communication during the operation.	2	2	2	8

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		Cleaning	Abrasions/ cuts/ burns	Use appropriate personal protective equipment (PPE) such as gloves, goggles, and masks based on the cleaning agents used. Ensure cleaning chemicals are clearly labeled, stored properly, and used according to manufacturer instructions. Provide training to cleaning staff on safe handling of chemicals and equipment. Maintain good ventilation in cleaning areas to reduce inhalation risks from fumes. Clean up spills immediately and use wet floor signs to prevent slips and falls.	2	2	2	8
		Chemical Hazards	Exposure to detergents, disinfectants, and lubricants	hazardous chemical substances to be managed in terms of the HCS Regulations, employees to be trained on the use of the HCS. Proper PPE to be provided and worn at all times; proper storage and labeling of HCS.	2	2	2	8

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		Plumbing	Risk of scalding during valve or pipe maintenance Burst pipes or disconnections can cause damage, slips, or contamination	Ensure standard safety procedures are followed at all times. Only use trained and competent personnel. Safe isolation procedures when working on steam/ hot water pipes. Leaking pipes to be isolated using isolation valves; Regular inspections must be conducted to ensure leaks are fixed. Regular inspection and testing of water pipes and non-return valves. Ensure all personnel wear suitable and sufficient personal protective equipment. Consider a hot works permit system prior to commencing any hot works. Make sure emergency procedures are in place and ensure all personnel are aware of where to go in case of a fire.	1	1	2	2

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		Equipment Erection	Falls from height Falling components Contact injuries from falling lifting equipment	Use only certified lifting equipment and ensure all components are properly secured before lifting. Conduct a thorough inspection of lifting gear and structural components prior to erection activities. Establish exclusion zones beneath and around the erection area to protect workers from falling objects. Use tag lines and controlled lifting techniques to prevent swinging or uncontrolled movement of components. Ensure only trained personnel are involved in erection and lifting operations, with clear communication protocols in place.	2	1	1	2

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		Equipment Fixing	Back injuries caused by manual handling resulting in ergonomic risks Eye injuries from tie wire Trips / falls Falling from height	PPE must include safety boots and goggles Manual handling training may be required, ergonomics risk assessment and training done by a competent person. Care to be taken when working near overhead lines Use only trained personnel Provide safe means of access Maintain and regularly inspect all lifting appliances and equipment Construct scaffold walk ways to cross reinforcing mesh, as required	2	1	1	2

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		Fire / Explosion	Leaks during maintenance creating an oxygen-rich atmosphere where materials ignite easily. Using oil-based lubricants on oxygen fittings (auto-ignition under pressure). Welding/grinding near gas lines.	Use of PTFE tape (specific to O2) and oxygen-compatible sealants. Plant rooms designed with adequate ventilation to prevent gas accumulation. Automatic sprinklers or inert gas systems in plant rooms.	3	2	1	6
		Electrical Shock (Plant Rooms)	Contact with live terminals in VSD drives, pumps, or control panels during compressor or pump maintenance. Arcing during isolation procedures.	Designed with lockable isolators. Electrical enclosures rated for the environment (e.g., IP54). Protection on supply circuits.	3	2	2	12

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		Exposed Moving Parts	Injury to the body when in contact with exposed moving machinery.	Safety guards are in place and in good working condition. Hand placement to be in the correct place.	3	1	3	9
		Excessive Noise (>82dB)	Excessive noise can cause noise induced hearing loss. Excessive noise in a public place can cause noise pollution.	Employees to use the correct earplugs and to use them in the correct manner.	3	2	1	6
General Facility Safety					Baseline risk			
CR 10		Access	Injury to person's / employees /personnel/ consultants/patients	Separate general public from active construction/maintenance areas. Extra care to be taken to ensure the public and personnel do not gain access to the construction activities. Install safety and warning signage at the construction/construction areas.	2	2	2	8
		Exposure noise	Interruptions to existing activities	Control should be taken to ensure to bear in mind exposure to general patient wards. Extra special care and planning and communication between the contractor and facility staff where working in close vicinity to consulting rooms A solid hoarding structure to be above 2.5 meters.	2	2	2	8

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	General	Exposure to dust	Interruptions to existing facility activities	Control should be taken to ensure to bear in mind exposure to general patient wards. Extra special care and planning and communication between the contractor and facility staff where working in close vicinity to consulting rooms or patient's areas. A solid hoarding structure to be above 2.5 meters.	2	2	2	8
		Waste Management	Daily waste from contractor / professionals / specialists cross contaminated with facility waste.	Normal waste from all the appointed contractor should have separate controlled waste areas. To ensure no cross contamination with the existing facility waste management systems . After each maintenance or repair work contractor to ensure that the areas are left in a safe manner and that all waste is removed on site and disposed off safely at an approved site.	2	2	2	8
GS' 13A		Contact with Biohazardous Waste	contractor / professionals / specialists coming into contact with medical biohazardous waste from the facility.	Contractor to liaise with the facility should they identify any medical waste on site. Employees to be trained on management of medical waste on site.	2	2	2	8

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		Barricading / Demarcating / Hoarding	Interaction with existing facility activities / personnel and general public	Control should be taken to ensure that construction activities is at all times being separated from day to day facility activities / staff / patients / general public as well as storage facilities. To bear in mind exposure to general patient to sick patients. A solid hoarding structure to be above ceiling height to be considered.	3	3	3	27
GS' 13A		Security	Theft	Contractors and professionals doing construction activities should have own security on site. Contractors to ensure that materials and items of value are stored correctly as this can cause a security risk for the existing facilities.	1	1	2	2
GS' 13A		Epidemic and Pandemic Control	Contact with Airbourne and infectious diseases.	Control should be taken to ensure that construction activities is at all times being separated from day to day facility activities / staff / patients / general public.	1	1	3	3

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GS' 13A		Infection Prevention	Jeopardizing the sterility of the patients environment.	Control should be taken to ensure that construction/maintenance activities are at all times being separated from day to day facility activities / staff / patients.	2	3	3	18
GS' 13A		Fraternization	Harassment of persons on property.	Extra Control should be taken to ensure that consultants / professionals / specialists / contractors are separated from staff / patients / general public	2	2	3	12

PART C4: SITE INFORMATION



C4.1: SITE INFORMATION

PROJECT NAME	SCHEDULED MAINTENANCE OF VACUUM AND COMPRESSED MEDICAL GAS EQUIPMENT IN CLUSTER 1 – HEALTH FACILITIES (36 MONTHS)
TENDER No.	SCMU3-2627-0178-HO

C4 Site Information

1. GENERAL

1. The Standard for Uniformity in Construction Procurement published in terms of the Construction Industry Development Board (CIDB) Act, 2000 (Act no 38 of 2000), the Standardized Construction Procurement Documents for Engineering and Construction Works as issued by the CIDB and any other relevant documentation pertaining thereto must be studied and all principles in this regard must be applied to all procurement documentation, practices and procedures.
2. The Supplier must acquaint themselves fully with all matters pertaining to this section in order to enable prospective Suppliers to price for all eventualities.
3. All hospitals are functional, caution must be taken in terms of contractor movement and noise.
4. The employer will advise will confirm where the stripped materials need to be disposed.

LIST OF FACILITIES IN CLUSTER 1

Refer to Asset Register



PART C4.2

EASTERN CAPE DEPARTMENT OF HEALTH

SUPPLEMENTARY TECHNICAL SPECIFICATION

FOR THE

GENERAL MAINTENANCE AND REPAIRS

OF

VACUUM AND COMPRESSED MEDICAL GAS EQUIPMENT AT

VARIOUS HOSPITALS AND HEALTH FACILITIES IN

THE

CLUSTER ONE (1) – ALFRED NZO & O.R. TAMBO DISTRICTS

OF THE EASTERN CAPE PROVINCE



CONTENTS

SUPPLEMENTARY TECHNICAL SPECIFICATION FOR REPAIRS TO VACUUM AND COMPRESSED MEDICAL GAS SYSTEMS EQUIPMENT

SS 1 GENERAL

SS 2 EQUIPMENT INSTALLATION

SS 3 SCOPE OF WORK

SS 4 INSPECTION OF THE SITE

SS 5. STATUTORY AND REGULATORY REQUIREMENTS

SS 6. GENERAL REQUIREMENTS FOR REPAIR AND MAINTENANCE CONTRACTS

SS 7 ROUTINE SERVICING AND MAINTENANCE WORK

SS 8. TRAINING OF THE DEPARTMENT'S MAINTENANCE STAFF

SS 9. TRAINING OF DEPARTMENTS OPERATING STAFF

SS 10. COMPETENT PERSON ON SITE

SS 11. CLASSIFICATION OF BREAKDOWNS

SS 12. PENALTIES

SS 13. SPECIAL SAFETY, HEALTH, ENVIRONMENTAL AND QUALITY REQUIREMENTS

SS 14. SPECIAL TOOLING REQUIREMENTS

SS 15. IN-SERVICE TRAINING OF SELECTED TRAINEES

SS 16. ACCREDITED TRAINING



**FOR THE
GENERAL MAINTENANCE AND REPAIRS
OF
VACUUM AND COMPRESSED MEDICAL GAS SYSTEMS**

SS 1. GENERAL

This specification is for the repair and fixed term maintenance of vacuum and compressed medical gas systems installations at various hospitals and health facilities listed in paragraph SS 3 of the O.R. Tambo and Alfred Nzo District.

This specification shall be read in conjunction with the following documents:

1. Vacuum and medical gas equipment **Service Information**, which will include the:
 - 1.1. Standard Specifications for General Maintenance and Repairs to Electrical and Mechanical Installations for Vacuum and medical gas Equipment,
 - 1.2. Technical Specifications for Vacuum and Medical Gas Equipment that may be applicable,
 - 1.3. This Supplementary Specification for Vacuum and medical gas Equipment,
 - 1.4. Operating and Maintenance Manuals for Vacuum and medical gas Equipment (where applicable),
 - 1.5. Relevant Inspection Check sheets for Vacuum and Medical Gas Equipment,
 - 1.6. Maintenance Control Plan per Health Facility for Vacuum and medical gas Equipment,
2. All relevant National Standards and Legislation that is referred to in the Vacuum and Medical Gas Equipment Service Information, and
3. The General Conditions of Tender and all Schedules and Drawings forming part of the Tender.

Where specifications and/or drawings are at variance this Supplementary Specification will have preference over both the Standard Specifications and the Drawings.

Maintenance and servicing shall be carried out strictly as stated in the service schedules and after each service a copy of the service schedule shall be duly completed and signed shall be submitted to the responsible Service Manager.

SS 2. EQUIPMENT INSTALLATIONS

The following equipment installations (included but not limited to- refer to asset register for all equipment) shall be maintained and repaired as part of this contract:

1. Medical gas points
2. Cylinders
3. Tanks
4. Pipework
5. Manifold
6. Valves
7. Pumps
8. Compressors
9. VIE Tank (Bulk)
10. Control Panels
11. Associated Medical Gas systems and associated equipment.

SS 3. SCOPE OF WORK

This specification is for the repair, service and maintenance, and proper functioning of the Vacuum and compressed medical gas Equipment installations, for the duration of the Contract period, in the Health facilities.

Details of the work required shall be as listed in the Price Lists which have been sub-divided into the following categories:



- SCHEDULE 1:** FIXED CHARGE AND VALUE RELATED ITEMS APPLICABLE TO ALL WORK
- SCHEDULE 2:** FUNCTIONAL REPAIR SCHEDULE
- SCHEDULE 3:** MAINTENANCE SERVICE SCHEDULE
- SCHEDULE 4:** TERM REPAIRS SUBJECT TO APPROVAL OF QUOTATION FOR THE WORKS

Note: The repair work included in Schedules 1 to 4 has been subdivided for each Health Facility where applicable.

The repair and maintenance phases shall run in parallel as specified in GM 2.4. The equipment to be repaired and maintained is listed under the Inventories of Equipment in C4.1.

The maintenance work (Minor and Major Services) required on the equipment listed in the Inventory of the attached C4.1, will be as per the pricing of the Schedule 3 Price List, but subject to the scheduling and remeasuring of quantities as contained in the final Maintenance Control Plan as per paragraph GM 3.3. All work must comply to the minimum requirements set by the Service Information for the vacuum and compressed medical gas systems installations.

The repair work will be as per the Schedule 4 Price List, but subject to work being accepted by the Service Manager from the Repair Schedule as per GM 2.6. Due to limited funds and as specified in paragraph GM 2.8, some of the repair work may be stretched over two or more financial years. The repair work for the first financial year will commence only after the Contractor has been issued with a written instruction (Task Order as per GM 2.4) to proceed with the specified work by the Service Manager once the relevant Repair Schedule has been accepted and the relevant repairs approved by the Employer.

SS 4. INSPECTION OF THE SITE

Due to the large number of, and area over which the Health Facilities covered by this Contract is spread, it is the Contractor's own choice if he wants to inspect the sites prior to tendering to ascertain the condition of the equipment or rely solely on the information provided as part of the Tender Documentation and single site Tender Briefing Meeting as per GM 1. No further claims due to non-compliance with this requirement shall be entertained.

SS 5. STATUTORY AND REGULATORY REQUIREMENTS

The latest edition, including all amendments up to the date of Tender, of the specifications, publications and codes of practice listed in the Service Information for Vacuum and compressed medical gas Equipment shall be read in conjunction with this specification and shall be deemed to form part thereof.

All equipment that is subject to regular statutory inspections such as pressure vessels and lifts, shall be prepared for statutory inspections and tests only when the validity of the existing certificates has expired, or if the validity cannot be accurately verified. This work will form part of the maintenance phase of the Contract.

SS 6. GENERAL REQUIREMENTS FOR REPAIR AND MAINTENANCE CONTRACTS

Whenever reference is made in the specifications to repairs and/or repair phase it shall mean the repairs required to the installation to bring the installation up to a standard, as described in the Service Information. In general, the repair work shall commence only after the Functional Condition Assessment Report has been accepted and the quantities verified.

Maintenance work must be completed according to the approved Maintenance Control Plan. (See GM 3.3). Repair work can only commence once the Service Manager has accepted it and issued a Task Order (See GM 2.8), or a Breakdown Task Order has been issued by the Call Centre. Critical repairs may be carried out immediately with the approval of the Service Manager but will be priced as per the guidelines of GM 2.8 and subject to the General Contractual Conditions.

SS 7. ROUTINE SERVICING AND MAINTENANCE WORK

Maintenance of the Vacuum and compressed medical gas Equipment may include, but is not limited to inspect, service and/or replace the following:

1. Compressors, condensers, and evaporators



2. Refrigerant lines and insulation
3. Circulation pumps and control valves
4. Water tanks and storage vessels
5. Electrical connections, control panels, and relays
6. Thermostats, temperature sensors, and control units
7. Heat exchangers and associated piping
8. Filters, strainers, and gaskets
9. Seals, hinges, and door mechanisms
10. Safety valves and pressure controls
11. Monitoring systems and alarms
12. Statutory inspections and certification
13. Defrost systems and drainage lines
14. Fans, blowers, and ventilation systems.

Pest and rodent control are not part of this Contract's Scope of Work.

SS 8. TRAINING OF THE DEPARTMENT'S MAINTENANCE STAFF

It is required of this contract that the Contractor arrange for the non-accredited theoretical and practical training of at least three maintenance personnel employed by the Department at each Health Facility specified in the Supplementary Specification. This training should be incorporated into the normal service visits to the facilities, and billed at the normal contracted labour rate for the artisan or technician that provides the training. The Contractor must provide proof of attendance of such training activities by the relevant staff that attended, as well as the contents of the training when claiming payment for this activity.

The Contractor shall ensure that his own maintenance personnel are sufficiently qualified for the duties required.

Maintenance staff must receive enough instructions to ensure that they are fully conversant with the equipment concerned, and so that they can understand what the impact of their actions (or lack thereof) will be on the equipment. This non-accredited training of the Health Facility's Employees shall be for a minimum duration of 40 hours, or as otherwise determined by the Service Manager, which shall include, but not necessarily be limited to, instruction on the operation and maintenance of the following items

1. General usage and operation
2. Daily and weekly checks as per manufacturer's instruction
3. Routine tests as per SANS and manufacturer's instruction
4. Water Connections, flow, and Pressure.
5. Gas Connections and Pressure.
6. Drain Connections and Unblocking of Pipes
7. Electrical Connections and Resetting Circuit Breakers.
8. Controller Settings.
9. Visual Inspections.
10. Fault Identification and Reporting.
11. Cleaning Equipment.
12. Provision of check sheet procedure for each equipment/service.

The training should be aligned to the general tasks contained in the Inspection and Servicing Guideline for the Vacuum and Compressed Medical Gas Equipment and OEM Operation and Maintenance Manuals.



SS 9. TRAINING OF DEPARTMENTS OPERATING STAFF

The Contractor shall be responsible for the non-accredited training of the Department's operating staff after the maintenance and/or repairs has been completed. This will form part of the 40 hours envisaged in SS8 above. Operating staff must receive enough instructions to ensure that they are fully conversant with the operation of the equipment concerned, so that they can understand what the impact of their actions (or lack thereof) will be on the equipment.

Operating staff shall be instructed on:

1. The general operating method of the plant;
2. Starting and stopping instructions;
3. Stopping the plant or unit in emergency and warning against restarting after an emergency unless a competent person is present;
4. Positions and normal settings of control equipment;
5. Normal operating temperatures, pressure, differential pressures etc.;
6. Safety measures, especially against high voltages;
7. Operational checks on sight glasses, running amperages, etc.;
8. Name, address, and telephone number of the competent person responsible for the maintenance of the plant or unit.
9. Maintenance Log Book (Update maintenance and service records into Log Book)

The Operating and Maintenance Manual must be available during the training of operating staff. Operating staff must also be made conversant with the contents of the manual.

All instrumentation such as thermometers, pressure gauges, manometers, etc. shall be marked at the operating point under normal conditions. Such markings shall be neatly done on the scale itself where possible or alternatively on the protecting glass cover.

SS 10. COMPETENT PERSON ON SITE

It is not a Condition of Contract that a Competent Person must be full time on site. Payment reductions will however be imposed if repairs are not carried out within the time limitations specified in Paragraph GM 7: Maximum Maintenance Down-Time. Contractors are therefore advised to evaluate the additional expense required for a competent person on site, where it makes sense to do so, to ensure quick response against the possibilities of payment reductions, before submitting a Tender.

SS 11. CLASSIFICATION OF BREAKDOWNS

The classification of breakdowns specific to vacuum and compressed medical gas systems shall be as follows in line with the requirements of GM 7.

The classification of breakdowns specific to vacuum and compressed medical gas SYSTEMS shall be as follows in line with the requirements of GM 7:

P2 = Only where no other vacuum and compressed medical gas systems item can fulfill the function required.

P3 = All other vacuum and compressed medical gas systems faults and breakdowns.

P4 = None.

Priority of Calls	Description	Reaction Times
P1	Emergency (Life Threatening)	Immediate response from the time of logging a call and the emergency to be resolved (at least temporarily) within 8 hours
P2	Urgent	Immediate response from the time of logging a call and to be resolved within 12 hours



P3	Planned Maintenance Repairs	Scheduled Maintenance is to be scheduled and performed within 3 business days of the scheduled date
P4	Emergency Facility Repairs	7 Days planning and execution subject to supply chain regulations

SS 12. PENALTIES

Penalties applicable to this specification will be as per the criteria specified in Section X17 of the Secondary Options Clauses of the Contract, and C1.2b Annexure CD.

SS 13. SPECIAL SAFETY, HEALTH, ENVIRONMENTAL AND QUALITY REQUIREMENTS

In addition to the general SHEQ requirements as per GM 2.15, the following additional requirements will apply to vacuum and compressed medical gas systems:

Due to the type of equipment and risk of injury to personnel working on them, it is of the utmost importance that the relevant staff are supplied with and trained in the use of the relevant PPE while working on the Vacuum and compressed medical gas Equipment.

This as a minimum must include:

- Safety Boots
- Overall Suit
- Leather Gloves
- Clear Safety Glasses
- Hearing Protection
- Dust Mask
- TB Mask

Contractor's employees who are not medically fit due to pulmonary throat infections, or other contagious illnesses, are not permitted to be deployed to food services environments. In such situations, the contractor shall avail a suitable qualified replacement.

To comply with environmental requirements, the Contractor must always have a basic spill control kit in his vehicle to assist with the cleanup of any spilled oils, etc. during the course of their work on site.

SS 14. SPECIAL TOOLING REQUIREMENTS

In addition to the general tooling that the Contractor should have, the following additional requirements will apply to Vacuum and compressed medical gas Equipment:

- Multimeter for checking electrical system.
- Sling psychrometer
- Humidity, wet bulb, dew point meters
- Infrared Thermometer Gun
- Flow measurement devices to measure fuel and water flows.



- Test equipment as deemed necessary for each equipment/service/system by the manufacturer.

SS 15. IN-SERVICE TRAINING OF SELECTED TRAINEES

The Contractor can be required to provide In-Service Training for selected Interns and/or Graduates from the areas where the Services are to be provided as per the conditions contained in C3.3. A provisional sum to cover the salaries for these trainees will be included into the Price list.

The Employer will select and appoint the relevant In-Service Trainees and place them with the Contractor who will provide suitable In-Service training to them, in line with the type of services rendered by the Contractor, as agreed in writing with the Employer during the placement procedure

The following definitions will be applied for the purposes of this specification:

- **Intern:** a student or trainee who works, in order to gain work experience or satisfy requirements for a qualification.
- **Graduate:** a person who has obtained a degree or diploma, who is offered an opportunity to undergo in-service training to gain work experience that can assist them with finding permanent employment.

SS 16. ACCREDITED TRAINING

The Service Manager can at his discretion instruct the Contractor via a Task Order to arrange **accredited** theoretical and practical training from the Equipment OEM, or other suitably qualified service providers, for some or all of the operating and maintenance staff working with these assets at each facility. Approval to proceed will be based on acceptance of the proven cost quotation plus agreed Direct Fee percentage as per GM 2.8.1 & Clause 11.2(8) that the Contractor must provide. Each participant that successfully completes the course must be provided with a certificate as proof thereof. It shall be required from the Contractor to provide proof of attendance of such training activities.

A Provisional Sum has been provided in the Price List to cover these expenses.