

KENYATTA NATIONAL HOSPITAL

NATIONAL OPEN TENDER

TENDER NAME: SUPPLY, DELIVERY, INSTALLATION, TESTING AND COMMISSIONING OF MEDICAL EQUIPMENTS

TENDER NO KNH/T/56/2022-2023

CLOSING DATE:7TH JULY,2022

TABLE OF CONTENTS

INVIT	TATION TOTENDER	ν
DADT	TA TEMPERING PROCEDURES	
	1 - TENDERING PROCEDURES ION I - INSTRUCTIONSTOTENDERERS	1
A	TOTAL TRAINSCRIPTION OF THE PROPERTY OF THE PR	
	e of Tender	1
<u>2.</u>	Definitions	1
<u>3.</u>	Fraud and Corruption	1
<u>4.</u>	Eligible Tenderers	1
<u>5.</u> B.	Eligible goods, Plant and equipment for Installation Services	
<u>6.</u>	Sections of Tendering Document	3
<u>7.</u>	Site Visit	4
<u>8.</u>	Pre-Tender Meeting and a pre-arranged pretender visit of the site of the works	4
<u>9.</u>	Clarification of Tender Documents	5
<u>10.</u>	Amendment of Tendering Document	
C.	Preparation of Tenders	
<u>11.</u>	Cost of Tendering	
<u>12.</u>	Language of Tender	
<u>13.</u>	Documents Comprising the Tender	
<u>14.</u>	Form of Tender and Price Schedules	
<u>15.</u>	Alternative Tenders	
14.	Documents Establishing the Eligibility of the Plant and Installation Services	
15.	Documents Establishing the Eligibility and Qualifications of the Tenderer	
16.	Documents Establishing the Conformity of the Plant and Installation Services	8
17.	Tender Prices and Discounts	8
18.	Currencies of Tender and Payment	
19.	Period of Validity of Tenders	10
20.	Tender Security	10
21.	Format and Signing of Tender	
22.	Submission, Sealing and Marking of Tenders	11
23.	Deadline for Submission of Tenders	
24.	Late Tenders	12
26.	Tender Opening	
В.	Evaluation and Comparison of Tenders	13
27.	Confidentiality	
28.	Clarification of Tenders	
29.	Deviations, Reservations, and Omissions	
30.	Determination of Responsiveness	14
31.	Nonmaterial Non-conformities	14
32.	Correction of Arithmetical Errors	
33.	Conversion to Single Currency	15

Margin of Preference	15			
Evaluation of Tenders	15			
Comparison of Tenders	16			
Abnormally Low Tenders and Abnormally high Tenders				
Unbalanced or Front-Loaded Tenders	17			
Eligibility and Qualification of the Tenderer	17			
Procuring Entity's right to Accept any Tender and to Reject Any or all Tenders	18			
Award of Contract	18			
Award Criteria	18			
Notice of Intention to Enter into a Contract	18			
Standstill Period	18			
Debriefing by the Procuring Entity	18			
Letter of Award	18			
Signing of Contract	19			
,				
·				
ON II – TENDER DATA SHEET	20			
ON III - EVALUATION AND QUALIFICATION CRITERIA				
General Provision	24			
Preliminary examination for Determination of Responsiveness	24			
Evaluation	24			
, · · · · ·				
1 ost qualification and Contract award (111 37), more specifically	21			
On IV -TENDERING FORMS				
Adjustment				
ALICAL PROPOSAL	40			
actor's Equipment	53			
nnei	54			
rers Qualification without prequalification				
ELI 1.1	57			
	50			
FIN3.3				
C EFCA N acn mE	Evaluation of Tenders. Comparison of Tenders and Abnormally high Tenders. Abnormally Low Tenders and Abnormally high Tenders. Unbalanced or Front-Loaded Tenders. Eligibility and Qualification of the Tenderer Procuring Entity's right to Accept any Tender and to Reject Any or all Tenders. Award of Contract. Award Criteria. Notice of Intention to Enter into a Contract. Standstill Period Debriefing by the Procuring Entity. Letter of Award Signing of Contract. Performance Security. Publication of Procurement Contract Appointment of Adjudicator. Procurement Related Complaint DN II - TENDER DATA SHEET DN III - EVALUATION AND QUALIFICATION CRITERIA General Provision Preliminary examination for Determination of Responsiveness Evaluation Multiple Contracts (ITT35.6). MARGIN OF PREFERENCE. Alternative Tenders (ITT13.1). Post qualification and Contract award (ITT 39), more specifically DN IV -TENDERING FORMS FORM OFTENDER. ERERS ELIGIBILITY - CONFIDENTIALBUSINESSQUESTIONNAIRE. FICATE OF INDEPENDENTTENDERDETERMINATION. UNLE OF RATESANDPRICES djustment. NICALPROPOSAL scror's Equipment DNICALPROPOSAL SLI 1.2 SLI 1.2 SLI 1.2 SLI 1.3 S			

=,	orm EX	<p4.1< th=""><th>. 62</th></p4.1<>	. 62			
_	£	Tender Security	<i>(</i>			
		Tender Security —Bank Guarantee				
	ORM OF TENDER SECURITY -INSURANCE GUARANTEE					
		R-SECURING DECLARATION FORM (r 46and 155(2))				
		FACTURER'SAUTHORIZATION FORM				
•	., ., 101	ACTORERS/ACTIONIE/ATIONI CIAM	. 00			
٥,	ART 2	- PROCURINGENTITY'S REQUIREMENTS	. 69			
	SCOP	PE OF SUPPLY OF PLANT AND INSTALLATION SERVICES BYTHE CONTRACTOR	70			
		fication				
	FORM	MSAND PROCEDURES	. 72			
		of Completion Certificate				
		M OF OPERATIONALACCEPTANCECERTIFICATE				
	CHA	nge order procedureandforms	. 73			
		ex 1. request forchangeproposal				
		EX 2. ESTIMATE FORCHANGE PROPOSAL				
		EX 3. ACCEPTANCEOFESTIMATE				
		EX 4. CHANGE PROPOSAL				
		EX 5. CHANGE ORDER				
		EX 6. PENDING AGREEMENTCHANGEORDER				
	ANNI	EX 7. APPLICATION FORCHANGE PROPOSAL	81			
	PART	3 – GENERAL CONDITIONS OF CONTRACT AND CONTRACT FORMS	85			
	17111	5 GENERAL CONDITIONS OF CONTINUE TAND CONTINUE FORWIS	. 05			
	GENE	ERAL CONDITIONS OF CONTRACT	. 86			
	A.	Contract and Interpretation				
	1.	Definitions				
	2.	Contract Documents				
	3.	Interpretation				
	4.	Communications				
	5.	Law and Language				
	6.	Fraud and Corruption				
	B.	Subject Matter of Contract				
	<u>/.</u>	Scope of Facilities Time for Commencement and Completion				
	7. 8. 9.	Contractor's Responsibilities				
		·				
	<u>10.</u>	Procuring Entity's Responsibilities	. 90			
	C.	Payment	. 90			
	11.	Contract Price				
	<u>11.</u>	Terms of Payment				
	<u>13.</u>	Securities				
		Taxes and Duties				
	14. A.	Intellectual Property				
	<u>15.</u>	License/Use of Technical Information				
	<u> 16.</u>	Confidential Information	. 92			
	В.	Execution of the Facilities				
	<u>17.</u>	Representatives				
	<u>18.</u>	Work Program				
	<u>19.</u>	Subcontracting				
	<u>20.</u>	Design and Engineering	. 95			
	21.	Procurement	96			
	41.	T I DEGI CITICITE IN THE CONTROL OF				

<u>22.</u>	Installation	97
23.	Test and Inspection	102
24.	Completion of the Facilities	
25.	Commissioning and Operational Acceptance	
		105
A.	Guarantees and Liabilities	
<u>26.</u>	Completion Time Guarantee	
<u>27.</u>	Defect Liability	
<u>28.</u>	Functional Guarantees	
<u>29.</u>	Patent Indemnity	
<u>30.</u>	Limitation of Liability	
B.	Risk Distribution	
<u>31.</u>	Transfer of Ownership	
<u>32.</u>	Care of Facilities	
34.	Insurance	
35.	Unforeseen Conditions	
36.	Change in Laws and Regulations	113
37.	Force Majeure	113
38.	War Risks	114
A.	Change in Contract Elements	115
39.	Change in the Facilities	115
40.	Extension of Time for Completion	117
41.	Suspension	118
42.	Termination	119
43.	Assignment	122
44.	Export Restrictions	
В.	Claims, Disputes and Arbitration	123
45.	Contractor's Claims	123
46.	Claims, Disputes and Arbitration	124
SFC	TION IX - SPECIAL CONDITIONS OF CONTRACT	126
SECT	TION VIII -CONTRACT FORMS	128
NO	TIFICATION OF INTENTION TO AWARD	129
REQ	QUEST FOR REVIEW	132
LETT	TER OF AWARD	132
CON	NTRACT AGREEMENT	133
ΔDD	PENDICES	135
ΔΡΡ	PENDIX 1: TERMS AND PROCEDURES OF PAYMENT	136
	ENDIX 1. PERMIS AND PROCEDURES OF TATMENT	
ΔDD	PENDIX 3. INSURANCE REQUIREMENTS	140
	PENDIX 4. TIME SCHEDULE	
	PENDIX 5. LIST OF MAJOR ITEMS OF PLANT AND INSTALLATION SERVICES	
	D LIST OF APPROVED SUB CONTRACTORS	1/13
V DD	PENDIX 6. SCOPE OF WORKS AND SUPPLY BY THEPROCURING ENTITY	رحا ۱۸۸
	PENDIX 7. LIST OF DOCUMENTS FOR APPROVALOR REVIEW	
	PENDIX 8. FUNCTIONALGUARANTEES	
	FORMANCE SECURITY FORM	
	FORMANCE SECURITY OPTION 2 – (Performance Bond)	
	VANCE PAYMENT SECURITY – Demand Bank Guarantee	
BEN	ieficial ownership disclosure	152

INVITATION TO TENDER

KENYATTA NATIONAL HOSPITAL

TENDER NOTICE

Kenyatta National Hospital wishes to invite sealed tenders for the following:

S/No	Tender Number	Tender Description	Eligibility	Closing Date
1.		Supply, Delivery, Installation, Testing, Training and Commissioning Medical Equipments	National Open Tender	7 th July, 2022

Interested eligible candidates may obtain further information and inspect the Tender Documents at Kenyatta National Hospital (KNH), Administration Block Supply Chain Management Department offices, Room No.6, from Monday to Friday between 9:00am to 4:00pm. Tender documents with detailed Specifications and Conditions can be downloaded free of charge from the KNH Website (www.knh.or.ke) or www.tenders.go.ke PPIP Portal. Hard copies can be obtained from the office of the Director, Supply Chain Management located at the Hospital's Main Administration Block Room 6 from Monday to Friday between 9.00 a.m. to 4.00 p.m. upon payment of a non-refundable fee of Kshs.1,000.00 per tender document via Mpesa pay bill No.626088, Account Number –Name of Supplier and obtain an official receipt from Cash Office (Administration Block) or bankers Cheque made payable to Kenyatta National Hospital.

Bidders who choose to download the tender documents from the website free of charge should immediately email their name and contact details (cell phone number, email, and company name) to: procurement@knh.or.ke for records and communication of any tender clarifications and/or addenda. KNH will ONLY respond to queries or clarifications sought in writing by interested bidders, which will be received not later than 30th June 2022.

Completed tender documents must be returned as specified in the tender document and deposited in the Tender Box situated at the Kenyatta National Hospital Administration Block, ground floor Supply Chain Management entrance office 7th July, 2022, 10.00 am East African Time and be addressed to:

The Chief Executive Officer Kenyatta National Hospital Hospital Rd. Along, Ngong Rd. P.O. Box 20723, NAIROBI

FOR: CHIEF EXECUTIVE OFFICER

PART 1 - TENDERING PROCEDURES

SECTION I -INSTRUCTIONS TO TENDERERS

General

Scope of Tender

1.1 In connection with the Invitation to Tender (ITT), specified in the Tender Data Sheet (TDS), the Procuring Entity, issues this Tendering document for the Design, Supply and Installation of Plant and equipment as specified in Section VII, Procuring Entity's Requirements.

Definitions

2.1 Throughout this Tender document:

The term "in writing" means communicated in written form (e.g.by mail, e-mail, fax, including if specified in the TDS, distributed or received through the electronic-procurement system used by the Procuring Entity) with proof ofreceipt;

if the context so requires, "singular" means "plural" and vice versa; and

"Day" means calendar day, unless otherwise specified as "Business Day." A Business Day is any day that is anofficial working day in Kenya. It excludes the Kenya's official public holidays.

Fraud and Corruption

- 3.1 The Procuring Entity requires compliance with the provisions of the Public Procurement and Asset Disposal Act, 2015, Section 62 "Declaration not to engage in corruption". The tender submitted by a person shall include a declaration that the person shall not engage in any corrupt or fraudulent practice and a declaration that the person or his or her sub-contractors are not debarred from participating in public procurement proceedings.
- 3.2 The Procuring Entity requires compliance with the provisions of the Competition Act 2010, regarding collusive practices in contracting. Any tenderer found to have engaged in collusive conduct shall be disqualified and criminal and/or civil sanctions may be imposed. To this effect, Tenders shall be required to complete and sign the "Certificate of Independent Tender Determination" annexed to the Form of Tender.
- 3.3 Unfair Competitive Advantage-Fairness and transparency in the tender process require that the firms or their Affiliates competing for a specific assignment do not derive a competitive advantage from having provided consulting services related to this tender. To that end, the Procuring Entity shall indicate in the Data Sheet and make available to all the firms together with this tender document all information that would in that respect give such firmany unfair competitive advantage over competing firms.
- 3.4 Tenderers shall permit and shall cause their agents (where declared or not), subcontractors, sub consultants, service providers, suppliers, and their personnel, to permit the Procuring Entity to inspect all accounts, records and other documents relating to any initial selection process, prequalification process, tender submission, proposal submission, and contract performance (in the case of award), and to have them audited by auditors appointed by the Procuring Entity.

Eligible Tenderers

4.1 A Tenderer may be a firm that is a private entity, a state-owned enterprise or institution subject to ITT 4.6, or any combination of such entities in the form of a joint venture (JV) under an existing agreement or with the intent to enter into such an agreement supported by a Form of intent. In the case of a joint venture, all members shall be jointly and severally liable for the execution of the entire Contract in accordance with the Contract terms. The JV shall nominate a Representative who shall have the authority to conduct all business for and on behalf of any and all the members of the JV during the Tendering process and, in the event the JV is awarded the Contract, during contract execution. The maximum number of JV members shall be specified in the TDS.

- 4.2 Public Officers of the Procuring Entity and their relatives (i.e. spouse, child, parent, brother or sister and a child, parent, brother or sister of a spouse) their business associates or agents and firms/organizations in which they have a substantial or controlling interest shall not be eligible to tender or be awarded a contract. Public Officers are also not allowed to participate in any procurement proceedings.
- 4.3 A Tenderer shall not have a conflict of interest. Any Tenderer found to have a conflict of interest shall be disqualified. A Tenderer may be considered to have a conflict of interest for the purpose of this Tendering process, if the Tenderer:

Directly or indirectly controls, is controlled by or is under common control with another Tenderer; or Receives or has received any direct or indirect subsidy from another Tenderer; or Has the same legal representative as another Tenderer; or Has a relationship with another Tenderer, directly or through common third parties, that puts it in a position to influence the Tender of another Tenderer, or influence the decisions of the Procuring Entity regarding this Tendering process; or any of its affiliates participated as a consultant in the preparation of the design or technical specifications of the Plant and Installation Services that are the subject of the Tender; or any of its affiliates has been hired (or is proposed to be hired) by the Procuring Entity as Project Manager for the Contract implementation; or would be providing goods, works, or non-consulting services resulting from or directly related to consulting services for the preparation or implementation of the project specified in the TDS ITT 2.1 that it provided or were provided by any affiliate that directly or indirectly controls, is controlled by, or is under common control with that firm; or has a close business or family relationship with a professional staff of the Procuring Entity who: are directly or indirectly involved in the preparation of the Tendering document or specifications of the Contract, and/or the Tender evaluation process of such Contract; or (ii) would be involved in the implementation or supervision of such contract unless the conflict stemming from such relationship has been resolved in a manner acceptable to the Procuring Entity.

- 4.4 A tenderer shall not be involved in corrupt, coercive, obstructive or fraudulent practice. A tenderer that is proven to have been involved in any of these practices shall be automatically disqualified and would not be awarded a contract
- 4.5 A firm that is a Tenderer (either individually or as a JV member) shall not participate as a Tenderer or as JV member in more than one Tender except for permitted alternative Tenders. Such participation shall result in the disqualification of all Tenders in which the firm is involved. However, this does not limit the participation of a Tenderer as subcontractor in another Tender or of a firm as a subcontractor in more than one Tender.
- 4.6 A Tenderer may have the nationality of any country, subject to the restrictions pursuant to ITT 4.9. A Tenderer shall be deemed to have the nationality of a country if the Tenderer is constituted, incorporated or registered in and operates in conformity with the provisions of the laws of that country, as evidenced by its articles of incorporation (or equivalent documents of constitution or association) and its registration documents, as the case may be. This criterion also shall apply to the determination of the nationality of proposed subcontractors or sub-consultants for any part of the Contract including related Services.
- 4.7 A Tenderer that has been debarred by the PPRA shall be ineligible to be prequalified for, initially selected for, Tender for, propose for, financially or otherwise, during such period of time as the PPRA shall have determined. The list of debarred firms and individuals is available at PPRA Website www.ppra.go.ke.
- 4.8 Tenderers that are state-owned enterprises or institutions in Kenya may be eligible to compete and be awarded a Contract(s) only if they can establish that they (i) are legally and financially autonomous (ii) operate under commercial law, and (iii) are not under supervision of the Procuring Entity.
- 4.9 Firms and individuals may be ineligible if so indicated in Section V and (a) as a matter of law or official regulations, Kenya prohibits commercial relations with that country; or (b) by an act of compliance with a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations, Kenya prohibits any import of goods or contracting of works or services from

that country, or any payments to any country, person, or entity in that country. Where the procurement is implemented across jurisdictional boundaries, then exclusion of a firm or individual on the basis of ITT 4.8 (a) above by any country may be applied to that procurement across other countries involved.

- 4.10 Foreign tenderers are required to source at least forty (40%) percent of their contract inputs (in supplies, subcontracts and labor) from national suppliers and contractors. To this end, a foreign tenderer shall provide in its tender documentary evidence that this requirement is met. Foreign tenderers not meeting this criterion will be automatically disqualified. Information required to enable the Procuring Entity determine if this condition is met shall be provided in for this purpose is be provided in "SECTION III EVALUATION AND QUALIFICATION CRITERIA, Item 9".
- 4.11 Pursuant to the eligibility requirements of ITT 4.10, a tender is considered a foreign tenderer, if it is registered in Kenya, has less than 51 percent ownership by nationals of Kenya and if it does not subcontract foreign contractors more than 10 percent of the contract price. JVs are considered as foreign tenderers if the individual member firms are registered in Kenya have less than 51 percent ownership by nationals of Kenya. The JV shall not subcontract to foreign firms more than 10 percent of the contract price.
- 4.12 The Competition Act 2010 requires that firms wishing to tender as Joint Venture undertakings which may prevent, distort or lessen competition in provision of services are prohibited unless they are exempt in accordance with the provisions of Section 25 of the Act. JVs will be required to seek for exemption from the Competition Authority of Kenya. Exemption shall not be a condition for tender, but it shall be a condition of contract award and signature. A JV tenderer shall be given opportunity to seek such exemption as a condition of award and signature of contract. Application for exemption from the Competition Authority of Kenya may be accessed from the website www.cak.go.ke
- 4.13 A Kenyan tenderer shall provide evidence of having fulfilled his/her tax obligations by producing a valid tax clearance certificate or tax exemption certificate issued by the Kenya Revenue Authority.

Eligible goods, Plant and equipment for Installation Services

- 5.1 The Plant and equipment for Installation Services to be supplied under the Contract may have their origin in any eligible country.
- 5.2 For purposes of ITT 5.1 above, "origin" means the place where the plant, or component parts thereof are mined, grown, produced or manufactured, and from which the services are provided. Plant components are produced when, through manufacturing, processing, or substantial or major assembling of components, a commercially recognized product results that is substantially in its basic characteristics or in purpose or utility from its components.
- 5.3 Any goods, works and production processes with characteristics that have been declared by the relevant national environmental protection agency or by other competent authority as harmful to human beings and to the environment shall not be eligible for procurement.

Contents of Tendering Document

Sections of Tendering Document

6.1 The Tendering document consists of Parts 1, 2, and 3, which include all the sections indicated below, and should be read in conjunction with any Addenda issued in accordance with ITT 10.

PART 1 - Tendering Procedures Section I-

Instructions to Tenderers (ITT) Section II-

Tender Data Sheet (TDS)

Section III- Evaluation and Qualification Criteria

Section IV-Tendering Forms

Section V- Eligible Countries

Section VI- Fraud and Corruption

PART 2 - Procuring Entity's Requirements

vii) Section VII-Procuring Entity's Requirements

PART 3 - Conditions of Contract and Contract Forms

Section VIII- General Conditions of Contract (GCC)

Section IX- Special Conditions of Contract (SCC) Section

X- Contract Forms

- 6.2 The Invitation to Tender Notice issued by the Procuring Entity is not part of the Tendering document.
- 6.3 Unless obtained directly from the Procuring Entity, the Procuring Entity is not responsible for the completeness of the document, responses to requests for clarification, the Minutes of the pre-Tender meeting (if any), or Addenda to the Tendering document in accordance with ITT 10. In case of any contradiction, documents obtained directly from the Procuring Entity shall prevail.
- 6.4 The Tenderer is expected to examine all instructions, forms, terms, and specifications in the Tendering document and to furnish with its Tender all information or documentation as is required by the Tendering document.

Site Visit

7.1 The Tenderer, at the Tenderer's own responsibility and risk, is encouraged to visit and examine the Site of the Required Services and its surroundings and obtain all information that may be necessary for preparing the Tender and entering into a contract for the Services. The costs of visiting the Site shall be at the Tenderer's own expense.

Pre-Tender Meeting and a pre-arranged pretender visit of the site of the works

- 8.1 The Procuring Entity shall specify in the **TDS** if a pre-tender conference will be held, when and where. The Procuring Entity shall also specify in the **TDS** if a pre-arranged pretender visit of the site of the works will be held and when. The Tenderer's designated representative is invited to attend a pre- arranged pretender visit of the site of the works. The purpose of the meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage.
- 8.2 The Tenderer is requested to submit any questions in writing, to reach the Procuring Entity not later than the period specified in the **TDS** before the meeting.
- 8.3 Minutes of the pre-Tender meeting and the pre-arranged pretender visit of the site of the works, if applicable, including the text of the questions asked by Tenderers and the responses given, together with any responses prepared after the meeting, will be transmitted promptly to all Tenderers who have acquired the Tender Documents in accordance with ITT6.3. Minutes shall not identify the source of the questions asked.

8.4 The Procuring Entity shall also promptly publish anonymized (no names) Minutes of the pre-Tender meeting and the pre-arranged pretender visit of the site of the works at the webpage identified in the **TDS**. Any modification to the Tender Documents that may become necessary as a result of the pre-Tender meeting shall be made by the Procuring Entity exclusively through the issue of an Addendum pursuant to ITT10 and not through the minutes of the pre-Tender meeting. Nonattendance at the pre-Tender meeting will not be a cause for disqualification of a Tenderer.

Clarification of Tender Documents

9.1 A Tenderer requiring any clarification of the Tender Document shall contact the Procuring Entity in writing at the Procuring Entity's address specified in the **TDS** or raise its enquiries during the pre-Tender meeting and the pre-arranged pretender visit of the site of the works if provided for in accordance with ITT8.4. The Procuring Entity will respond in writing to any request for clarification, provided that such request is received no later than the period specified in the **TDS** prior to the deadline for submission of tenders. The Procuring Entity shall forward copies of its response to all tenderers who have acquired the Tender Documents in accordance with ITT6.3, including a description of the inquiry but without identifying its source. If so specified in the **TDS**, the Procuring Entity shall also promptly publish its response at the webpage identified in the **TDS**. Should the clarification result in changes to the essential elements of the Tender Documents, the Procuring Entity shall amend the Tender Documents appropriately following the procedure under ITT10.

Amendment of Tendering Document

- 10.1 At any time prior to the deadline for submission of Tenders, the Procuring Entity may amend the Tendering document by issuing addenda.
- 10.2 Any addendum issued shall be part of the tendering document and shall be communicated in writing to all who have obtained the tendering document from the Procuring Entity in accordance with ITT6.3. The Procuring Entity shall also promptly publish the addendum on the Procuring Entity's webpage in accordance with ITT8.1.
- 10.3 To give prospective Tenderers reasonable time in which to take an addendum into account in preparing their Tenders, the Procuring Entity shall extend, as necessary, the deadline for submission of Tenders, in accordance with ITT24.2 below.

Preparation of Tenders

Cost of Tendering

11.1 The Tenderer shall bear all costs associated with the preparation and submission of its Tender, and the Procuring Entity shall not be responsible or liable for those costs, regardless of the conductor outcome of the Tendering process.

Language of Tender

12.1 The Tender, as well as all correspondence and documents relating to the Tender exchanged by the Tenderer and the Procuring Entity, shall be written in the English language. Supporting documents and printed literature that are part of the Tender may be in another language provided they are accompanied by an accurate translation of the relevant passages in the English Language, in which case, for purposes of interpretation of the Tender, such translation shall govern.

Documents Comprising the Tender

13.1 The Tender shall comprise the following:

Form of Tender prepared in accordance with ITT 14.1;

Price Schedules completed in accordance with ITT 14 and ITT 19;

Tender Security or Tender Securing Declaration, in accordance with ITT 22;

Alternative Tender, if permissible, in accordance with ITT 15;

Authorization: written confirmation authorizing the signatory of the Tender to commit the Tenderer, in accordance with ITT 23.3;

Eligibility of Plant and Installation Services: documentary evidence established in accordance with ITT 16.1 that the Plant and Installation Services offered by the Tenderer in its Tender or in any alternative Tender, if permitted, are eligible;

Tenderer's Eligibility and Qualifications: documentary evidence in accordance with ITT 17.1establishing the Tenderer's eligibility and qualifications to perform the Contract if its Tender is accepted;

Conformity: documentary evidence in accordance to ITT18 that the Plant and Installation Services offered by the Tenderer conform to the Tendering document;

Subcontractors: list of subcontractors in accordance with ITT18.2; and

Any other document required in the TDS.

- 13.1 In addition to the requirements under ITT 13.1, Tenders submitted by a JV shall include a copy of the Joint Venture Agreement entered in to by all members. Alternatively, a Form of intent to execute a Joint Venture Agreement in the event of a successful Tender shall be signed by all members and submitted with the Tender, together with a copy of the proposed Agreement. The Tenderer shall serialize pages of all tender documents submitted.
- 13.2 The Tenderer shall furnish in the Form of Tender information on commissions and gratuities, if any, paid or to be paid to agents or any other party relating to this Tender

Form of Tender and Price Schedules

14.1 The Form of Tender and Price Schedules shall be prepared, using the relevant forms furnished in Section IV, Tendering Forms. The forms must be completed as instructed in each form without any alterations to the text, and no substitutes shall be accepted except as provided under ITT 21.3. All blank spaces shall be filled in with the information requested.

Alternative Tenders

- 15.1 Unless otherwise specified in the **TDS**, alternative Tenders shall not be considered.
- 15.2 When alternatives to the Time Schedule are explicitly invited, a statement to that effect will be included in the **TDS**, and the method of evaluating different time schedules will be described in Section III, Evaluation and Qualification Criteria.
- 15.3 Except as provided under ITT 15.4 below, Tenderers wishing to offer technical alternatives to the Procuring Entity's requirements as described in the Tendering document must also provide: (i) a price at which they are prepared to offer a Plant meeting the Procuring Entity's requirements; and all information necessary for a complete evaluation of the alternatives by the Procuring Entity, including drawings, design calculations, technical specifications, breakdown of prices, and proposed installation methodology and other relevant details. Only the technical alternatives, if any, of the Tenderer with the Best Evaluated Tender conforming to the basic technical requirements shall be considered by the Procuring Entity.
- 15.4 When Tenderers are invited in the **TDS** to submit alternative technical solutions for specified parts of the facilities, such parts will be identified in the **TDS**, as will the method for their evaluation, and described in Section VII, Procuring Entity's Requirements.

Documents Establishing the Eligibility of the Plant and Installation Services

16.1 To establish the eligibility of the Plant and Installation Services in accordance with ITT 5, Tenderers shall complete the country-of-origin declarations in the Price Schedule Forms, included in Section IV, Tendering Forms.

Documents Establishing the Eligibility and Qualifications of the Tenderer

- 17.1 To establish its eligibility and qualifications to perform the Contract in accordance with Section III, Evaluation and Qualification Criteria, the Tenderer shall provide the information requested in the corresponding information sheets included in Section IV, Tendering Forms.
- 17.2 Tenderers shall be asked to provide, as part of the data for qualification, such information, including details of ownership, as shall be required to determine whether, according to the classification established by the Procuring Entity a supplier or group of suppliers qualifies for a margin of preference. Further the information will enable the Procuring Entity identify any actual or potential conflict of interest in relation to the procurement and/or contract management processes, or a possibility of collusion between tenderers, and thereby help to prevent any corrupt influence in relation to the procurement process or contract management.
- 17.3 The purpose of the information described in ITT 15.1 above overrides any claims to confidentiality which a tenderer may have. There can be no circumstances in which it would be justified for a tenderer to keep information relating to its ownership and control confidential where it is tendering to undertake public sector work and receive public sector funds. Thus, confidentiality will not be accepted by the Procuring Entity as a justification for a Tenderer's failure to disclose, or failure to provide required information on its ownership and control.
- 17.4 The Tenderer shall provide further documentary proof, information or authorizations that the Procuring Entity may request in relation to ownership and control which information on any changes to the information which was provided by the tenderer under ITT 15.1. The obligations to require this information shall continue for the duration of the procurement process and contract performance and after completion of the contract, if any change to the information previously provided may reveal a conflict of interest in relation to the award or management of the contract.
- 17.5 All information provided by the tenderer pursuant to these requirements must be complete, current and accurate as at the date of provision to the Procuring Entity. In submitting the information required pursuant to these requirements, the Tenderer shall warrant that the information submitted is complete, current and accurate as at the date of submission to the Procuring Entity.
- 17.6 If a tenderer fails to submit the information required by these requirements, its tenderer will be rejected. Similarly, if the Procuring Entity is unable, after taking reasonable steps, to verify to a reasonable degree the information submitted by a tenderer pursuant to these requirements, then the tender will be rejected.
- 17.7 If information submitted by a tenderer pursuant to these requirements, or obtained by the Procuring Entity (whether through its own enquiries, through notification by the public or otherwise), shows any conflict of interest which could materially and improperly benefit the tenderer in relation to the procurement or contract management process, then:

if the procurement process is still ongoing, the tenderer will be disqualified from the procurement process,

if the contract has been awarded to that tenderer, the contract award will be set aside,

the tenderer will be referred to the relevant law enforcement authorities for investigation of whether thetenderer or any other persons have committed any criminal offence.

17.8 If a tenderer submits information pursuant to these requirements that is in complete, inaccurate or out- of-date, or attempts to obstruct the verification process, then the consequences ITT 6.7 will ensue unless the tenderer can show to the reasonable satisfaction of the Procuring Entity that any such act was not material, or was due to genuine error which was not attributable to the intentional act, negligence or recklessness of the tenderer.

Documents Establishing the Conformity of the Plant and Installation Services

- 18.1 The Tenderer shall furnish the information stipulated in Section IV, Tendering Forms in sufficient detail to demonstrate substantial responsiveness of the Tenderers' proposal to the work requirements and the completion time.
- 18.2 For major items of Plant and Installation Services as listed by the Procuring Entity in Section III, Evaluation and Qualification Criteria, which the Tenderer intends to purchase or subcontract, the Tenderer shall give details of the name and nationality of the proposed Subcontractors, including manufacturers, for each of those items. In addition, the Tenderer shall include in its Tender information establishing compliance with the requirements specified by the Procuring Entity for these items. Quoted rates and prices will be deemed to apply to whichever Subcontractor is appointed, and no adjustment of the rates and prices will be permitted.
- 18.3 The Tenderer shall be responsible for ensuring that any Subcontractor proposed complies with the requirements of ITT 4, and that any plant, or services to be provided by the Subcontractor comply with the requirements of ITT 5 and ITT 15.1.

Tender Prices and Discounts

- 19.1 Unless otherwise specified in the **TDS**, Tenderers shall quote for the entire Plant and Installation Services on a "single responsibility" basis. The total Tender price shall include all the Contractor's obligations mentioned in or to be reasonably inferred from the Tendering document in respect of the design, manufacture, including procurement and subcontracting (if any), delivery, construction, installation and completion of the Plant. This includes all requirements under the Contractor's responsibilities for testing, pre-commissioning and commissioning of the plant and, where so required by the Tendering document, the acquisition of all permits, approvals and licenses, etc.; the operation, maintenance and training services and such other items and services as specified in the Tendering document, all in accordance with the requirements of the General Conditions. Items against which no price is entered by the Tenderer will not be paid for by the Procuring Entity when executed and shall be deemed to be covered by the prices for other items.
- 19.2 Tenderers are required to quote the price for the commercial, contractual and technical obligations outlined in the Tendering document.
- 19.3 Tenderers shall give a breakdown of the prices in the manner and detail called for in the Price Schedules included in Section IV, Tendering Forms.
- 19.4 Depending on the scope of the Contract, the Price Schedules may comprise up to the nine (9) schedules listed below. Separate numbered Schedules included in Section IV, Tendering Forms, from those numbered 1 to 9 below, shall be used for each of the elements of the Lift and Installation Services. The total amount from each Schedule corresponding to an element of the Plant and Installation Services shall be summarized in the schedule titled Grand Summary, (Schedule 9), giving the total Tender price (s) to be entered in the Form of Tender. Tenderers shall note that the plant and equipment included in Schedule Nos. 1 and 2 below exclude materials used for civil, building and other construction works. All such materials shall be included and priced under Schedule No.3, Builders Work. The Schedules comprise:

Schedule No. 1: Mobilization cost including storage

Schedule No. 2: Decommissioning cost including handing over to client

Schedule No. 3: Builders work including venting, all chasing, cutting away and making good

Schedule No. 4: Electrical works including installation, isolation and protection.

Schedule No. 5: Supply, Delivery and Installation of medical equipments .

Schedule No. 6: Testing and certifications including statutory and mandatory regulations.

Schedule No. 7: Commissioning cost including handing over, and maintenance during defect liability period. Schedule No. 8:

- i. Complete software system, programming and maintenance manuals, safety gears and accessories.
- ii. Trainings

Schedule No. 9:

- i. Allow for factory inspection for 4 persons
- ii. Allow for contingency sum.

19.5 In the Schedules, Tenderers shall give the required details and a breakdown of their prices as follows:

Plant to be supplied from a broad (Schedule No.1):

The price of the Plant shall be quoted on CIP-named place of destination basis as specified in the TDS, including all taxes payable in Kenya. Plant manufactured within Kenya (Schedule No.2):

The price of the plant shall be quoted on an EXW Incoterm basis (such as "ex-works," "ex-factory," "exwarehouse" or "off-the-shelf," as applicable);

Sales tax and all other taxes payable in Kenya on the plant if the contract is awarded to the Tenderer; and

The total price for the item.

Design Services (Schedule No.3);

Installation Services shall be quoted separately (Schedule No.5) and shall include rates or prices for local transportation to named place of final destination as specified in the TDS, insurance and other services incidental to delivery of the plant, all labor, contractor's equipment, temporary works, materials, consumables and all matters and things of whatsoever nature, including operations and maintenance services, the provision of operations and maintenance manuals, training, etc., where identified in the Tendering document, as necessary for the proper execution of the installation and other services, including all taxes, duties, levies and charges payable in Kenya as of twenty-eight (28) days prior to the deadline for submission of Tenders:

Recommended spare parts shall be quoted separately (Schedule 6) as specified in either subparagraph (a) or (b) above in accordance with the origin of the spare parts.

- 19.6 The terms EXW, CIP, and other similar terms shall be governed by the rules prescribed in the current edition of Incoterms, published by the International Chamber of Commerce, as specified in the **TDS**.
- 19.7 The prices shall be either fixed or adjustable as specified in the **TDS**.
- 19.8 In the case of Fixed Price, prices quoted by the Tenderer shall be fixed during the Tenderer's performance of the contract and not subject to variation on any account. A Tender submitted with an adjustable price quotation will be treated as non-responsive and rejected.
- 19.9 In the case of Adjustable Price, prices quoted by the Tenderer shall be subject to adjustment during performance of the contract to reflect changes in the cost elements such as labor, material, transport and contractor's equipment in accordance with the procedures specified in the corresponding Appendix to the Contract Agreement. A Tender submitted with a fixed price quotation will not be rejected, but the price adjustment will be treated as zero. Tenderers are required to indicate the source of labor and material

indices in the corresponding Form in Section IV, Tendering Forms.

- 19.10 If so indicated in ITT 1.1, Tenders are being invited for individual lots (contracts) or for any combination of lots (packages). Tenderers wishing to offer any price reduction (discount) for the award of more than one Contract shall specify in their Form of Tender the price reductions applicable to each package, or alternatively, to individual Contracts within the package, and the manner in which the price reductions will apply.
- 19.11 Tenderers wishing to offer any unconditional discount shall specify in their Form of Tender the offered discounts and the manner in which price discounts will apply.

Currencies of Tender and Payment

- 20.1 The currency(ies) of the Tender and the currency(ies) of payments shall be the same. The Tenderer shall quote in the currency of Kenya the portion of the Tender price that corresponds to expenditures incurred in the currency of Kenya, unless otherwise specified in the **TDS**.
- 20.2 The Tenderer may express the Tender price in any currency. If the Tenderer wishes to be paid in a combination of amounts in different currencies, it may quote its price accordingly but shall use no more than three foreign currencies in addition to the currency of Kenya.

Period of Validity of Tenders

- 21.1 Tenders shall remain valid for the Tender Validity period specified in the TDS. The Tender Validity period starts from the Tender submission deadline (as prescribed by the Procuring Entity in accordance with ITT 23.1). A Tender valid for a shorter period shall be rejected by the Procuring Entity as non-responsive.
- 21.2 In exceptional circumstances, prior to the expiration of the Tender validity period, the Procuring Entity may request Tenderers to extend the period of validity of their Tenders. The request and the responses shall be made in writing. If a Tender Security is requested in accordance with ITT 20, the Tenderer granting the request shall also extend the Tender Security for twenty-eight (28) days beyond the deadline of the extended validity period. A Tenderer may refuse the request without forfeiting its Tender Security. A Tenderer granting the request shall not be required or permitted to modify its Tender, except as provided in ITT 19.3.
- 21.3 If the award is delayed by a period exceeding fifty-six (56) days beyond the expiry of the initial Tender validity period, the Contract price shall be determined as follows:

In the case of **fixed price** contracts, the Contract price shall be the Tender price adjusted by the factor or factors specified **in the TDS**;

In the case of adjustable price contracts, no adjustment shall be made; or in any case, Tender evaluation shall be based on the Tender price without taking into consideration the applicable correction from those indicated above.

Tender Security

- 22.1 The Tenderer shall furnish as part of its Tender, either a Tender-Securing Declaration or a Tender Security as specified in the TDS, in original form and, in the case of a Tender Security, in the amount and currency specified in the TDS.
- 22.2 A Tender-Securing Declaration shall use the form included in Section IV Tendering Forms.
- 22.3 If a Tender Security is specified pursuant to ITT 20.1, the Tender security shall be a demand guarantee in any of the following forms at the Tenderer's option: cash,

cash; a bank guarantee; a guarantee by an insurance company registered and licensed by the Insurance Regulatory Authority listed by the Authority; or a guarantee issued by a financial institution approved

and licensed by the Central Bank of Kenya,

- 22.4 If a Tender Security or a Tender-Securing Declaration is specified pursuant to ITT 20.1, any Tender not accompanied by a substantially responsive Tender Security or Tender-Securing Declaration shall be rejected by the Procuring Entity as non-responsive.
- 22.5 If a Tender Security is specified pursuant to ITT 20.1, the Tender Security of unsuccessful Tenderers shall be returned as promptly as possible upon the successful Tenderer's furnishing of the Performance Security pursuant to ITT 47.
- 22.6 The Tender Security of the successful Tenderer shall be returned as promptly as possible once the successful Tenderer has signed the Contract and furnished the required Performance Security.
- 22.7The Tender Security may be forfeited or the Tender-Securing Declaration executed:

If a Tenderer withdraws its Tender during the period of Tender validity specified by the Tenderer on the Form of Tender; or

If the successful Tenderer fails to:

Sign the Contract in accordance with ITT 47; or Furnish a performance security in accordance with ITT 48.

- 22.8Where the Tender-Securing Declaration is executed the Procuring Entity will recommend to the PPRA to debar the Tenderer from participating in public procurement as provided in the law.
- 22.9The Tender Security or the Tender-Securing Declaration of a JV shall be in the name of the JV that submits the Tender. If the JV has not been legally constituted into a legally enforceable JV at the time of Tendering, the Tender Security or the Tender Securing Declaration shall be in the names of all future members as named in the Form of intent referred to in ITT 4.1and ITT 11.2.

Format and Signing of Tender

- 23.1 The Tenderer shall prepare one original of the documents comprising the Tender as described in ITT 11 and clearly mark it "Original." Alternative Tenders, if permitted in accordance with ITT 13, shall be clearly marked "Alternative". In addition, the Tenderer shall submit copies of the Tender, in the number specified in the TDS and clearly mark them "Copy." In the event of any discrepancy between the original and the copies, the original shall prevail.
- 23.2 Tenderers shall mark as "CONFIDENTIAL" information in their Tenders which is confidential to business. This may include proprietary information, trade secrets their or commercial or financially sensitive information.

- 23.3 The original and all copies of the Tender shall be typed or written in indelible ink and shall be signed by a person duly authorized to sign on behalf of the Tenderer. This authorization shall consist of a written confirmation as specified in the **TDS** and shall be attached to the Tender. The name and position held by each person signing the authorization must be typed or printed below the signature. All pages of the Tender where entries or amendments have been made shall be signed or initialed by the person signing the Tender.
- 23.4 In the case that the Tenderer is a JV, the Tender shall be signed by an authorized representative of the JV on behalf of the JV, and so as to be legally binding on all the members as evidenced by a power of attorney signed by their legally authorized representatives.
- 23.5 Any interlineations, erasures, or overwriting shall be valid only if they are signed or initialed by the person signing the Tender.

Submission and Opening of Tenders

Submission, Sealing and Marking of Tenders

24.1 The Tenderer shall deliver the Tender in a single, sealed envelope (one (1) envelope process). The Tenderer shall place the following separate, sealed envelopes:

Inner Envelops:

In an envelope marked "ORIGINAL", all documents comprising the Tender, as described in ITT 11; and In an envelope marked "COPIES", all required copies of the Tender; and

If alternative Tenders are permitted in accordance with ITT 13, and if relevant:

In an envelope marked "ORIGINAL-ALTERNATIVE TENDER" the alternative Tender; and

in the envelope marked "COPIES - ALTERNATIVE TENDER" all required copies of the alternative Tender.

The inner envelopes shall:

Bear the name and address of the Tenderer;

Be addressed to the Procuring Entity in accordance with ITT 23.1;

Bear the specific identification of this Tendering process indicated in accordance with ITT

1.1; and Bear a warning not to open before the time and date for Tender opening.

The outer envelope (s) in which the inner envelops are enclosed shall:

Be addressed to the Procuring Entity in accordance with ITT 23.1;

Bear the specific identification of this Tendering process indicated in accordance with ITT

1.1; and Bear a warning not to open before the time and date for Tender opening.

24.2 If all envelopes are not sealed and marked as required, the Procuring Entity will assume no responsibility for the misplacement or premature opening of the Tender. Tenders that are misplaced or opened prematurely will notbe accepted.

Deadline for Submission of Tenders

25.1 Tenders must be received by the Procuring Entity at the address and no later than the date and time indicated in the **TDS**. When so specified in the **TDS**, Tenderers shall have the option of submitting their Tenders electronically. Tenderers submitting Tenders electronically shall follow the electronic Tender submission procedures specified in the **TDS**.

25.2 The Procuring Entity may, at its discretion, extend the deadline for the submission of Tenders by amending the Tendering document in accordance with ITT8, in which case all rights and obligations of the Procuring Entity and Tenderers previously subject to the deadline shall thereafter be subject to the deadline as extended.

Late Tenders

26.1 The Procuring Entity shall not consider any Tender that arrives after the deadline for submission of Tenders, in accordance with ITT 23. Any Tender received by the Procuring Entity after the deadline for submission of Tenders shall be declared late, rejected, and returned unopened to the Tenderer.

Withdrawal, Substitution, and Modification of Tenders

27.1 A Tenderer may withdraw, substitute, or modify its Tender after it has been submitted by sending a written notice, duly signed by an authorized representative, and shall include a copy of the authorization in accordance with ITT 21.3, (except that withdrawal notices do not require copies). The corresponding substitution or modification of the Tender must accompany the respective written notice. All notices must be:

prepared and submitted in accordance with ITT 21 and ITT 22 (except that withdrawals notices do not require copies), and in addition, the respective envelopes shall be clearly marked "Withdrawal," "Substitution," "Modification"; and received by the Procuring Entity prior to the deadline prescribed for submission of Tenders, in accordance with ITT 23.

- 27.2 Tenders requested to be withdrawn in accordance with ITT25.1 shall be returned unopened to the Tenderers.
- 27.3 No Tender may be withdrawn, substituted, or modified in the interval between the deadline for submission of Tenders and the expiration of the period of Tender validity specified by the Tenderer on the Form of Tender or any extension thereof.

Tender Opening

- 28.1 Except as in the cases specified in ITT24 and ITT25.2, the Procuring Entity shall publicly open and read out in accordance with ITT26.5 all Tenders received by the deadline at the date, time and place specified in the TDS in the presence of Tenderers' designated representatives and anyone who choose to attend. Any specific electronic Tender opening procedures required if electronic Tendering is permitted in accordance with ITT 23.1, shall be as specified in the TDS.
- 28.2 First, the written notice of withdrawal in the envelopes marked "Withdrawal" shall be opened and read out and the envelope with the corresponding Tender shall not be opened, but returned to the Tenderer. No Tender withdrawal shall be permitted unless the corresponding withdrawal notice contains a valid authorization to request the withdrawal and is read out at Tender opening.
- 28.3 Next, envelopes marked "Substitution" shall be opened and read out and exchanged with the corresponding Tender being substituted, and the substituted Tender shall not be opened, but returned to the Tenderer. No Tender substitution shall be permitted unless the corresponding substitution notice contains a valid authorization to request the substitution and is read out at Tender opening.
- 28.4 Next, envelopes marked "Modification" shall be opened and read out with the corresponding Tender. No Tender modification shall be permitted unless the corresponding modification notice contains a valid authorization to request the modification and is read out at Tender opening.
- 28.5 Next, all remaining envelopes shall be opened one at a time, reading out: the name of the Tenderer and the Tender Price(s), including any discounts and alternative Tenders, and indicating whether there is a modification; the presence or absence of a Tender Security or Tender-Securing Declaration, if required; and any other details as the Procuring Entity may consider appropriate.

- 28.6 Only Tenders, alternative Tenders and discounts that are opened and read out at Tender opening shall be considered further. The Form of Tender and the Price Schedules are to be initialed by representatives of the Procuring Entity attending Tender opening in the manner specified in the **TDS**.
- 28.7 The Procuring Entity shall neither discuss the merits of any Tender nor reject any Tender (except for late Tenders, in accordance with ITT 24.1).
- 28.8 The Procuring Entity shall prepare a record of the Tender opening that shall include, as a minimum:

The name of the Tenderer and whether there is a withdrawal, substitution, or

modification; The Tender Price, per lot if applicable, including any discounts;

Any alternative Tenders; and

The presence or absence of a Tender Security or a Tender-Securing

Declaration. Number of pages for each tender

28.9 The Tenderers' representatives who are present shall be requested to sign the record. The omission of a Tenderer's signature on the record shall not invalidate the contents and effect of the record. A copy of the record shall be distributed to all Tenderers.

Evaluation and Comparison of

Tenders Confidentiality

- 29.1 Information relating to the evaluation of Tenders and recommendation of contract award, shall not be disclosed to Tenderers or any other persons not officially concerned with the Tendering process until information in Intention to Award the Contract is transmitted to all Tenderers in accordance with ITT 42.
- 29.2 Any effort by a Tenderer to influence the Procuring Entity in the evaluation of the Tenders or Contract awarddecisions may result in the rejection of its Tender.
- 29.3 Notwithstanding ITT 27.2, from the time of Tender opening to the time of Contract Award, if any Tenderer wishes to contact the Procuring Entity on any matter related to the Tendering process, it should do so in writing.

Clarification of Tenders

- 30.1 To assist in the examination, evaluation, and comparison of the Tenders, and qualification of the Tenderers, the Procuring Entity may, at its discretion, ask any Tenderer for a clarification of its Tender. Any clarification submitted by a Tenderer that is not in response to a request by the Procuring Entity shall not be considered. The Procuring Entity's request for clarification and the response shall be in writing. No change in the prices or substance of the Tender shall be sought, offered, or permitted, except to confirm the correction of arithmetic errors discovered by the Procuring Entity in the evaluation of the Tenders, in accordance with ITT32.
- 30.2 If a Tenderer does not provide clarifications of its Tender by the date and time set in the Procuring Entity's request for clarification, its Tender may be rejected.

Deviations, Reservations, and Omissions

- 31.1 During the evaluation of Tenders, the following definitions apply:
- "Deviation" is a departure from the requirements specified in the Tendering document;
- "Reservation" is the setting of limiting conditions or withholding from complete acceptance of the requirements specified in the Tendering document; and
- "Omission" is the failure to submit part or all of the information or documentation required in the Tendering document.

Determination of Responsiveness

- 32.1 The Procuring Entity's determination of a Tender's responsiveness is to be based on the contents of the Tender itself, as defined in ITT 11.
- 32.2 A substantially responsive Tender is one that meets the requirements of the Tendering document without material deviation, reservation, or omission. A material deviation, reservation, or omission is one that:

If accepted, would:

Affect in any substantial way the scope, quality, or performance of the Plant and Installation Services specified in the Contract; or

Limit in any substantial way, in consistent with the Tendering document, the Procuring Entity's rights or the Tenderer's obligations under the proposed Contract; or

if rectified, would unfairly affect the competitive position of other Tenderers presenting substantially responsive Tenders.

- 32.3 The Procuring Entity shall examine the technical aspects of the Tender in particular, to confirm that all requirements of Section VII, Procuring Entity's Requirements have been met without any material deviation, reservation, or omission.
- 32.4 If a Tender is not substantially responsive to the requirements of the Tendering document, it shall be rejected by the Procuring Entity and may not subsequently be made responsive by correction of the material deviation, reservation, or omission.

Nonmaterial Non-conformities

- 33.1 Provided that a Tender is substantially responsive, the Procuring Entity may waive any nonconformity in the Tender.
- 33.2 Provided that a Tender is substantially responsive, the Procuring Entity may request that the Tenderer submit the necessary information or documentation, within a reasonable period of time, to rectify nonmaterial non- conformities in the Tender related to documentation requirements. Requesting information or documentation on such non-conformities shall not be related to any aspect of the price of the Tender. Failure of the Tenderer to comply with the request may result in the rejection of its Tender.
- 33.3 Provided that a Tender is substantially responsive, the Procuring Entity shall rectify quantifiable non material non-conformities related to the Tender Price. To this effect, the Tender Price shall be adjusted, for comparison purposes only, to reflect the price of a missing or non-conforming item or component in the manner specified **inthe TDS**.

Correction of Arithmetical Errors

34.1 Provided that the tender is substantially responsive, the Procuring Entity shall correct arithmetical errors on the following basis:

If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected, unless in the opinion of the Procuring Entity there is an obvious misplacement of the decimal point in the unit price, in which case the total price as quoted shall govern and the unit price shall be corrected;

If there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevailand the total shall be corrected; and

If there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject to (a) and (b) above.

34.2 Any error detected if considered a major deviation that affects the substance of the tender, shall lead to disqualification of the tender as non-responsive. The method of determining the error as a major deviation shall be specified in the **TDS**.

- 34.3 Corrected tender prices shall not be used in the evaluation of tenders, comparison of tender prices.
- 34.4 The Procuring Entity shall calculate the difference between the corrected price and tender price and work out the percentage difference, which will be plus or minus tender price as the case may be; [i.e. (corrected tender price—tender price)/ tender price X100]. This percentage difference between corrected tender price and tender price may be used to determine if the error so detected is considered a major deviation that affects the substance of the tender.
- 34.5 On award of contract, all payment valuation certificates, variation orders on omissions and additions valued based on rates in the Bill of Quantities will be adjusted by such a percentage specified in ITT 31.4 to ensure contractor is not paid less or more relative to the contract price which would be the tender price.

Conversion to Single Currency

35.1 For evaluation and comparison purposes, the currency (ies) of the Tender shall be converted into a single currency as specified in the TDS.

Margin of Preference

- 36.1 A margin of preference may be allowed on locally manufactured goods (plant and equipment) only when the contract is open to international tendering, where the tender is likely to attract foreign goods and where the contract exceeds the threshold specified in the Regulations.
- 36.2 A margin of preference shall not be allowed unless it is specified so in the **TDS**.
- 36.3 Contracts procured on basis of international tendering and competition shall not be subject to reservations exclusive/ specific groups under women, youth and persons living with disability.
- 36.4 Where it is intended to reserve a contract to a specific group of businesses (these groups are Small and Medium Enterprises, Women Enterprises, Youth Enterprises and Enterprises of persons living with disability, as the case may be), and who are appropriately registered as such by a competent authority, a procuring entity shall ensure that the invitation to tender specifically indicates that only businesses or firms belonging to the specified group are eligible to tender. Tender shall be reserved to only one group. If not so stated in the Tender documents, the invitation to tender will be open to all interested tenderers.

Evaluation of Tenders

37.1 The Procuring Entity shall use the criteria and methodologies listed in this ITT and Section III, Evaluation and Qualification criteria. No other evaluation criteria or methodologies shall be permitted. By applying the criteria and methodologies the Procuring Entity shall determine the Best Evaluated Tender. This is the Tender of the Tenderer that meets the qualification criteria and that has been determined to be:

Most responsive to the Tendering document; and The lowest evaluated cost.

37.2 Technical Evaluation. The Procuring Entity will carry out a detailed technical evaluation of the Tenders not previously rejected to determine whether the technical aspects are incompliance with the Tendering document. The Tender that does not meet minimum acceptable standards of completeness, consistency and detail, and the specified minimum (or maximum, as the case may be) requirements for specified functional guarantees, will be rejected for non-responsiveness. In order to reach its determination, the Procuring Entity will examine and compare the technical aspects of the Tenders on the basis of the information supplied by the Tenderers, taking into account the following:

Overall completeness and compliance with the Procuring Entity's Requirements; conformity of the Plant and Installation Services offered with specified performance criteria, including conformity with the specified minimum (or maximum, as the case may be) requirement corresponding to each functional guarantee, as indicated in the Specification and in Section III, Evaluation and Qualification Criteria; suitability of the Plant and Installation Services offered in relation to the environmental and

climatic conditions prevailing at the site; and quality, function and operation of any process control concept included in the Tender; type, quantity and long-term availability of mandatory and recommended spare parts and maintenance services; and other relevant factors, if any, listed in Section III, Evaluation and Qualification Criteria.

- 37.3 Where alternative technical solutions have been allowed in accordance with ITT 13, and offered by the Tenderer, the Procuring Entity will make a similar evaluation of the alternatives. Where alternatives have not been allowed but have been offered, they shall be ignored.
- 37.4 **Economic Evaluation**. To evaluate a Tender, the Procuring Entity shall consider the following: the Tender price, excluding provisional sums and the provision, if any, for contingencies in the Price Schedules; price adjustment due to discounts offered in accordance with ITT 17.11; price adjustment due to quantifiable non material non-conformities in accordance with ITT 31.3;

converting the amount resulting from applying (a) to (c) above, if relevant, to a single currency in accordancewith ITT 33; and

the evaluation factors specified in the TDS and in Section III, Evaluation and Qualification Criteria.

- 37.5 If price adjustment is allowed in accordance with ITT 17.7, the estimated effect of the price adjustment provisions of the Conditions of Contract, applied over the period of execution of the Contract, shall not be taken into account in Tender evaluation.
- 37.6 In the case of multiple contracts or lots, Tenderers are allowed to tender for one or more lots and the methodology to determine the lowest evaluated cost of the lot (contract) and for combinations, including any discounts offered in the Form of Tender, is specified in Section III, Evaluation and Qualification Criteria.

Comparison of Tenders

38.1 The Procuring Entity shall compare the evaluated costs of all substantially responsive Tenders established inaccordance with ITT 35.4 to determine the Tender that has the lowest evaluated cost.

Abnormally Low Tenders and Abnormally High Tenders

- 39.1 An Abnormally Low Tender is one where the Tender price, in combination with other elements of the Tender, appears so low that it raises material concerns as to the capability of the Tenderer to perform the Contract for the offered Tender Price or that genuine competition between Tenderers is compromised.
- 39.2 In the event of identification of a potentially Abnormally Low Tender, the Procuring Entity shall seek written clarifications from the Tenderer, including detailed price analyses of its Tender price in correlation to the subject matter of the contract, scope, proposed methodology, schedule, allocation of risks and responsibilities and anyother requirements of the Tendering document.
- 39.3 After evaluation of the price analyses, in the event that the Procuring Entity determines that the Tenderer has failed to demonstrate its capability to deliver the contract for the offered tender price, the Procuring Entity shall reject the Tender.
- 39.4 An abnormally high price is one where the tender price, in combination with other constituent elements of the Tender, appears unreasonably too high to the extent that the Procuring Entity is concerned that it (the Procuring Entity) may not be getting value for money or it may be paying too high a price for the contract compared with market prices or that genuine competition between Tenderers is compromised.
- 39.5 In case of an abnormally high tender price, the Procuring Entity shall make a survey of the market prices, check if the estimated cost of the contract is correct and review the Tender Documents to check if the specifications, scope of work and conditions of contract are contributory to the abnormally high

tenders. The Procuring Entity may also seek written clarification from the tenderer on the reason for the high tender price. The Procuring Entity shall proceed as follows:

If the tender price is abnormally high based on wrong estimated cost of the contract, the Procuring Entity <u>mayaccept or not accept</u> the tender depending on the Procuring Entity's budget considerations.

If specifications, scope of work and/or conditions of contract are contributory to the abnormally high tender prices, the Procuring Entity shall reject all tenders and may retender for the contract based on revised estimates, specifications, scope of work and conditions of contract, as the case may be.

39.6 If the Procuring Entity determines that the Tender Price is abnormally too high because <u>genuine</u> <u>competition</u> <u>between tenderers is compromised</u> (often due to collusion, corruption or other manipulations), the Procuring Entity shall reject all Tenders and shall institute or cause competent Government Agencies to institute an investigation on the cause of the compromise, before retendering.

Unbalanced or Front Loaded Tenders

40.1 If the Tender that is evaluated as the lowest evaluated cost is, in the Procuring Entity's opinion, seriously unbalanced or front loaded the Procuring Entity may require the Tenderer to provide written clarifications. Clarifications may include detailed price analyses to demonstrate the consistency of the Tender prices with the scope of works, proposed methodology, schedule and any other requirements of the Tendering document.

40.2 After the evaluation of the information and detailed price analyses presented by the Tenderer, the ProcuringEntity may:

Accept the Tender; or

If appropriate, require that the total amount of the Performance Security be increased, at the expense of the Tenderer, to a level not exceeding twenty percent (10%) of the Contract Price; or Reject the Tender.

Eligibility and Qualification of the Tenderer

- 41.1 The Procuring Entity shall determine to its satisfaction whether the Tenderer that is selected as having submitted the lowest evaluated cost and substantially responsive Tender is eligible and meets the qualifying criteria specified in Section III, Evaluation and Qualification Criteria.
- 41.2 The determination shall be based upon an examination of the documentary evidence of the Tenderer's qualifications submitted by the Tenderer, pursuant to ITT 15.1. The determination shall not take into consideration the qualifications of other firms such as the Tenderer's subsidiaries, parent entities, affiliates, subcontractors (other than Specialized Subcontractors if permitted in the Tendering document) or any other firm (s) different from the Tenderer.
- 41.3 An affirmative determination shall be a prerequisite for award of the Contract to the Tenderer. A negative determination shall result in disqualification of the Tender, in which event the Procuring Entity shall proceed to the Tenderer who offers a substantially responsive Tender with the next lowest evaluated cost to make a similar determination of that Tenderer's qualifications to perform satisfactorily.
- 41.4 The capabilities of the manufacturers and subcontractors proposed in its Tender to be used by the Tenderer with the Lowest Evaluated Tender for identified major items of supply or services will also be evaluated for acceptability in accordance with Section III, Evaluation and Qualification Criteria. Their participation should be confirmed with a Form of intent between the parties, as needed. Should a manufacturer or subcontractor be determined to be unacceptable, the Tender will not be rejected, but the Tenderer will be required to substitute an acceptable manufacturer or subcontractor without any change to the Tender price. Prior to signing the Contract,

The corresponding Appendix to the Contract Agreement shall be completed, listing the

approved manufacturers or subcontractors for each item concerned.

Procuring Entity's right to Accept Any Tender and to Reject Any or All Tenders

42.1 The Procuring Entity reserves the right to accept or reject any Tender, and to annul the Tendering process and reject all Tenders at any time prior to Contract Award, without there by incurring any liability to Tenderers. In case of annulment, all Tenders submitted and specifically, Tender securities shall be promptly returned to the Tenderers.

Award of Contract

Award Criteria

43.3 Subject to ITT 40, the Procuring Entity shall award the Contract to the successful Tenderer. This is the Tenderer whose Tender has been determined to be the Lowest Evaluated Tender. This is the Tender of the Tendererthat meets the qualification criteria and whose Tender has been determined to be:

Substantially responsive to the Tendering Document;

and The lowest evaluated cost

Notice of Intention to Enter into a Contract/ Notification of Award

44.1 When a Standstill Period applies, it shall commence when the Procuring Entity has transmitted to each Tenderer the Notification of Intention to Award the Contract to the successful Tenderer. The Notification of Intention to Award shall contain, at a minimum, the following information:

The name and address of the Tenderer submitting the successful

Tender; The Contract price of the successful Tender;

A statement of the reason (s) the Tender (of the unsuccessful Tenderer to whom the Form is addressed) was unsuccessful, unless the price information in c) above already reveals the reason;

The expiry date of the Standstill Period; and

Instructions on how to request a debriefing and/ or submit a complaint during the standstill period.

Standstill Period

- 45.1 The Contract shall not be signed earlier than the expiry of a Standstill Period of 14 days to allow any dissatisfied tender to launch a complaint. Where only one Tender is submitted, the Standstill Period shall not apply.
- 45.2 Where a Standstill Period applies, it shall commence when the Procuring Entity has transmitted to each Tenderer the Notification of Intention to Enter in to a Contract with the successful Tenderer.

Debriefing by the Procuring Entity

- 46.1 On receipt of the Procuring Entity's Notification of Intention to Enter into a Contract referred to in ITT 43, an unsuccessful tenderer may make a written request to the Procuring Entity for a debriefing on specific issues or concerns regarding their tender. The Procuring Entity shall provide the debriefing within five days of receipt of the request.
- 46.2 Debriefings of unsuccessful Tenderers may be done in writing or verbally. The Tenderer shall bear its own costs of attending such a debriefing meeting.

Letter of Award

47.1 Prior to the expiry of the Tender Validity Period and upon expiry of the Standstill Period specified in ITT 43.1, upon addressing a complaint that has been filed within the Standstill Period, the Procuring Entity shall transmit the <u>Letter of Award</u> to the successful Tenderer. The letter of award shall request the successful tenderer to furnish the Performance Security within 21 days of the date of the letter.

Signing of Contract

- 48.1 Upon the expiry of the fourteen days of the Notification of Intention to enter into contract and upon the parties meeting their respective statutory requirements, the Procuring Entity shall send the successful Tenderer the Contract Agreement.
- 48.2 Within fourteen (14) days of receipt of the Contract Agreement, the successful Tenderer shall sign, date, and return it to the Procuring Entity.
- 48.3 The written contract shall be entered into within the period specified in the notification of award and before expiry of the tender validity period
- 48.4 Notwithstanding ITT 46.2 above, in case signing of the Contract Agreement is prevented by any export restrictions attributable to the Procuring Entity, to the country of the Procuring Entity, or to the use of the Plant and Installation Services to be supplied, where such export restrictions arise from trade regulations from a country supplying those Plant and Installation Services, the Tenderer shall not be bound by its Tender, always provided, however, that the Tenderer can demonstrate to the satisfaction of the Procuring Entity that signing of the Contact Agreement has not been prevented by any lack of diligence on the part of the Tenderer in completing any formalities, including applying for permits, authorizations and licenses necessary for the export of the Plant and Installation Services under the terms of the Contract.

Performance Security

- 49.1 Within twenty-one (21) days of the receipt of the Form of Acceptance from the Procuring Entity, the successful Tenderer shall furnish the Performance Security in accordance with the General Conditions GCC 13.3, subject to ITT 38, using for that purpose the Performance Security Form included in Section X, Contract Forms, or another form acceptable to the Procuring Entity. If the Performance Security furnished by the successful Tenderer is in the form of a bond, it shall be issued by a bonding or insurance company that has been determined by the successful Tenderer to be acceptable to the Procuring Entity. A foreign institution providing a bond shall have a correspondent financial institution located in Kenya, unless the Procuring Entity has agreed in writing that a correspondent financial institution is not required.
- 49.2 Failure of the successful Tenderer to submit the above-mentioned Performance Security or sign the Contract shall constitute sufficient grounds for the annulment of the award and forfeiture of the Tender Security. In that event the Procuring Entity may award the Contract to the Tenderer offering the next Best Evaluated Tender.

Publication of Procurement Contract

50.1 Within fourteen days after signing the contract, the Procuring Entity shall publish the awarded contract at its notice boards and websites; and on the Website of the Authority. At the minimum, the notice shall contain the following information:

Name and address of the Procuring Entity;

name and reference number of the contract being awarded, a summary of its scope and the selection method used; the name of the successful Tenderer, the final total contract price, the contract duration. Dates of signature, commencement and completion of contract;

Names of all Tenderers that submitted Tenders, and their Tender prices as read out at Tender opening.

Appointment of Adjudicator

51.1 The Procuring Entity proposes the person named in the TDS to be appointed as Adjudicator under the Contract, at the hourly fee specified in the TDS, plus reimbursable expenses. If the Tenderer disagrees with this proposal, the Tenderer should so state in his Tender. If, in the Letter of Acceptance, the Procuring Entity does not agree on the appointment of the Adjudicator, the Procuring Entity will request the Appointing Authority designated in the Special Conditions of Contract (SCC) pursuant to Clause 23.1 of the General Conditions of Contract (GCC), to appoint the Adjudicator.

Procurement Related Complaint and Administrative Review

- 51.1 The procedures for making a Procurement-related Complaint are as specified in the TDS.
- 51.2 A request for administrative review shall be made in the form provided under contract forms.

SECTION II - TENDER DATA SHEET

The following specific data for the Facilities to be procured shall complement, supplement, or amend the provisions in the Instructions to Tenderers (ITT). Whenever there is a conflict, the provisions here in shall prevail over those in ITT.

[Where an e-procurement system is used, modify the relevant parts of the TDS accordingly to reflect thee-procurement process.]

[Instructions for completing the Tender Data Sheet are provided, as needed, in the notes in italics mentioned for the relevant ITT.]

Reference to ITC Clause	PARTICULARS OF APPENDIX TO INSTRUCTIONS TO TENDERS	
A. General		
ITT 1.1	The reference number of the Invitation to Tender (ITT) is: KNH/T/56/2022-2023	
	The Procuring Entity is: Kenyatta National Hospital The name of the ITT is: Supply, Delivery, Installation, Testing and Commissioning of medical equipments	
	The number and identification of lots (contracts)comprising this ITT is: [insert number andidentification of lots (contracts) if any] N/A	
ITT 2.1	The name of the Project is: Supply, Delivery, Installation, Testing and Commissioning of medical equipments.	
	Electronic –Procurement System is not applicable for this tender	
	The Procuring Entity shall use the following electronic-procurement system to manage this Tendering process: N/A	
ITT 4.1	Maximum number of members in the Joint Venture (JV) shall be: N/A	
B. Tendering Docur	nent	
ITT 8.1	Site visit will be held on 29th June, 2022 starting at 10:30 East African Time as per the requirements set out in the technical specifications. Prospective bidders will converge the entrance of Supply Chain Management offices, administration block at exactly 10.00 am for debriefing before walking to the site. Interested bidders or their representatives MUST sign an attendance register and be issued with a site visit certificate signed by authorized official of the Hospital.	
Any questions in writing, shall reach the Procuring Entity not later than 30th June, 2022		
ITT 8.4	Minutes of the pre-Tender meeting and the pre-arranged pretender visit of the site of the workswill be published at the website i.e. www.knh.or.ke	
ITT 9.1	The Procuring Entity shall publish its response at the website www.knh.or.ke	
C. Preparation of T	enders	

ITT 13.1 (j)	The Tenderer shall submit the following additional documents in its Tender: Manufacturers Authorization letter if the Tenderer is not Manufacturing the Plant.	
ITT 15.1	Alternative Tenders <i>shall not be</i> considered.	
Reference to ITC Clause	PARTICULARS OF APPENDIX TO INSTRUCTIONS TO TENDERS	
ITT 15.2	Alternatives to the Time Schedule <i>shall not be</i> considered /permitted.	
Alternative technical solutions shall be permitted for the following parts of and Installation Services: [insert parts of the Plant]_N/Aas further in the Specification.		
ITT 19.1	Tenderers shall quote for the following components or services on a single responsibility basis:	
	Supply delivery, Installation, Testing inclusive of Training, Commissioning, Maintenance and all necessary accessories.	
	and/or The following components or services will be provided under the responsibility of the Procuring Entity:NONE	
ITT 19.5 (a) and (d)	Final destination (Project Site): Kenyatta National Hospital, Nairobi County.	
ITT 19.6	The Incoterms edition is: [Internationally Accepted Current Incoterms].	
ITT 19.7	The prices quoted by the Tenderer <i>shall not</i> be subject to adjustment during the performance of the Contract.	
ITT 20.1	The Tenderer <i>is</i> required to quote in Kenya Currency the portion of the Tender price that corresponds to expenditures incurred in that currency.	
ITT 21.1	The Tender validity period shall be 120 days.	
ITT 21.3 (a)	The Tender price shall be adjusted by the following factor(s):N/A	
	[The local currency portion of the Contract price shall be adjusted by a factor reflectinglocal inflation during the period of extension, and the foreign currency portion of the Contract price shall be adjusted by a factor reflecting the international inflation (in the country of the foreign currency) during the period of extension.]	
ITT 22.1	A Tender Security <i>shall be</i> required of Kshs. 150 ,000.00	
	A Tender Security shall be required, the amount and currency of the Tender Security as stated above in form of;	
	Bank Guarantee or Guarantee by Insurance Company Registered by IRA and Listed by the Authority or Guarantee Issued by Financial Institutions Approved and licensed by Central Bank of Kenya.	

ITT 23.1	In addition to the original of the Tender, the number of copies is: <i>One.</i>	
ITT 23.3	The written confirmation of authorization to sign on behalf of the Tenderer shall consist of: [Power of Attorney].	
D. Submission and Opening of Tenders		
For Tender submission purposes, the Procuring Entity's address is: The Chief Executive Officer Kenyatta National Hospital Hospital Road, Along Gong Road P.O Box 20723 - 00202 Nairobi		

Reference to ITC Clause	PARTICULARS OF APPENDIX TO INSTRUCTIONS TO TENDERS
	Tenders will be opened immediately thereafter in the presence of candidates or
	theirrepresentatives who choose to attend.
	Attention: [The Chief Executive Officer] The Chief Executive Officer Kenyatta National Hospital P.O Box 20723 - 00202 Nairobi
	The deadline for Tender submission is:
	Date: 7th July,2022 a10:00 Am East African Time.
	[The date and time should be the same as those provided in the Specific Procurement Notice -Request for Tenders, unless subsequently amended pursuant to ITT 23.2]
	Tenderers shall not have the option of submitting their Tenders electronically.
ITT 28.1	The Tender opening shall take place at:
	Physical Address (Nairobi City County Upper hill off Hospital Road, Kenyatta National Hospital Administration block, supply Chain Management Office Entrance)
	Date: 7th July,2022 at 10:00 Am East African Time.
ITT 28.6	The Form of Tender and Price Schedules shall be initialed by at least Three representatives of the Procuring Entity conducting Tender opening.
E. Evaluation, and C	Comparison of Tenders
ITT 33.3	The adjustment shall be based on the <i>price</i> of the item or component as quoted in other substantially responsive Tenders. If the price of the item or component cannot be derived from the price of other substantially responsive Tenders, the Procuring Entity shall use its best estimate. N/A
ITT 34.2	The error shall be determined as a major deviation if it is more than <u>0.0001</u> % or less than <u>0.0001</u> %.
ITT 35.1	The currency that shall be used for Tender evaluation and comparison purposes to convert (selling exchange rate) all Tender prices expressed in various currencies into a single currency is: Kenyan Shillings.
	The source of exchange rate shall be: Central Bank of Kenya.
	Date of exchange rate shall be as per the date of submission of the Tender (opening and closing date).
ITT 36.2	A margin of preference <u>shall not be</u> allowed.
ITT 37.4 (e)	The adjustments shall be determined using the following criteria, from amongst those set out in Section III, Evaluation and Qualification Criteria: [refer to Section III, Evaluation and Qualification Criteria; insert complementary details if necessary]

Reference to ITC Clause	PARTICULARS OF APPENDIX TO INSTRUCTIONS TO TENDERS	
	Deviation in Time for Completion: <i>NO.</i>	
	Life cycle costs: the projected operating and maintenance costs during the life of the goods or equipment <i>Yes – include maintenance and accessories cost required for one</i> (1) year post warranty period. This should be quoted separately in the price schedule but NOT in the Form of Tender	
	Functional and Guarantees of the Facilities [insert Yes or No, If Yes, insert methodology and criteria in Section III, Evaluation Qualification Criteria]	
	Work, services, facilities, etc., to be provided by the Procuring Entity [insert Yes or No, if yes, insert the Methodology and criteria in Section III, Evaluation and Qualification Criteria];	
	[insert any other specific criteria here and provide details in Section III, Evaluation and Qualification Criteria]	
ITT 37.6	Tenderers shall be <u>allowed</u> (select one) to quote separate prices for different lots (contracts) and the methodology to determine the lowest tenderer is specified in Section III, Evaluation and Qualification Criteria. N/A	
ITT 45 Standstill Period	The Standstill Period is 14 Business Days <i>[note: the minimum number of Business Days is fourteen (14)]</i> after the date the Procuring Entity has transmitted to all Tenderers that submitted a Tender, the Notification of its Intention to Award the Contract to the successful Tenderer.	
ITT 51	The hourly fee specified isplus reimbursable expenses. N/A	
ITT 52.1	The procedures for making a Procurement-related Complaint are detailed in the "Notice of Intention to Award the Contract" herein and are also available from the PPRA website info@ppra.go.ke or complaints@ppra.go.ke.	
	For the attention: [The Chief Executive Officer]	
	Procuring Entity: [Kenyatta National Hospital]	
	Email address: knhadmin@knh.or.ke	
	In summary, a Procurement-related Complaint may challenge any of the	
	following: the terms of the Tendering Documents; and	
	the Procuring Entity's decision to award the contract.	

SECTION III - EVALUATION AND QUALIFICATION CRITERIA

General Provision

1.2 Wherever a Tenderer is required to state a monetary amount, Tenderers should indicate the Kenya Shillingequivalent using the rate of exchange determined as follows:

For construction turn over or financial data required for each year -Exchange rate prevailing on the last day of the respective calendar year (in which the amounts for that year is to be converted) was originally established.

Value of single contract -Exchange rate prevailing on the date of the contract signature.

Exchange rates shall be taken from the publicly available source identified in the ITT 33.1. Any error indetermining the exchange rates in the Tender may be corrected by the Procuring Entity.

1.3 This section contains the criteria that the Procuring Entity shall use to evaluate tender and qualify tenderers. No other factors, methods or criteria shall be used other than specified in this tender document. The Tenderer shall provide all the information requested in the forms included in Section IV, Tendering Forms. The Procuring Entity should use the Standard Tender Evaluation Report for Goods and Works for evaluating Tenders.

1.4 Evaluation and contract award Criteria

1.4 The Procuring Entity shall use the criteria and methodologies listed in this Section to evaluate tenders and arrive at the Lowest Evaluated Tender. The tender that (i) meets the qualification criteria, (ii) has been determined to be substantially responsive to the Tender Documents, and (iii) is determined to have the Lowest Evaluated Tender price shall be selected for award of contract.

Preliminary examination for Determination of Responsiveness

The Procuring Entity will start by examining all tenders to ensure they meet in all respects the eligibility criteria (including requirements in the qualification forms, tenderer's eligibility- confidential business questionnaire) and other requirements in the ITT and that the tender is complete in all aspects in meeting the requirements of "Part 2 - Procuring Entity's Requirements", including checking for tenders with unacceptable errors, abnormally low tenders, and abnormally high tenders. The Standard Tender Evaluation Report for Goods and Works provides clear guidelines on how to deal with review of these requirements. Tenders that do not pass the Preliminary Examination will not be considered further.

Evaluation

3.1 Technical Evaluation

In addition to the criteria listed in ITT 35.2(a) - c) the following factors shall apply: No additional criteria

Tenders that fail technical evaluation will not be considered further.

3.2 Economic Evaluation

Price evaluation: in addition to the criteria listed in ITT 35.4 (a) $-$ (e) the following criteria shall apply:
Alternative Completion Times, if permitted under ITT 13.2, will be evaluated as follows:
Alternative technical solutions for specified parts
The acceptability of alternative technical solutions for parts of the facilities, if permitted under ITT 13.4, will be determined as follows:
N/A

Life Cycle Costs

[Lifecycle costing should be used when the costs of operation and/or maintenance over the specified life of the goods or works are estimated to be considerable in comparison with the initial cost and may vary among different Tenders/proposals. It shall be evaluated on a net present value basis. When using lifecycle costing, the Procuring Entity shall specify the following information:]

Since the operating and maintenance costs of the facilities being procured form a major part of the **life** cycle cost of the facilities, these costs will be evaluated according to the principles given here after, including the cost of spare parts for the initial period of operation stated below and based on prices furnished by each Tenderer in Price Schedule Nos. 1 and 2, as well as on past experience of the Procuring Entity or other Procuring Entity's similarly placed. Such costs shall be added to the Tender price for evaluation. The operating and maintenance costs factors for calculation of the life cycle cost are:

Number c	of years for lifecycle: N/A	
Operating	costs depending on the i	functionality of the machine
	nce costs, including the co ications, and	ost of spare parts for the initial period of operation as indicated in
iv) to present in(i).	Discount rate:value all annual future co	[insert discount rate in percent] to be used to discount osts calculated under (ii) and (iii) above for the period specified

The price of recommended spare parts quoted in Price Schedule No.6 shall be considered for evaluation.

Functional Guarantees of the Facilities

The minimum (or maximum) requirements stated in the Specification for functional guarantees required in the Specification are:

Functional Guarantee	Minimum (or Maximum, as appropriate) Requirement
1.	As specified in the detailed specifications
2.	
3.	

For the purposes of evaluation, for each percentage point that the functional guarantee of the proposed Plant and Installation Services is below the norm specified in the Specification and in the above table, but above the minimum acceptable levels also specified there in, an adjustment ofwill be added to the Tender price. If the drop below the norm or the excess above the minimum acceptable levels is less than one percent, the adjustment will be appropriated accordingly.

Work, services, facilities, etc., to be provided by the Procuring Entity.

Where Tenders include the under taking of work or the provision of services or facilities by the Procuring Entity in excess of the provisions allowed for in the Tendering document, the Procuring Entity shall assess the costs of such additional work, services and/or facilities during the duration of the contract. Such costs shall be added to the Tender price for evaluation.

Specific addition criteria the relevant evaluation method, if any, shall be as follows:

Any adjustments in price that result from the above procedures shall be added, for purposes of comparative evaluation only, to arrive at an "Evaluated Tender Price." Tender prices quoted by Tenderers shall remain unaltered.

Multiple Contracts (ITT 35.6)

4.1 Multiple contracts will be permitted in accordance with ITT 35.4. Tenderers are evaluated on basis of Lots and the lowest evaluated tenderer identified for each Lot. The Procuring Entity will select one Option of the two Options listed below for award of Contracts.

OPTION1

If a tenderer wins only one Lot, the tenderer will be awarded a contract for that Lot, provided the tenderer meets the Eligibility and Qualification Criteria for that Lot.

If a tenderer wins more than one Lot, the tender will be awarded contracts for all won Lots, provided the tenderer meets the aggregate Eligibility and Qualification Criteria for all the Lots. The tenderer will be awarded the combination of Lots for which the tenderer qualifies and the others will be considered for award to second lowest the tenderers.

OPTION 2

The Procuring Entity will consider all possible combinations of won Lots [contract(s)] and determine the combinations with the lowest evaluated price. Tenders will then be awarded to the Tenderer or Tenderers in the combinations provided the tenderer meets the aggregate Eligibility and Qualification Criteria for all the won Lots.

MARGIN OF PREFERENCE

- 5.1 If the **TDS** so specifies, the Procuring Entity will grant a margin of preference of 15% (fifteen percent) to Tenderers offering goods manufactured, mined, extracted, grown, assembled or semi-processed in Kenya. Goods assembled or semi-processed in Kenya shall have a local content of not less than 40%.
- 5.2 The margin of preference will be applied in accordance with, and subject to, the following provisions:

Tenderers applying for such preference on goods offered shall be asked to provide, as part of the data for qualification, such information, including details of the goods produced in Kenya, so as to determine whether, according to the classification established by the Procuring Entity, a particular category of goods or group of goods qualifies for a margin of preference.

After Tenders have been received and reviewed by the Procuring Entity, goods offered in the responsive Tenders shall be assessed to ascertain they are manufactured, mined, extracted, grown, assembled or semi-processed in Kenya. Responsive tenders shall be classified in to the following groups:

Group A: Tenders offering goods manufactured in Kenya, for which (a) labor, raw materials, and components from within Kenya account for more than forty (40) percent of the Ex-Works price; and the production facility in which theywill be manufactured or assembled has been engaged in manufacturing or assembling such goods at least since the date of Tender submission date;

Group B: All other Tenders offering Goods manufactured in Kenya;

Group C: Tenders offering Goods manufactured outside Kenya that have been already imported or that will be imported.

- 5.3 To facilitate this classification by the Procuring Entity, the tenderer shall complete whichever version of the Price Schedule furnished in the Tendering document is appropriate, provided however, that the completion of an in correct version of the Price Schedule by the Tenderer shall not result in rejection of its Tender, but merely in the Procuring Entity's reclassification of the Tender into its appropriate Tender group.
- 5.4 The Tenders in each group will then be compared to determine the Tender with the lowest evaluated cost in that group. The lowest evaluated cost Tender from each group shall then be compared with each other and if as a result of this comparison a Tender from Group A or Group B is the lowest, it shall be selected for the award.
- 5.5 If as a result of the preceding comparison, a Tender from Group C is the lowest evaluated cost, an amount equal to or 15% of the respective tender price, including unconditional discounts and excluding provisional sums, ifany, shall be added to the evaluated price offered in each tender from Group C. If the tender from Group C is still the lowest tender, it shall be selected for award. If not, the lowest evaluated tender from

Group A or B based on the first evaluation price shall be selected.

Alternative Tenders (ITT 13.1)

An alternative if permitted under ITT 13.1, will be evaluated as follows:

The Procuring Entity shall consider Tenders offered for alternatives as specified in Part 2- Procuring Entity's requirements. Only the technical alternatives, if any, of the Tenderer with the Best Evaluated Tender conforming to the basic technical requirements shall be considered by the Procuring Entity.

Post qualification and Contract award (ITT 39), more specifically,

In case the tender <u>was subject to post-qualification</u>, the contract shall be awarded to the lowest evaluated tenderer, subject to confirmation of prequalification data, if so required.

In case the tender <u>was not subject to post-qualification</u>, the tender that has been determined to be the lowest evaluated tenderer shall be considered for contract award, subject to meeting each of the following

conditions.

The Tenderer shall demonstrate that it has access to, or has available, liquid assets, unencumbered real assets, lines of credit, and other financial means (independent of any contractual advance payment) sufficient to meet the construction cash flow of Kenya Shillings 40,000,000

Minimum <u>average</u> annual construction turnover of Kenya Shillings 50,000,000, equivalent calculated as total certified payments received for contracts in progress and/ or completed within the last 5 years.

At least one (1) similar contract (s) of a similar nature executed within Kenya, or the East African Community or abroad, that have been satisfactorily and substantially completed as a prime contractor, or joint venture member or sub-contractor each of minimum value of Kenya shillings 40,000,000 or equivalent.

Contractor's Representative and Key Personnel, which are specified as	
Contractors key equipment listed on the table "Contractor's Equipmen	t" below and more specifically
listed as [specify requirements for each lot as applicable]	
Other conditions depending on their seriousness.	

History of non-performing contracts:

Tenderer and each member of JV in case the Tenderer is a JV, shall demonstrate that Non-performance of a contract did not occur because of the default of the Tenderer, or the member of a JV in the last 5 years. The required information shall be furnished in the appropriate form.

Pending Litigation

Financial position and prospective long-term profitability of the Single Tenderer, and in the case the Tenderer is a JV, of each member of the JV, shall remain sound according to criteria established with respect to Financial Capability under Paragraph (i) above i fall pending litigation will be resolved against the Tenderer. Tenderer shall provide information on pending litigations in the appropriate form.

Litigation History

There shall be no consistent history of court/ arbitral award decisions against the Tenderer, in the last 5 years. All parties to the contract shall furnish the information in the appropriate form about any litigation or arbitration resulting from contracts completed or ongoing under its execution over the years specified. A consistent history of awards against the Tenderer or any member of a JV may result in rejection of the tender.

8. Qualification

2.24Evaluationand Comparison of TendersStage

I: Preliminary Evaluation

Mandatory Requirements

Responsive	No. Requirements	Responsive or Non Responsive
MR 1	Tender Security Kenya Shillings One Hundred and Fifty Thousand (Kshs.150,000.00) valid for 150 days from the date of Tender Opening.	
MR 2	Submission of two Tender documents securely bound (Spiral or book) and clearly marked (original and (copy) by the tenderer. No loose or stapled documents will be accepted.	
MR 3	The Tenderer MUST bid documents <u>sequentially serialized</u> (<u>paginated</u>) Chronologically on everypage i.e 1, 2, 3, 4, 5	
MR 4	Must Submit a copy of the Certificate of incorporation or Registration Certificate where applicable	
MR 5	Must Submit a copy of Valid Tax Compliance Certificate, from Kenya Revenue Authority	
MR 6	Must submit a dully filled up Eligibility Confidential Business Questionnaire, signed and stamped	
MR 7	Must submit dully filled form of tender, signed and stamped as per the instructions provided in the Tender Document. Attach power of attorney were applicable	
MR 8	Must submit duly filled ,signed and stamped Tenderer Information Form(Attach current CR12 or CR 13 from the Registrar of Companies generated within the last 12 months) where applicable	
MR 9	Must submit dully filled Certificate of Independent Tender Determination, signed and stamped	
MR 10	Must submit dully filled Self Declaration Forms (SD1, SD2 and Declaration and commitment to the code of ethics). All of them MUST be signed and stamped by the authorized signatory	

At this stage, the tenderer's submission will either be responsive or non-responsive. The non-responsive submissions in any of the above mandatoryrequirements will be eliminated from the entire evaluation process andwill not be considered further.

Stage 2: TECHNICAL EVALUATION ON SPECIFICATIONS

Tenderers fully meeting or exceeding on the above Technical Evaluation listed in part 1 will be subjected to technical evaluation on specification of the main items offered. On compliance with Technical Specifications, bidders shall be required to offer equipment/items which comply with the technical specifications set out in Section Von specifications of the tender document. In this regard, the bidders will be required to submit relevant technical brochures/technical specifications with the tender document, highlighting (using a mark-pen or highlighter) the Number/model of the proposed items. Such brochures/ technical specifications should indicate comprehensive relevant data of the proposed equipment/items which should include but not limited to the following:

- (i) Standards of manufacture;
- (ii) Performance ratings/characteristics;
- (iii) (iii) Material of manufacture;
- (iv) (iv) Electrical power ratings; and
- (v) All other requirements as indicated in the technical specifications of the bid.

The bid will then be analyzed, using the information in the technical brochures, to determine compliance with key technical specifications for the items as indicated in the tender document. Bidders not complying with any of the key technical specifications shall be disqualified while those meeting all the key technical specifications shall be progressed to financial evaluation. The tenderer shall also fill in the Technical Schedule as specified in the tender document for key equipment and Items indicating the Country of Origin, Model/Make/Manufacturer and catalogue numbers of the Items/Equipment they propose to supply.

NOTE: Bidders who will not meet ANY of the technical requirements that is mandatory will not be evaluated further.

Full	Namo	Title or Decignation	(Cignatura)	Stamp/Seal
ı un	Name	Title of Designation	1 (31gilatule)	

SECTION IV - TENDERING FORMS

FORM OF TENDER

INSTRUCTIONS TO TENDERERS

The Tenderer must prepare this Form of Tender on stationery with its letterhead clearly showing the Tenderer's complete name and business address.

All italicized text is to help Tenderer in preparing this form.

Tenderer must complete and sign and TENDERER'S ELIGIBILITY- CONFIDENTIAL BUSINESS QUESTIONNAIRE, CERTIFICATE OF INDEPENDENT TENDER DETERMINATION and the SELF DECLARATION OF THE TENDERER all attached to this Form of Tender.

The Form of Tender shall include the following Forms duly completed and signed by the

Tenderer. Tenderer's Eligibility-Confidential Business Questionnaire

Certificate of Independent Tender

Determination Self-Declaration of the

Tenderer

Date of this Tender submission: [insert date (as day, month and year) of Tender submission]

- ITT No.: [insert number of ITT process] Alternative No.: [insert identification No if this is a Tender for an alternative]
- To: [insert complete name of Procuring Entity]

No reservations: We have examined and have no reservations to the Tendering document, including Addenda issued in accordance with ITT 8;

Eligibility: We meet the eligibility requirements and have no conflict of interest in accordance with ITT 4;

Tender-Securing Declaration: We have not been suspended nor declared ineligible by the Procuring Entity based on execution of a Tender Securing Declaration or Proposal-Securing Declaration in Kenya in accordance with ITT 4.7;

Conformity: We offer to provide design, supply and installation services in conformity with the Tendering document of the following: [insert a brief description of the Plant, Design, Supply and Installation Services];

Tender Price: The total price of our Tender, excluding any discounts offered in item (f) below is: [Insert one of the options below as appropriate]

Option1, in case of one lot: Total price is: [insert the total price of the Tender in words and figures, indicating the various amounts and the respective currencies];

Or Option 2, in case of multiple lots: (a) Total price of each lot [insert the total price of each lot in words and figures, indicating the various amounts and the respective currencies]; and (b) Total price of all lots (sum of alllots) [insert the total price of all lots in words and figures, indicating the various amounts and the respective currencies];

Discounts: The discounts offered and the methodology for their application are:

The discounts offered are: [Specify in detail each discount offered.]

The exact method of calculations to determine the net price after application of discounts is shown below: [Specify indetail the method that shall be used to apply the discounts];

Tender Validity Period: Our Tender shall be valid for the period specified in TDS 19.1 (as amended if applicable) from the date fixed for the Tender submission deadline specified in TDS 23.1 (as amended if applicable), and it shall remain binding upon us and may be accepted at any time before the expiration of that period;

Performance Security: I four Tender is accepted; we commit to obtain a Performance Security in accordance with the Tendering document;

One Tender Per Tenderer: We are not submitting any other Tender (s) as an individual Tenderer, and we are not participating in any other Tender (s) as a Joint Venture member, and meet the requirements of ITT 4.3, other than alternative Tenders submitted in accordance with ITT 13;

Suspension and Debarment: We, along with any of our subcontractors, suppliers, consultants, manufacturers, or service providers for any part of the contract, are not subject to, and not controlled by any entity or individual that is subject to, a temporary suspension. Further, we are not ineligible under the Kenya laws or official regulations or pursuant to a decision of the United Nations Security Council;

State-owned enterprise or institution: [select the appropriate option and delete the other] [We are not a state-owned enterprise or institution]/ [We are a state-owned enterprise or institution but meet the requirements of ITT4.6];

Commissions, gratuities and fees: We have paid, or will pay the following commissions, gratuities, or fees with respect to the Tendering process or execution of the Contract: [insert complete name of each Recipient, its full address, the reason for which each commission or gratuity was paid and the amount and currency of each such commission or gratuity]

Name of Recipient	Address	Reason	Amount

(If none has been paid or is to be paid, indicate "none.")

Binding Contract: We understand that this Tender, together with your written acceptance thereof included in your Form of Acceptance, shall constitute a binding contract between us, until a formal contract is prepared and executed; Not Bound to Accept: We understand that you are not bound to accept the lowest evaluated cost Tender, the Best Evaluated Tender or any other Tender that you may receive; and Fraud and Corruption: We hereby certify that we have taken steps to ensure that no person acting for us or on ourbehalf engages in any type of Fraud and Corruption.

Collusive practices: We hereby certify and confirm that the tender is genuine, non-collusive and made with the intention of accepting the contract if awarded. To this effect we have signed the "Certificate of Independent tender Determination" attached below.

Code of Ethical Conduct: We undertake to adhere by the Code of Ethical Conduct for Persons Participating in Public Procurement and Asset Disposal Activities in Kenya, copy available from www.pppra.go.ke during the procurement process and the execution of any resulting contract.

We, the Tenderer, have fully completed and signed the following Forms as part of our Tender:

Tenderer's Eligibility; Confidential Business Questionnaire – to establish we are not in any conflict to interest.

Certificate of Independent Tender Determination – to declare that we completed the tender without colluding withother tenderers.

Self-Declaration of the Tenderer – to declare that we will, if awarded a contract, not engage in any form of

fraud and corruption.

Declaration and commitment to the code of ethics for Persons Participating in Public Procurement and Asset Disposal Activities in Kenya,

Further, we confirm that we have read and understood the full content and scope of fraud and corruption as informed in "Appendix 1- Fraud and Corruption" attached to the Form of Tender.

Name of the Tenderer: *[insert complete name of person signing the Tender]

Name of the person duly authorized to sign the Tender on behalf of the Tenderer: **[insert complete name of person duly authorized to sign the Tender]

Title of the person signing the Tender: [insert complete title of the person signing the Tender]

Signature of the person named above: [insert signature of person whose name and capacity are shown above]

Date signed [insert date of signing] day of [insert month], [insert year].

Tenderer Information Form

[The Tenderer shall fill in this Form in accordance with the instructions indicated below. No alteration to its format shall be permitted and no substitutions shall be accepted.]
Date: [insert date (as day, month and year) of Tender submission]
ITT No [insert number of Tendering process]
Alternative No
1. Tenderer's Name [insert Tenderer's legal name]
2. In case of JV, legal name of each member: [insert legal name of each member in JV]
3. Tenderer's actual or intended country of registration: [insert actual or intended country of registration]
4. Tenderer's year of registration: [insert Tenderer's year of registration]
5. Tenderer's Address in country of registration: [insert Tenderer's legal address in country of registration]
6. Tenderer's Authorized Representative Information
Name: [insert Authorized Representative's name] Address: [insert Authorized Representative's Address] Telephone/Fax numbers: [insert Authorized Representative's telephone/fax numbers] Email Address: [insert Authorized Representative's email address]
7. Attached are copies of original documents of [check the box(es) of the attached original documents]
☐ Articles of Incorporation (or equivalent documents of constitution or association), and/or documents of registration of the legal entity named above, in accordance with ITT 4.4.
 □ In case of JV, Form of intent to form JV or JV agreement, in accordance with ITT 4.1. □ In case of state-owned enterprise or institution, in accordance with ITT 4.6 documents establishing:
Legal and financial autonomy
 Operation under commercial law Establishing that the Tenderer is not under the supervision of the Procuring Entity Included are the organizational chart, a list of Board of Directors, and the beneficial ownership.

TENDERER'S ELIGIBILITY - CONFIDENTIAL BUSINESS QUESTIONNAIRE

Instruction to Tenderer

Tender is instructed to complete the particulars required in this Form, one form for each entity if Tender is a JV. Tenderer is further reminded that it is an offence to give false information on this Form.

Tenderer's details

	ITEM	DESCRIPTION
1	Name of the Procuring Entity	Kenyatta National Hospital
2	Reference Number of the Tender	KNH/T/56/2022-2023
3	Date and Time of Tender Opening	7th July, 2022
4	Name of the Tenderer	
5	Full Address and Contact Details of the Tenderer.	 Country City Location Building Floor Postal Address Name and email of contact person.
6	Current Trade License Registration Number and	1
	Expiring date	
7	Name, country and full address (<i>postal and physical addresses, email, and telephone number</i>) of Registering Body/Agency	
8	Description of Nature of Business	
9	Maximum value of business which the Tenderes handles.	
10	State if Tenders Company is listed in stock exchange, give name and full address (postal and physical addresses, email, and telephone number) of state which stock exchange	

General and Specific Detail	S
-----------------------------	---

Sole Proprietor, provide the following details.

Name infull	Age
Nationality	Country of Origin _
Citizenship_	

Partnership, provide the following details.

	Names of Partners	Nationality	Citizenship	% Shares owned
1				
2				
3				

va	te or public Company			
ate	the nominal and issued capital	of the Company: -		
om	inal Kenya Shillings (Equivalent	<u> </u>		
sue	d Kenya Shillings (Equivalent)			
ive	details of Directors as follows.			
	Names of Director	Nationality	Citizenship	% Shares owned
ISC	who has/ have an	ersons in interest or relationshi	(Ne	ame of Procuring Entity)
ISC	i) Are there any person/ p who has/ have an	ersons in	(Ne	<u> </u>
ISC	i) Are there any person/ p who has/ have an	ersons in interest or relationshi	p in this firm? vide details as following in the	ws.
ISC	i) Are there any person/ p who has/ have an Yes/No	ersons inlf yes, pro	p in this firm? vide details as following in the	ws. erest or Relationship wit

Conflict of interest disclosure

	Type of Conflict		If YES provide details of the relationship with Tenderer
1	Tenderer is directly or indirectly controls, is	125 011710	relationship with reflacter
	controlled by or is under common control with		
	another tenderer.		
2	Tenderer receives or has received any direct or		
	indirect subsidy from another tenderer.		
	Tenderer has the same legal representative as		
	another tenderer		
	Tender has a relationship with another tenderer,		
	directly or through common third parties, that puts it		
	in a position to influence the tender of another		
	tenderer, or influence the decisions of the Procuring		
	Entity regarding this tendering process.		
	Any of the Tenderer"s affiliates participated as a		
	consultant in the preparation of the design or		
	technical specifications of the works that are the		
	subject of the tender.		
	Tenderer would be providing goods, works, non-		
	consulting services or consulting services during		
	implementation of the contract specified in this		
	Tender Document.		

Tenderer has a close business or family relationship with a professional staff of the Procuring Entity who	
are directly or indirectly involved in the preparation	

. , p = 0.	If YES provide details of the relationship with Tenderer
of the Tender document or specifications of the Contract, and/or the Tender evaluation process of such contract.	
Tenderer has a close business or family relationship with a professional staff of the Procuring Entity who would be involved in the implementation or supervision of the such Contract.	
Has the conflict stemming from such relationship stated in item 7 and 8 above been resolved in a manner acceptable to the Procuring Entity throughout the tendering process and execution of the Contract.	

Certification

On behalf of the Tenderer, I certify that the information given above is complete, current at	iu accurate as
atthe date of submission.	

Full Name					
Title or Designation					
(Signature)	(Date)				

CERTIFICATE OF INDEPENDENT TENDER DETERMINATION

submit the Tender on behalf of the Tenderer:

Tenderer, who:

I, the under signed, in submitting the accompanying Letter of Tender to the of Procuring Entity] for: inresponse to the request for tenders made by: hereby make the following statements that I certify to be true and complete	_[Name and number of tender] [Name of Tenderer] do
I certify, on behalf of	[Name of Tenderer] that:
I have read and I understand the contents of this Certificate;	
I understand that the Tender will be disqualified if this Certificate is found no complete in every respect;	ot to be true and
I am the authorized representative of the Tenderer with authority to sign th	nis Certificate, and to

For the purposes of this Certificate and the Tender, I understand that the word "competitor" shall include anyindividual or organization, other than the Tenderer, whether or not affiliated with the

Has been requested to submit a Tender in response to this request for tenders;

could potentially submit a tender in response to this request for tenders, based on their qualifications, abilities or experience;

The Tenderer discloses that [check one of the following, as applicable]:

The Tenderer has arrived at the Tender independently from, and without consultation, communication, agreementor arrangement with, any competitor;

The Tenderer has entered into consultations, communications, agreements or arrangements with one or more competitors regarding this request for tenders, and the Tenderer discloses, in the attached document(s), complete details thereof, including the names of the competitors and the nature of, and reasons for, such consultations, communications, agreements or arrangements;

In particular, without limiting the generality of paragraphs (5) (a) or (5) (b) above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:

prices; methods, factors or formulas used to calculate prices; the intention or decision to submit, or not to submit, a tender; or

the submission of a tender which does not meet the specifications of the request for Tenders; except as specifically disclosed pursuant to paragraph (5) (b) above;

In addition, there has been no consultation, communication, agreement or arrangement with any competitor regarding the quality, quantity, specifications or delivery particulars of the works or services to which this request for tenders relates, except as specifically authorized by the procuring authority or as specifically disclosed pursuant to paragraph (5) (b) above;

The terms of the Tender have not been, and will not be, knowingly disclosed by the Tenderer, directly or indirectly, to any competitor, prior to the date and time of the official tender opening, or of the awarding of the Contract, whichever comes first, unless otherwise required by law or as specifically disclosed pursuant to paragraph (5) (b) above.

Name		
Title		
Date		

[Name, title and signature of authorized agent of Tenderer and Date]

FORM SD1

SELF DECLARATION THAT THE PERSON /TENDERER IS NOT DEBARRED IN THE MATTER OF THE PUBLIC PROCUREMENT AND ASSET DISPOSAL ACT 2015.

I,		
THAT I am the Company Secretary/ Chief Ex	t name of the Company) who sert tender title/description) fo	is a Bidder in respect of Tender No. r(Insert
THAT the afore said Bidder, its directors and participating in procurement proceeding und		debarred from
THAT what is deponed to here in above is to	rue to the best of my knowled	ge, information and belief.
(Title)		(Date)

Bidder's Official Stamp

FORM SD2

Bidder's Official Stamp

SELF DECLARATION THAT THE PERSON/TENDERER WILL NOT ENGAGE IN ANY CORRUPT OR FRAUDULENT PRACTICE.

I,	: -
THAT I am the Chief Executive/ Managing Director/ Principal Officer/ Director of	No.
THAT the afore said Bidder, its servants and/ or agents/ subcontractors will not engage in any corrupt of fraudulent practice and has not been requested to pay any inducement to any member of the Board Management, Staff and/or employees and/or agents of	d,
THAT the aforesaid Bidder, its servants and/ or agents/ subcontractor shave not offered any inducemen to any member of the Board, Management, Staff and/ or employees and/ or agents of	t
THAT the aforesaid Bidder will not engage/ has not engaged in any corrosive practice with other bidders participating in the subject tender.	
THAT what is deponed to here in above is true to the best of my knowledge information and belief.	
(Title) (Signature) (Date)	

DECLARATION AND COMMITMENT TO THE CODE OF ETHICS

,
Name of the Business/ Company/ Firm)
do hereby commit to abide by the provisions of the Code of Ethics for persons participating in Public rocurementand Asset Disposal.
Name of Authorized signatory
ign
Position
Office addressTelephoneTelephone
-mail
Name of the Firm/Company
Date
Company Seal/ Rubber Stamp where applicable)
Vitness
Name
ign
Date

SCHEDULE OF REQUIREMENTS: PRICE SHEDULE OF MEDICAL EQUIPMENT

NO	Item Description	QTY	UNIT PRICE	TOTAL COST	COUNTRY OF ORIGIN	REMARKS
	Supply, Delivery, Installation, Testing And Commissioning Medical Equipment.					
1.	Macerator	3				
2.	Lung function machine(peads and adults)	2				
3.	Dialysis chairs and machine	10				
4.	Interventional radiology suite	1				
5.	Bronchoscopy machine (peads)	1				
6.	Weighing scales paeds	100				
7.	BP Machine paeds	1				
8.	Vein viewer	5				
9.	Ophthalmology set	1				
10	EEG	1				
11	EMG Machine	2				
12	DSLR Video camera	1				
13	DSLR still camera	1				
14	DSLR still camera and vedio camera	1				
15	Lapel microphones	6				
16	Lcd projector	7				
17	Public address system	1				

18	Linen trolleys	40		
19	Cell savers	6		
20	Lithotripsy laser machine	1		
21	Cold rooms for farewell homes	10		
22	Incinerator (dry pan)	2		
23	Stainless steel worktops			
a.	Stainless steel worktop benches	9		
b.	Stainless steel 3 tier trolleys	25		
c.	Stainless steel 2 tier trolleys	25		
d.	Stainless steel cooling stands	30		
e.	Stainless steel open type shelves for soft packing area	1		
f.	Stainless steel 3 tier racks for cssd	2		
g.	Stainless Steel Distribution Carts	10		
24	Ventilation system	3		
25	Phototherapy machine	1		
26	Dermatology laser machine	1		
27	Chemo chairs	5		
28	Infusion pumps	100		
29	Syringe pumps	100		

30.	Drip stands	300		
31	Procedure trolleys	200		
32	Weighing scales adult	200		
33	Bp machine adults	200		
34	Vital signs monitor	200		
35	Oxygen flow meters	400		
36	Ripple mattress	200		
37	Point of care ultrasound	1		
38	Central monitoring system	2		
39	4D Echo machine	2		
40	Portable ECHO machine	2		
41	Portable ECG machine	1		
42	Furniture			
a.	Executive Desk	2		
b.	Orthopedic Executive Chairs	4		
c.	Executive Cabinet	1		
d.	Office Credenza	3		
e.	Medium Executive Desk	12		
f.	Ergonomic executive chairs	40		

g.	Ergonomic secretarial chairs	56		
h.	Work station	25		
i.	Cabinets	58		
j.	Berkley Chairs with arms	300		
k.	Catalina (Patient) Chairs	100		
ι.	Economy Office Desks	25		
m	Laboratory Stools	7		
n.	Conference Table	4		
0.	Conference Chairs	46		
p.	Pharmacy Dispensing Stools	20		
q.	Aluminum ladders	20		
s.	Patient Benches	35		
t.	Surgeon Operating Stools without backrest	30		
u	Surgeon Operating Stools with backrest	80		
٧.	Doctors Beds with mattresses	2		
w.	TV Stand	1		
х.	Safe	1		
у.	Office Sofa Set	One-Seater-2		
		Two-Seater-1 Three-Seater-		

		1			
43	Tractor	1			
44	Transparent Sets (liver)	1			
45	Plasma Extractor	2			
46	Plasma thawing equipment	2			
47	Fluid warming cabinet	2			
49.	Neurosurgical High Speed Drill.	3			
50.	Ultrasound Machine	1			
51.	Theatre Operating Stools without Backrest	50			
53.	Theatre Operating Stools with Backrest	50			
54.	Transparent Sets (Kidney)	2			
55.	ENT Operating Microscope	1			
56.	Bera Machine(ENT)	1			
57.	Dental Chair	2			
TOTA	L COST(KSHS)		I		

After the warranty period is over, five years annual Comprehensive Maintenance Contract (CMC) will have to be entered into **where applicable** with the terms and conditions mentioned in the tender specification, the successful bidder have to ensure that all the required spares and services are available during the period of CMC and 3 years after that period.

Item Description	1 ST YEAR	2 ND YEAR	3 RD YEAR	4 TH YEAR	5 TH YEAR	TOTAL
	Item Description	Item Description 1 ST YEAR	Item Description 1 ST YEAR 2 ND YEAR	Item Description 1 ST YEAR 2 ND YEAR 3 RD YEAR	Item Description 1 ST YEAR 2 ND YEAR 3 RD YEAR 4 TH YEAR	Item Description 1 ST YEAR 2 ND YEAR 3 RD YEAR 4 TH YEAR 5 TH YEAR

NOTE: The estimated Comprehensive Mantainance Service contract Cost will be only be used to determine the total lifecycle cost of equipment and WILL NOT be included in the amount quoted in the form of tender.

Name of	Tenderer	Signature	Stamp	
varric Or	i chacici		······································	

Price Adjustment

Where the Contract Period (excluding the Defects Liability Period) exceeds eighteen (18) months, it is normal procedure that prices payable to the Contractor shall be subject to adjustment during the performance of the Contract to reflect changes occurring in the cost of labor and material components. In such cases the Tendering document shall include in this form a formula of the following general type, pursuant to SCC Sub-Clause11.2.

Where Contracts are of a shorter duration than eighteen (18) months or in cases where there is to be no Price Adjustment, the following provision shall not be included. Instead, it shall be indicated under this form that the prices are to remain firm and fixed for the duration of the Contract.

¹Specify currency in accordance ITT with 18. Create and use as many columns for Foreign Currency requirement as there are foreign currencies

Sample Price Adjustment Formula

If in accordance with GCC 11.2, prices shall be adjustable, the following method shall be used to calculate the priceadjustment:

Prices payable to the Contractor, in accordance with the Contract, shall be subject to adjustment during performance of the Contract to reflect changes in the cost of labor and material components, in accordance with the following formula:

$$P_1 \square P_0 \square (a \square b \square c \underline{M_1}) \square P_0 \underline{M_1}$$

P1 = adjustment amount payable to the

Contractor

PO = Contract price (base price)

a = percentage of fixed element in Contract price (a=%)

b = percentage of labor component in Contract price (b=%)

c = percentage of material and equipment component in Contract price (c=%)

LO,L1 = labor indices applicable to the appropriate industry in the country of origin on the base date and the date

For adjustment, respectively

M0,M1 material and equipment indices in the country of origin on the base date and the date for adjustment,

respectively

N.B. a+b+c=100%.

Conditions Applicable to Price Adjustment

The Tenderer shall indicate the source of labor, source of exchange rate and materials indices and the base date indices in its Tender.

Item Source of Indices Used Base Date Indices.

The base date shall be the date thirty (30) days prior to the Tender closing date.

The date of adjustment shall be the mid-point of the period of manufacture or installation of component or Plant. The following conditions shall apply:

No price increase will be allowed beyond the original delivery date unless covered by an extension of time awarded by the Procuring Entity under the terms of the Contract. No price increase will be allowed for periods of delay for which the Contractor is responsible. The Procuring Entity will, however, be entitled to any price decrease occurring during such periods of delay.

If the currency in which the Contract price, PO, is expressed is different from the currency of the country of origin of the labor and/or materials indices, a correction factor will be applied to avoid incorrect adjustments of the Contract price. The correction factor shall be: 20/21, were,

Z0=the number of units of currency of the origin of the indices which equal to one unit of the currency of the Contract Price P0 on the Base date, and

Z₁=the number of units of currency of the origin of the indices which equal to one unit of the currency of the Contract Price P₀ on the Date of Adjustment.

No price adjustment shall be payable on the portion of the Contract price paid to the Contractor as an advancepayment.

Contractor's Equipment

Form EQU

The Tenderer shall provide adequate information to demonstrate clearly that it has the capability to meet the requirements for the key Contractor's equipment listed in Section III, Evaluation and Qualification Criteria. A separate Form shall be prepared for each item of equipment listed, or for alternative equipment proposed by the Tenderer.

Item of equipr	nent				
Equipment information	Name of manufacturer	Model and power rating			
	Capacity	Year of manufacture			
Current status	Current location				
	Details of current commitments				
Source	indicate source of the equipment				
	Owned Rented Leased	Specially manufactured			

Omit the following information for equipment owned by the Tenderer.

Owner	Name of owner		
	Address of owner		
	Telephone	Contact name and title	
	Fax	Telex	
Agreements	Details of rental / lease / manufacture as	greements specific to the project	

Functional Guarantees

The Tenderer shall copy in the left column of the table below, the identification of each functional guarantee required in the Specification and stated by the Procuring Entity in para.1.2 (c) of Section III, Evaluation and Qualification Criteria, and in the right column, provide the corresponding value for each functional guarantee of the proposed plant and equipment.

Required Functional Guarantee	Value of Functional Guarantee of the Proposed Plant and Equipment
1.	
2.	
3.	

Personnel

Form PER -1- Proposed Personnel
Tenderers should provide the names of suitably qualified personnel to meet the specified requirements stated in Section III. The data on their experience should be supplied using the Form below for each candidate.

1.	Title of position*
	Name
2.	Title of position*
	Name
3.	Title of position*
	Name
4.	Title of position*
	Name

	*As listed in Section III.
	Form PER-2
	Resume of Proposed Personnel
1	Name of Tenderer

Position				
Personnel information	Name	Date of birth		
	Professional qualifications			
Present employment	Name of Procuring Entity Address of Procuring Entity			
	Telephone	Contact (manager / personnel officer)		
	Fax	E-mail		
	Job title	Years with present Procuring Entity		

Summarize professional experience over the last 20 years, in reverse chronological order. Indicateparticular technical and managerial experience relevant to the project.

From	То	Company / Project / Position / Relevant technical and management experience

Proposed Subcontractors for Major Items of Plant and Installation Services

A list of major items of <u>Lift and Installation Services is provided below.</u>

The following Subcontractors and/or manufacturers are proposed for carrying out the item of the facilities indicated. Tenderers are free to propose more than one for each item

Major Items of Plant and Installation Services	Proposed Subcontractors/Manufacturers	Nationality

Others - Time Schedule

(to be used by Tenderer when alternative Time for Completion is invited in ITT 13.2)

Tenderers Qualification without prequalification

To establish its qualifications to perform the contract in accordance with Section III, Evaluation and Qualification Criteria the Tenderer shall provide the information requested in the corresponding Information Sheets included here under.

Form ELI 1.1

accordance with ITT 4.1 and ITT 11.2.

Tenderer Information Sheet
Date:
ITT No.:
Tenderer"s Legal Name
In case of JV, legal name of each party:
Tenderer"s actual or intended Country of Registration:
Tenderer"s Year of Registration:
Tenderer"s Legal Address in Country of Registration:
Tenderer"s Authorized Representative Information
Name:
Address:
Telephone/Fax numbers:
Email Address:
Attached are copies of original documents of: Articles of Incorporation or Registration of firm named in 1, above, in accordance with ITT 4.1 and ITT

the Procuring Entity inaccordance with ITT 4.6.

Please note that a written authorization needs to be attached to this sheet as required by ITT 21.3

4.4. In case of JV, Form of intent to form JV including a draft agreement, or JV agreement, in

In case of state-owned enterprise or institution from Kenya, documents establishing legal and financial autonomy and compliance with the principles of commercial law, and is not under the supervision of

Form ELI 1.2

Party to JV Information Sheet ITT No.: Tenderer"s Legal Name: JV"s Party legal name: JV"s Party Country of Registration: JV"s Party Year of Registration: JV"s Party Legal Address in Country of Registration: JV"s Party Authorized RepresentativeInformation Name: Address: Telephone/Fax numbers: Email Address:

Attached are copies of original documents of:

Articles of Incorporation or Registration of firm named in 1, above, in accordance with ITT 4.1 and ITT 4.4. In case of state-owned enterprise or institution from Kenya, documents establishing legal and financial autonomy and compliance with the principles of commercial law and is not under the supervision of the Procuring Entity, in accordance with ITT 4.6.

Form CON - 2 Historical Contract Non-Performance Tenderer's Legal Name: _____ Date: _____ JV Member Legal Name: _____ ITT No.: ___ Non-Performed Contracts in accordance with Section III, Evaluation and Qualification Criteria Contract non-performance did not occur since 1st January *[insert year]* specified in Section III, Evaluationand Qualification Criteria, Sub-Factor 2.1. Contract(s) not performed since 1st January *[insert year]* specified in Section III, Evaluation and Qualification Criteria, requirement 2.1

Year		Contract Identification		Total Contract
	portion of			Amount (current
	contract			value, currency,
				exchange rate and
				K Shilling
				equivalent)
[insert	-	Contract Identification: [indicate complete contract name/		[insert amount]
year]	and percentage]	number, and any other identification]		
		Name of Procuring Entity: [insert full name]		
		Address of Procuring Entity: [insert City/		
		street/building/floor number/room number/country]		
		Reason(s) for nonperformance: [indicate main reason(s)]	7	

Pending Litigation, in accordance with Section III, Evaluation and Qualification Criteria No pending litigation in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor

2.3. Pending litigation in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 2.3 as indicated below.

Year of	Amount in	Contract Identification	Total Contract Amount
dispute	dispute (curren		(currency), K Shilling
			Equivalent (exchange rate)
		Contract Identification:	
		Name of Procuring Entity:	
		Address of Procuring Entity:	
		Matter in dispute:	
		Party who initiated the dispute:	
		Status of dispute:	
		Contract Identification:	
		Name of Procuring Entity:	
		Address of Procuring Entity:	
		Matter in dispute:	
		Party who initiated the dispute:	
		Status of dispute:	

Litigation History in accordance with Section III, Evaluation and Qualification Criteria

No Litigation History in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 2.4.

dispute	Amount in dispute (currency)	Contract Identification	Total Contract Amount (currency), K Shilling		
	(currency)		Equivalent (exchange rate)		
Facto	Litigation History in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 2.4 as indicated below.				
[insert year]	[insert percentage]	Contract Identification: [indicate complete contract name, number, and any other identification] Name of Procuring Entity: [insert full name] Address of Procuring Entity: [insert City/street/building/floor number/room number/country] Matter in dispute: [indicate main issues in dispute] Party who initiated the dispute: [indicate "Procuring Entity" or "Contractor"] Reason(s) for Litigation and award decision [indicate main reason(s)]	[insert amount]		

Form CCC

Current Contract Commitments / Works in Progress

Tenderers and each member to a JV should provide information on their current commitments on all contracts that have been awarded, or for which a Form of intent or acceptance has been received, or for contracts approaching completion, but for which an unqualified, full completion certificate has yet to be issued.

Name of contract	Procuring Entity, contact	Value of outstanding work (current K Shilling	Estimated completion date	Average monthly invoicing over last six months
	address/tel	equivalent)	completion date	(K Shilling /month)
1.				
2.				
3.				
4.				
5.				
etc.				

Form FIN - 3.1

(PBT)

Financial Situation

Historical Financial Performance

Tenderer"s Legal Name:							
				_ ITT No.:			
To be completed by th	e Tendere	r and, if JV	, by each				
member							
	T						
Financial		informatio	•		() years		
information in	(Kenya 000s)	Shilling eq	uivalent in	1			
Kenya Shilling equivalent							
	Year 1	Year 2	Year 3	Year	Year n	Avg.	Avg. Ratio
Information from Bal	ance Sheet	:	•	•	•	•	<u>'</u>
Total Assets (TA)							
Total Liabilities (TL)							
Net Worth (NW)							
Current Assets (CA)							
Current Liabilities (CL)							
Information from Inco	ome Stater	ment	•	•	•	•	
Total Revenue (TR)							
Profits Refore Taxes							

Attached are copies of financial statements (balance sheets, including all related notes, and income statements) for the years required above complying with the following conditions:

Must reflect the financial situation of the Tenderer or member to a JV, and not sister or parent

companies. Historic financial statements must be audited by a certified accountant.

Historic financial statements must be complete, including all notes to the financial statements.

Historic financial statements must correspond to accounting periods already completed and audited (nostatements for partial periods shall be requested or accepted).

Form FIN - 3.2

Average Annı	ual Turnover	
Tenderer's Leg	gal Name:	Date:
JV Member L	egal Name:	ITT No.:
Annual turnov	ver data	
Year	Amount and Currency	KSHILLING equivalent
	-	
	-	
*Average		

Form FIN3.3

Annual Turnover

Financial Resources

Specify proposed sources of financing, such as liquid assets, unencumbered real assets, lines of credit, and other financial means, net of current commitments, available to meet the total cash flow demands of the subject contractor contracts as indicated in Section III, Evaluation and Qualification Criteria.

Source of financing	Amount (Kenya Shilling equivalent)
1.	
2.	
3.	
1	
4.	

^{*}Average annual turnover calculated as total certified payments received for work in progress or completed, divided by the number of years specified in Section III, Evaluation Criteria, Sub-Factor 2.3.2.

Form EXP 4.1

General Experience				
Tenderer's	Legal Name:			
JV Membe	r Legal Name:			
ITT No.: _				
Date:				
arting Ionth / Year	Ending Month / Year	Years*	Contract Identification	Role of
			Contract name: Brief Description of the Works performed by the Tenderer: Name of Procuring Entity: Address:	Tenderer
			Contract name: Brief Description of the Works performed by the Tenderer: Name of Procuring Entity: Address:	
			Contract name: Brief Description of the Works performed by the Tenderer: Name of Procuring Entity: Address:	
			Contract name: Brief Description of the Works performed by the Tenderer: Name of Procuring Entity: Address:	
			Contract name: Brief Description of the Works performed by the Tenderer: Name of Procuring Entity: Address:	
			Contract name: Brief Description of the Works performed by the Tenderer: Name of Procuring Entity: Address:	
*List calenda	ar year for years w	ith contr	acts with at least nine (9) months activity per year st	tarting with the earlies
year				
Form EXP	-4.2(a)			
Specific Exp	perience			
Tenderer's Legal Name:				
JV Membe	r Legal Name:			

Similar Contract No[insert specific nonumber of contracts] required	Information		
Description of the similarity in accordance Factor 4.2a) of Section III:			
Amount			
Physical size		_	
Complexity		_	
Methods/Technology		_	
Physical Production Rate			
Tenderer"s Legal Name:		Date: ITT No.: _	
Contract Identification	—		
Award date Completion date			
Role in Contract	Contractor	Manageme nt Contractor	Subcontractor ———
Total contract amount			KSHILLING
If member in a JV or subcontractor, specifyparticipation of total contract amount	0/	/6	_ KSHILLING
Procuring Entity"s Name:		•	
Address:			
Telephone/fax number: E-mail:			

FC	ORM OF TENDER SECURITY-[Option 1–Demand Bank Guarantee]
Вє	eneficiary:
Re	equest forTenders No:
Da	ate:
	ENDER GUARANTEE No.:
Gı	uarantor:
1.	We have been informed that(here inafter called "the Applicant") has submitted or will submit to the Beneficiary its Tender (here inafter called" the Tender") for the execution of under Request for Tenders No("the ITT").
	Furthermore, we understand that, according to the Beneficiary's conditions, Tenders must be supported by a Tender guarantee.
	At the request of the Applicant, we, as Guarantor, hereby irrevocably undertake to pay the Beneficiary any sumor sums not exceeding in total an amount of () upon receipt by us of the Beneficiary's complying demand, supported by the Beneficiary's statement, whether in the demand itself or a separate signed document accompanying or identifying the demand, stating that either the Applicant:
	has withdrawn its Tender during the period of Tender validity set forth in the Applicant's Letter of Tender ("the Tender Validity Period"), or any extension thereto provided by the Applicant; or
	having been notified of the acceptance of its Tender by the Beneficiary during the Tender Validity Period or any extension there to provided by the Applicant, (i) has failed to execute the contract agreement, of (ii) has failed to furnish the Performance.
	This guarantee will expire: (a) if the Applicant is the successful Tenderer, upon our receipt of copies of the contract agreement signed by the Applicant and the Performance Security and, or (b) if the Applicant is not the successful Tenderer, upon the earlier of (i) our receipt of a copy of the Beneficiary's notification to the Applicant of the results of the Tendering process; or (ii) thirty days after the end of the Tender Validity Period.
	Consequently, any demand for payment under this guarantee must be received by us at the office indicated above onor before that date.
	[signature(s)]

Note: All italicized text is for use in preparing this form and shall be deleted from the final product.

FORMAT OF TENDER SECURITY [Option 2–Insurance Guarantee]

IENDERC	JUARANTEE NO.:	
••••	[Date of submission of tender] for the	fter called "the tenderer") has submitted its tender dated
hav of 	ving our registered office at(hereina [Name of Procuring Entity] (hereina (Currency and guarantee amou	nafter called "the Procuring Entity") in the sum unt) for which payment well and truly to be made inds itself, its successors and assigns, jointly and
3. NO)W, THEREFORE, THE CONDITION OF THI	S OBLIGATION is such that if the Applicant:
a	·	iod of Tender validity set forth in the Principal's eriod"), or any extension thereto provided by the
	Validity Period or any extension thereto p Contract agreement; or	f its Tender by the Procuring Entity during the Tender rovided by the Principal; (i) failed to execute the ecurity, in accordance with the Instructions to tenderers document.
upo sub	on receipt of the Procuring Entity's first wri	pay to the Procuring Entity up to the above amount tten demand, without the Procuring Entity having to emand the Procuring Entity shall state that the demand events, specifying which event(s) has occurred.
is of t App Ber the day Consec	plicant is not the successful Tenderer, upon neficiary's notification to the Applicant of ys after the end of the Tender Validity Period	copies licant and the Performance Security and, or (b) if the n the earlier of (i) our receipt of a copy of the results of the Tenderin process; or (ii)twenty- eight
	[Date]	[Signature of the Guarantor]
	[Witness]	[Seal]

Note: All italicized text is for use in preparing this form and shall be deleted from the final product.

TENDER-SECURING DECLARATION FORM {r 46 and 155(2)}

[The Bidder shall com	plete this Form in accordance with the instructions indicated]			
Date:	_ [insert date (as day, month and year) of Tender			
Submission] Tender No.:	[insert number of tendering process]			
To:	_[insert complete name of			
Purchaser] I/We, the u	under signed, declare that:			
I/We understand t	hat, according to your conditions, bids must be supported by a Tender-Securing Declaration.			
contract with th on [insert date] have withdrawr Data Sheet; or period of bid va	I/ we will automatically be suspended from being eligible for tendering in any e Purchaser for the period of time of [insert number of months or years] starting, if we are in breach of our obligation (s) under the bid conditions, because we—(a) nour tender during the period of tender validity specified by us in the Tendering (b) having been notified of the acceptance of our Bid by the Purchaser during the alidity, (i) fail or refuse to execute the Contract, if required, or (ii) fail or refuse to ormance Security, in accordance with the instructions to tenders.			
I/ We understand Tenderer(s), upo	that this Tender Securing Declaration shall expire if we are not the successful on the earlier of:			
Our receipt of a copy of your notification of the name of the successful				
Tenderer; or Thirty days after the expiration of our Tender.				
I/ We understand that if I am/ we are/ in a Joint Venture, the Tender Securing Declaration must be in the name of the Joint Venture that submits the bid, and the Joint Venture has not been legally constituted at the time of bidding, the Tender Securing Declaration shall be in the names of all future partners as named in the letter of intent.				
Signed:				
Capacity/title (directo	r or partner or sole proprietor, etc.)			
Duly authorized to sig	n the bid for and on behalf of[insert complete name of Tenderer]			
Dated on				
Seal or stamp				

MANUFACTURER'S AUTHORIZATION FORM

Date:	
ITT No.:	
To:	
WHEREAS	
We, who are official manufacturers c	, having factories at to submit a Tender the purpose o which
is to provide the following goods, manufactured by usand sign the Contract.	
We hereby extend our full guarantee and warranty in accordance with Conditions, withrespect to the goods offered by the above firm.	Clause 27 of the General
Signed:	
Name:	
Title:	
Duly authorized to sign this Authorization on behalf of:	
Dated onday of,	



TECHNICAL SPECIFICATIONS

1. POINT OF CARE DIAGNOSTIC ULTRASOUND SYSTEM

System MUST be a Critical Care High Resolution Color Doppler Compact digital ultrasound system capable of all emergency medicine applications.

a) Application:

The system should be user ready for the following applications

- 1. Abdomen
- 2. Vascular
- 3. Peripheral vascular
- 4. Nerve Blocks
- 5. Musculoskeletal
- 6. Needle Guidance
- 7. Small Parts
- 8. Thoracic and Pleural
- 9. Anesthesia

b) System should have the following scanning Operating modes;

- 1. B-Mode
- 2. M- Mode
- 3. Color flow Mode (CFM)
- 4. Power Doppler imaging mode (PDI)
- 5. Needle Recognition Mode
- 6. 2D Mode
- 7. Anatomical M-Mode
- 8. Continuous Wave Doppler (CWD) Mode

c) Ergonomics; The system MUST have the following

- 1. The system must have a fully touch screen user interface.
- 2. The system must have a Sony black and white printer
- 3. System must have a Docking cart station able to support 3 active probes and a Cable Catch for holding probe codes.
- 4. System must have table top docking station.
- 5. The system should be compact, lightweight approximately 4 Kg without a Docking cart.

d) System inputs and Outputs.

- 1. System should have a minimum of 4 USB input ports
- e) Transducers:

The system must also have a frequency range of 1 - 18MHZ

- 1. Wide band Convex Array -2 6 MHz
- 2. Wide band Linear Array- 5 12 MHz
- 3. Hockey stick Linear Array 6-15MHz

Electrical Power;

1. Voltage: 100-240V AC, Frequency 50/60Hz

Display Screen

1. Have flat touch screen at least 15 inches with an Anti-glare film on the display screen

Educational Training;

- 6. The system MUST have a configured-on board training application/ tool for fast and simple reference educational scanning tutorials, on probe positioning and highlighting correct ultrasound anatomy.
- 7. The supplier to offer adequate user training for the hospital staff.
 - i.e. Factory Training of one biomed technician and a nurse at a certified training center.

Warranty: 2 Years standard warranty and 3 years comprehensive service contract lay out. System must be FDA approved and CE certified.

2.TECHNICAL SPECIFIC	CATIONS FOR CENTRAL MONITORING SYSTEM
Purpose	A system composed of computer and software. Should be able to set
	monitoring network with patient monitor and remote sensing system
	collect, process, analyze, and output patient's information of multiple
	Patients.
Technical Specification	n
Server Host	HP/Lenovo
CPU	Intel Core i5-2400@ 3.20 GHz
Internal storage	≥4G DDRIII
HDD	≥500 GB, SATA
Network card	1000M Network adapter, Base-T, Ethernet 802.3, RJ45 port
	six or more USB ports, one or more serial ports
Display	19" LCD minimum, 1280×1024, length: width 4:3 or 5:4
Operating System	Windows® 7 Professional Embedded SP3
Antivirus	Should Support Solid core S3 Control
Dual-display graphic card	
Chipset	NVIDIA GeForce 8500 GT or above
Speaker Built in the computer or the display.	
Display	
Display	At least 19 LCD
Screens & Beds	At least 4 separated screens, different information on each screen.
	Able to display 21 beds simultaneously.
Display interface	Big Numeric Mode/ Normal mode.
	Should be able to monitor up to 4 waveforms for each bed.
Trend review	All parameters, 240 hours
Vaveform review 240 hours of full-disclosure waveforms and compressed waveform	

Historic review	up to 20,000 discharged patients' data	
Print		
paper	A4	
content	Patient information and calculations	
record	Thermal array, serial port. Recording wave form and events for review.	
Network		
Network type	Should Support wired network and wireless network	
communication	Bi-direction communication	
Compatible devices	Patient monitor, telemetry ,defibrillator of the same brand	
International certification	The system must be FDA or CE certified	
Accessories	The system must be supplied with all required accessories for the intended use including - User manual both hard and soft copies - Technical manual both hard and soft copies	
Supplier must provide user train	ning during installation	

3. TECHNICAL SPECIFICATION FOR LASER MACHINE FROM UROLOGY

Product Category; Surgical laser for urinary stone and soft tissue urological surgery including prostate resection

- i. Laser Type; Thulium fiber Laser
- ii. Wavelength; 1920nm negative 1960 nm
- iii. Average power; 2w-60w adjustable
- iv. Laser energy; 0.025 j-6j
- v. Pulse Duration; 200 micro seconds-50mill seconds.
- vi. Aiming Beam: Green, 500-550 nm, power adjustable 0-5mW, Class 3R
- vii. Electrical Requirements; 100-240 V AC at 1200 VA50/60 Hz
- viii. Weight should not exceed 80Kg.
- ix. Laser cooling system; Air
- x. Protection against electric shock; CLASS 1/type BF
- xi. Low noise operation.
- xii. Very low to negligible retropulsion.
- xiii. Variety of single and multiple use fibres to be available (150-940 microns).
- xiv. Manuals; User manuals (both hard copy and soft copy)and Technical Manual (both hard copy and soft copy).
- xv. Installation; Supplier to install and test the equipment.

- xvi. Warranty; Two (2)Years, After the warranty period is over, five years annual Comprehensive Maintenance Contract (CMC) will have to be entered into with the terms and conditions mentioned in the tender specification the successful bidder have to ensure that all the required spares and services are available during the period of CMC and 3 years after that period. Temporary replacement in the event of shipment for servicing.
- xvii. User training: Supplier to provide users training on site and also to provide both one user application factory training and one biomedical factory training. The supplier to provide evidence of local capacity to service equipment.

4. SUS 304 STAINLESS STEEL WORKTOP BENCHES

- 1. Should be heavy duty and constructed to the highest standard as per **ISO STD22882: 2004** requirements for the hospital equipment.
- 2. Main Frame Totally welded 50mm x 3mm thick Square Hollow Section . Table top should be in 1.5mm thick stainless steel mirror finish sheet.
- 3. Castors Should have 4no. heavy duty 125mm diam. x 32mm tread polyamide/ polyurethane, self swivel castors. Should have total lock breaking system & be non marking floor protection type. Maximum load capacity 200kg.
- 4. Size Specification 1800mm length x 700mm width x 900mm height.
- 5. Quantity required 9 No.

5. SUS 304 STAINLESS STEEL 3 TIER TROLLEYS.

- 1. Be constructed in heavy duty & to the highest standard for hospital equipment.
- 2. Main Frame Totally welded 25mm diam. X 3mm thick square hollow section & have 3" offset push handles on both ends.
- 3. To have 3 tier compartments of spacing approximately 400mm vertical each.
- 4. Should have 4no. heavy duty castors 125mm diameter x 32mm tread polyamide/ polyurethane, self swivel with total lock breaking system, be silent non marking type. Maximum load capacity to be 150kg each.
- 5. Should have rubber corner guards for protection on impact.
- 6. Size specifications 1100mm length x 650mm width x 900mm height.
- 8. Bidders to provide catalogues from the Manufacturers.

6. SUS 304 STAINLESS STEEL 2 TIER TROLLEYS.

- 1. Construction details as per item 2.
- 2. To have 2 tier compartments of spacing approximately 500mm vertically.
- 3. Size specification 650mm length x 500mm width x 850mm height.
- 4. Should have rubber corner guards for protection against damage.
- 5. Castors –Size 100mm diam. x 25mm tread. Should be of polyamide/ polyurethane, have total lock breaking system, non marking type & be self swivel type.
- 6. Quantity required 25 no.
- 7. Bidders to provide catalogues from the Manufacturers.

7. SUS 304 STAINLESS STEEL COOLING STANDS

- 1. Be constructed in heavy duty & to the highest standard as per **ISOSTD 22882: 2004** requirements.
- 2. Main Frame Totally welded 20mm diameter x 3mm thick round hollow tube. The tier frames to be in 8mm thick round bars & gauge 8 weld mesh. Should be reinforced diagonally at the edges for stability with 6mm round bars.
- 3. Should be 5 tier of spacing approximately 450mm height each.
- 4. Should have rubber study / ferrules at the base for floor protection.
- 5. Size specification 1200mm length x 550mm width x 1900mm height.
- 6. Bidders to provide catalogues from the Manufacturers.

8. SUS 304 STAINLESS STEEL OPEN TYPE SHELVESFOR SOFT PACKING AREA

- 1. Main Frame Totally welded 25mm diam. x 3mm thick square hollow tubes. Shelves should be in 1.5mm thick mirror finish sheet.
- 2. Should have 3 tier of approximately 500mm height each.
- 3. Should have rubber ferrules at the base for floor protection.
- 4. Quantity required Type a) 6900mm length x 500mm width x 1800mm height.
 - b) 3900mm length x 500mm width x 1800mm height.
 - c) 4200mm length x 500mm width x 1800mm height.

9. SUS 304 STAINLESS STEEL LOCKABLE SHELVES FOR IN PACKING AREA

- 1. Main Frame Totally welded 20mm diam. x 2mm thick square hollow tubes.
- 2. Should have 3 tier compartments, with sliding doors and have locking mechanisms complete with handles .
- 3. The lockable compartments should be approximately 600mm length x 400mm width x 500mm height.
- 4. Should have rubber ferrules/ studs at the base for floor protection.
- 5. Size specification: Type a) 1800mm length x 400mm width x 1800mm height.- 3no.
- b) 1200mm length x 400mm width x 1800mm height 2no.
- 6. Bidders to provide catalogues from the Manufacturers.

10. SUS 304 STAINLESS STEEL 3 TIER RACKS FOR CSSD

- 1. Main Frame Totally welded 50mm diam. x 3mm thick square hollow tubes.
- 2. Should have 3 tier racks welded horizontally in 40mm x 25mm x 2mm thick rectangular hollow section& have a spacing not exceeding 25mm from each other. The tier vertical space should be approximately 560mm.
- 3. Should have rubber ferrules/ studs at the base for floor protection.
- 4. Size specification- 2400mm length x 600mm width x 1800mm height.
- 5. Bidders to provide catalogues from the Manufacturers.

11. SUS 304 STAINLESS STEEL DISTRIBUTION CARTS

- 1. Should be constructed in heavy duty materials to the highest standard as per **ISO 13485/ ISO 9001/CE** requirements.
- 2. Main Frame Totally welded 25mm diam. x 3mm thick square hollow tubes & should be in 1.5mm thick mirror finish sheet.
- 3. Should have 2 vertical compartments of approximately 500mm width, each with a lockable door & have 5 no. removable trays (total 10 no.) of approximately 640mm length x 400mm width x 180mm depth. The trays to have a folded brim not exceeding 25mm. The trays should be suspended by 20mm x 3mm thick angle bar.
- 4. Should have a push bar of 20mm diameter thick on both edges, each offset at 80mm.
- 5. Should have an all round rubber guard to prevent damage at the lower part.
- 6. Should have 4no. Heavy duty self swivel, 150mm diameter x 50mm tread polyurethane castor wheels. Should have total lock breaking system & quiet non marking type. Maximum load capacity to be 300kg.
- 7. Size specification 1000mm length x 700mm width x 1000mm height (excluding castors).
- 8. Bidders to provide catalogues from the Manufacturers.

NOTES

- 1. Bidders shall visit the site to ascertain the extent of works, all pertinent issues& submit an approved Site Visit Certificate by the Project Engineer's representative before quoting.
- 2. Bidders to provide bronchures / catalogues from the Manufacturers for all the items quoted.
- 3. Total Sum quoted to include all Taxes applicable.

12. TECHNICAL SPECIFICATION ULTRASONIC SURGICAL UNIT FOR LIVER RESECTION MACHINE

- 1. Ultrasonic machine power rating -220-220V
- 2. A touch screen display that allows for the adjustment of aspiration, irrigation, and ultrasonic power to the hand piece.
- 3. Can be integrated with facilities wall suction.
- 4. Should come complete with hand pieces for liver surgery
- 5. Should operative on at least two (2) working frequencies in one compact unit.
- 6. Controlled tissue dissection while preserving nerves, blood vessels and collagen structure
- 7. Should be able to connect ultrasonic hand-pieces as well as ultrasonic scissors and hooks for cutting and coagulating
- 8. The device should provide controlled tissue dissection by preserving nerve, blood vessels and collagen structures
- 9. Should have cutting and coagulation effects on the tissue with special ultrasonic instruments.
- 10. Easy to set up and breakdown
- 11. The unit should work simultaneously with integrated aspiration and irrigation
- 12. Should have a foot switch.
- 13. A spare foot switch should be provided
- 14. Should be processor-controlled
- 15. Should have an automatic instrument detection with automatic pre-selection of power parameters

16. Should come with a mobile compatible cart/Trolley

17. Start up Consumables/Kits

The machine to be supplied with startup consumables/kits for at least 20 patients. All consumables/kits to have a shelf life of 2 years and above at the time delivery.

18. A brochure should be provided for technical evaluation

19. Manuals

- i) User manuals (both hard copy and soft copy)
- ii)Technical Manual (both hard copy and soft copy)

20. Installation

Supplier to install and test the equipment

21. Warranty-2-Years.After the warranty period is over; three-year annual Comprehensive Maintenance Contract (CMC).The successful bidder has to ensure that all the required spares and services are available during the period of CMC and 3 years after that period.

22. User training

- i) Supplier to train users on site
- ii) Supplier to train one (1) biomedical technician and one(1) nurse at the factory.
- 23. The supplier to provide evidence of local capacity to service the equipment.
- 24. The supplier must provide Manufacturers authorization

13. SPECIFICATIONS FOR EMG

NO	REQUIREMENTS	SPECIFICATIONS
1.	Power	- Input power - 240Vac, 50Hz
		- Power consumption - 750VA
		- UPS - 2000VA
2.	Features	- Compact Junction box
		- On screen examination guide
		- Quick EMG and NV measurement
		- Should run under Window_
3.	Examinations	- EMG
		- NCS
		- EV
		- ANST
4.	Amplifiers	- 4 Channels
5.	Safety	-Must have adhere to EN60601-2-26 safety
		standard
6.	Accessories	- Must have all accessories for intended use in
		all specified features to last for two years.
		-Must have a user/instruction manual (both soft
		and hard copies)
		-Must have a Technical/service manual(both
		soft and hard copy)

NB: 1. Supplier must provide user training

- 2. Supplier must provide biomedical factory training
- 3. Supplier must provide at least two (2) years warranty

14. NEUROSURGICAL HIGH SPEED DRILL

Must have an adjustable rev speed from 200-7500rpm

- i. Must be either pneumatic or electric motor
- ii. Must have quiet operations
- iii. Must have low speed perforator motor
- iv. Must have high torque
- v. Must be sterilizable complete system can be washed and autoclaved
- vi. Must have a perforator motor driver with a Hudson shank
- vii. Must have a foot pedal with protection cover
- viii. Must be supplied with small bore 2.4mm attachment nose pieces: Straight 7cm and 10cm and angled 9cm and 12cm
 - ix. Must be supplied with a large bore 3.2mm attachment straight 9cm and angled 14cm
 - x. Must be supplied with footplate attachments 15mm and 23mm
 - xi. Must be supplied with accessories:
 - a. Diamond ball tip smooth 2mm,3mm,4mm
 - b. Diamond ball tip coarse 2mm,3mm,4mm
 - c. Fluted ball tip 2mm,3mm,4mm,5mm
 - d. Tapered footed cutter 1.55mmx11.1mm and 2.3 by 15.9mm
 - e. Other standard accessories
- xii. For electric drills must have a touch screen console for drill settings control
- xiii. Must be supplied with lubricant 10 bottles
- xiv. Must have a sterilization case
- xv. Supplier must provide manufacturer's authorization
- xvi. Must have ownership
- xvii. Must have a manufacturer's warranty
- xviii. Supplier must demonstrate ability to supply handpieces
- xix. Supplier must provide after sale service on the equipment
- xx. Supplier must have a standby device available for replacement should the equipment need to be taken away for service
- xxi. Supplier must provide training on use, maintenance and repair to theatre staff and biomedical team
- xxii. Original brochure must be provided for evaluation.

15.SPECIFICATIONS FOR VITAL SIGNS MONITOR

a) User Interface

Quick access menu and hard keys Menu structure and fixed key Visual and Audio alarms. Indicator LEDs - power, alarm, charge

b) Standard Parameters

Heart Rate SpO₂, Pulse rate Non-Invasive Blood Pressure Temperature

c) Monitoring Capability

Paediatric and adult applications ECG, SpO₂, Temp NIBP

d) Supplied with

Accessories for all specified parameters Operator's Instruction Manual (hard copy) Technical/Service Manual (hard copy)

e) Mounting Option

Roller stand with at least 2 lockable castors

f) Power Requirements

Rated Voltage 240V a.c 50Hz
Battery type Rechargeable
Battery capacity 120 minutes

g) Standards

Monitor should comply with Medical Devices Directive (MDD) 93/42 EEC and bear the CE mark.

h) The unit must be supplied with one year warranty

i) The supplier must provide User training

16. OXYGEN THERAPY ACCESSORY SPECIFICATION

A) Oxygen Regulator with Flow-meter & Humidifier Bottle

Oxygen flow meter Item Code No. Item Description 1. General Description Oxygen flow meter is mainly used to regulate the flow of oxygen, oxygen humidification. 2. Technical Specifications 4.5 ± 0.5 bar. 2.1 **Outlet pressure:** Up to 200 bars. **Inlet pressure:** Piston type pressure regulator for a great reliability. 2.3 **Pressure Regulation Type:** Single stage pressure regulator. 2.4 **Stages:** Integrated relief valve protected in the body of the pressure regulator thus ensuring its inviolability andits **Reliability:** reliability. Pressure gauge protected against shocks by a plastic 2.6 **Shock Protection:** bumper. Filter at the inlet to prevent the risks linked to highpressure. **Pressure Filtration:** Body made of nickel-plated brass, very strong. 2.8 **Body Structure:** Active medical device of class IIb. 2.9 Classification The EN ISO 10524-1 standard. In compliance with: Unit serial number engraved on each flowmeter body for identification and traceability 3 **Conditions**

Attachment:- Must attach colored brochures highlighting the specs

Authorization: Must attach manufacturer authorization

After Sale Service: Must prove after sale support

Warranty: Minimum of one year after commissioning on all parts.

B) Oxygen Wall Flow-meter with Humidifier Bottle

Item Code No.

Item

Description

Oxygen Wall flow meter

1. General Description

Oxygen wall flow meter is mainly connected to wall o₂ outlet to regulate the flow of oxygen and oxygen humidification.

2. Technical Specifications

Expanded scale providing higher reading accuracy

Scale: for lower flow rates for 5 1/min and 15 1/min.

Filter porosity: 35 microns.

Inlet filter:

Mono-block scale cover made of polyamide for a better sturdiness and a higher shock-resistance. No access to the

View: scale by the patient.

Graduation:- Must be clear-Preferably black

Reliability:

Pressure gauge protected against shocks by a plastic

Shock Protection: bumper.

Filter at the inlet to prevent the risks linked to high

Pressure Filtration: pressure.

Body Structure: Body made of nickel-plated brass, very strong.

Classification Active medical device of class IIb.

In compliance with: The EN ISO 10524-1 standard.

Unit serial number engraved on each flow meter body for identification and traceability

3 Conditions

Attachment:- Must attach colored brochures highlighting the specs

Authorization: Must attach manufacturer authorization

After Sale Service: Must prove after sale support **Warranty:** Minimum of one year after commissioning on all parts.

17. TECHNICAL SPECIFICATIONS FOR DRIPSTAND

The drip stand must be made of stainless steel with the following features:

- 1) Four (4) stainless steel hooks each with 1kg load capacity
- 2) Adjustable height between approx. 150cm to 250cm
- 3) Five (5) limb stainless base
- 4) Five (5) castors with two brakes

Low profile and swivel resistance aluminum castors

18. TECHNICAL SPECIFICATIONS FOR HOSPITAL STRETCHER

- a) Dimensions
- 1) Overall length: 200cm
- 2) Overall width: 70cm
- 3) Overall height: 80cm with castors4) Castors: 14cm in diameter with brakes

Patient Positions:

- 1) Head elevation: At least 70°
- 2) Trendeleburg/Reverse Trendelenburg: 18°
- b) The stretcher must have:
- 1) Weight capacity of at least 200Kgs
- 2) Push handles
- 3) Brake/Steer pedals—head and foot
- 4) Removable IV pole
- 5) Water proof mattress
- 6) Side Rails

19. TECHNICAL SPECIFICATIONS FOR ANEROID BLOOD PRESSURE MACHINE

Unit must have:

- 1) A range of 0 300mmHg
- 2) Large easy to read dial
- 3) Latex bulb and chrome-plated air release valve
- 4) At least 3m spiral BP Hose
- 5) 2 sets of both pediatric and adult cuffs
- 6) Adjustable (swivel) wall mounting bracket

20. TECHNICAL SPECIFICATION FOR MECHANICAL WEIGHING SCALE

The scale should be designed to show weight with a visible circular dial mounted on a column with a height meter and the following specifications:

- a) Scale: Kilogramsb) Capacity: 160 Kgc) Sensitivity: 500g
- d) Platform: Aprox 40cm x 35cm

- e) Height: Aprox 1m (from base to dial)
- f) Height meter: 1.5m
- g) The scale must have a zeroing mechanism

21. TECHNICAL SPECIFICATION FOR PROCEDURE TROLLEY

- a) DIMENTIONS (with castors):
- 1) Height approx 90cm
- 2) Length approx 80cm
- 3) Width approx 45cm
- b) The Trolley must have:
- 1) Two shelves
- 2) 4 castors with 2 brakes
- 3) Low profile and swivel resistance aluminum castors
- 4) Basin holder
- 5) Guard rails firmly fitted on all sides of the top shelf
- c) The trolley must be robust.
- d) Made of stainless steel

22. TECHNICAL SPECIFICATIONS FOR RIPPLE MARTRESS

a) PUMP

- 1) Operating voltage 230v A.C 50Hz (with 3 pin top plug)
- 2) Working pressure 60 135mmHg
- 3) Air amount Adjustable to suit patient weight

b) MATTRESS:

- 1) Patient weight 40 150kg
- 2) Inflation time 30mins
- 3) Material PVC
- b) Pump must have at least one year warranty
- c) Pump must have a User/instruction manual
- d) Pump must have a Technical/Service manual

23. TECHNICAL SPECIFICATIONS FOR SYRINGE PUMP

a) Power Input

- 1) Rated Voltage -240 v a.c
- 2) Rechargeable battery 2hrs operating time at 10ml/hr

b) Performance

- 1) Delivery rate: 0.1-2300ml/hr adjustable in 0.1ml/hr increments
- 2) Bolus: 1 2300ml/hr manual or automatic
- 3) Occlusion pressure alarm: adjustable to low, medium and high
- 4) KVO rate: 0.01 5.0ml/hr
- 5) Selectable syringes: 20ml,30ml and 50ml

c) User Interface LCD screen displaying the following:

- 1) Patient Category
- 2) Infusion status
- 3) Alarms

4) Battery Status

e) Accessories Each unit must be supplied with:

- 1) Versatile I.V pole clamp
- 2) 20 50ml syringes
- 3) 50 30ml syringes
- 4) 50 20ml syringes
- 5) Operator/Instruction Manual (hard copy)
- 6) Technical/Service Manual (hard copy)
- 7) The supplier must provide one year warranty.

24. TECHNICAL SPECIFICATION FOR SPIROMETRY MACHINE

a. Features

Digital handle

Notebook computer (RAM 3GB, Processor – quad core 2.8 GHz, Hard drive 320GB HDD, OS – Windows 7/8/10, Power – 240V AC)

Forced Spirometry (FVC): FVC, FEV1, FEF25, FEF50, FEF75, PEF, PIF, FEV1% VC).

Slow Spirometry (SVC): ERV, IRV, IC, VT, VCIN, VCEX, VCMAX

Maximum voluntary ventilation (MVV): MVV, BF, VT

b. PC Interface

USB

c. Power Requirements

Voltage – 220 to 240V, 50Hz

Power backup - minimum 3 hours working time

d. Accessories

Calibration pump/syringe - 3L

Mouth pieces

Nose clips

Filters

Complete software package for measurement and report generation

e. Miscellaneous

Must have user/operator manuals – hard and soft copy

Must have technical service manual – hard and soft copy

Supplier must provide user training

Supplier must provide biomedical training

At least 1 year warranty

Must have CE quality mark

25. PLASMA THAWING MACHINE

Item Code No.	Item	Plasma Thawing Machine
	Description	

1. General Description

The plasma thawing machine is a specially-designed device that makes use of a microprocessor temperature regulator in maintaining water baths at appropriate plasma-thawing temperatures of 30 to 37 degrees Celsius.

2. Technical Specifications

2.1 Capacity: ≥15plasma bags

Drain valve can be connected to KNH plumbing

2.2 **Drain:** systems comfortably

2.3 **Display:** Both set value and process value

2.4 **Temperature:** $+4^{\circ}C\pm1^{\circ}C$ and $+37^{\circ}C\pm1^{\circ}C$

2.5 External Dimensions: ≥910X600X1060WxDxHmm

2.6 **Noise Level:** ≤65db.

2.7 **Power:** 220-240V,50HZ 1phase

In compliance with: CE classification

3 Conditions

Attachment:- Must attach colored brochures highlighting the specs

Authorization: Must attach manufacturer authorization

After Sale Service: Must prove after sale support

Warranty: Minimum of one year after commissioning on all parts.

26. PLASMA EXTRACTOR MACHINE

Item Code No.	Item	Plasma Extractor Machine
	Description	

1. General Description

The Plasma Extractor is designed to extract blood component from centrifuged bags.

2. Technical Specifications

2.1 **Grip:** Adjustable spring tension

2.2 **Front Panel:** Has LED power indicator,

2.3 Alarm: Buzzer
2.4 Max Tube Diameter:- 6.5mm

2.5 **Base:** Suction holder for firm grip

2.6 **Other Feature:** Flexible for manual operation.

2.7 **Power:** 220-240V,50HZ 1phase

In compliance with: CE classification

3 Conditions

Attachment:- Must attach colored brochures highlighting the specs

Authorization: Must attach manufacturer authorization

After Sale Service: Must prove after sale support

Warranty: Minimum of one year after commissioning on all parts.

27. SURGEON STOOL WITHOUT BACKREST

Item Code No.	Item	Surgeon Stool Without Backrest
	Description	

1. General Description

The stool includes a foot-operated pneumatic height control. Shall have height adjustments during procedures when your hands need to remain free and clean. It comes without a back rest.

2. Technical Specifications

2.1 **Features 1:** Adjustable height

2.2 **Feature 2:** Swivels

2.3 Accessories : Castors and Footrest

2.4 Capacity:- At least 140kg

2.5 Base material : Stainless Steel

2.6 **Seat:** Seat with ø 360 mm.

3 Conditions

Attachment:- Must attach colored brochures highlighting the specs

Authorization: Must attach manufacturer authorization

After Sale Service: Must prove after sale support

Warranty: Minimum of one year after commissioning on all parts.

28. LITHOTRIPSY LASER MACHINE

Item Code No.	Item	Lithotripsy Machine
	Description	

1. General Description

Lithotripsy machine is used in the administration of a series of shock waves to the targeted stone. The shock waves, which are generated by a machine called a lithotripter, are focused by x-ray onto the kidney stone.

2. Technical Specifications

2.1 Average Power: 35W

2.2 Repetition rate: 3÷30Hz
2.3 Energy per Pulse : 0.1÷5j
2.4 Pulse duration: 50-1100 uS

2.5 **Recognition fiber:** RFID System

2.6 Aiming beam: 523nm.

2.7 **Power:** 220-240V,50HZ 1phase 10A

In compliance with: CE classification

3 Conditions

Attachment:- Must attach colored brochures highlighting the specs

Authorization: Must attach manufacturer authorization

Training:Factory Training for 2-Biomeds

Warranty: Minimum of 5 year after commissioning on all parts.

29. FLUID WARMING CABINET

Item Code No.	Item	Fluid Warming Machine
	Description	

1. General Description

Fluid warming cabinets is used in the hospital for: - fluids and solutions are generally warmed to bodytemperature prior to inflow primarily for patient comfort. With alarm system (Sound and Display)

2. Technical Specifications

2.1 **Sterilization:** UV method

2.2 **Size:** $\geq 597*682*1813$

2.3 **Power** 360W

:

2.4 **Volume:-** ≤350 with 6shelf/Storage Basket

2.5 **Temperature :** Upto -50°C

2.6 Sensor Data: 2

2.7 **Power:** 220-240V,50HZ 1phase 10A

In compliance with: CE classification

3 Conditions

Attachment:- Must attach colored brochures highlighting the

specs

Authorization: Must attach manufacturer authorization

Training: Onsite Calibration training

Warranty: Minimum of 5 year after commissioning on all parts.

30. SPECIFICATION FOR A VEIN FINDER

- Should be portable, handheld, and with weight not exceeding 500 g.
- It should emit infrared wavelengths of min 850 mm with vein size visibility ≥ 1 mm and
- Accuracy 0.25 mm.
- The image frame rate should reach more than 20 f / s, allowing the flow of blood and injecting liquid medicine to be inspected clearly, which is critical when determining the consistency of the veins, punctures and other medical procedures of patients in clinical application.
- It should be designed with technologies that can adjust the picture brightness for the healthcare context It must be adjusted to the different lighting conditions, to provide a better visual experience and protect health workers from visual exhaustion.
- Applicable for Adult and pediatric use
- Should be LED technology
- Should have rechargeable batteries
- Should be supplied with a charging adapter 240V/50hz

31. INFUSION PUMP SPECIFICATIONS

Flow Rate Range: 1-1500 ml/h in normal mode (1 ml/h increment).

0.1- 99.9 ml/h in micro mode (0.1 ml/h increment).

Volume to Infuse 1-9999 ml in normal mode, 0.1-999.9 ml in micro mode.

Times of Infusion: Programmable

Priming: Manual or by using the purge/prime function of the pump.

OCS: Should have an occlusivity check system [OCS].

Bolus: 1200 ml/h, adjustable from 50 ml/h to 1200 ml/h (50 ml/h

increment).

KVO Automatic Keep Vein open rate of 0.1 ml/h – 5ml/h

Keyboard Protections Possibility to lock the keyboard to prevent involuntary

change of setting.

Anti Bolus System Reduces significantly bolus after occlusion release.

Alarms VTBI near end, Pressure high, Battery near empty, Battery

empty, No power supply, KVO finished, Drop error, Air bubble, Door open, Standby mode expired and system

error.

Record

Should support more than 5000 entries

Display Graphic LCD

Versatile Clamp

Versatile clamp that allows the fixation on a rail or on a

pole

Infusion sets

Must support a wide range of infusion sets from different

manufacturers/universal

Battery Rechargeable battery standard 6 hours.

Battery charge level available on the display.

Power Supply 240 Vac / 15 VA

Warranty 1 Year Warranty period from the date of commissioning.

Training User and Technical training

Operator/Instruction Manual (hard copy) Technical/Service Manual (hard copy)

32. TECHNICAL SPECIFICATIONS FOR MACERATOR

Equipment specified for clinical application only.

• Lid to be manually lockable type

- Should have an automatic disinfection cycle
- Easy to operate
- To be of energy efficient motor
- To have a self diagnostic capability
- The outer body should be robust, durable and rust proof
- The inner body should be of stainless steel and rust proof
- The cutting blades should be splined and turntable assisted
- Capacity: minimum loading of 4 briefs

Utilities

- Electrical power 240VAC 50HZ
- Coldwater with operating pressure of 0.5-3 bar
- Drainage minimum 2"/50mm pipe

Protection type: Class 1

Decibel rating; - minimum of 60dba at a distance of 3 meters

DIMENSIONS

- Width between 450mm 600mm
- Height between 850 1100mm
- Depth between 500mm 650mm

Warranty: - 2 years from the date of commissioning

Original Brochures for evaluations

User and technical training to be conducted

User manuals HARDCOPY

Technical manual HARDCOPY

33. SPECIFICATIONS FOR CELL SAVER EQUIPMENT

- 1. Automated machine compatible with the local voltage of 220-240 V.
- 2. Easily movable machine.
- 3. The equipment must produce a high-quality red blood cell component with a hematocrit of above 40% and over 90% recovery for red blood cells.
- 4. The following must be washed out from the produced component after filtration: Free hemoglobin, red blood cells fragments, fat, Albumin and anti-coagulant (heparin).
- 5. The machine must be user friendly with a touch screen control panel.
- 6. A smart suction technology incorporated within the machine.
- 7. Must have flexible programmable parameters.
- 8. Equipped with a bar code reader and easy date management system.
- 9. Locally available support for regular maintenance.
- 10. CE and/or FDA approved.

34. MULTI UTILITY PHOTOTHERAPY UNIT

- TL/10R for UVA (ultraviolet A) and TL/01 for NBUVB. (Narrow band ultraviolet B)
- Control power
- Onsite calibration system in joules / Milli joules
- Unit should be mounted on swivel castor wheels and locks
- Circuit breaker for safety
- Easy tilting facility of each panel, which will lock in any position

SPECIFICATIONS

•	Power Required (KVA)	3 (UVA / UVB NB)	2 (Combination)
•	Weight (Kg)	50 (UVA / UVB NB)	55 (Combination)
•	Tubes	12 (UVA / UVB NB)	16 (Combination)
•	Dimensions (mm)	1500 (Height) 800 (width)	600 (Depth)

35. IPL VPL (INTENSE PULSE LIGHT - VARIABLE PULSED LIGHT LASER MACHINE)

Applications

- Hair removal
- Skin rejuvenation and skin tightening
- Pigment removal
- Acne and acne scar removal
- Vascular therapy

SPECIFICATIONS:

- Display 7.4 inch color touch screen
- Multi-band hand-piece 480nm/530nm/590nm
- Energy Density 1-50J/cm2
- Frequency 1, 2, 3, 4 s
- No. of Pulse 1-6
- Output Power 1200W
- Size of Spot 15*50mm2
- Cooling Semiconductor & Water
- Size of machine 36 X 50 X 33 cm
- Size of package 61 X 48 X 50 cm
- Net Weight 22KG
- Gross weight 34.5KG
- Voltage 220V / 50Hz

36. DIALYSIS MACHINE SPECIFICATION

Features.

- Blood pump rate: min 0f 20ml/min and maximum of 500ml/min
- Should have inbuilt device for measurement and monitoring of effective urea clearance and dialysis dose(KT/V)
- Have an option of both double and single needle
- Should have blood circuit supervision of both arterial and venous pressure(-700+750mmHg)
- Should be able to adjust UF volume from 0 to 10L
- Should have UF rate 0 to 4l/h
- Should have ultra filtration supervision system to monitor UF target in relation to set ultra filtration time
- Should able to detect blood leakage by use of infrared light
- Should have air bubble detector with venous clamp.
- Should be able to accommodate heparin size ranging from 10 to 50cc
- Heparin pump flow rate of 0ml/h to 4ml/hr
- Should be able to give bolus volume ranging from 0 to 10ml.
- Should be able to display accumulated heparin on the display
- Should have heparin stop time
- Should have inbuilt non invasive blood pressure measurement.
- Dialysate flow rate of 300ml/min to 700ml/min
- Should have touch button screen
- Should have audio visual alarms
- Dialysate temperature of 35-37 degrees
- Should have bicarbonate range 0f Na+130 to 150mmol/L,HCO3 20 to 40mmol/L
- Should be able to perform UF,Na+ and HCO3 profiling
- Should have an option of concentrate standby mode when patient is not connected.
- The machine should be able to accept consumables from different suppliers
- Should have inlet water supply pressure of 1.2bar to 6bar
- Should have heat and liquid citric disinfection function
- Should perform chemical disinfection of either peracetic acid or sodium hypochorite

- Should have drain facility
- Main voltage 240v ac 50Hz single phase.
- Should have rechargeable battery up to 15-30minutes.
- Electrical safety: classification according to IEC60601-2-16 for hemodialysis machine.
- FDA/CE approval
- User training and factory training for 2 biomeds
- The company should have available local vender and distributor with technician within the country.
- The spare parts should be easily accessible.

SPECIFICATIONS FOR DIALYSIS CHAIR

Features

- Chair should have large stable base to ensure the dialysis chair is securely (200LX94WX55-85H) +or -10cm balance in all operational position.
- Multi positioning motorized dialysis chair with four DC motors
- Should have hand held remote for movement
- Should have provision of mechanical control in the event of electric fail.
- Should have adjustable height.
- Dialysis chair should have arm rest.
- The chair should be able to take trendelenburg position.
- The chair has four lockable castors to allow easy repositioning and secure the chair.
- The chair should be covered with cleanable, waterproof cushion which is easy to clean
- Should be comfortable for all patients and be able to support weight up to 100kg.
- Power requirement of 240v ac, 50Hz single phase.
- User training and technical training for biomeds.

37. FURNITURE REQUIREMENTS

S/NO	ITEM	SPECIFICATION	
1	Executive Desk	Executive Desk with leather padding	
		Mobile Side Return	
		With Data Connector Cable Management	
		Mobile three Pedestal	
		MDF Board	
		Monument Oak in Color	
		• 2400 X 1200 X 760MM	

		Executive Desk with leather padding
		Fixed Side Return
		With Data Connector Cable Management
		Mobile three Drawer Pedestal
		MDF Board
		Monument Oak in Color
		• 2400 X 1200 X 760MM
2	Orthopedic Executive	High Back Orthopedic Executive Chair
	Chairs	 With Mesh Back and Leather Seating Area
		 Adjustable gas lift, headrest and back.
		With Lumbar Support
		3D adjustable arms
		Has tilt and lock mechanism
		Seat slide Mechanism
		• 5-Star Chrome base on double nylon castors
		Black
3	Executive Cabinet	2 Door High level glass Cabinet
	Encourie Cuomer	MDF Board
		Monument Oak in Color
		• 270mm X 800mm X 400mm
4	Office Credenza	2 boarded Office Credenza
		2 lockable doors
		• 2 compartments
		• 1600mm X 500mm x 700mm
		Monument Oak in Color
		2 boarded Office Credenza
		2 lockable doors
		• 2 compartments
		• 1600mm X 500mm x 700mm
		Monument Oak in Color
		2 boarded Office Credenza
		2 lockable doors
		• 2 compartments
		• 1600mm X 500mm x 700mm
		Wenge in Color
5	Medium Executive Desk	Medium Executive Desk with leather padding and
		two grommets.
		• 1.6 X 0.8 X 0.76M
		Mobile side return.
		Mobile three drawer pedestal.
		Mahogany Laminate in Color
		With pen holder.
		Keyboard Tray.

6	Ergonomic executive chairs	 High back leather seat with head rest Black Fixed arms Adjustable Lumbar Support Adjustable Gas Lift Tilt and Lock Mechanism 5-star nylon base Double castors
7	Ergonomic secretarial chairs	 High Back Mesh Seat with fabric in seating area Fixed Arms Adjustable Head Rest Adjustable Gas Lift 5 Star base with Adjustable Castors
8	Work station	 4-way workstation with blue fabric dividers 2.4mx2.4mx0.76m Color-Walnut MDF Board Top
9	Cabinets	Metallic4 Drawer with Central Locking
10	Berkley Chairs with arms	 Deep upholstered seat 18" Metal Frame Guage PU Material 57cm W X 48CM L X 90cm H or higher.
		 Deep upholstered seat 18" Metal Frame Guage PU Material 57cm W X 48CM L X 90cm H or higher.
11	Catalina (Patient) Chairs	 Deep upholstered seat 18" Metal Frame Guage PU Material 57cm W X 48CM L X 90cm H or higher.
12	Economy Office Desks	 Straight Economic Desk with 3 fixed drawers 1400mm X 750mm X 750mm Veneer Particle Board Dark Walnut 25mm Thickness On panel Legs
13	Laboratory Stools	 Laboratory stool on wheels with adjustable backrest. Adjustable aluminum footrest Adjustable height seat swivel 360°, adjustable back tilt, ergonomic design

		 Multi positioning bed-style phlebotomy chair Adjustable height Adjustable high stool with back rest
14	Conference Table	 Standard Mega-triple Executive Boardroom Table Oblong Shape Mega-Triple Panel Legs Leather Padding American Walnut 3m X 1.5m X 0.76m Standard Mega-triple Executive Boardroom Table Oblong Shape Mega-Triple Panel Legs Leather Padding American Walnut 1.8m X 0.9m X 0.76m
15	Conference Chairs	 High Back Mesh Seat with fabric in seating area Fixed Arms Adjustable Head Rest Adjustable Gas Lift 5 Star base with Adjustable Castors
16	Pharmacy Dispensing Stools	 Adjustable aluminum footrest, adjustable height Seat height adjustable from 21" to 31" height 360 Degrees Swivel Adjustable back tilt Ergonomic
17	Aluminum ladders	 Aluminum Folding 4 threads Non slip 1.4-1.8 height on fold
18	Patient Benches	5-Seater Hardwood Mahogany Bench2000mm X 600mm X 900mm
19	Surgeon Operating Stools	 Stainless steel without backrest Adjustable Height Metallic Base Swivel Leather Padded seat Stainless steel with backrest Adjustable Height Metallic Base Swivel Leather Padded seat

20 21 22	Doctors Beds with mattresses TV Stand Safe	 Stainless steel with backrest Adjustable Height Metallic Base Swivel Leather Padded seat Double Docker-3.5×6 Hard Wood High Density Mattress Modern Wooden Stand Supports up to 43" With At least Two Swing Doors At least Four Castors for easy movement 4 Drawer Metallic Safe
23	Office Sofa Set	With Metallic LegsHigh Quality PU Leather

38. ALLUMINIUM PERFORATED TROLLEY

DESCRIPTION

Made with light alloy plate, 1.5mm thick, anodized after finishing

The upper rim is reinforced through a light alloy section

Horizontal stiffening ribs every 120mm approximately.

A light alloy section runs all along the lower rim

Light alloy framework for supporting wheels and bottom reinforcement

Mounted on 4 rubber wheels diam. 125mm (2 fixed and 2 swivels) lozengwise arrangement.

Inner Dimensions Length; 1300MM Depth: 700 mm Height: 670mm Outer Dimensions Length: 1350mm Depth: 750 mm

39. OPHTHALMOLOGY SETS OPHTHALMIC OCULOPLASTY SET

• Bishops Harmon Tissue Forcep 8mm - X2

• Bipolar Adson Forcep - X2

Enucleation Scissors
 Desmarres Retractors
 Long Solid Plates (Set Of Five)

• Sewall Orbital Retractors - 7x52mm 61/4"

Langenbeck Right Angled
 Muldon/Puntal Dilators
 Bowmans Probes 000/000
 Periosteal Elevators
 Berke Ptosis Forcep
 Lewis Lens Loop
 Small Blades
 (Set Of 5)
 (Set Of Five)
 Double Edged
 Right And Left
 Large/Small

• Orbital Punches - Size 0,1,2,3,4 (Set Of 5)

• Killian Nasal Speculum - Paeds/Adult

Jaeger Lid Plate-Medium
 Tissue Forceps,1x2 Teeth 0.7mm
 Tissue Forceps,1x2 Teeth 1.0mm
 Castroviejo Suturing Forceps 0.3mm
 X2

• Castroviejo Needle Holder

• Castroviejo Calipers - X4

• Barraquer Needle Holders-Suitable For Suture 5/0, 6/0,7/0

• Orbital Spatula-Long Solid Blades -

• Sterilization Tray -

Evisceration Scoops
 Enucleation Spoons
 X 2
 Enucleation Spoons
 X 2
 X 2
 X 2
 X 3
 X 4 SETS

40. SPECIFICATIONS FOR HIGH-END ECHOCARDIOGRAPHY WITH ADVANCED 4-D

Design

Digital premium 4D colour doppler echocardiography unit

Unit should have a large 20-inch or more high resolution colour monitor preferably OLED for optimal viewing angle of more than 160 Degrees. State the size and technology

Monitor must be mounted on a fully articulating arm with tilt, rotate and swivel capability.

Unit must be latest technology. State the year in which the unit was first manufactured as well as the Operating OS.

Unit must be running on the latest software level. State software level/version

Unit must run on the latest Operating Unit (State if Windows 10 Compliant)

Unit should be mounted on a mobile caster with 4 Swivel Wheels

User interface must be height adjustable to a height comfortable to scan while the user is standing

Unit console should be rotatable to a minimum of 120 Degrees from the centre

Unit needs to have over 4,000,000 digital processing channels

Unit should have a frequency capability of 0 to 25 MHZ

Units dynamic range needs to be above 270dB

Unit should have at least 1 TB of internal Hard Disk storage

The Unit must have a 12" or larger touch command screen for ease of operations

Unit must have at least 4 Active Universal Probe Ports. All Probes should be connectable to any port

Unit should enable electronic swicthing of probes ensuring probes can be moved from port to port without switching off the machine

Unit must have an internal battery for quick turn on after transportation

Unit must have remote connectivity to enable remote trouble shooting

Unit should be supplied with both user and technical manuals

Features

Unit should have all advanced cardiac software including Adult Echo, Adult TEE, Pediatric Echo, Pediatric TEE, Neonatal Echo, Neonatal TEE, Vascular, TCD & Fetal Echo .

Unit must have all the imaging modes including 2D-Mode, M-Mode, Color Doppler, AMM, Power Doppler, Steer, Harmonics, Pulse Inversion, 3D-Mode, 4D-Mode

Unit must be capable of a scan dept of more than 33 cm to cater for obese patients.

Unit must have a compounding feature to aid in penetration

Unit must have a variable (3-5 Levels) speckle/noise reducing software

Unit should have a feature for hiding patient information for acquisition of images for presentations

Unit should have independent gain control for all the modes

Unit should have Trapezoidal Imaging on linear imaging

Unit should have Trapezoidal imaging on Cardiac Probes

Unit should have Harmonic Imaging on All Probes to aid in border differentiation & Edge Enhancement

Unit should have High Definition Read & Write Zoom

Unit should have real time, fully independent, duplex and triplex modes as standard

Unit must allow for post-processing of stored images

Unit should have an inbuilt Anti-Virus to guard against viruses

Unit must allow for inbuilt report templates to be customized to hospital's preference

Unit should allow users to create, save and modify their user defined presets

Unit must have a one-button optimization on the console to reduce exam time

Unit should have a feature that automatically regulates TGC & LGC without user input

Unit must be DICOM 3.0 compliant (Send, Receive, Query Retrieve)

Unit must have worklist feature on DICOM 3.0

Unit must offer user programmable annotation for quick labelling.

Unit should have a feature to automatically calculate RI, PI & HR during PW Examinations

Unit should have Compare Mode to compare previously stored images during live scanning

Unit should be able to save loops as MP4 and images as JPEG for export

Unit should have needle visualization software to aid in line placement

Unit should have a feature to maximize visualization of blood in minute blood vessels

Unit should allow users to create own protocols for various examination procedures

Unit should have a feature to expand the image to full screen view mode

Unit should have a feature for visualizing orthogonal views of cardiac and vascular anatomy

Unit should have a feature to automatically adjust sample volume, color box and angle during vascular doppler studies to aid in quick doppler examinations

Unit should have the capability to perform cardiac perfusion

Unit should have a software to automatically perform cardiac measurements to reduce exam time

Unit should have LVO Contrast Software

Unit must have Stress Echo Feature as a Standard

Unit must have 4D Imaging Capability for Transthoraric (TTE) Imaging

Unit must have 4D Imaging Capability for Transesophageal (TEE) Imaging

Unit must have Advanced 4D Imaging enabling users to visualize anatomy in lifelike format to aid in assessing mitral valve regurgitations

Unit should have capability to manipulate 4D images on the touch screen e.g. Rotate, Zoom

Unit must have 3D/4D post analysis software to aid in calcualtion of 3D-based EF

Unit must have a software to calculate Global Longitudical Srain, EF, EDV, ESV on Short Axis

Unit must have a software to measure vascular plaque automatically

Unit must have an automatic software to calculate Global Longitudinal Strain (GLS) and represent this on a Bull's Eye

Unit must have a feature to automatically calculate 2D Ejection Fraction

Transducers

Multifrequency Transesophageal Probe for Adult 4D Transesophageal Imaging. Frequency: 2-8 MHz. State the MHz Range.

Multifrequency Matrix Probe for Adult 4D Cardiac Imaging, Frequency: 1-5 MHz. State the MHz Range.

Multifrequency Single-Crystal Probe for Adult Cardiac Imaging. Frequency: 1-5 MHz. State the MHz Range.

Measurements

Unit should have advanced cardiac measurements for a full advanced cardiac examination

Basic Measurements: B Mode: Distance, area, angle, volume, stenosis ratio

Basic Measurements: M-Mode: Slope, Distance, Time, Heart Rate

PW Mode Measurements: acceleration, velocity, time, heart rate, PI,RI, S/D,Flow Volume, Doppler Trace

CW Mode Measurements: Time, Velocity, Doppler Trace, HR

4D Imaging: Distance, Volume, Doppler, Area

Unit should allow users to create and save own measurements and calacualtions

Peripherals:

A6 BW Thermal Printer

Unit to be supplied with Adult & Pediatric ECG Leads

CD/DVD writer with the required software for active use, must be standard and integrated in the Unit

Recorded data on CD/DVD must be readable on any standard laptop/computer with additional software, if necessary from the supplier

System should have a pullout keyboard in addition to the virtual keyboard

A suitable UPS must be provided. State the Recommended Specifications

Others:

CE Marked

FDA Approved

IEC Conformity

Unit should be provided with 2 Years Warranty

Vendor to provide 5 Days of Onsite Clinical Training on Installation

Vendor to provide first-line basic technical training to our biomedical department for a period of 3 days

41. PORTABLE ECHO SPECIFICATIONS

Item No.	PORTABLE ECHO SPECIFICATIONS
1	Basic Specs
1.1	Fully Digital premium Portable Shared Service Colour Doppler Ultrasound Unit
1.2	System should be a laptop design
1.3	System must have a physical keyboard for easy data entry and image manipulation
1.4	System should have digital broadband beamformer

1.6 System needs to have over 500,000 digital processing channels 1.7 System must have single crystal probe technology on all probes including TEE. 1.8 Unit should offer at least a 15-inch HD color monitor 1.9 Systems dynamic range needs to be above 150dB 1.10 System Hard Drive to exceed 500 GB Storage dedicated for Image Storage 1.11 System must have an internal battery that can power the portable unit for at least 1 hour wihout AC 1.12 System must be supplied with a lightweight docking trolley with a minimum of 3 Active Universal Probe Ports 1.13 System docking troley should have 4 indepent lockable wheels 1.14 System docking trolley must be height adjustable to cater for user comfort during bedside examinations 1.15 System should have an On-Board Storage Shelf 1.16 System should enable electronic switching of probes ensuring probes can be moved from port to port without switching off the machine 1.17 System should be supplied with both user and service manuals 2 Functionality 2.1 System must have the following clinical areas: Adult Cardiology, Pediatric Cardiology, Neonatal Cardiology, Adult TEE, Pediatric TEE & Vascular. The system must also be open for upgrade to General Imaging such as Abdomen, MSK & Small Parts in future. 2.2 System must have multiple scanning modes including: 8-Mode, M-Mode, Color Doppler, Power Doppler, Pulse Wave, Directional Power Doppler, Continuous Wave Doppler & Anatomical M-Mode. 3 System must after comprehensive calculation packages in all clinical areas e.g. Adult Cardiology, Pediatric Cardiology, Neonatal Cardiology, Pediatric Cardiology, Neonatal Cardiology, Neona	1.5	System should offer image frequency of 0-20 MHz depending on probes
1.8 Unit should offer at least a 15-inch HD color monitor 1.9 Systems dynamic range needs to be above 150dB 1.10 System Hard Drive to exceed 500 GB Storage dedicated for Image Storage 3. System must have an internal battery that can power the portable unit for at least 1 hour wihout AC 1.12 System must be supplied with a lightweight docking trolley with a minimum of 3 Active Universal Probe Ports 1.13 System docking troley should have 4 indepent lockable wheels 5. System docking trolley must be height adjustable to cater for user comfort during bedside examinations 1.15 System should have an On-Board Storage Shelf 5. System should have an On-Board Storage Shelf 1.16 System should have an On-Board Storage Shelf 1.17 System should have remote connectivity to enable trouble shooting 1.18 System should have remote connectivity to enable trouble shooting 1.19 System should have remote connectivity to enable trouble shooting 1.10 System should be supplied with both user and service manuals 2 Functionality 2.1 System must have the following clinical areas: Adult Cardiology, Pediatric Cardiology, Neonatal Cardiology, Adult TEE, Pediatric TEE & Vascular. The system must also be open for upgrade to General Imaging such as Abdomen, MSK & Small Parts in future. 2.2 System must have multiple scanning modes including: B-Mode, M-Mode, Color Doppler, Power Doppler, Pulse Wave, Directional Power Doppler, Continuous Wave Doppler & Anatomical M-Mode. 2.3 System must shave bual Mode 2.4 System must have realtime Duplex & Triplex as a Standard 2.5 System must have realtime Duplex & Triplex as a Standard 2.6 System must have realtime Duplex imaging capability 2.7 edges 2.8 System should have tissue harmonics imaging to better visualization of lession borders and edges 2.9 System must have a compounding feature to aid in penetration 2.10 System must have a canable of a scan depth of more than 30cm to cater for obese patients 2.11 System should have Light Definition Read/Write Zoom 2.12 System should have Pa	1.6	System needs to have over 500,000 digital proccessing channels
1.9 System dynamic range needs to be above 150dB 1.10 System Hard Drive to exceed 500 GB Storage dedicated for Image Storage 1.11 System must have an internal battery that can power the portable unit for at least 1 hour without AC 1.12 Probe Ports 1.13 System docking troley should have 4 indepent lockable wheels 1.14 System docking troley should have 4 indepent lockable wheels 1.15 System docking troley should have 4 indepent lockable wheels 1.16 System should have an On-Board Storage Shelf 1.17 System should have an On-Board Storage Shelf 1.18 System should have an On-Board Storage Shelf 1.19 System should have an On-Board Storage Shelf 1.10 system should have encore connectivity to enable trouble shooting 1.17 System should be supplied with both user and service manuals 2. Functionality 2. System should be supplied with both user and service manuals 2. Functionality 2. System must have the following clinical areas: Adult Cardiology, Pediatric Cardiology, Neonatal Cardiology, Adult TEE, Pediatric TEE & Vascular. The system must also be open for upgrade to General Imaging such as Abdomen, MSK & Small Parts in future. 2. System must have multiple scanning modes including: B-Mode, M-Mode, Color Doppler, Power Doppler, Pulse Wave, Directional Power Doppler, Continuous Wave Doppler & Anatomical M-Mode. 2. System must offer comprehensive calculation packages in all clinical areas e.g. Adult Cardiology, Pediatric Cardiology, Neonatal Cardiology, Adult TEE, Pediatric TEE & Vascular. 2. System must have trapezoidal imaging capability 3. System should have tissue harmonics imaging for better visualization of lession borders and edges 3. System must have a one-button image optimization on the console to reduce exam time 3. System should have a feature for real-time optimization on the console to reduce exam time 3. System should have a variable speckle/noise reducing software 3. System should have a real-time optimization on the console to reduce exam time 3. System should have a feature for real-time optimization on the	1.7	System must have single crystal probe technology on all probes including TEE.
1.10 System Hard Drive to exceed 500 GB Storage dedicated for Image Storage 3. System must have an internal battery that can power the portable unit for at least 1 hour wihout AC 1.12 System must be supplied with a lightweight docking trolley with a minimum of 3 Active Universal Probe Ports 1.13 System docking trolley should have 4 indepent lockable wheels 1.14 System docking trolley must be height adjustable to cater for user comfort during bedside examinations 1.15 System should have an On-Board Storage Shelf 1.16 System should have an On-Board Storage Shelf 1.17 System should have an On-Board Storage Shelf 1.18 System should have remote connectivity to enable trouble shooting 1.19 System should be supplied with both user and service manuals 2 Functionality 2.1 System must have the following clinical areas: Adult Cardiology, Pediatric Cardiology, Neonatal Cardiology, Adult TEE, Pediatric TEE & Vascular. The system must also be open for upgrade to General Imaging such as Abdomen, MSK & Small Parts in future. 2.2 System must have multiple scanning modes including: B-Mode, M-Mode, Color Doppler, Power Doppler, Pulse Wave, Directional Power Doppler, Continuous Wave Doppler & Anatomical M-Mode. 2.3 System must offer comprehensive calculation packages in all clinical areas e.g. Adult Cardiology, Pediatric Cardiology, Neonatal Cardiology, Adult TEE, Pediatric TEE & Vascular. 2.4 System must have Dual Mode 2.5 System must have trapezoidal imaging capability 2.7 System should have trapezoidal imaging capability 2.8 System should have trapezoidal imaging capability 2.9 System must have a one-button image optimization on the console to reduce exam time 2.10 System must have a one-button image optimization on the console to reduce exam time 2.11 System should have a feature for real-time optimization on the console to reduce exam time 2.12 System should have a feature for real-time optimization on the console to reduce exam time 2.13 System must have a One-button image optimization on the console to	1.8	Unit should offer at least a 15-inch HD color monitor
1.11 System must have an internal battery that can power the portable unit for at least 1 hour wihout AC System must be supplied with a lightweight docking trolley with a minimum of 3 Active Universal Probe Ports 1.13 System docking troley should have 4 indepent lockable wheels 1.14 System docking trolley must be height adjustable to cater for user comfort during bedside examinations 1.15 System should have an On-Board Storage Shelf 1.16 System should have an On-Board Storage Shelf 1.17 System should have an On-Board Storage Shelf 1.18 System should have remote connectivity to enable trouble shooting 1.19 System should be supplied with both user and service manuals 2 Functionality 2.1 System must have the following clinical areas: Adult Cardiology, Pediatric Cardiology, Neonatal Cardiology, Adult TEE, Pediatric TEE & Vascular. The system must also be open for upgrade to General Imaging such as Abdomen, MSK & Small Parts in future. 2.2 System must have multiple scanning modes including: B-Mode, M-Mode, Color Doppler, Power Doppler, Pulse Wave, Directional Power Doppler, Continuous Wave Doppler & Anatomical M-Mode. 2.3 System must fifer comprehensive calculation packages in all clinical areas e.g. Adult Cardiology, Pediatric Cardiology, Neonatal Cardiology, Adult TEE, Pediatric TEE & Vascular. 2.4 System must have Dual Mode 2.5 System must have trapezoidal imaging capability 2.7 System should have tissue harmonics imaging for better visualization of lession borders and edges 2.8 System must have trapezoidal imaging capability 2.9 System must have a variable speckle/noise reducing software 2.10 System must have a one-button image optimization on the console to reduce exam time 2.11 System should have a feature for real-time optimization on to cater for obese patients 2.12 System should have beligh Definition read poptimization on the console to reduce exam time 2.13 System must have a a one-button image optimization on the console to reduce exam time 2.14 System should have High Definitions Re	1.9	Systems dynamic range needs to be above 150dB
1.12 System must be supplied with a lightweight docking trolley with a minimum of 3 Active Universal Probe Ports 1.13 System docking troley should have 4 indepent lockable wheels 1.14 System docking troley should have 4 indepent lockable wheels 1.15 System should have an On-Board Storage Shelf 1.16 System should have an On-Board Storage Shelf 1.17 System should enable electronic switching of probes ensuring probes can be moved from port to port without switching off the machine 1.17 System should have remote connectivity to enable trouble shooting 1.18 System should be supplied with both user and service manuals 2 Functionality 2.1 System must have the following clinical areas: Adult Cardiology, Pediatric Cardiology, Neonatal Cardiology, Adult TEE, Pediatric TEE & Vascular. The system must also be open for upgrade to General Imaging such as Abdomen, MSK & Small Parts in future. 2.2 System must have multiple scanning modes including: B-Mode, M-Mode, Color Doppler, Power Doppler, Pulse Wave, Directional Power Doppler, Continuous Wave Doppler & Anatomical M-Mode. 2.3 System must offer comprehensive calculation packages in all clinical areas e.g. Adult Cardiology, Pediatric Cardiology, Neonatal Cardiology, Adult TEE, Pediatric TEE & Vascular. 2.4 System must have realtime Duplex & Triplex as a Standard 2.5 System must have realtime Duplex & Triplex as a Standard 2.6 System must have realtime Duplex & Triplex as a Standard 2.7 System should have tissue harmonics imaging for better visualization of lession borders and edges 2.8 System should have a reature for real-time optimization on the console to reduce exam time 2.9 System must have a compounding feature to aid in penetration 2.10 System must have a compounding feature to aid in penetration 2.11 System must have a one-button image optimization on the console to reduce exam time 2.12 System should have a feature for real-time optimization of gain and TGC. 2.13 System must have a compounding feature to aid in penetration 2.14 System should have bedied Visualizatio	1.10	System Hard Drive to exceed 500 GB Storage dedicated for Image Storage
1.13 System docking troley should have 4 indepent lockable wheels 1.14 System docking troley must be height adjustable to cater for user comfort during bedside examinations 1.15 System should have an On-Board Storage Shelf 1.16 System should enable electronic switching of probes ensuring probes can be moved from port to port without switching off the machine 1.17 System should have remote connectivity to enable trouble shooting 1.18 System should be supplied with both user and service manuals 2 Functionality 2.1 System must have the following clinical areas: Adult Cardiology, Pediatric Cardiology, Neonatal Cardiology, Adult TEE, Pediatric TEE & Vascular. The system must also be open for upgrade to General Imaging such as Abdomen, MSK & Small Parts in future. 2.2 System must have multiple scanning modes including: B-Mode, M-Mode, Color Doppler, Power Doppler, Pulse Wave, Directional Power Doppler, Continuous Wave Doppler & Anatomical M-Mode. 2.3 System must offer comprehensive calculation packages in all clinical areas e.g. Adult Cardiology, Pediatric Cardiology, Neonatal Cardiology, Adult TEE, Pediatric TEE & Vascular. 2.4 System must have Dual Mode 2.5 System must have realtime Duplex & Triplex as a Standard 2.6 System must have realtime Duplex & Triplex as a Standard 2.6 System must have realtime Duplex & Triplex as a Standard 2.7 System should have tissue harmonics imaging for better visualization of lession borders and edges 2.8 System should have Compare Feature to compare previously stored images during live scanning 2.9 System must have a variable speckle/noise reducing software 2.11 System must have a variable speckle/noise reducing software 2.12 System must have a variable speckle/noise reducing software 2.13 System should have be capable of a scan depth of more than 30cm to cater for obese patients 2.14 System should have be ill intelligent Tissue Specific Imaging presets for various applications 2.15 System should have Needle Visualization Software to aid in line placement 2.17 System must have DICOM	1.11	
1.14 System docking trolley must be height adjustable to cater for user comfort during bedside examinations 1.15 System should have an On-Board Storage Shelf 1.16 System should have an On-Board Storage Shelf 1.17 System should have remote connectivity to enable trouble shooting 1.18 System should be supplied with both user and service manuals 2 Functionality 2.1 System must have the following clinical areas: Adult Cardiology, Pediatric Cardiology, Neonatal Cardiology, Adult TEE, Pediatric TEE & Vascular. The system must also be open for upgrade to General Imaging such as Abdomen, MSK & Small Parts in future. 2.2 System must have multiple scanning modes including: B-Mode, M-Mode, Color Doppler, Power Doppler, Pulse Wave, Directional Power Doppler, Continuous Wave Doppler & Anatomical M-Mode. 2.3 System must offer comprehensive calculation packages in all clinical areas e.g. Adult Cardiology, Pediatric Cardiology, Neonatal Cardiology, Adult TEE, Pediatric TEE & Vascular. 2.4 System must have Dual Mode 2.5 System must have realtime Duplex & Triplex as a Standard 2.6 System must have trapezoidal imaging capability 2.7 System should have tissue harmonics imaging for better visualization of lession borders and edges 2.8 System should have tissue harmonics imaging for better visualization of lession borders and edges 2.8 System should have a compounding feature to aid in penetration 2.9 System must have a compounding feature to aid in penetration 2.10 System must have a a one-button image optimization on the console to reduce exam time 2.11 System must have a feature for real-time optimization of gain and TGC. 2.13 System should have a feature for real-time optimization of gain and TGC. 2.14 System should have be capable of a scan depth of more than 30cm to cater for obese patients 2.15 System should have Needle Visualization Software to aid in line placement 2.16 System should have Needle Visualization Software to aid in line placement 2.17 System must be DICOM Worklist Feature 2.8 System should be able to save loops	1.12	
1.15 System should have an On-Board Storage Shelf 1.16 System should have an On-Board Storage Shelf 1.17 System should enable electronic switching of probes ensuring probes can be moved from port to port without switching off the machine 1.18 System should have remote connectivity to enable trouble shooting 1.18 System should be supplied with both user and service manuals 2 Functionality 2.1 System must have the following clinical areas: Adult Cardiology, Pediatric Cardiology, Neonatal Cardiology, Adult TEE, Pediatric TEE & Vascular. The system must also be open for upgrade to General Imaging such as Abdomen, MSK & Small Parts in future. 2.2 System must have multiple scanning modes including: B-Mode, M-Mode, Color Doppler, Power Doppler, Pulse Wave, Directional Power Doppler, Continuous Wave Doppler & Anatomical M-Mode. 3. System must offer comprehensive calculation packages in all clinical areas e.g. Adult Cardiology, Pediatric Cardiology, Neonatal Cardiology, Adult TEE, Pediatric TEE & Vascular. 3. System must have trapezoidal imaging capability 3. System must have trapezoidal imaging capability 3. System should have tissue harmonics imaging for better visualization of lession borders and edges 3. System should have Compare Feature to compare previously stored images during live scanning 3. System must have a compounding feature to aid in penetration 3. System must have a variable speckle/noise reducing software 3. System must have a realture for real-time optimization of gain and TGC. 3. System should have a feature for real-time optimization of gain and TGC. 3. System should have be capable of a scan depth of more than 30cm to cater for obese patients 3. System should have High Definition Read/Write Zoom 3. System should have High Definition Read/Write Zoom 3. System should have High Definition Read/Write Zoom 3. System must have the capability to capture raw data to aid in line placement 3. System must have DICOM Worklist Feature 3. System should be able to save loops and images in PC Format (MP4, AVI, JPE	1.13	System docking troley should have 4 indepent lockable wheels
1.16 System should enable electronic switching of probes ensuring probes can be moved from port to port without switching off the machine 1.17 System should have remote connectivity to enable trouble shooting 1.18 System should be supplied with both user and service manuals Functionality System must have the following clinical areas: Adult Cardiology, Pediatric Cardiology, Neonatal Cardiology, Adult TEE, Pediatric TEE & Vascular. The system must also be open for upgrade to General Imaging such as Abdomen, MSK & Small Parts in future. System must have multiple scanning modes including: B-Mode, M-Mode, Color Doppler, Power Doppler, Pulse Wave, Directional Power Doppler, Continuous Wave Doppler & Anatomical M-Mode. System must have Dual Mode System must have Dual Mode System must have realtime Duplex & Triplex as a Standard System must have realtime Duplex & Triplex as a Standard System should have tissue harmonics imaging for better visualization of lession borders and edges System should have Compare Feature to compare previously stored images during live scanning System must have a compounding feature to aid in penetration System must have a variable speckle/noise reducing software System must have a realtime optimization on the console to reduce exam time System must have a feature for real-time optimization of gain and TGC. System should have a feature for real-time optimization of gain and TGC. System should have built intelligent Tissue Specific Imaging presets for various applications System should have High Definition Read/Write Zoom System should have High Definition Read/Write Zoom System must have the capability to capture raw data to aid in line placement System must have DICOM Worklist Feature System should be able to save loops and images in PC Format (MP4, AVI, JPEG) during export	1.14	
1.10 port without switching off the machine 1.17 System should have remote connectivity to enable trouble shooting 1.18 System should be supplied with both user and service manuals 2 Functionality 2.1 System must have the following clinical areas: Adult Cardiology, Pediatric Cardiology, Neonatal Cardiology, Adult TEE, Pediatric TEE & Vascular. The system must also be open for upgrade to General Imaging such as Abdomen, MSK & Small Parts in future. 2.2 System must have multiple scanning modes including: B-Mode, M-Mode, Color Doppler, Power Doppler, Pulse Wave, Directional Power Doppler, Continuous Wave Doppler & Anatomical M-Mode. 2.3 System must offer comprehensive calculation packages in all clinical areas e.g. Adult Cardiology, Pediatric Cardiology, Neonatal Cardiology, Adult TEE, Pediatric TEE & Vascular. 2.4 System must have Dual Mode 2.5 System must have realtime Duplex & Triplex as a Standard 2.6 System must have trapezoidal imaging capability 2.7 System should have tissue harmonics imaging for better visualization of lession borders and edges 2.8 System should have Compare Feature to compare previously stored images during live scanning 2.9 System must have a compounding feature to aid in penetration 2.10 System must have a variable speckle/noise reducing software 2.11 System must have a realtime optimization on the console to reduce exam time 2.12 System should have lefature for real-time optimization of gain and TGC. 2.13 System should have built intelligent Tissue Specific Imaging presets for various applications 2.15 System should have High Definition Read/Write Zoom 2.16 System should have Needle Visualization Software to aid in line placement 2.17 System must have the capability to capture raw data to aid in post-processing of stored images 2.18 System must have DICOM Worklist Feature 2.20 System must have DICOM Worklist Feature 2.21 System should be able to save loops and images in PC Format (MP4, AVI, JPEG) during export	1.15	·
1.18 System should be supplied with both user and service manuals 2 Functionality 2.1 System must have the following clinical areas: Adult Cardiology, Pediatric Cardiology, Neonatal Cardiology, Adult TEE, Pediatric TEE & Vascular. The system must also be open for upgrade to General Imaging such as Abdomen, MSK & Small Parts in future. 2.2 System must have multiple scanning modes including: B-Mode, M-Mode, Color Doppler, Power Doppler, Pulse Wave, Directional Power Doppler, Continuous Wave Doppler & Anatomical M-Mode. 2.3 System must offer comprehensive calculation packages in all clinical areas e.g. Adult Cardiology, Pediatric Cardiology, Neonatal Cardiology, Adult TEE, Pediatric TEE & Vascular. 2.4 System must have Dual Mode 2.5 System must have realtime Duplex & Triplex as a Standard 2.6 System must have trapezoidal imaging capability 2.7 System should have tissue harmonics imaging for better visualization of lession borders and edges 2.8 System should have Compare Feature to compare previously stored images during live scanning 2.9 System must have a compounding feature to aid in penetration 2.10 System must have a variable speckle/noise reducing software 2.11 System must have a variable speckle/noise reducing software 2.12 System should have a feature for real-time optimization of gain and TGC. 2.13 System should have built intelligent Tissue Specific Imaging presets for various applications 2.14 System should have High Definition Read/Write Zoom 2.15 System should have Needle Visualization Software to aid in line placement 2.17 System must have DicOM 3.0 Compliant 2.18 System must have DicOM Query Retrieve, Structured Reporting & DICOM Receive 2.20 System should be able to save loops and images in PC Format (MP4, AVI, JPEG) during export	1.16	
2 Functionality 2.1 System must have the following clinical areas: Adult Cardiology, Pediatric Cardiology, Neonatal Cardiology, Adult TEE, Pediatric TEE & Vascular. The system must also be open for upgrade to General Imaging such as Abdomen, MSK & Small Parts in future. 2.2 System must have multiple scanning modes including: B-Mode, M-Mode, Color Doppler, Power Doppler, Pulse Wave, Directional Power Doppler, Continuous Wave Doppler & Anatomical M-Mode. 2.3 System must offer comprehensive calculation packages in all clinical areas e.g. Adult Cardiology, Pediatric Cardiology, Neonatal Cardiology, Adult TEE, Pediatric TEE & Vascular. 2.4 System must have Dual Mode 2.5 System must have realtime Duplex & Triplex as a Standard 2.6 System should have tissue harmonics imaging for better visualization of lession borders and edges 2.8 System should have Compare Feature to compare previously stored images during live scanning 2.9 System must have a compounding feature to aid in penetration 2.10 System must have a variable speckle/noise reducing software 2.11 System must have a one-button image optimization on the console to reduce exam time 2.12 System should have built intelligent Tissue Specific Imaging presets for various applications 2.15 System should have High Definition Read/Write Zoom 2.16 System should have Needle Visualization Software to aid in line placement 2.17 System must have the capability to capture raw data to aid in post-processing of stored images 2.18 System must be DICOM 3.0 Compliant 2.19 System must have DICOM Query Retrieve, Structured Reporting & DICOM Receive 2.21 System should be able to save loops and images in PC Format (MP4, AVI, JPEG) during export	1.17	System should have remote connectivity to enable trouble shooting
2.1 System must have the following clinical areas: Adult Cardiology, Pediatric Cardiology, Neonatal Cardiology, Adult TEE, Pediatric TEE & Vascular. The system must also be open for upgrade to General Imaging such as Abdomen, MSK & Small Parts in future. 2.2 System must have multiple scanning modes including: B-Mode, M-Mode, Color Doppler, Power Doppler, Pulse Wave, Directional Power Doppler, Continuous Wave Doppler & Anatomical M-Mode. 2.3 System must offer comprehensive calculation packages in all clinical areas e.g. Adult Cardiology, Pediatric Cardiology, Neonatal Cardiology, Adult TEE, Pediatric TEE & Vascular. 2.4 System must have Dual Mode 2.5 System must have realtime Duplex & Triplex as a Standard 2.6 System should have trapezoidal imaging capability 2.7 System should have tissue harmonics imaging for better visualization of lession borders and edges 2.8 System should have Compare Feature to compare previously stored images during live scanning 2.9 System must have a compounding feature to aid in penetration 2.10 System must have a variable speckle/noise reducing software 2.11 System must have a one-button image optimization on the console to reduce exam time 2.12 System should have a feature for real-time optimization of gain and TGC. 2.13 System should have a feature for real-time optimization of gain and TGC. 2.14 System should have built intelligent Tissue Specific Imaging presets for various applications 2.15 System should have Needle Visualization Software to aid in line placement 2.17 System must have the capability to capture raw data to aid in post-processing of stored images 2.18 System must have DICOM Worklist Feature 2.19 System must have DICOM Worklist Feature 2.20 System should be able to save loops and images in PC Format (MP4, AVI, JPEG) during export	1.18	System should be supplied with both user and service manuals
Cardiology, Adult TEE, Pediatric TEE & Vascular. The system must also be open for upgrade to General Imaging such as Abdomen, MSK & Small Parts in future. 2.2 System must have multiple scanning modes including: B-Mode, M-Mode, Color Doppler, Power Doppler, Pulse Wave, Directional Power Doppler, Continuous Wave Doppler & Anatomical M-Mode. 2.3 System must offer comprehensive calculation packages in all clinical areas e.g. Adult Cardiology, Pediatric Cardiology, Neonatal Cardiology, Adult TEE, Pediatric TEE & Vascular. 2.4 System must have Dual Mode 2.5 System must have realtime Duplex & Triplex as a Standard 2.6 System must have realtime Duplex & Triplex as a Standard 2.7 System should have tissue harmonics imaging for better visualization of lession borders and edges 2.8 System should have Compare Feature to compare previously stored images during live scanning 2.9 System must have a compounding feature to aid in penetration 2.10 System must have a variable speckle/noise reducing software 2.11 System must have a one-button image optimization on the console to reduce exam time 2.12 System should have a feature for real-time optimization of gain and TGC. 2.13 System must be capable of a scan depth of more than 30cm to cater for obese patients 2.14 System should have High Definition Read/Write Zoom 2.15 System should have High Definition Read/Write Zoom 2.16 System should have Needle Visualization Software to aid in line placement 2.17 System must have the capability to capture raw data to aid in post-processing of stored images 2.18 System must have DICOM 3.0 Compliant 2.19 System must have DICOM Worklist Feature 2.20 System should be able to save loops and images in PC Format (MP4, AVI, JPEG) during export	2	Functionality
Doppler, Pulse Wave, Directional Power Doppler, Continuous Wave Doppler & Anatomical M-Mode. 2.3 System must offer comprehensive calculation packages in all clinical areas e.g. Adult Cardiology, Pediatric Cardiology, Neonatal Cardiology, Adult TEE, Pediatric TEE & Vascular. 2.4 System must have Dual Mode 2.5 System must have realtime Duplex & Triplex as a Standard 2.6 System must have trapezoidal imaging capability 2.7 System should have tissue harmonics imaging for better visualization of lession borders and edges 2.8 System should have Compare Feature to compare previously stored images during live scanning 2.9 System must have a compounding feature to aid in penetration 2.10 System must have a variable speckle/noise reducing software 2.11 System must have a one-button image optimization on the console to reduce exam time 2.12 System should have a feature for real-time optimization of gain and TGC. 2.13 System must be capable of a scan depth of more than 30cm to cater for obese patients 2.14 System should have built intelligent Tissue Specific Imaging presets for various applications 2.15 System should have High Definition Read/Write Zoom 2.16 System should have Needle Visualization Software to aid in line placement 2.17 System must have the capability to capture raw data to aid in post-processing of stored images 2.18 System must have bolicom Worklist Feature 2.20 System must have DICOM Query Retrieve, Structured Reporting & DICOM Receive 2.21 System should be able to save loops and images in PC Format (MP4, AVI, JPEG) during export	2.1	Cardiology, Adult TEE, Pediatric TEE & Vascular. The system must also be open for upgrade to
Pediatric Cardiology, Neonatal Cardiology, Adult TEE, Pediatric TEE & Vascular. 2.4 System must have Dual Mode 2.5 System must have realtime Duplex & Triplex as a Standard 2.6 System must have trapezoidal imaging capability 2.7 System should have tissue harmonics imaging for better visualization of lession borders and edges 2.8 System should have Compare Feature to compare previously stored images during live scanning 2.9 System must have a compounding feature to aid in penetration 2.10 System must have a variable speckle/noise reducing software 2.11 System must have a one-button image optimization on the console to reduce exam time 2.12 System should have a feature for real-time optimization of gain and TGC. 2.13 System must be capable of a scan depth of more than 30cm to cater for obese patients 2.14 System should have built intelligent Tissue Specific Imaging presets for various applications 2.15 System should have High Definition Read/Write Zoom 2.16 System should have Needle Visualization Software to aid in line placement 2.17 System must have the capability to capture raw data to aid in post-processing of stored images 2.18 System must have DICOM 3.0 Compliant 2.19 System must have DICOM Worklist Feature 2.20 System should be able to save loops and images in PC Format (MP4, AVI, JPEG) during export	2.2	Doppler, Pulse Wave, Directional Power Doppler, Continuous Wave Doppler & Anatomical M-
2.5 System must have realtime Duplex & Triplex as a Standard 2.6 System must have trapezoidal imaging capability 2.7 System should have tissue harmonics imaging for better visualization of lession borders and edges 2.8 System should have Compare Feature to compare previously stored images during live scanning 2.9 System must have a compounding feature to aid in penetration 2.10 System must have a variable speckle/noise reducing software 2.11 System must have a one-button image optimization on the console to reduce exam time 2.12 System should have a feature for real-time optimization of gain and TGC. 2.13 System must be capable of a scan depth of more than 30cm to cater for obese patients 2.14 System should have built intelligent Tissue Specific Imaging presets for various applications 2.15 System should have High Definition Read/Write Zoom 2.16 System should have Needle Visualization Software to aid in line placement 2.17 System must have the capability to capture raw data to aid in post-processing of stored images 2.18 System must have DICOM 3.0 Compliant 2.19 System must have DICOM Query Retrieve, Structured Reporting & DICOM Receive 2.20 System should be able to save loops and images in PC Format (MP4, AVI, JPEG) during export	2.3	
2.6 System must have trapezoidal imaging capability 2.7 System should have tissue harmonics imaging for better visualization of lession borders and edges 2.8 System should have Compare Feature to compare previously stored images during live scanning 2.9 System must have a compounding feature to aid in penetration 2.10 System must have a variable speckle/noise reducing software 2.11 System must have a one-button image optimization on the console to reduce exam time 2.12 System should have a feature for real-time optimization of gain and TGC. 2.13 System must be capable of a scan depth of more than 30cm to cater for obese patients 2.14 System should have built intelligent Tissue Specific Imaging presets for various applications 2.15 System should have High Definition Read/Write Zoom 2.16 System should have Needle Visualization Software to aid in line placement 2.17 System must have the capability to capture raw data to aid in post-processing of stored images 2.18 System must have DICOM 3.0 Compliant 2.19 System must have DICOM Worklist Feature 2.20 System should be able to save loops and images in PC Format (MP4, AVI, JPEG) during export	2.4	System must have Dual Mode
2.7 System should have tissue harmonics imaging for better visualization of lession borders and edges 2.8 System should have Compare Feature to compare previously stored images during live scanning 2.9 System must have a compounding feature to aid in penetration 2.10 System must have a variable speckle/noise reducing software 2.11 System must have a one-button image optimization on the console to reduce exam time 2.12 System should have a feature for real-time optimization of gain and TGC. 2.13 System must be capable of a scan depth of more than 30cm to cater for obese patients 2.14 System should have built intelligent Tissue Specific Imaging presets for various applications 2.15 System should have High Definition Read/Write Zoom 2.16 System should have Needle Visualization Software to aid in line placement 2.17 System must have the capability to capture raw data to aid in post-processing of stored images 2.18 System must have DICOM 3.0 Compliant 2.19 System must have DICOM Worklist Feature 2.20 System should be able to save loops and images in PC Format (MP4, AVI, JPEG) during export	2.5	System must have realtime Duplex & Triplex as a Standard
2.8 System should have Compare Feature to compare previously stored images during live scanning 2.9 System must have a compounding feature to aid in penetration 2.10 System must have a variable speckle/noise reducing software 2.11 System must have a one-button image optimization on the console to reduce exam time 2.12 System should have a feature for real-time optimization of gain and TGC. 2.13 System must be capable of a scan depth of more than 30cm to cater for obese patients 2.14 System should have built intelligent Tissue Specific Imaging presets for various applications 2.15 System should have High Definition Read/Write Zoom 2.16 System should have Needle Visualization Software to aid in line placement 2.17 System must have the capability to capture raw data to aid in post-processing of stored images 2.18 System must be DICOM 3.0 Compliant 2.19 System must have DICOM Worklist Feature 2.20 System should be able to save loops and images in PC Format (MP4, AVI, JPEG) during export	2.6	System must have trapezoidal imaging capability
2.9 System must have a compounding feature to aid in penetration 2.10 System must have a variable speckle/noise reducing software 2.11 System must have a one-button image optimization on the console to reduce exam time 2.12 System should have a feature for real-time optimization of gain and TGC. 2.13 System must be capable of a scan depth of more than 30cm to cater for obese patients 2.14 System should have built intelligent Tissue Specific Imaging presets for various applications 2.15 System should have High Definition Read/Write Zoom 2.16 System should have Needle Visualization Software to aid in line placement 2.17 System must have the capability to capture raw data to aid in post-processing of stored images 2.18 System must be DICOM 3.0 Compliant 2.19 System must have DICOM Worklist Feature 2.20 System must have DICOM Query Retrieve, Structured Reporting & DICOM Receive 2.21 System should be able to save loops and images in PC Format (MP4, AVI, JPEG) during export	2.7	2 2
 2.10 System must have a variable speckle/noise reducing software 2.11 System must have a one-button image optimization on the console to reduce exam time 2.12 System should have a feature for real-time optimization of gain and TGC. 2.13 System must be capable of a scan depth of more than 30cm to cater for obese patients 2.14 System should have built intelligent Tissue Specific Imaging presets for various applications 2.15 System should have High Definition Read/Write Zoom 2.16 System should have Needle Visualization Software to aid in line placement 2.17 System must have the capability to capture raw data to aid in post-processing of stored images 2.18 System must be DICOM 3.0 Compliant 2.19 System must have DICOM Worklist Feature 2.20 System should be able to save loops and images in PC Format (MP4, AVI, JPEG) during export 	2.8	System should have Compare Feature to compare previously stored images during live scanning
 2.11 System must have a one-button image optimization on the console to reduce exam time 2.12 System should have a feature for real-time optimization of gain and TGC. 2.13 System must be capable of a scan depth of more than 30cm to cater for obese patients 2.14 System should have built intelligent Tissue Specific Imaging presets for various applications 2.15 System should have High Definition Read/Write Zoom 2.16 System should have Needle Visualization Software to aid in line placement 2.17 System must have the capability to capture raw data to aid in post-processing of stored images 2.18 System must be DICOM 3.0 Compliant 2.19 System must have DICOM Worklist Feature 2.20 System must have DICOM Query Retrieve, Structured Reporting & DICOM Receive 2.21 System should be able to save loops and images in PC Format (MP4, AVI, JPEG) during export 	2.9	System must have a compounding feature to aid in penetration
 2.12 System should have a feature for real-time optimization of gain and TGC. 2.13 System must be capable of a scan depth of more than 30cm to cater for obese patients 2.14 System should have built intelligent Tissue Specific Imaging presets for various applications 2.15 System should have High Definition Read/Write Zoom 2.16 System should have Needle Visualization Software to aid in line placement 2.17 System must have the capability to capture raw data to aid in post-processing of stored images 2.18 System must be DICOM 3.0 Compliant 2.19 System must have DICOM Worklist Feature 2.20 System must have DICOM Query Retrieve, Structured Reporting & DICOM Receive 2.21 System should be able to save loops and images in PC Format (MP4, AVI, JPEG) during export 	2.10	
2.13 System must be capable of a scan depth of more than 30cm to cater for obese patients 2.14 System should have built intelligent Tissue Specific Imaging presets for various applications 2.15 System should have High Definition Read/Write Zoom 2.16 System should have Needle Visualization Software to aid in line placement 2.17 System must have the capability to capture raw data to aid in post-processing of stored images 2.18 System must be DICOM 3.0 Compliant 2.19 System must have DICOM Worklist Feature 2.20 System must have DICOM Query Retrieve, Structured Reporting & DICOM Receive 2.21 System should be able to save loops and images in PC Format (MP4, AVI, JPEG) during export		System must have a variable speckle/noise reducing software
 2.14 System should have built intelligent Tissue Specific Imaging presets for various applications 2.15 System should have High Definition Read/Write Zoom 2.16 System should have Needle Visualization Software to aid in line placement 2.17 System must have the capability to capture raw data to aid in post-processing of stored images 2.18 System must be DICOM 3.0 Compliant 2.19 System must have DICOM Worklist Feature 2.20 System must have DICOM Query Retrieve, Structured Reporting & DICOM Receive 2.21 System should be able to save loops and images in PC Format (MP4, AVI, JPEG) during export 	2.11	System must have a one-button image optimization on the console to reduce exam time
 2.15 System should have High Definition Read/Write Zoom 2.16 System should have Needle Visualization Software to aid in line placement 2.17 System must have the capability to capture raw data to aid in post-processing of stored images 2.18 System must be DICOM 3.0 Compliant 2.19 System must have DICOM Worklist Feature 2.20 System must have DICOM Query Retrieve, Structured Reporting & DICOM Receive 2.21 System should be able to save loops and images in PC Format (MP4, AVI, JPEG) during export 	-	System must have a one-button image optimization on the console to reduce exam time
 2.16 System should have Needle Visualization Software to aid in line placement 2.17 System must have the capability to capture raw data to aid in post-processing of stored images 2.18 System must be DICOM 3.0 Compliant 2.19 System must have DICOM Worklist Feature 2.20 System must have DICOM Query Retrieve, Structured Reporting & DICOM Receive 2.21 System should be able to save loops and images in PC Format (MP4, AVI, JPEG) during export 	2.12	System must have a one-button image optimization on the console to reduce exam time System should have a feature for real-time optimization of gain and TGC. System must be capable of a scan depth of more than 30cm to cater for obese patients
 2.17 System must have the capability to capture raw data to aid in post-processing of stored images 2.18 System must be DICOM 3.0 Compliant 2.19 System must have DICOM Worklist Feature 2.20 System must have DICOM Query Retrieve, Structured Reporting & DICOM Receive 2.21 System should be able to save loops and images in PC Format (MP4, AVI, JPEG) during export 	2.12 2.13	System must have a one-button image optimization on the console to reduce exam time System should have a feature for real-time optimization of gain and TGC. System must be capable of a scan depth of more than 30cm to cater for obese patients System should have built intelligent Tissue Specific Imaging presets for various applications
System must be DICOM 3.0 Compliant System must have DICOM Worklist Feature System must have DICOM Query Retrieve, Structured Reporting & DICOM Receive System should be able to save loops and images in PC Format (MP4, AVI, JPEG) during export	2.12 2.13 2.14	System must have a one-button image optimization on the console to reduce exam time System should have a feature for real-time optimization of gain and TGC. System must be capable of a scan depth of more than 30cm to cater for obese patients System should have built intelligent Tissue Specific Imaging presets for various applications
 2.19 System must have DICOM Worklist Feature 2.20 System must have DICOM Query Retrieve, Structured Reporting & DICOM Receive 2.21 System should be able to save loops and images in PC Format (MP4, AVI, JPEG) during export 	2.12 2.13 2.14 2.15 2.16	System must have a one-button image optimization on the console to reduce exam time System should have a feature for real-time optimization of gain and TGC. System must be capable of a scan depth of more than 30cm to cater for obese patients System should have built intelligent Tissue Specific Imaging presets for various applications System should have High Definition Read/Write Zoom System should have Needle Visualization Software to aid in line placement
System must have DICOM Query Retrieve, Structured Reporting & DICOM Receive System should be able to save loops and images in PC Format (MP4, AVI, JPEG) during export	2.12 2.13 2.14 2.15 2.16	System must have a one-button image optimization on the console to reduce exam time System should have a feature for real-time optimization of gain and TGC. System must be capable of a scan depth of more than 30cm to cater for obese patients System should have built intelligent Tissue Specific Imaging presets for various applications System should have High Definition Read/Write Zoom System should have Needle Visualization Software to aid in line placement
2.21 System should be able to save loops and images in PC Format (MP4, AVI, JPEG) during export	2.12 2.13 2.14 2.15 2.16 2.17	System must have a one-button image optimization on the console to reduce exam time System should have a feature for real-time optimization of gain and TGC. System must be capable of a scan depth of more than 30cm to cater for obese patients System should have built intelligent Tissue Specific Imaging presets for various applications System should have High Definition Read/Write Zoom System should have Needle Visualization Software to aid in line placement System must have the capability to capture raw data to aid in post-processing of stored images
	2.12 2.13 2.14 2.15 2.16 2.17 2.18	System must have a one-button image optimization on the console to reduce exam time System should have a feature for real-time optimization of gain and TGC. System must be capable of a scan depth of more than 30cm to cater for obese patients System should have built intelligent Tissue Specific Imaging presets for various applications System should have High Definition Read/Write Zoom System should have Needle Visualization Software to aid in line placement System must have the capability to capture raw data to aid in post-processing of stored images System must be DICOM 3.0 Compliant
2.22 System must have an inbuilt Anti-Virus to guard against viruses	2.12 2.13 2.14 2.15 2.16 2.17 2.18 2.19	System must have a one-button image optimization on the console to reduce exam time System should have a feature for real-time optimization of gain and TGC. System must be capable of a scan depth of more than 30cm to cater for obese patients System should have built intelligent Tissue Specific Imaging presets for various applications System should have High Definition Read/Write Zoom System should have Needle Visualization Software to aid in line placement System must have the capability to capture raw data to aid in post-processing of stored images System must be DICOM 3.0 Compliant System must have DICOM Worklist Feature
	2.12 2.13 2.14 2.15 2.16 2.17 2.18 2.19 2.20	System must have a one-button image optimization on the console to reduce exam time System should have a feature for real-time optimization of gain and TGC. System must be capable of a scan depth of more than 30cm to cater for obese patients System should have built intelligent Tissue Specific Imaging presets for various applications System should have High Definition Read/Write Zoom System should have Needle Visualization Software to aid in line placement System must have the capability to capture raw data to aid in post-processing of stored images System must be DICOM 3.0 Compliant System must have DICOM Worklist Feature System must have DICOM Query Retrieve, Structured Reporting & DICOM Receive System should be able to save loops and images in PC Format (MP4, AVI, JPEG) during export

2.23	System must have a feature for automatic doppler calculations e.g. RI, PI & HR during PW Examinations
2.24	System must have customizable report template
2.25	System should have High Definition Read/Write Zoom
2.26	System should have an advanced patient database that allows for thumbnail reviews; storage of images, loops and reports.
2.27	System should allow users to create/save their own presets
2.28	System must have a for hiding patient information for acquisition of images for presentations
2.29	System must offer user programmable annotation for quick labelling.
2.30	System must run on the latest Operating System (State if Windows 10 Compliant)
2.31	System must have Automatic Speckle Tracking Software
2.32	System must have a feature for automatic measurement of the thickness of tunica intima and tunica media
3	Transducers:
3.1	Multi Frequency Single Crystal Adult Cardiac Transducer for Adult Cardiac & TCD Examinations, Frequency 1-5 MHz. State the MHz Range
3,2	Multi Frequency Pediatric Cardiac Transducer for Pediatric Cardiac Examinations, Frequency 3-8 MHz. State the MHz Range
4	Peripherals:
4.1	System must be supplied with Adult & Pediatric ECG Cables
4.2	System must be supplied with a suitable carrying case for portability to different hospital wings/branches
4.3	System must be supplied with an A6 BW Thermal Printer
4.4	System must be supplied with an inbuilt DVD Writer for ease of operations
4.5	Recorded data on CD/DVD must be readable on any standard laptop/computer with additional software, if necessary from the supplier
5	Safety Standards & Warranty:
5.1	CE Marked
5.2	FDA Approved
5.3	Electrical/Electronic Safety
5.4	2 Year Warranty

42. TECHNICAL SPECIFICATIONS FOR INTERPRETIVE CARDIOGRAPH

a) **Display:** Electroluminescent

b) **Keyboard:** Full alphanumeric, standard qwerty.

c) **Printout:** 1) Formats -3, 4, 6 and 12 channel and rhythm.

2) Print device -Thermal array

3) Print paper - Thermal sensitive A4

d) Acquisition Leads I, II, III, aVR, aVL, aVF, V1, V2, V3, V4, V5, V6, and

alternate chest

leads.

e) **Operating Modes:** Automatic, rhythm and manual

f) **Software:** Measurement, Diagnostic and Interpretive

g) **Data Storage:** At least 100 records stored automatically

h) **Power Requirements:** A.C - 240v 50Hz

Battery - 30 min continuous printing or 30

E.C.Gs

i) Unit must have all accessories required for intended use (including crocodile/grabber clips and adapter cables for the same)

- j) Unit must mounted on portable trolley with , with two lockable castors
- k) Unit must have at least one year warranty
- 1) Unit must be CE approved
- m) Unit must have a User/Instruction manual (hard and soft copy)
- n) Unit must have a Technical/Service manual (hard and soft copy)

43. PAEDIATRIC BRONSCHOPE SPECIFICATIONS

1. General Description

Paediatric Bronschoscope is used to look directly at the airways in the lungs using a thin, lighted tube.

- 2. Technical specification
- 2.1 Optical System

Field view 110°

Direction of view forward viewing

Depth of field 2-50mm

Insertion tube

- Distal end outer diameter 3.1 mm
- (tapered part of distall tip 2.9mm)
- Insertion tube outer diameter 2.8mm
- Working length 600mm
- Insertion tube rotation function Yes

Instrumental Channel

• Channel inner diameter 1.2mm

- Minimum visible distance 1.5mm from the distal end
- Direction from which EndoTherapy accessories enter and exit the endoscopic image

Warranty 2 years of all parts and calibration

Equipment Nil

Equipment Brochures MUST attached Colored to aid evaluation

Mandatory Manufacturer Authorization

44. TECHNICAL SPECIFICATIONS FOR EEG

	INICAL SI ECIFICATIO		
NO	REQUIREMENTS	SPECIFICATIONS	
1.	Power	- Input power - 240Vac, 50Hz	
		- Power consumption - 750VA	
		- UPS - 2000VA	
2.	Features	- Dual Display capability	
		 Data intergration and management 	
		- 8 Channel Density Spectral Array trend	
		graphs	
		- 192 Electrode Multichannel junction box	
		- 3D Display, with Digital video system and	
		Camera capture unit	
		- Wireless input, with online frequency	
		mapping	
		- Complete Telemetry system_	
3.	Filters	- High and low cut filters with A.C interference	
		filter	
		- E.C.G. elimination filter	
4.	Display	Up to 250 display channels	
5.	Photic Stimulator	-Must have automatic and manual stimulation options	
		-Must have photic control unit and flash lamp	
		assembly	
6.	Safety	Must adhere to EN60601-2-26 safety standard	
		- Must have all accessories for intended use in all	
		specified features to last for two years.	
		-Must have a user/instruction manual (both soft and	
		hard copies)	
		- Must have a Technical/Service manual (both soft	
		and hard copies).	

NB: 1. Supplier must provide user training

- 2. Supplier must provide Biomedical factory training
- 3. Supplier must provide at least two (2) years warranty

45. SPECIFICATIONS FOR CHEMOTHERAPY CHAIRS

Should be wide enough to accommodate any patient and a wide range of functions.

Must have 3 motors for adjustment of back- foot and seat part. The Chair should move from sitting position to the comfort and bed position to allow patient to be managed in comfortable positions during treatment.

Must have full foam (foamed) armrests right and left

Should rotatable Armrests and folding upwards

Armrest should be titlable

Footrest should be adjustable manually

Must have individually locking casters of 7.5 - 9.5 cm

Upholstery (2 layer foam), the covering should be made of a material which ease to clean Neck roll in upholstery colour

Power rating 100-240V AC, 50/60 Hz

EU-power plug

Must have a drip stand preferably on both sides

Infusion rod holder right and left should be rotatable and should include a bottle holder.

46. PUBLIC ADDRESS SYSTEM

- 680W(340W+340W) power output
- High Quality speakers(LF:10" woofer/HF:14" voice coil compression driver)-Quantity (2)
- Detachable 10-channel mixer(4 mono/line+6 mono/3 stereo line)
- Bluetooth audio streaming
- 1-Knob Master EQTM with virtual bass boost
- High resolution SPX digital reverbs(4 types,parameter control)
- Onboard feedback suppressor
- Great-sounding 3-band channel EQ
- Switchable stereo/mono inputs
- Hi-Z(high impedance) inputs
- Phantom player
- Monitor & Subwoofer outputs
- Wireless microphones (Quantity should be 5)
- Microphone stands(Quantity should be 3)

47.LAPEL MICROPHONES

- Adaptive-diversity reception for realiable transmission upto 330'
- 42 MHz bandwidth with 1680 tunable UHF frequencies for clean reception
- 20 frequency banks' each with up to 12 factory-preset channels to prevent

intermodulation

- Pilot tone squelch for eliminating RF noise when transmitter is turned off
- Receiver with adjustible output range of 42 dB to match audio input of your camera or recording device
- User-frie3ndly menuu operation with flexible control options
- Transmitter and receiever feature 4-step battery-life indicator
- Auto-Lock function avoids accidental changing of settings
- RF Mute function
- 8 hours of battery life
- Powered via AA batteries or rechargeable BA 2015 Accupack batteries (available separately)
- Side contacts for recharging the Accupacks without removing them from either transmitter or receiver- requires the L 2015 quick-charging unit (available separately)
- Operate up to 12 wireless mics at one on set
- Wide range of accessories adapts the system to a variety of applications
- Quantity should be 6

48. LCD PROJECTOR

- Type of Display: Poly-silicon TFT active matrix
- Resolution: BrightLink 480i:

1024×768 pixels (XGA) BrightLink 475Wi/485Wi: 1280×800 pixels (WXGA)

• Lens: F= 1.80

• Focal length: 3.71mm

• Color reproduction: Full color, 16.77 millions colors

• Brightness: BrightLink 475Wi:

Normal power consumption mode

White light output 2600 lumens (ISO 21118 standard)

Color light output 2600 lumens ECO Power consumption mode :

White light output 1800 lumens (ISO 21118 standard)

BrightLink 480i:

Normal power consumption mode:

White light output 3000lumens (ISO 21118 standard)

Color light output 3000 lumens ECO Power consumption mode:

White light output 1800 lumens (ISO 21118 standard)

BrightLink 485Wi:

Normal power consumption mode:

White light output 3100 lumens (ISO 21118 standard)

Color light output 3100 lumens

ECO Power Consumption mode:

White light output 1800 lumens (ISO 21118 standard)

• Contrast ratio: 3000 to 1 with Auto Iris on and Normal Power

consumption mode

• Image size: BrightLink 480i:

55.9 to 93.2 inches (1.42 to 2.37 m) BrightLink 475 Wi/485 Wi:

60 to 100 inches (1.52 to 2.54 m)

- Projection distance: 13.7 to 23.5 inches (0.35 to 0.60 m)
- Projection methods: Front, wall or ceiling-mounted
- Optical aspect ratio: BrightLink 480i:

(width-to-height) 4:3

BrightLink 475Wi/485Wi:

16:10

- Focus adjustment: Manual
- Zoom adjustment: DigitalZoom ratio: 1:1.35

(Tele-to-Wide)

- Internal sound system: 16 W monaural
- Noise level: 35dB (Normal Power Consumption mode)

28 dB (ECO Power Consumption mode)

• Keystone correction angle: Vertical: ± 5⁰

Horizontal: $\pm 5^{\circ}$

- USB-B port compatibility: USB 1.1 and 2.0 compliant for USB display or external mouse
- USB-A port compatibility: One USB 1.1 and 2.2 compliant port for USB device input
- Quantity should be 2(two)

49. DSLR VIDEO& STILL CAMERA

- 30.4MP Full-Frame CMOS Sensor
- DIGIC 6+ Image Processor
- 3.2" 1.62m-Dot Touchscreen LCD Monitor
- DCI 4K Video at 30fps; 8.8MP Still Grab
- 61-Point High Density Reticular AF
- Expanded ISO 102400; 7 fps Shooting
- Dual Pixel RAW; AF Area Select Button
- Dual Pixel CMOS AF and Movie AF
- Built-In GPS and Wi-Fi with NFC
- EF 24-105mm f/4L IS II USM Lens
- Preferred warranty of 3 Year Warranty
- The quantity is 3(three) cameras

Lenses

- 35mm f/1.4 II (Quantity is 3)
- 24-70mm f/2.8L II (Quantity is 3)
- 70-200mm f/2.8L IS III (Quantity is 3)
- 24-105mm f/3.5-5.6 IS STM (Quantity is 3)
 - KIT SHOULD INCLUDE: Black | Battery Pack | Battery Charger | Body Cap | Hot Shoe Cover | USB Cable | Shoulder Strap | Cable Holder | DVD | CLAR 160 Bi-Color

LED Light | RODE VideoMicro Compact On-Camera Microphone | Slinger Camera Backpack | Green Extreme DMW-BLF19 Battery | Smart Charger with LCD Screen | 128GB SD Card | LCD Protector | Triple Shoe V-Bracket | Memory Card Wallet | ProOptic Cleaning Kit | Card Reader

• KEY FEATURES: 20.3 Megapixel MFT Live MOS Sensor | Venus Engine Processor | 4K 60p/50p Smooth Quality Video | 4:2:2 10-bit Internal Recording | Splash/Dust/Freeze proof Rugged Design | High Durability Shutter Unit, max Speed 1/8000 | Live Output &Full Size HDMI | 6K 30fps / 4K 60 fps PHOTO Burst | 480 fps DFD Ultra-Fast Motion Detection & Focus | 225 Focus Points Plus Selective AF | Joystick Control | 5-axis Dual I.S. (Image Stabilizer) | Dual SD Card Slots | Large OLED LVF (3,680k-dot)

TRIPOD - Aluminum Tripod with PH-32 Pan-head compatible with DSLR Cameras

Material: Aluminum

Tripod Head Type Pan Heads

Color: Black

Maximum Height 69.88 Inches

Minimum Height 57 Inches

Folded Size 28.5

Weight Limit 11 Pounds

About this item:

- 26mm 3 section aluminum alloy legs adjust to 25, 50, and 80-degree angles to enable extreme low angle photography. Quick flip leg locks and rubber feet with retractable spikes
- Precise pan and tilt function, the PH-32 three-way pan-head includes quick release plate QS-52 and 3 bubble levels
- Hexagon-shaped central column moves from 0 to 180 degrees. The Instant Swivel Stop-n-Lock (ISSL) System securely repositions the central column in one simple movement
- Premium magnesium die-cast canopy and anti-shock ring. Outstanding stability and loading capacity up to 11 pounds

Specifications: Folded height: 28.5", Extended height: 69.9", Weight: 5.7 pounds.

50.SPECIFICATION OF ULTRASONIC SURGICAL UNIT FOR LIVER RESECTION MACHINE

- 1. Ultrasonic machine power rating -220-220V
- 2. A touch screen display that allows for the adjustment of aspiration, irrigation, and ultrasonic power to the hand piece.
- 3. Can be integrated with facilities wall suction.

- 4. Should come complete with hand pieces for liver surgery
- 5. Should operative on at least two (2) working frequencies in one compact unit.
- 6. Controlled tissue dissection while preserving nerves, blood vessels and collagen structure
- 7. Should be able to connect ultrasonic hand-pieces as well as ultrasonic scissors and hooks for cutting and coagulating
- 8. The device should provide controlled tissue dissection by preserving nerve, blood vessels and collagen structures
- 9. Should have cutting and coagulation effects on the tissue with special ultrasonic instruments.
- 10. Easy to set up and breakdown
- 11. The unit should work simultaneously with integrated aspiration and irrigation
- 12. Should have a foot switch.
- 13. A spare foot switch should be provided
- 14. Should be processor-controlled
- 15. Should have an automatic instrument detection with automatic pre-selection of power parameters
- 16. Should come with a mobile compatible cart/Trolley

17. Start up Consumables/Kits

The machine to be supplied with startup consumables/kits for at least 20 patients. All consumables/kits to have a shelf life of 2 years and above at the time delivery.

18. A brochure should be provided for technical evaluation

19. Manuals

- i) User manuals (both hard copy and soft copy)
- ii)Technical Manual (both hard copy and soft copy)

20. Installation

Supplier to install and test the equipment

21. Warranty-2-Years.After the warranty period is over; three-year annual Comprehensive Maintenance Contract (CMC).The successful bidder has to ensure that all the required spares and services are available during the period of CMC and 3years after that period.

22. User training

- i) Supplier to train users on site
- ii) Supplier to train one (1) biomedical technician and one(1) nurse at the factory.
- 23. The supplier to provide evidence of local capacity to service the equipment.

The supplier must provide Manufacturers authorization

LIVER UNIVERSAL ABDOMINAL RETRACTORS

LIVER	UNIVERSAL ABDUMINAL RETRA	CIUNS	
ITEM NO	ITEM DESCRIPTION	APPLICATION	QTY
1.	Rail Clamp with 2 Cam Joints 18"	Attaches to the rail of the OR table and holds the crossbar and angled arms or Lower Abdominal Bar in position.	2
2.	34" Bilateral Crossbar Hinged 11 ½" x 8 ½" x 11 ½"	Attaches to the rail clamps to provide bilateral stability, and holds the retractor handles in place around the incision.	1
3.	18" Angled Arm (8" x 10") @ 45°	Attaches to the rail clamps and holds the retractor handles in place around the incision.	1
4.	24" Angled Arm (11" x 13") @ 45°	Attaches to the rail clamps and holds the retractor handles in place around the incision.	2
5.	Lower Abdominal Bar 20" (14" x 6")	Attaches to the rail clamps and holds the retractor handles in place around the incision.	1
6.	Cam Joint Serrated ½" x ½"	Connects angled arms together to allow for expansion of frame.	2
7.	Cam II Clip-on Quick Angle 8" With S-Lock option.	Attaches retractor blades to the crossbar or angled arm and angles retractor blades as needed, 45° up or down.	6
8.	Micro-Adjustable II Clip-on Quick Angle 10" With S-Lock option.	Attaches blades to frame and angles blades as needed, 45° up or down. Provides precise microadjustments. With S	2

9.	Micro-Adjustable II Clip-on Quick Angle 15" With S-Lock option.	Attaches blades to frame and angles blades as needed, 45° up or down. Provides precise microadjustments.	2
10.	T-Handle	May be used on Quick Angle Handle to angle blade 45° up or down.	2
11. 12. 13. 14.	Malleable 51mm x 203mm (2" x 8") Malleable 64mm x 254mm (2 ½" x 10") Malleable 76mm x 254mm (3" x 10") Malleable 102mm x 254mm (4" x 10")	Soft tissue retraction.	1 2 1 1
15. 16. 17. 18. 19. 20.	Kelly 38mm x 51mm (1 ½" x 2") Kelly 51mm x 64mm (2" x 2 ½") Kelly 64mm x 76mm (2 ½" x 3") Kelly 76mm x 89mm (3" x 3 ½") Balfour [small lips] 70mm x 73mm (2 ¾" x 3") Balfour [small lips] 83mm x 73mm (3 ¼" x 3")	Abdominal or incisional wall retraction.	1 1 1 1 1 2
21. 22. 23. 24. 25.	Balfour [with lips] 32mm x 32mm (1 ½" x 1 ½") Balfour [with lips] 83mm x 123mm (3 ¼" x 5") Wide Balfour 83mm x 57mm (3 ¼" x 2 ¼") Wide Balfour 100mm x 61mm (4" x 2 ¾") Wide Balfour 114mm x 63mm (4 ½" x 2 ½")	Costal margin or abdominal wall retraction.	2 2 1 1 1
26. 27. 28.	Non-Slip Balfour R 77mm x 66mm Non-Slip Balfour L 77mm x 66mm Richardson 51mm x 127mm (2" x 5")	Aligns with anatomy, reducing slippage on costal margin retraction.	1 1 1
29.	Richardson 51mm x 178mm (2" x 7")	Abdominal wall retraction.	1
30.	Harrington 64mm x 152mm (2 ½" x 6")	Organ or soft tissue retraction.	1
31.	St Marks 64mm x 178mm (2 ½" x 7")	Soft tissue retraction.	1

32.	Malleable Finger 6"	Gentle organ retraction.	1
33.	Instrument Case 22"x 11" x 3 ½" w/Pin Mat	Allows for sterilization, storage, and transportation of instruments.	2
34.	S-Lock Nathanson Hook Medium 5mm(203mm x 267mm x 16mm)	Organ retraction	1
35.	Articulating Arm for Power Rail Clamp	Holds firmly with wide range of motion.	1
36.	Power Rail Clamp (PRC)	Attaches to the rail of the OR table and holds the laparoscopic holding arm(s) in position.	1
37.	S-Lock Nathanson Adapter (Required for S-Lock Nathanson hook use)	Allows quick, easy attachment of S-Lock Nathanson hooks to laparoscopic holder universal end.	1
38.	Adjustable scope grip 5-11mm	Holds scope firmly while protecting shaft. Fits scopes 5-11mm.	1

	SPECIFICATION OF LIVER SURGERY INSTRUMENTS	
	DESCRIPTION	QTY
1	Holder, Needle, Micro, Streamline/catch	1
	round-handle 21cm tip 0.4mm	
	Micro needle holder Sapphire TM	
2	Ø9mm straight L=210mm jaw 11x0.8mm with	1
	catch streamline, G BLUE LABEL TM	
	Micro needle holder Sapphire TM	
3	Ø9mm curved L=210mm jaw 11x0.8mm with catch streamline, G	1
	BLUE LABEL™	
	Interconstant along the Western	
	Intestinal clamp acc. Kocher	
4	straight 230mm G BLUE LABEL TM	1
5	Atraum. dissecting forceps acc. DeBakey	1
	200 mm jaw 1.5mm	

6 Atraum. dissecting forceps acc. DeBakey 1 200 mm jaw 2.0mm g BLUE LABEL™ 7 Atraum. dissecting forceps acc. DeBakey 1 240 mm jaw 2.0mm d Atraum. dissecting forceps acc. DeBakey 1 8 300 mm jaw 2.0mm d BLUE LABEL™ Atraum. dissecting forceps acc. DeBakey 1 9 160 mm jaw 2.7mm d Atraum. dissecting forceps acc. DeBakey 1 10 200 mm jaw 2.7mm d BLUE LABEL™ Atraum. dissecting forceps acc. DeBakey 1 250 mm jaw 2.7mm d BLUE LABEL™ Atraum. dissecting forceps acc. DeBakey 1 300 mm jaw 2.7mm d BLUE LABEL™ Atraum. dissecting forceps acc. DeBakey 1 300 mm jaw 2.7mm d BLUE LABEL™ 12 300 mm jaw 2.7mm 1 G BLUE LABEL™ 1 13 Dissecting forceps standard T.C. L=250mm 1 G BLUE LABEL™ 1 15.0 cm spring gold plated, TC(F) Forceps, Dressing, TC, acc. Wangensteen 1 15.0 cm spring gold plated, TC(F) Atraumatic micro forceps acc. to DeBakey 1 </th <th></th> <th>G BLUE LABEL™</th> <th></th>		G BLUE LABEL™	
200 mm jaw 2.0mm G BLUE LABELTM 1	6	Atraum. dissecting forceps acc. DeBakey	1
G BLUE LABEL™ 1 240 mm jaw 2.0mm G BLUE LABEL™ 1 300 mm jaw 2.7mm G BLUE LABEL™ 2 300 mm jaw 2.7mm 1 3 300 mm jaw 2.7mm 1 3 300 mm jaw 2.7mm 1 5 300			
240 mm jaw 2.0mm G BLUE LABEL TM Atraum. dissecting forceps acc. DeBakey 1 300 mm jaw 2.0mm G BLUE LABEL TM Atraum. dissecting forceps acc. DeBakey 1 160 mm jaw 2.7mm G BLUE LABEL TM Atraum. dissecting forceps acc. DeBakey 1 200 mm jaw 2.7mm G BLUE LABEL TM Atraum. dissecting forceps acc. DeBakey 1 250 mm jaw 2.7mm G BLUE LABEL TM Atraum. dissecting forceps acc. DeBakey 1 250 mm jaw 2.7mm G BLUE LABEL TM Atraum. dissecting forceps acc. DeBakey 1 250 mm jaw 2.7mm G BLUE LABEL TM Atraum. dissecting forceps acc. DeBakey 1 2 300 mm jaw 2.7mm G BLUE LABEL TM 1 3 Dissecting forceps standard T.C. L=250mm G BLUE LABEL TM Forceps, Dressing, TC, acc. Wangensteen 1 15.0 cm spring gold plated, TC(F) Forceps, Dressing, TC, acc. Wangensteen 1 23.0 cm spring gold plated, TC(F) Atraumatic micro forceps acc. to DeBakey 1 6 Ø8mm L=210mm straight jaw 1.2mm Micro forceps 1 0 88mm straight L=210mm with pin jaw 0.3mm diamond coated		- C	
Atraum. dissecting forceps acc. DeBakey 1	7	Atraum. dissecting forceps acc. DeBakey	1
Atraum. dissecting forceps acc. DeBakey 300 mm jaw 2.0mm G BLUE LABELTM Atraum. dissecting forceps acc. DeBakey 160 mm jaw 2.7mm G BLUE LABELTM Atraum. dissecting forceps acc. DeBakey 10 200 mm jaw 2.7mm G BLUE LABELTM Atraum. dissecting forceps acc. DeBakey 11 250 mm jaw 2.7mm G BLUE LABELTM Atraum. dissecting forceps acc. DeBakey 12 300 mm jaw 2.7mm G BLUE LABELTM Atraum. dissecting forceps acc. DeBakey 1 2 300 mm jaw 2.7mm G BLUE LABELTM 13 Dissecting forceps standard T.C. L=250mm G BLUE LABELTM 14 Forceps, Dressing, TC, acc. Wangensteen 15.0 cm spring gold plated, TC(F) Forceps, Dressing, TC, acc. Wangensteen 1 23.0 cm spring gold plated, TC(F) Atraumatic micro forceps acc. to DeBakey jaw 1.2mm Micro forceps 1 M		240 mm jaw 2.0mm	
8 300 mm jaw 2.0mm G BLUE LABEL™ 1 Atraum. dissecting forceps acc. DeBakey 1 10 BLUE LABEL™ Atraum. dissecting forceps acc. DeBakey 1 200 mm jaw 2.7mm 200 mm jaw 2.7mm G BLUE LABEL™ 1 Atraum. dissecting forceps acc. DeBakey 1 250 mm jaw 2.7mm 6 G BLUE LABEL™ 1 Atraum. dissecting forceps acc. DeBakey 1 300 mm jaw 2.7mm 1 G BLUE LABEL™ 1 13 Dissecting forceps standard T.C. L=250mm 1 G BLUE LABEL™ 1 G BLUE LABEL™ 1 15.0 cm 5 pring gold plated, TC(F) Forceps, Dressing, TC, acc. Wangensteen 1 15.0 cm 5 pring gold plated, TC(F) Forceps, Dressing, TC, acc. Wangensteen 1 23.0 cm 5 pring gold plated, TC(F) Atraumatic micro forceps acc. to DeBakey 1 4 6 mm L=210mm straight jaw 1.2mm 1 Micro forceps 1 Micro forceps 1 Micro for		G BLUE LABEL™	
G BLUE LABEL™ Atraum. dissecting forceps acc. DeBakey 1		Atraum. dissecting forceps acc. DeBakey	1
Atraum. dissecting forceps acc. DeBakey 1 160 mm jaw 2.7mm G BLUE LABELTM Atraum. dissecting forceps acc. DeBakey 1 200 mm jaw 2.7mm G BLUE LABELTM Atraum. dissecting forceps acc. DeBakey 1 250 mm jaw 2.7mm G BLUE LABELTM Atraum. dissecting forceps acc. DeBakey 1 250 mm jaw 2.7mm G BLUE LABELTM Atraum. dissecting forceps acc. DeBakey 1 300 mm jaw 2.7mm G BLUE LABELTM 1 Dissecting forceps standard T.C. L=250mm G BLUE LABELTM 1 Dissecting forceps standard T.C. L=250mm G BLUE LABELTM 1 Forceps, Dressing, TC, acc. Wangensteen 1 15.0 cm spring gold plated, TC(F) Forceps, Dressing, TC, acc. Wangensteen 1 23.0 cm spring gold plated, TC(F) Atraumatic micro forceps acc. to DeBakey 1 Ø8mm L=210mm straight jaw 1.2mm Micro forceps 1 Ø8mm straight L=210mm with pin jaw 0.3mm diamond coated	8	300 mm jaw 2.0mm	
9 160 mm jaw 2.7mm G BLUE LABELTM Atraum. dissecting forceps acc. DeBakey 10 200 mm jaw 2.7mm G BLUE LABELTM Atraum. dissecting forceps acc. DeBakey 11 250 mm jaw 2.7mm G BLUE LABELTM Atraum. dissecting forceps acc. DeBakey 12 300 mm jaw 2.7mm G BLUE LABELTM Atraum. dissecting forceps acc. DeBakey 13 300 mm jaw 2.7mm G BLUE LABELTM 14 Dissecting forceps standard T.C. L=250mm G BLUE LABELTM 15.0 cm spring gold plated, TC(F) Forceps, Dressing, TC, acc. Wangensteen 15 23.0 cm spring gold plated, TC(F) Atraumatic micro forceps acc. to DeBakey 16 Ø8mm L=210mm straight jaw 1.2mm Micro forceps 17 Ø8mm straight L=210mm with pin jaw 0.3mm diamond coated		G BLUE LABEL™	
Atraum. dissecting forceps acc. DeBakey 1		Atraum. dissecting forceps acc. DeBakey	1
Atraum. dissecting forceps acc. DeBakey 1 200 mm jaw 2.7mm G BLUE LABELTM 250 mm jaw 2.7mm G BLUE LABELTM 250 mm jaw 2.7mm G BLUE LABELTM	9	160 mm jaw 2.7mm	
10 200 mm jaw 2.7mm G BLUE LABELTM Atraum. dissecting forceps acc. DeBakey 1 250 mm jaw 2.7mm G BLUE LABELTM Atraum. dissecting forceps acc. DeBakey 1 300 mm jaw 2.7mm G BLUE LABELTM		G BLUE LABEL™	
G BLUE LABELTM Atraum. dissecting forceps acc. DeBakey 250 mm jaw 2.7mm G BLUE LABELTM Atraum. dissecting forceps acc. DeBakey 1 300 mm jaw 2.7mm G BLUE LABELTM 13 Dissecting forceps standard T.C. L=250mm G BLUE LABELTM 14 Forceps, Dressing, TC, acc. Wangensteen 15 O cm spring gold plated, TC(F) Forceps, Dressing, TC, acc. Wangensteen 15 23.0 cm spring gold plated, TC(F) Atraumatic micro forceps acc. to DeBakey 6 Ø8mm L=210mm straight jaw 1.2mm Micro forceps Micro forceps Micro forceps 1 Ø8mm straight L=210mm with pin jaw 0.3mm diamond coated		Atraum. dissecting forceps acc. DeBakey	1
Atraum. dissecting forceps acc. DeBakey 250 mm jaw 2.7mm G BLUE LABELTM Atraum. dissecting forceps acc. DeBakey 1 300 mm jaw 2.7mm G BLUE LABELTM 13 Dissecting forceps standard T.C. L=250mm G BLUE LABELTM 14 Forceps, Dressing, TC, acc. Wangensteen 15.0 cm spring gold plated, TC(F) Forceps, Dressing, TC, acc. Wangensteen 15 23.0 cm spring gold plated, TC(F) Atraumatic micro forceps acc. to DeBakey 16 Ø8mm L=210mm straight jaw 1.2mm Micro forceps Micro forceps 17 Ø8mm straight L=210mm with pin jaw 0.3mm diamond coated	10	200 mm jaw 2.7mm	
250 mm jaw 2.7mm G BLUE LABELTM Atraum. dissecting forceps acc. DeBakey 12 300 mm jaw 2.7mm G BLUE LABELTM 13 Dissecting forceps standard T.C. L=250mm G BLUE LABELTM 14 Forceps, Dressing, TC, acc. Wangensteen 15.0 cm spring gold plated, TC(F) Forceps, Dressing, TC, acc. Wangensteen 15 23.0 cm spring gold plated, TC(F) Atraumatic micro forceps acc. to DeBakey 16 Ø8mm L=210mm straight jaw 1.2mm Micro forceps Micro forceps 17 Ø8mm straight L=210mm with pin jaw 0.3mm diamond coated		G BLUE LABEL™	
G BLUE LABEL TM Atraum. dissecting forceps acc. DeBakey 1 300 mm jaw 2.7mm G BLUE LABEL TM 13 Dissecting forceps standard T.C. L=250mm G BLUE LABEL TM Forceps, Dressing, TC, acc. Wangensteen 1 15.0 cm spring gold plated, TC(F) Forceps, Dressing, TC, acc. Wangensteen 15 23.0 cm spring gold plated, TC(F) Atraumatic micro forceps acc. to DeBakey 16 Ø8mm L=210mm straight jaw 1.2mm Micro forceps 1 Micro forceps 1 Ø8mm straight L=210mm with pin jaw 0.3mm diamond coated		Atraum. dissecting forceps acc. DeBakey	1
Atraum. dissecting forceps acc. DeBakey 300 mm jaw 2.7mm G BLUE LABELTM 13 Dissecting forceps standard T.C. L=250mm G BLUE LABELTM Forceps, Dressing, TC, acc. Wangensteen 14 15.0 cm spring gold plated, TC(F) Forceps, Dressing, TC, acc. Wangensteen 15 23.0 cm spring gold plated, TC(F) Atraumatic micro forceps acc. to DeBakey 16 Ø8mm L=210mm straight jaw 1.2mm Micro forceps Micro forceps 1 0 98mm straight L=210mm with pin jaw 0.3mm diamond coated	11	250 mm jaw 2.7mm	
12 300 mm jaw 2.7mm G BLUE LABELTM 13 Dissecting forceps standard T.C. L=250mm G BLUE LABELTM Forceps, Dressing, TC, acc. Wangensteen 14 15.0 cm spring gold plated, TC(F) Forceps, Dressing, TC, acc. Wangensteen 15 23.0 cm spring gold plated, TC(F) Atraumatic micro forceps acc. to DeBakey 16 Ø8mm L=210mm straight jaw 1.2mm Micro forceps 1 Ø8mm straight L=210mm with pin jaw 0.3mm diamond coated		G BLUE LABEL™	
G BLUE LABELTM Dissecting forceps standard T.C. L=250mm G BLUE LABELTM Forceps, Dressing, TC, acc. Wangensteen 1 15.0 cm spring gold plated, TC(F) Forceps, Dressing, TC, acc. Wangensteen 1 23.0 cm spring gold plated, TC(F) Atraumatic micro forceps acc. to DeBakey 1 Ø8mm L=210mm straight jaw 1.2mm Micro forceps Micro forceps 1 Ø8mm straight L=210mm with pin jaw 0.3mm diamond coated		Atraum. dissecting forceps acc. DeBakey	1
Dissecting forceps standard T.C. L=250mm G BLUE LABEL TM Forceps, Dressing, TC, acc. Wangensteen 15.0 cm spring gold plated, TC(F) Forceps, Dressing, TC, acc. Wangensteen 15 23.0 cm spring gold plated, TC(F) Atraumatic micro forceps acc. to DeBakey 16 Ø8mm L=210mm straight jaw 1.2mm Micro forceps Micro forceps 17 Ø8mm straight L=210mm with pin jaw 0.3mm diamond coated	12	300 mm jaw 2.7mm	
G BLUE LABELTM Forceps, Dressing, TC, acc. Wangensteen 15.0 cm spring gold plated, TC(F) Forceps, Dressing, TC, acc. Wangensteen 15 23.0 cm spring gold plated, TC(F) Atraumatic micro forceps acc. to DeBakey Ø8mm L=210mm straight jaw 1.2mm Micro forceps Micro forceps 1 Ø8mm straight L=210mm with pin jaw 0.3mm diamond coated		G BLUE LABEL™	
14 15.0 cm spring gold plated, TC(F) Forceps, Dressing, TC, acc. Wangensteen 15 23.0 cm spring gold plated, TC(F) Atraumatic micro forceps acc. to DeBakey 16 Ø8mm L=210mm straight jaw 1.2mm Micro forceps 1 Ø8mm straight L=210mm with pin jaw 0.3mm diamond coated	13		1
spring gold plated, TC(F) Forceps, Dressing, TC, acc. Wangensteen 123.0 cm spring gold plated, TC(F) Atraumatic micro forceps acc. to DeBakey 16 Ø8mm L=210mm straight jaw 1.2mm Micro forceps Micro forceps 1 Ø8mm straight L=210mm with pin jaw 0.3mm diamond coated		Forceps, Dressing, TC, acc. Wangensteen	1
Forceps, Dressing, TC, acc. Wangensteen 23.0 cm spring gold plated, TC(F) Atraumatic micro forceps acc. to DeBakey 1 Ø8mm L=210mm straight jaw 1.2mm Micro forceps 1 Ø8mm straight L=210mm with pin jaw 0.3mm diamond coated	14	15.0 cm	
15 23.0 cm spring gold plated, TC(F) Atraumatic micro forceps acc. to DeBakey 16 Ø8mm L=210mm straight jaw 1.2mm Micro forceps Micro forceps 1 Ø8mm straight L=210mm with pin jaw 0.3mm diamond coated		spring gold plated, TC(F)	
spring gold plated, TC(F) Atraumatic micro forceps acc. to DeBakey 1 Ø8mm L=210mm straight jaw 1.2mm Micro forceps 1 Ø8mm straight L=210mm with pin jaw 0.3mm diamond coated		Forceps, Dressing, TC, acc. Wangensteen	1
Atraumatic micro forceps acc. to DeBakey 1 Ø8mm L=210mm straight jaw 1.2mm Micro forceps 1 Ø8mm straight L=210mm with pin jaw 0.3mm diamond coated	15	23.0 cm	
16 Ø8mm L=210mm straight jaw 1.2mm Micro forceps 1 Ø8mm straight L=210mm with pin jaw 0.3mm diamond coated		spring gold plated, TC(F)	
jaw 1.2mm Micro forceps 1 Ø8mm straight L=210mm with pin jaw 0.3mm diamond coated		Atraumatic micro forceps acc. to DeBakey	1
Micro forceps 1 Ø8mm straight L=210mm with pin jaw 0.3mm diamond coated	16	Ø8mm L=210mm straight	
77 Ø8mm straight L=210mm with pin jaw 0.3mm diamond coated		jaw 1.2mm	
with pin jaw 0.3mm diamond coated		Micro forceps	1
	17	Ø8mm straight L=210mm	
18 Micro forceps Ø8mm curved L=210mm 1		with pin jaw 0.3mm diamond coated	
	18	Micro forceps Ø8mm curved L=210mm	1

	with pin jaw 0.3mm diamond coated	
	Micro suture forceps	1
19	Ø9mm L=180mm tying platform 6x0.8mm	
	diamond coated straight	
20	Micro ring forceps with guide pin Ø8mm	1
	L=180mm ring 1x0.5mm diamond coated	
	Forceps, Micro, Ring, counterbalanced	1
21	23.0 cm 0.5x1.0mm	
	Titanium (BLUE) Sapphire™	
22	Scalpel handle no. 3 L=125mm G BLUE LABEL TM	1
23	Scalpel handle no. 7 L=160mm G BLUE LABEL TM	1
24	Cannula, Suction, Needle, Heparin 4.5 cm Ø2.0mm	1
25	Clamp, Bulldog, Micro, acc. Diethrich	2
23	serrated 47mm 12mm angled 75 g Force	2
2.5	Clamp, Bulldog, Micro, acc. Diethrich	
26	serrated 50mm 19mm angled 90 g Force	1
27	Bulldog clamp acc. Ulm atraumatic 55mm curved soft G BLUE LABEL TM	2
28	Clamp, Bulldog, acc. Glover 50 mm 20mm	1
29	Clamp, Bulldog, acc. Glover 46 mm 20mm curved	1
	Clamp, Bulldog, acc. Glover, Vein	1
30	Fig.M 35mm 18mm curved	
	Titanium (GREY), pin Steel	
	Clamp, Bulldog, acc. Glover, Artery	1
31	Fig.M 35mm 18mm curved	
	Titanium (GREY), pin Steel	
32	Dilator, Vascular, acc. DeBakey 19 cm 1.0mm	1
33	Dilator, Vascular, acc. DeBakey 19 cm 1.5mm	1
34	Clamp, Atraumatic, acc. DeBakey 12 cm	2
35	Clamp, Atraumatic, acc. DeBakey 13 cm S-curved	1

36	Clamp, Atraumatic, acc. DeBakey 26.5 cm	1
27	Clamp, Atraumatic, acc. DeBakey	
37	26.5 cm curved strong model	1
20	Aortic aneurysm clamp acc. DeBakey	1
38	curved 265mm G BLUE LABEL™	1
	Aortic aneurysm clamp acc. DeBakey	1
39	250 mm	
	G BLUE LABEL TM	
40	Clamp, Transplantation, acc. Calne	1
40	28 cm with rigid safety guard	1
4.1	Clamp, Atraumatic, acc. Satinsky (HK)	1
41	30 cm angled jaw 35/80/30mm	1
40	Clamp, Atraumatic, acc. Satinsky (HK)	1
42	30.5 cm angled jaw 35/90/10mm	1
43	Clamp, Atraumatic, acc. DeBakey 16.5 cm angled	1
44	Clamp, Transplantation, acc. Klintmalm	1
	18 cm 65mm	
4.5		1
45	Clamp, Transplantation, acc. Klintmalm 21 cm 80mm	1
46	Clamp, Transplantation, acc. Klintmalm 25 cm 95mm	1
	23 CH 93HH	
47	Liver clamp acc. Pittsburgh fig. 1	1
	atraumatic 250mm G BLUE LABEL TM	
48	Liver clamp acc. Pittsburgh fig. 2	1
40	atraumatic 260mm G BLUE LABEL TM	1
49	Liver clamp acc. Pittsburgh fig. 3	1
	atraumatic 280mm G BLUE LABEL TM	
50	Clamp, Transplantation, acc. Potts 27 cm jaw 70x71mm	1
51	Clamp, Atraumatic, acc. Dardik 16.5 cm	1
	30°	
	Holder, Needle, TC, acc. Berry	1
52	18 cm	
	TC (N) rings gold plated	
50	Needle holder acc. to Mayo-Hegar	1
53	T.C. pitch 0.5mm L=240mm	
	•	

	G BLUE LABEL TM	
<u> </u>	Needle holder acc. to Crile-Wood	1
54	T.C. pitch 0.4mm L=180mm G BLUE LABEL TM	1
55	Holder, Needle, TC, acc. Crile-Wood	1
	23 cm	
	TC (F) rings gold plated	
	Holder, Needle, TC, Intracardiac	1
56	18 cm	
	TC (F) rings gold plated	
57	Needle holder acc. DeBakey	1
31	T.C. 180mm pitch of serration 0.4mm G BLUE LABEL™	1
50	Needle holder acc. DeBakey	1
58	T.C. 200mm pitch of serration 0.4mm G BLUE LABEL™	1
	Holder, Needle, TC, acc. Stratte	1
59	23.5 cm	
	TC (F) rings gold plated	
	Needle holder acc. to Ryder mini T.C.	
60	pitch of serration 0.3mm	1
	L=130mm, G BLUE LABEL TM	
	Needle holder acc. to Ryder mini T.C.	
61	pitch of serration 0.3mm	1
	L=150mm, G BLUE LABEL TM	
	Needle holder acc. to Ryder mini T.C.	
62	pitch of serration 0.3mm	1
	L=200mm, G BLUE LABELTM Holder Needle Vesculer CEISTER®	
	Holder, Needle, Vascular, GEISTER® 18 cm tip 1.2m rings mirror-finish	
63	Sapphire TM	1
64	Holder, Needle, Vascular, GEISTER®	1
	12.5 cm tip 1.2mm	
	Titanium (BLUE) Sapphire TM	
	Pliers, TC, Wire-cutting, Midi	1
65	20 cm	
	for wire up to maximal 1.5mm	
<u></u>		

	Dissecting forceps acc. Gemini		
66	fig. 3 180mm G BLUE LABEL TM	1	
67	Clamp, Dissection, acc. Meigs-Navratil	1	
	18 cm		
68	Clamp, Dissection, acc. Meigs-Navratil		
69	22 cm Clamp, Dissection, acc. Meigs-Navratil 1		
09	25 cm	1	
	Haemost. forceps acc. Micro-Mosquito	1	
70	delicate curved 120mm G BLUE LABEL TM		
	Clamp, Dissection, acc. Jacobson		
71	19 cm strongly curved	1	
72	Clamp, Dissection, acc. Heiss 20 cm	2	
	curved		
73	Haemost. forceps acc. Micro-Mosquito	_ 2	
	curved 120mm G BLUE LABEL TM		
74	Haemost. forceps acc. Halstead-Mosquito	1	
	curved 125mm G BLUE LABEL TM		
75	Clamp, Artery, acc. Adson 19 cm curved 4		
76	Clamp, Artery, acc. Roberts 22 cm	1	
77	Clamp, Artery, Baby, acc. Mixter	2	
/ /	14 cm, strongly curved	2	
78	Clamp, Artery, acc. Bailey, del. 18 cm		
79	Dissecting scissors acc. to Mayo curved blunt-blunt T.C. L=230mm, G BLUE LABEL TM	1	
80	Dissecting scissors acc. to Metzenbaum curved blunt-blunt T.C. L=180mm, G BLUE LABEL TM	1	
81	Dissecting scissors acc. to Metzenbaum curved blunt-blunt T.C. L=230mm, G BLUE LABEL TM		
82	Dissecting scissors acc. to Toennis-Adso fine curved T.C.		
	L=175mm, G BLUE LABELTM Discosting seigners and Satingly	1	
83	Dissecting scissors acc. Satinsky S-shaped 255mm	1	
83	G BLUE LABEL TM	\dashv	
	O BLOE LABEL		
<u></u>			

84	Scissors, Vessel, acc. DeBakey "S" 16 cm 45°	1
	Scissors, Nano, acc. Diethrich-Hegemann	1
85	18 cm 45° nano-del.	
	Supercut	
86	Scissors, Operation, acc. Mayo 14.5 cm	1
	Scissors, acc. Toennis-Adson-Fino	1
87	17.5 cm curved	
	SwedishEdge TM , 1 shank gold plated	
	Dissecting scissors acc. to Metzenbaum	1
88	Super-Cut curved blunt-blunt	
	L=180mm, G BLUE LABEL TM	
	Scissors, Dissection, acc. Metzenbaum	1
89	18 cm curved	
	SwedishEdge TM , 1 shank gold plated	
	Scissors, Dissection, acc. Metzenbaum	1
90	23 cm curved	
70	SwedishEdge TM , 1 shank gold plated	
	Scissors, Dissection, Metzenbaum-Fino	1
91	20.5 cm curved	
	Supercut	
	Scissors, Dissection, Metzenbaum-Fino	1
92	20.5 cm curved	
92	SwedishEdge™, 1 shank gold plated	
93	Scissors, Dissection, Metzenbaum-Fino	1
	23 cm curved	
	SwedishEdge TM , 1 shank gold plated	
94	Scissors, Dissection, Metzenbaum-Fino 18 cm S-curved	1
	Dissector acc. to Penfield	1
95	L=205mm	
	G BLUE LABEL TM	
96	Elevator, Vessel, acc. Freer 20 cm	1
97	Retractor, Manual, acc. Langenbeck-Mini	1
	16 cm 20x6mm	
98	Wound retractor acc. Langenbeck	1

	10 x 40mm 210mm	
	G BLUE LABEL™	
99	Hook, Vessel, acc. Cushing	1
99	19 cm, 7mm, Fig. 2	1
100	Forceps, Applying, without catch Fig. 1-3 140mm	1
101	Forceps, Applying, without catch Fig. 4-5 140mm	1
102	Art. Plain Single Clamps #2 0.6-1.4mm (pair)	1
103	Ven. Plain Single Clamps #3 1.0-2.2mm (pair)	1
104	Art. Plain Single Clamps #3 1.0-2.2mm (pair)	1
105	Art. Plain Double Clamp #2 0.6-1.4mm	1
106	Art. Plain Double Clamp #3 1.0-2.2	1
107	Micro scissors	1
107	curved sharp-sharp L=140mm	1
	Scissors, Micro, Artery, Radialis, deL	1
108	Round-handle 18cm 60° screwless boxlock	_

THROMBOELASTOGRAM (TEG) MACHINE SPECIFICATIONS

- 1. Should have 2 independent measuring channels per analyzer and upto 8 channels per computer.
- 2. Cables to be included
- 3. Software to be included
- 4. Cup drive-line synchronized with synchronous motor
- 5. Individual Temperature control for each channel
- 6. Sample volume 360ml(micro litres)
- 7. Power-external power supply CSA listed 220-240v at 50H2
- 8. Less than 5 minute warm up time
- 9. Setting verified with spirit level
- 10. Dimension-29cm x 22cmx 18cm(11.4 in x8.6in x7in)
- 11. Weight 12lbs (5.4 kg)

51.SPECIFICATIONS FOR HIGH DEFINATION ULTRASOUND MACHINE FOR GYNAECOLOGY & OBSTETRICS

SYSTEM OVERVIEW.

High definition performance ultrasound machine with broadband, beam forming, super computed signal processing with sono CT and Xres Imaging technologies or better is required. Clinical applications are required to cover general imaging, obstetric and gynaecology, paediatric imaging including cranial (ultrasound), small parts imaging and vascular imaging.

Quantitative 3D/4D.-- for acquiring real time volumetric images is required.

Speckle reduction technic for improved contrast resolution is also required.

Virtual rescan capability is also required. on archived images .Cine mode facility for acquired images is also required. Flash disc, DVD, and CD images download storage capability is required.

SYSTEM ARCHITECTURE.

All –digital broadband beam former for 2D, Dual 3D/4D MPR, and panoramic imaging. It must support linear, curved array, or tightly curved array, and sector configurations of transducers. Matrix array transducers for reducing volume averaging for overall imaging uniformity is required. Microfine 2D focusing with dynamic focal timing.

232 dB, fulltime input dynamic range for improved 2D performance and increased Doppler sensitivity or better IS required.

Number of channels, 9.216 digitally processed channels per image frame or better is required. Super computed signal processing with powerfully distributed, multi processor environment. Fast mode changes and support for advanced system functionality is required.

Continuously variable steering in 2D colour and Doppler modes is required.

Sono CT real time compound imaging or better is required.

XRES adaptive image processing for noise and artifact reduction for clear tissue definition is required. Fusion signal processing with multi-line parallel processing and frequency compounding, speckles reduction capability is required.

ERGONOMIC DESIGN.

Four wheel swivel.

High morbility cart.

Easy maneuverability.

Integrated footrest.

Adjustable control panel Up/down and rotation more that 3000

Five transducer ports.

Display monitor – which can rotate, be lowered or raised with control panel.

iSCAN intelligent optimization.

User adjustable control panel lighting.

Inbuilt A/C line conditioner for isolation from voltage fluctuations and electrical noise interference is a must and must be specified in the writeup.

Two internal high-capacity impeller fans with automatic speed adjustment to optimize machine cooling efficiency with minimal noise or better are required.

QUICK (fast) system start (boot up) approximately 60 seconds from off or better.

All the above or even better are required.

AUTOMATION.

Pre- set keys for standard examination protocols.

Patient specific optimization to emphasize resolution, general or penetration.

Tissue harmonic image key to reduce artifacts with various forms of tissue harmonic imaging capabilities.

Pulse inversion Harmonics

iSCAN intelligent optimization in 2D mode. One button automatic adjustment of

TGC and receiver gain.

Compression curve

In Doppler modes one-button automatic adjustment of scale and baseline

Intelligent Doppler

High Q automated Doppler analysis for real time measurements.

All the above or better.

ADVANCED IMAGING.

2D plus pulse inversion Harmonic imaging.

Qualitative (freehand) 3D /4D imaging with multiplanar views. Volume mode

4D Real time scanning.

Colour with adaptive colour Doppler and colour power angio.

Pulse wave Doppler and continuous wave Doppler with adaptive Doppler technology and high PRP capability.

Tissue Doppler imaging (TDI)

Colour

PW- pulse wave.

PW and colour

Cine play back of scanned images.

All the above or better.

APPLICATIONS:-

Abdominal

Obstetrical

Gynaecological

Breast

Small parts

Vascular/peripheral

Transcranial

Paediatrc and neonatal

Musculosketal

Urological

Cardiac imaging.

DATA MANAGEMENT.

On board ICON –driven workstation class data management,

Storage of images, loops, volumes, waveforms and reports

DICOM 3.0 compliant with support for

print and store and review stored images.

Modality worklist

Performed procedure

Selectable compression for JPG and DICOM loop transfer.

Integrated multi CD recording capability for storage of DICOM images or export as jpg and files for PC compatibility.

PRINTER/ IMAGE PRINTING

On board peripheral recording devices controlled through system control panel is a must.

e.g. Sony printer for black and white for high density prints Support for various external printing/recording devices.

A Laser jet printer for colour Doppler prints or a better printer is required.

Support for transfer of examination report measurement to various third party database programs THROUGH DICOM.

TRANSDUCERS

Linear array 5 to 12 mHz

Curvelinear array 2 to 5mHz

Endocavitary:- (a) (endovaginal and (b) endorectal) probes -- 5 to 9mHz is a must.

- Iv. VOLUME PROBE 3D/4D.
- v. Paediatric/ Neonatal curvelinear array probe or better
- vi. Cardiac probes

Biopsy attachment for probes is a must.

GRAY SCALES

256 (8bits) in 2D – M-mode and Doppler spectral analysis or better.

ACQUISITION FRAME RATE.

2D frame rate acquisition greater than 795 frames per second (dependent on transducer, field of view, depth and angle) or better is required.

Colour frame rate acquisition greater than 320HZ (dependent on transducer, field of view, depth and angle) or better is required.

ADVANCED IMAGING CONTROLS REQUIRED:

2D Grayscale Imaging

Fusion signal processing.

iSCAN Intelligent Optimization or better.

Sono CT real -time compound Imaging or better

X-RES adaptive Image processing or better.

IMAGE MODES (OPERATING MODES).

M---Mode--gain, dynamic range, time scale.

B—Mode –gain , dynamic range ,imaging frequency, edge enhancement, frame averaging, and gray map or better is required.

B—Flow mode.

M—Colour Flow mode.

VOLUME Modes (3D/4D)

- 3D Static.
- 4D Real time.

Spectral Doppler—gain, angle, sample volume, depth, and width.

--- wall filter, velocity and /or frequency scale, spectrum inversion, time Scale or better.

Pulsed Wave Doppler – (PWD).—with high PRF.

Colour Imaging—Colour Flow Mode(CFM)

Colour power angio imaging (CPA).

Tissue Harmonic Imaging(THI)

Continuous wave Doppler (CWD)

Power Doppler Imaging (PDI)— With topographic and directional maps.

Contrast imaging.

Colour power angio imaging (CPA)

Tissue Doppler Imaging (TDI)

Freehand 3D and MPR Imaging

EXPANDED FIELD OF VIEW.

Panoramic Imaging

Extended field of view

Full zoom, pan, cineloop, review and image rotation capabilities or better.

LCD MONITOR : digitally controlled Colour Monitor

- 15" or 17" inch (256 x 202.5mm or better), non-interlaced high resolution Colour Monitor.
- Alphanumeric QWERTY Keyboard—lighted keyboard.

Tilt or rotate adjustable monitor. Tilt angle 10 degrees up or down.. Rotate Angle 90 degrees right or left.

VGA (800 x 600 @ 75Hz) non interlaced RGB or better.

Resolution 800 pixels per line or better.

0.28mm dot pitch or better.

Brightness, contrast and colour controls are required.

Three monitor colour temperature settings or better.

USER INTERFACE

To have graphical easy to learn user interface.

Primary controls logically grouped and easily accessible.

Soft key function

Other secondary controls accessible on on-screen include the following:-

Alphanumeric QWERTY key board in English.

Trackball with select and enter keys for easy system navigation.

Imaging modes 2D, 3D/4D. colour

Power angio imaging, and M-mode

Integrated stereo speakers.

Colour Doppler

Continuous wave Doppler (CW), pulsed wave Doppler (PW), and (Tissue

Doppler imaging).

IMAGE CONTROLS

Depth, dual left, dual right, Freeze, THI, Zoom focus.

IMAGE ENHANCEMENT CONTROLS

Dynamic range, focus, gain persistence, post -processing Map, Smooth, update.

Patient specific optimization keys, fusion, probe (transducer select) and THI. Or better

iSCAN control for 2D/Doppler automatic optimization or better.

Quantitative control:- calculation, caliper, trace, clear, trackball.

Doppler/colour controls: Angle /steer, spectral scale, Baseline movement, Gain 2D/M-mode Gain control, colour/Doppler. Power, volume or better.

Image Acquisition keys, review report VCR acquire and two user-defined record keys supporting external print and /video .

Annotation controls: label Text, clear, pointer, marker (bodymaker) or better.

Function keys: microphone, patient preset, setup.

Online help key

Lateral gain compensation (LGC) ,and slide pot controls.

Time gain compensation (TGC) and slide pot controls

3D/4D stick controls.

3D/4D hard controls.

ROI-region of interest.

X,y,z, controls.

Axis icons.

4D preview controls.

colour foetal STIC preview controls, size, position angle, resolution, compression, MAP colour, smooth persist.

Biopsy software for 2D, biopsies with 4D probes rendering controls for MPR, volume Rendering, edit ROI, 4D acquisition (volume and ROI) or better.

Image controls, Render mode in Gray scale, MPR chroma, volume chroma or better.

Edit ROI cine controls.

Volume cine MPR and volume controls scroll, replay rotates rendering.

DISPLAY ANNOTATION

On screen annotation of all imaging parameters for complete documentation

TGC curve, grayscale, colour map, framerate dynamic range, colour gains, dynamic range compression and contrast enhancement.

User selectable of patient's data – date of birth, or patients ID.

Ability to turn off patient's data for images used for presentation, publication or research.

Sector steering icon for endocavity transducer

Scan plane orientation marker,

User selectable depth display.

iSCAN, sono CT and contrast icons. Real time display of thermal index and mechanical index (MI) or better.

Quick test display for annotation.

Label:- places, moves, erraces, modifies or append predetermined text labels, typed text or arrows or better

Body markers:- display body part Icons and Icons selectable through trackball scroll.

Doppler baseline invert, live and frozen imaging.

TGC- on and off selectable display.

Calculations, results and analysis labels.

Cineloop frame number display.

User selectable placement of measurements/calculation data box

REPORTING:-

Ability to embed images into reports.

IMAGE PRESENTATION

Right /left

Up/down

Multiple duplex image formers

Depth to 30cm

CINELOOP REVIEW

Acquisition storage in memory and display in real time and duplex modes of up to 1,000 frames (4 minutes in quick review) of 2D and colour images for retrospective review and image selection or better.

Ability to achieve single frames of Doppler data and M-mode images to print or electronic media.

Should support 2-buffer dual imaging of up to 500 frames per buffer or better.

Must have - Trackball control of frame by frame image selection.

Must have variable playback speed.

Must have functions in THI, 2D,M-mode, PW Doppler, CW Doppler, colour Doppler, colour power angio imaging, tissue Doppler imaging and contrast imaging.

CONNECTIVITY

DICOM 3.0 print and store services class user

10Base T Ethernet output or better.

80GB hard drive space or better.

Standard connectivity with CD-R/RW.

Must have 3.5" magneto –optical drive option that supports 540 MB, 640 MB and 1.3GB media or better

Direct digital storage of single frame colour and B/W images to internal hard disk, magneto-optical disc and compact disc and also B/W and colour loops to internal hard disc or better.

Must store at least 300,000 B/W still frame images to internal hard drive or better.

Ability to export AVI clips and BMP images to compact disc or magneto-optical disc for PC viewing. Fully integrated interface.

Ability for full screen image review cineloop editing and patient reporting and extensive image management capability.

Must have an exam directory.

Multiple study archive formats.

DICOM networking option –3.5" magneto-optical drive or better.

1.3GB magneto –optical disc must stores a minimum of 840 B/W still frames or better.

Uncompressed format or 2,520 B/W still frames or 13,440 B/W still frame images (YBR JPEG compressed format at a typical compression of 16:1 compression ratio.) or better.

DICOM worklist with RIS /CIS support or better.

PERIPHERAL DEVICES/EXAM DOCUMENTATION/PRINTING

System should support at least 3 on board peripheral devices excluding report printers. Sony UP 895 format digital B/W printer support for HP printers or better. Colour Laserjet/Laserjet printers (USB, externally mounted) or better printer. Should be able to be connected to an external laser or thermal printer for printing patients images or better printer.

INPUT /OUTPUT PORTS

Standard USB interface for plain paper printers. LAN connector for DICOM 3.0 networking VGA output Footwsitch port.

External print trigger.

ELECTRICAL POWER/ VIDEO PARAMETERS

240volts NTSC/PAL. or acceptable mode.

50Hz/60Hz

Integrated A/C line conditioning

Power consumption 750VA-1000VA or better consumption level.

64 (6bits) in M-mode or better.

Power cables connections plus the cables.

UPS or voltage stabilizer/facility is a must.

SAFETY REQUIREMENT

European standard of safety of medical electrical equipment EN 60601-1 plus collateral standards and safety of ultrasonic medical diagnostic equipment including acoustic output measurements.

MEASUREMENT TOOLS

Must have all measurement tools.

2D distance.

2D circumference /area ellipse ,trace by points, continuous trace.

3D – ellipse, and distance on 2 MPR views.

M-Mode distance (depth., time, slope)

Manual Doppler trace.

Manual Doppler distance.

2D volume

Heart rate measurement facility.

Trackball, controlled electronic measurement calipers sets.

Integrated patient exam report.

High Q Automatic Doppler analysis.

Time/.Slope measurements in doppler analysis.

OBS/Gynae measurements.

Foetal HR on M-mode measurement.

Foetal Doppler.

Early gestation (GS,CRL measurements

Amniotic fluid index.

Biophysical profile (BPP).

Foetal biometry (BPD,AC,HC,FL).

High Q automatic Doppler analysis.

MANUALS

Technical manual – with electrical circuit drawings

Operator manual

3. Service manual.

WARRANTY

1-2years

Maintenance contract renewable depending on agreement with the hospital management.

START UP REQUIRMENTS

Ultrasonic Gel – No. 5 (five litre plastic bottles.)

Ultrasound printing paper rolls UPP 105, 110mmX20 MM High Density (HD),10 rolls.

TRAINING

Operators' application training for Doctors using the machine for 2-3 weeks.

Biomedical technologists training. Application trouble shooting and maintenance.

Duration 3 weeks.

52. SPECIFICATIONS FOR BERA CONSOLE DEVICE

GENERAL SPECIFICATIONS

Test types: AEP, ECochG, Cortical AEP, EABR, ASSR,OAE, Tympanometer **Transducers:** Insert earphones, headphones, bone vibrator, loudspeaker.**Protocols:** Default and customer

specified

Marker Sets: Default and customer specified

Reports: Color, black/white

Patient database application with adequate storage (1 TB Storage system or

CloudData recovery system

Installation of data software and all relevant licenses to perform all test

typesLatest model of equipment

Avail all electrical, electrodes and other

functional cables. Avail precision service kit

specific to machine provided

Ability to maintain and service equipment after warranty when

called uponUser technical manual and instruction manual in hard

and soft copy

Supply, Install, test and commission all parts, accessories including software and licenses to fully functional device withtechnical support to users.

a) ACQUISITION

Number of channels: 2

Acquisition mode: 16 bit ADC, optically isolatedCMR: > 100 dB

PASS FILTERS:

High Pass Filtering RC or digital Butterworth (OFF to 500Hz)

Low Pass Filtering: Butterworth or digital linear phase. (from 5 Hz to 5,000 Hz programmable)

Smoothing: OFF to 8 KHz, pre-set for selected test

Amplifier gain: programmable 1 to 50 Analysis time: from 1 to 999 MS Stimulation rate: from 1 to 100 Hz Trigger

in: TTL standard

Trigger out: TTL standard

b) ELECTRODE IMPENDANCE

Built-in meter for each channel, monitoring single electrode(Z+ and Z-) and differential impedance

c) ACOUSTIC STIMULI

TYPE OF STIMULI: Stimulus types: Click (0.7 to 6 kHz), Chirp (broadband, 1 to 8 kHz), with ABR-fslicense + low-chirp (100 to 850 Hz), Mid – chirp (850 Hz to 3 kHz); High-chirp (3 to 10khz). Tone Burst (500 Hz, 750 Hz, 1 kHz, 1.5 kHz, 2 kHz, 3 kHz, 4 kHz).

Tone burst stimulus wave form: up-plateau – down periods: 1-0-1 , 1- 1-1, 1-2-1, 2-0-2, 2-1-2.

Tone burst ramp: linear, Blackman.

d) STIMULUS RATE

10 to 100 Hz; rate mode: 10, 20, 30, 40, 69, 81, 90 Hz (single or multiple selection of up to eight traces per testsequence' up to three repetitions per rate).

- e) Masking: white noise, contralateral, Continues,
- f) Outputs: AC R, ACL, AC Binaural, BC R. BC L and BC Forehead
- g) STIMULUS POLARITY/PHASE:

Stimulus polarity: condensation, rarefaction, alternating, alternating double – trace.

a) PHASE:

 $0-90^{\circ}-180^{\circ}-270^{\circ}$ e 360° programmable

b) Plot range (fixed):

0 to inter-stimulus interval + 1.5ms (minimum 10.5 ms, maximum: 16/25ms dependent on recordingwindow)

c) Additional parameters;

Spread spectrum, auto proceed, auto stop, rate mode, 30 Hz/80 Hz high-pass cutoff.

d) Noise stop criterion (optional) with optional minimum wave 5 criterion:

20, 30; 40, 50, 70, 100, 150, 200 nVpp

- e) Artifact threshold (optional): 2, 3, 5, 10, 20, 100uV.
- f) **Recording window**: 16 / 25ms.

A. FREQUENCY RANGE (Hz)

 STIMULUS
 TDH-49
 ER-3A
 B71BC

 LOGON
 125-8.000 Hz
 125-8.000 Hz
 250-6.000 Hz

 BURSTS
 125-8.000 Hz
 125-8.000 Hz
 250-6.000 Hz

B. MAXIMUM OUTOUT (dB)

STIMULUS	dB	TDH-49	ER-3A	B71 BC
CLICK	PE SPL	128	128	80
LOGON	PE SPL	128	115	80
BURSTS	HL	120	110	70
MASKING	SPL	110	110	N/A

C. TOTAL HARMONIC DISTORTION

< 1°

SIGNAL TO NOSE RATIO, ON / OFF RATIO, CROSS-TALK

> 70 dB

D. POWER SUPPLY

Power supply: 220-240v

E. STANDARDS

Audiometry: EN 60645-1 (1994); ANSI S3.6 (1996); EN ISO 389 (1995);

Safety: EN 60601-1 (1990) class 2 type BF; EN 60601-1 (2000) ENC 60601-1-2 (2001)

F. AEP STANDARD ACCESSORIES

USABLE TRANSDUCERS: Headphone (HAD-200, HAD-300, DD-45, DD-65 v2, PD-81, ME-70, TDH 49),

insert earphone (PIEP, IP-30, otolnsert, ER-3A)

B71 BC vibrator

Surface electrodes

EAP 2 channels preamplifier

CD-ROM with software including all set modes with license

Ag/Ag Cl surface electrode kit

Abrasive paste

Skin prep gel

Conductive paste

Power cord set, universal. GND cable

USB port Type A: built-in – USB cable provided

Instructions Manual

Technical manual

Carry Case

1.1.3 ELECTROCOCHEOGRAPHY (ECOCHg)

a) **Stimulus type**: Click, tone burst (500 Hz, 1 KHz, 2 KHz, 4 KHz) **Tone burst rise / fall Time**: 1to 4 MS; step size: 1Ms

- b) Tone burst plateau time: 1 to 10 MS, step size: 1 MS
- c) **Stimulus level:** 50 to max. 95 dBnHL
- d) **Stimulus rate**: 8.0, 10.1, 11.1, 16.0, 20.1, 27.7, 39.0, 69.9, 80.0, 90.4 Hz (default)+ user-specific stimulus rate 5 to 100 HZ
- e) Averages: 1000 up to 20000; step size: 1000
- f) Plot range: start: 1-5 MS (fixed), stop: 4 to 12 MS, step size: 0.5 MS
- g) Additional parameters: Spread spectrum
- h) Electrode impedance check:

Continuous monitoring of electrode impedance Auto start after impedance OK (optional): R < 6 k(),

Allow manual start R< 14 K()

Stimulus presentation during pause: on, off

STANDARD ACCESSORIES

ECochg KIT, INCLUDING er-3a INSERT PHONES,

Electrode cable for ECOchg test and ECochg electrodes

Newborn EAP pre-jelled surface electrodes

Footswitch for Facial Testing

ECochG License and ECochG operating software

1.1.4 AUDITORY STEADY – STATE RESPONSE (ASSR)

a) Test type :Quick ASSR, Fine ASSR;

Unilateral testing(right or left ear) and bilateral

b) Protocols: Fixed level procedure Adaptive

level procedure (threshold estimation)

- c) Stimulus bandwidths: ½ octave, 1 octave, 3 band (0.3 1 kHz, 1-3 kHz, 3-1- khn), broadband (0.25-8 kHz
- **d) Stimulus rate:** 41+ 1.5 Hz (40 Hz ASSR) and 85 + 1.5 Hz (80 Hz ASSR), automatic (37 to 163 Hz, dependent on frequency); spread spectrum: + 2%.

- e) **Response detection**; weighed averaging, phase statistics up to 7 overtones.
- f) Electrode impedance check; see ABR
- g) Stimulus, presentation during pause on, off configuration

License for quick ASSR, fine ASSR; upgradable FirmwareStandard

accessories see AEP

- a) Averages: 1000 up to 20000; step size: 1000
- b) Plot range: start:-1 ms (fixed), stop: 5 to 10 ms, step size: 0.5 ms
- c) Automated wave 5 detection (optional)
- d) **Trigger at lower voltage** (optional)
- e) **Trigger input**: each impulse, each second impulse (trigger 2), each fourth impulse (trigger 4)
- f) **Baseline mode:** off, Frame DC, Pre-stimulus DC.

LICENSE FOR EABR

SEE STANDARD AEP FOR ACCESSORIES

1.1.6 OAE

- a) Quick /Fine DPOAE
- b) Quick /Fine TEOAE
- c) License for OAE testing
- d) See standard AEP accessories
- e) OAE testing probe

1.1.7 TYMPANOMETRY

Tymp standard accessories, cables and license

Tympanometry testing probe

Interacoustics Eclipse

Grason-Stadler Audera ProTMAudera

Santiero Advanced

Vivosonic Integrity V500 ABR/AEP System

Terms

Two year warranty

Usage orientation, Technical support and training

Authorize distributor

Service calibration and maintenance

Certifications as needed including calibration

Aftersales backup machine has to be taken away for Maintainace or repair.

Training of biomedical team for first line defense Maintainace minimum 5 days with point personcontact for queries and consultation.

LAPTOP COMPUTER SPECIFICATIONS (Minimum)

16GB Ram,512 GB memory Solids State Drive (SSD) i core 7 processor 9th gen ,windows 10 operation software, Microsoft office 2019,2 USB A 3.0 ports, HDMI A port ,Wi-Fi, Bluetooth ,2TB portable memory harddisk, 2 year warranty, aftersales support for hardware and software after warranty ,32Gb flash disk

COLOUR PRINTER SPECIFICATIONS (MINIMUM)

In country brand support, inkjet, print page burden 500 per month,2 year warranty, 2 sided printing, scanner, compatible with windows 10,xp or Vista, plug & play, high resolution printing 4800x 1200 color, 1200x 1200 black, internet access via Wi-Fi & Ethernet, printer ink 6 cartridge's black and 6 cartridge's color

53. SPECIFICATIONS FOR ENT OPERATING MICROSCOPE

FEATURE	SPECIFICATIONS	
MAIN TUBE	FOLDABLE	
EYE PIECES	10x-12.5x wide-field eyepieces	
WORKING DISTANCE	200mm-650mm	
ILLUMINATION	Xenon – Fully integrated Xenon light source with automatic lamp exchange	
XY MOVEMENT	Joystick and foot pad for angular movement	
BALANCE	auto balance	
VIDEO SYSTEMS	Full HD 1080p-2160p 3-chip camera	
VIDEO OPTIOIN	HD video in with video recording features	
CO-OBSERVER	Stereovision co-observation	
MAGNIFICATION	6:1 motorised zoom	
FLOURESCENCE	Yellow 560 and or infrared 800	
NETWORKING AND STORAGE	500gb-1tb hard disc, wifi network package and diacom package	

54.TECHNICAL SPECIFICATION FOR PULMONARY FUNCTION LAB EQUIPMENT

1.BODY PLETHYSMOGRAPH

a) Features

- Air resistance measurements
- Static lung volume measurements
- Dynamic lung volume measurements (spirometry)
- Diffusion capacity measurements
- Bronchoprovocation testing (APS)
- Paediatric testing capabilities (Six years and below)
- Calibration-free and waterproof ultrasonic flow sensor

b) Dimensions

- Approx Length 85cm, Width 70cm and height 185cm

c) Performance

- Temperature range 10°C to 40°C
- Humidity 0 to 100% relative humidity non condensing
- Pressure 450 to 900mmHg

d) PC Interface

- USB

e) Power Requirements

- Voltage 220 to 240V, 50Hz
- Power backup minimum 3 hours working time

f) Accessories

- Calibration pump/syringe 3L
- Mouth pieces
- Nose clips
- Filters
- Gas cylinders Helium, Nitrogen, Carbon Monoxide and Oxygen
- Chair or bench for body box
- Flexible 3D arm for body box
- Complete software package for measurement and report generation

g) Miscellaneous

- Must have user/operator manuals hard and soft copy
- Must have technical service manual hard and soft copy
- Supplier must provide user training
- Supplier must provide biomedical training
- At least 1 year warranty
- Must have CE quality mark

2. CART

a) Features

- Monitor mount
- Keyboard and mouse platform
- Shelf with platform area of 45cm by 36cm
- Storage Drawer
- 4 twin swivel castors, lockable

b) Dimensions

- Approx length 60cm, width 60cm and height 120cm

3. WORK STATION

a) Desktop Computer

- Processor Quad core processor with 2.8GHz or more
- RAM minimum 3GB
- Hard drive minimum 500GB HDD
- DVD RW capabilities
- Operating system Windows
- Interface USB 2.0 and above (minimum 2 ports)

b) Monitor

- 24inch LCD flat screen
- Screen resolution minimum 1280 x 900
- Display minimum 32Bit colour

c) Keyboard and Mouse

- Hygienic with wipe disinfection

d) Printer

- LaserJet colour printer

e) Power requirements

- Computer 240V AC
- Monitor 240V AC
- Printer 240V AC
- UPS power back-up minimum 3hrs uptime

55.BASIC PAEDIATRIC BRONCHOSCOPY SET

ITEM	DESCRIPTION	NUMBER REQUIRED
Hopkins telescope 0^0	Diameter 2.9mm, length 36cm Autoclavable Fibreoptic light transmission incorporated.	1
Doesel-Huzly bronchoscope size 6	Length 30cm	2
Size 4.5	Same	2
Size 4	Same	2
Size 3.5	Same	2
Size 3	Same	2
Size 2.5	Same	2
Prismatic light deflector	With attachement for fibreoptic light cable	2
Fluvog adaptor	With sliding glasswindow plug, sealing cap, notched lens and keyhole opening, movable	1
Optical forceps 2x2 teeth	Spring action handle Compatible with above Hopkins telescope and bronchoscopes	2
Optical forceps alligator	As above	2
Optical forceps killian bean jaws	As above	2
Foreign body basket	With ring handle, Length 35cm	2
Suction tube straight	With rubber tip Diameter 2mm Length 35cm	1
Suction tube curved	As above	1
Injection cannula for positive pressure assisted ventilation	LUER lock Outer diameter 35mm	1

system			
Guide piece for suction catheter	Short, for paediatric and infact bronchoscopes	1	
Adaptor for respirator		1	

56. TECHNICAL SPECIFICATIONS INCINERATOR

Supply, Delivery, Install, Testing and Commission biomedical waste incinerator as per the following specifications.

Installation Site: Kenyatta National Hospital

Scope: This work shall consist of providing all materials, labor, supervision, tools, equipment and incidentals necessary to supply, deliver, install, test and commission of biomedical waste incinerator with accessories and auxiliaries.

It shall consist of two parts as:-

- A. Decommissioning of the old incinerator accessories and auxiliaries fittings.
- B. Supply install, test and commissioning of the incinerator.

Quantity - one (1)

Configuration

• Floor mounted

Type: Diesel (AGO) fired with fully automated controls and operations

Electrical Safety

• Electrical safety to conform to the standards for electrical safety IEC 60601 – General requirements (or Equivalent BIS Standard).

Manufacturer

- a) Should be OSHAS 18001 & ISO 9001 certified for quality standards.
- b) The manufacture should permanently mark on the incinerator indicating (i) manufacturer's name or trademark (ii) style, type, model or, date of manufacture of the incinerator (iii) capacity and also in terms of net designed heat release in heat units per timed period
- c) Should be registered under factories Act, 1948 & companies Act, 1956.
- d) Should submit documents certifying that the incinerator system has been designed and commissioned such system can comply with the stipulated standards along with the latest monitoring results of the system.
- e) Should submit documents certifying that the incinerator system operating standards and emission standards are as per biomedical & waste management & handling rules 1998 under schedule V.
- f) Test certificate from Govt. approved laboratory for steel grade certificate (for SS 316 grade, SS 304 Grade, boiler grade and Mild Steel grade), epoxy coating, salt test bend test should be furnished in technical bid.
- g) Certificate of calibration from Govt. accredited lab, Internal QC Passed test reports of previously supplied item.

Operational requirements

- The incinerator should be fully automatic of controlled air & polytropic type.
- Should have a capacity of 250kg /hour cycle or more
- Should be fabricated with minimum 6mm thick -IS 2042 & IS2062 grade Mild steel (MS) castable refractory lined with required channels & angles.
- Ash cum maintenance doors for the chambers should be made of MS IS 2062 Grade Lining with High Grade Castable Cement.

- Flue gas parameters such as CO, CO2, O2 as well as other relevant parameters in gaseous emission as prescribed by the authority shall also be measured during the operation of the incineration using continuous emission monitoring system (CEMS).
- The incinerator should have alarm system to alert the incinerator in the event of power failure, non-operation of air pollution control device (APCD), not maintaining adequate temperatures in primary and secondary chambers in case of any emergency.
- All the measuring devices attached with the incinerator should have digital display.
- The incinerator to be mounted on a steel skid and structurally robust so that no special foundations will be required.
- Should have automatic waste feeding & dishing system so that there is no direct exposure of furnace atmosphere to the incinerator operator while charging.
- Incinerator to be fitted with securely welded-on adequate lifting lugs for top-lifting.
- The incinerator should have an alarm system to alert the incinerator in the event of power failure, non-operation of the Air Pollution Control Device (APCD), not maintaining adequate temperatures in primary and secondary chambers or in case of any emergency.

Both primary and secondary combustion chamber should have the following technical characteristics:

- Shall be able to incinerate the waste so as the Total Organic Carbon (TOC) content in the slag and bottom ashes less than 3% or their Loss on ignition (LoI) shall be less than 5% of the dry weight. The burners shall have automatic switching "off/On" control to avoid the fluctuations of temperatures beyond the required range.
- Good quality ceramic wool shall be used at all hot duct flanges and expansion joints.
- Temperature: 800±50°C (for PCC) & 1200±50°C (for SCC)
- Provide projected type of observation or view ports (high temperature glass with a metal closure Provision) should be provided to observe visual condition of the burning process.
 Neither heat nor flame, nor particles should be able to pass through the observation or view port.
- Material of construction to be made of IS 2042 grade mild steel materials of 5mm thickness duly lined with High Alumina Refractory Fire bricks (conforming to IS:8-1994 & IS:2042-2006 standard) & painted externally with heat resistant aluminum paint suitable to withstand temperature of 250°C with proper surface preparation and also the outside surface temperature of the incinerator casing being during normal operations should not exceed 45 to 50°C above ambient temperature and should be provided with safety measure in the form of spikes or mesh around hot surface which will prevent direct touch. The sides and the top portion of the primary and secondary chambers shall preferably have rounded corner from inside to avoid possibility of formation of black or cold pockets/dead zones.
- Both refractory as well as insulation thickness:155mm
- Temperature resistant:1400°C

The incinerator to be fitted with 2 nos burners (1 For PCC & 1 For SCC) to the following minimum specifications and performances:-

- 1. A fully automated firing sequence control high efficiency oil incinerator.
- 2. Must have flame monitoring, flame failure detection devices and protections.
- 3. Burner to have automated interlocks to:
 - i) Safety controls.
 - ii) Operations policing.
- 4. Burner must efficiently combust fuel to ensure smokeless emissions with+ NOx levels below 200mg/NM³.
- 5. Burner to be compliant to approved European code EN 298/230/12067/1643/267/12952/676.
- 6. Incinerator stack emissions to comply with NEMA air quality control ACT 2004 sec 23.
- 7. Burner thermal Output to be between 400 850 Kw.
- 8. Motor Power not less than 1.1Kw.

- 9. Diesel (AGO) Flow Rate: 17 72 Kg/hr.
- 10. Burner to be complete with its. Associated burner control box. Cooling /combustion air fans, blast-tube, nozzles, HT, transformers, HT cables, HT spark, electrodes, photo cells and Process PLC.
- 11. Fuel: diesel (electrical start and diesel fuel run thereafter).
- 12. Burner: 2 (two) nos. (1 for PCC & 1 for SCC) of fully automatic mono block type.
- 13. Burner retracting mechanism in both the chambers to safeguard the burners.
- 14. The thermocouple sensor location shall be after tip of the burner and before exit of the incinerator chambers.

Incinerator control panel

A stand-alone incinerator control panel to be installed or mounted to the incinerator with following minimum performances:-

- 1. To have central control units for all electrical, isolations and alarms.
- 2. Panel to have automatic control modules for safety supervision, operation controls
- 3. Panel to have status indications, pilot lights and indicators.
- 4. To have temper-proof operating HRS meter preferably with a mechanical memory.
- 5. To have self-diagnostic capacity.
- 6. Panel cage to be constructed from 14/16 SGWCRC4 sheet or better with epoxy enamel paint.
- 7. To have panel mounted emergency action buttons and buzzers.
- 8. To have start/stop for all operations.

Minimum incinerator operation noise levels to be below 60 dB AT 1M distance **Painting:**

• All the equipment & components should be coated with 2 coats epoxy heat resistance paint.

Safety interlocks:

- Safeties and interlock control should be incorporated with the incinerator system.
- All the Electrical appliances attached with the incinerator and other machinery should be provided with suitable and necessary safety devices. All the workers should be trained properly on electrical safety aspects by the manufacturers

Combustion fan:

- The FD fan should be of Centrifugal Direct Drive Type Air Blower with electric motor.
- Modulation: manual damper control.
- Material of construction mild steel (MS).

Quencher

To reduce flue gas temperature before Venturi Scrubber quencher should be provided having

- Outer body made up of Mild steel
- Inside should have refractory lining
- Water circulation system should be provided with centrifugal pump

Emergency Stack (1 set)

- Cylindrical type
- Top mounted on venturi ejector
- Material of construction should be Mild Steel of #mm thickness.
- Refractory 75mm thick Castable
- Insulation 25mm thick Castable

Venturi Scrubber (1set)

- Should be high pressure jet type
- Material of construction should be stainless steel (SS-316L)
- Scrubbing medium should be water with 5% caustic and
- Temperature at the outlet 78°C to 80°C

Recirculation Pump with Motor (1 set)

- Should be Mono block type
- Material of construction of wetted parts should be stainless steel (SS-316)
- Piping should be chemical resistant PPR (Polypropylene random copolymer)

Droplet Separator cum Recirculation Tank (1Set)

To separate water droplets from flue gases droplet separator should be used

- Should be vertical cylinder type and cyclonic
- Material of construction should be mild steel rubber lined (MSRL) with 3mm thickness.
- Should be MS plate fabricated of 6mm thickness with metal eliminators inside.

Oil tank (1 set):

- Should be made up of mild steel.
- Capacity 500 litres or more.
- Should also have diesel oil level indicator, oil piping with valves and non-return valves with visual checking of fuel.

Heat Dissipation

Should maintain normal temperature inside BMW Units and heat should be disbursed by a cooling mechanism such as adequate cooling and exhaust fans.

ID fan motor:

- Should be high pressure centrifugal direct drive type.
- Material of construction of impeller should be stainless steel of 304 grade which should be connected with electric motor.

Flue Gas Duct (Between Incinerator, Scrubber, ID Fan & Stack) (1 Set)

Should be of cylinder type and material of construction should be partly MS and partly Mild Steel Rubber Lined (MSRL)

Incinerator should have instruction plates attached in prominent location in the unit that should clearly address:

- i. Cleaning ashes and slag from the combustion chamber(s).
- ii. Cleaning of combustion air openings before starting the incinerator (where applicable)
- iii. Operating procedures and proper start-up procedures, normal shut-down procedures emergency shut-down procedures and procedures of loading waste (as applicable)

Chimney stack:

- The incinerator to be supplied complete with a high temperature rated exhaust stack with refractory lining. Height of 30m from ground level (should be 3m above the tall building within the area)
- Type self Supporting
- Material of construction (MoC): Mild Steel
- Base diameter: 1200mm in 6mm Sheet (Approx)
- Top diameter: 400mm in 4mm sheet (Approx)
- The chimney should be built with strong MS Base duly with rubberized lining, inspection window and inbuilt ladder.
- The chimney should have sampling port with sampling platform along with standard attachments of Aviation light, Lightning arrestor, stack drain and earthing strip.
- The chimney should be connected through centrifugal air blower for effective removal of emission from the entire system
- The chimney should be protected from inside by proving 3mm thick rubber lining.

- Structural design of the chimney/stack shall be as per IS: 6533-12). The chimney/stack shall be lined from inside with minimum of 3mm thick natural hard rubber suitable for the duty conditions and shall also conform to IS:4682 Part I-1968 to avoid corrosion due to oxygen and acids in the flue gas.
- The location and specification of porthole, platform ladder reaching till the top (preferably steel scaffolding or spiral-case) shall be as per the Emission Regulations, Part-3 (COINDS/20/1984-85), published by CPCB. All mandatory approval, if required, for installation of the chimney shall be obtained by the successful bidder.
- Chimney to have an access steel step ladder and extra strong elevated high level plinth to client's satisfaction.
- Should be painted with 2 coats heat resistance aluminum paint.
- The chimney should come complete with 3 " flue gas analysis/sampling port and sampling platform with standard attachment lightning arrestor and earthing strip.
- Chimney should be connected through centrifugal air blower for effective removal of emission from the entire system.

Quench/scrubber liquid waste management

• Appropriate treatment to the wastewaters from cleaning of exhaust gases shall be provided. Also, the treated wastewater shall conform to the specific effluent discharge standards

Power input requirement:

• Electrical Power single phase 240 VAC/50Hz and three phase 415 VAC/50Hz.

Protection:

- Resettable over current breaker, RCB, MCB, dipole switch, fuse.
- Voltage corrector as appliance for product for protection against surge current & voltage fluctuations.
- Should have over-charging cut-off with visual symbol.

Spare parts:

- This format is applicable for generally all equipment which involves repair & maintenance using spare parts.
- The cost of all essential spare parts, modules and maintenance consumable (perishable materials which is required for maintenance of machine); which are not covered under warranty are prone to damage frequently and not mention in technical specifications; shall be mentioned in a separate price schedule.

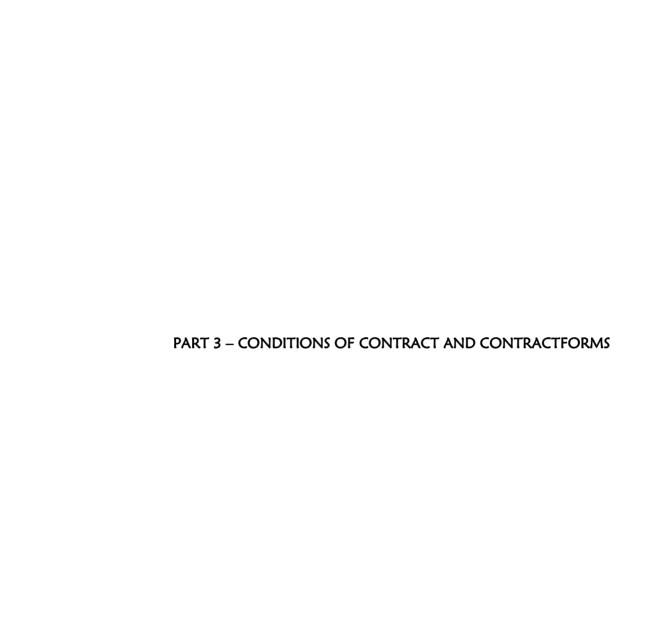
Warranty

- Annually priced renewable after sales equipment, technical support and service applicable after warranty services.
- Offer of one year warranty on commissioning of equipment.

CONDITIONS

- Bidders shall provide original brochures/catalogue of proposed boilers, burners, control panel, auxiliaries for evaluation.
- Bidders will quote separately an annually priced renewable after sales equipment, technical support and service applicable after warranty services.
- Successful bidder will offer a one year warranty on commissioning of all incinerator, equipment, auxiliaries and systems installed.
- Bidders will quote installation of electrical switch gears including an Isolator, resettable over current breaker, MCCB, and Phase failure, power supply cables, overload and power surge protector.

- Bidders quote must include all associated civil works (building), mechanical works.
- Bidders must be registered contractors with the ministry of works or NCA with a valid NCA 4 and above certificate for mechanical engineering services.
- Successful bidder shall provide 3 sets of original operators manuals, service manuals and parts list as a condition attached before commissioning.
- Successful bidder will undertake full factory training for 2 Engineers and 1 incinerator operator.
- Successful bidder will provide for pre-shipment inspection for two hospital personnel.
- Bidders must provide proof and demonstrate after sales service capacity going beyond 5 years
- Bidders will provide system lay out drawings of the proposed installations for evaluation.
- Bidders must produce proof of technical ability to carry out proposed installations and evidence of where similar works have been carried out in the last FIVE years.
- Evidence of agency and manufacturers authorization shall be submitted as part of evaluation requirement.
- ALL bidders shall be required to visit site to familiarize themselves with pertinent issues of installation requirement that shall guide them to make an informed bill of quantities.
- All bidders shall have their visitation forms duly signed by Hospital Engineers appointed representative and stamped as a proof of visit; the form shall be attached on the tender document.
- Successful bidders will provide as installed drawings for mechanical, electrical, and fuel installations undertaken.
- Successful bidders will provide and perform a six months defect liability period covering the entire installation works from date of commissioning.
- The client will withhold 10% of the contract price as retention fee to be released to the successful bidder after the six months defect liability period and on certification of making good defects.
- Bidders to provide proof of availability of spares for the installed equipment in the local market.
- Successful bidder must produce boiler test certificates proving compliance with manufacturing standards and codes.
- Bidders to provide audited accounts of past 2 years and bank statement for the last 1 calendar year.
- Bidders to provide proof of credit line facility from their bankers.
- Bidders must provide delivery, installation and commissioning timelines for the proposed project. Proposed project implementation time lines from contract signing to commissioning exceeding 11 months **NOT** acceptable.
- To be considered responsive, bids **MUST** include all proposed works. Partial bids will **NOT** be accepted.



GENERAL CONDITIONS OF CONTRACT

Contract and Interpretation

Definitions

1.1 The following words and expressions shall have the meanings here by assigned to them:

"Contract" means the Contract Agreement entered into between the Procuring Entity and the Contractor, together with the Contract Documents referred to there in; they shall constitute the Contract, and the term "the Contract" shall in all such documents be construed accordingly.

"Contract Documents" means the documents listed in Article 1.1 (Contract Documents) of the Contract Agreement (including any amendments thereto).

"GCC" means the General Conditions of Contract hereof. "SCC" means the Special Conditions of Contract.

"day" means calendar day. "year" means 365 days. "month" means calendar month.

"Party" means the Procuring Entity or the Contractor, as the context requires, and "Parties" means both of them.

"Procuring Entity" means the public entity named as such in the SCC and includes the legal successors orpermitted assigns of the Procuring Entity.

"Project Manager" means the person appointed by the Procuring Entity in the manner provided in GCC Sub- Clause 17.1 (Project Manager) hereof and named as such in the SCC to perform the duties delegated by the Procuring Entity.

"Contractor" means the person(s) whose Tender to perform the Contract has been accepted by the Procuring Entity and is named as Contractor in the Contract Agreement, and includes the legal successors or permitted assigns of the Contractor.

"Contractor's Representative" means any person nominated by the Contractor and approved by the Procuring Entity in the manner provided in GCC Sub-Clause 17.2 (Contractor's Representative and Construction Manager) here of to perform the duties delegated by the Contractor.

"Construction Manager" means the person appointed by the Contractor's Representative in the manner provided in GCC Sub-Clause 17.2.4.

"Subcontractor," including manufacturers, means any person to whom execution of any part of the Facilities, including preparation of any design or supply of any Plant, is sub-contracted directly or indirectly by the Contractor, and includes its legal successors or permitted assigns.

"Dispute Board" (DB) means the person or persons named as such in the SCC appointed by agreement between the Procuring Entity and the Contractor to make a decision with respect to any dispute or difference between the Procuring Entity and the Contractor referred to him or her by the Parties pursuant to GCC Sub-Clause 46.1 (Dispute Board) hereof.

"Contract Price" means the sum specified in Article 2.1 (Contract Price) of the Contract Agreement, subject to such additions and adjustments there to or deductions there from, as may be made pursuant to the Contract.

"Facilities" means the Plant to be supplied and installed, as well as all the Installation Services to be carried out by the Contractor under the Contract.

"Plant" means permanent plant, equipment, machinery, apparatus, materials, articles and things of all kinds to be provided and incorporated in the Facilities by the Contractor under the Contract (including the spare parts to be supplied by the Contractor under GCC Sub-Clause7.3 here of), but does not include Contractor's Equipment.

"Installation Services" means all those services ancillary to the supply of the Plant for the Facilities, to be provided by the Contractor under the Contract, such as transportation and provision of marine or other similar insurance, inspection, expediting, site preparation works (including the provision and use of Contractor's Equipment and the supply of all construction materials required), installation, testing, pre- commissioning, commissioning, operations, maintenance, the provision of operations and maintenance manuals, training, etc...as the case may require.

"Contractor's Equipment" means all facilities, equipment, machinery, tools, apparatus, appliances or things of every kind required in or for installation, completion and maintenance of Facilities that are to be provided by the Contractor, but does not include Plant, or other things intended to form or forming part of the Facilities.

"Country of Origin" means the countries and territories eligible as elaborated in the SCC.

"Site" means the land and other places upon which the Facilities are to be installed, and such other land or places as may be specified in the Contract as forming part of the Site.

"Effective Date" means the date of fulfillment of all conditions stated in Article 3 (Effective Date) of the Contract Agreement, from which the Time for Completion shall be counted.

"Time for Completion" means the time within which Completion of the Facilities as a whole (or of a part of the Facilities where a separate Time for Completion of such part has been prescribed) is to be attained, as referred to in GCC Clause8 and in accordance with the relevant provisions of the Contract.

"Completion" means that the Facilities (or a specific part thereof where specific parts are specified in the Contract) have been completed operationally and structurally and put in a tight and clean condition, that all work in respect of Pre-commissioning of the Facilities or such specific part thereof has been completed, and that the Facilities or specific part thereof are ready for Commissioning as provided in GCC Clause 24 (Completion) hereof.

"Pre-commissioning" means the testing, checking and other requirements specified in the Procuring Entity's Requirements that are to be carried out by the Contractor in preparation for Commissioning as provided in GCC Clause24 (Completion) hereof.

"Commissioning" means operation of the Facilities or any part thereof by the Contractor following Completion, which operation is to be carried out by the Contractor as provided in GCC Sub-Clause 25.1 (Commissioning) hereof, for the purpose of carrying out Guarantee Test(s).

"Guarantee Test(s)" means the test(s) specified in the Procuring Entity's Requirements to be carried out to ascertain whether the Facilities or a specified part thereof is able to attain the Functional Guarantees specified in the Appendix to the Contract Agreement titled Functional Guarantees, in accordance with the provisions of GCC Sub-Clause25.2 (Guarantee Test) hereof.

"Operational Acceptance" means the acceptance by the Procuring Entity of the Facilities (or any part of the Facilities where the Contract provides for acceptance of the Facilities in parts), which certifies the Contractor's fulfillment of the Contract in respect of Functional Guarantees of the Facilities (or the relevant part thereof) in accordance with the provisions of GCC Clause 28 (Functional Guarantees) hereof and shall include deemed acceptance in accordance with GCC Clause 25 (Commissioning and Operational Acceptance) hereof.

"Defect Liability Period" means the period of validity of the warranties given by the Contractor commencing at Completion of the Facilities or a part thereof, during which the Contractor is responsible for defects with respect to the Facilities (or the relevant part thereof) as provided in GCC Clause 27(Defect Liability) hereof.

"Notice of Dissatisfaction" means the notice given by either Party to the other under Sub-Clause 46.4 indicating its dissatisfaction and intention to commence arbitration.

Contract Documents

2.1 Subject to Article 1.2 (Order of Precedence) of the Contract Agreement, all documents forming part of the Contract (and all parts thereof) are intended to be correlative, complementary and mutually explanatory. The Contract shall be read as a whole.

Interpretation

3.1 In the Contract, except where the context requires otherwise:

Words indicating one gender include all genders;

words indicating the singular also include the plural and words indicating the plural also include the singular;

provisions including the word "agree," "agreed," or "agreement" require the agreement to be recorded in writing;

the word "tender" is synonymous with "Tender," "tenderer," with "Tenderer," and "tenderdocuments" with "Tendering Document," and

"written" or "in writing" means hand-written, type-written, printed or electronically made, and resulting in a permanent record.

The marginal words and other headings shall not be taken in to consideration in the interpretation of these Conditions.

3.2 Incoterms

Unless inconsistent with any provision of the Contract, the meaning of any trade term and the rights and obligations of Parties thereunder shall be as prescribed by Incoterms.

Incoterms means international rules for interpreting trade terms published by the International Chamber of Commerce (latest edition), 38 C ours Albert 1er, 75008 Paris, France.

3.3 Entire Agreement

3.3.1 Subject to GCC Sub-Clause 16.4 hereof, the Contract constitutes the entire agreement between the Procuring Entity and Contractor with respect to the subject matter of Contract and supersedes all communications, negotiations and agreements (whether written or oral) of Parties with respect there to made prior to the date of Contract.

3.4 Amendment

No amendment or other variation of the Contract shall be effective unless it is in writing, is dated, expressly refers to the Contract, and is signed by a duly authorized representative of each Party hereto.

3.5 Independent Contractor

The Contractor shall be an independent contract or performing the Contract. The Contract does not create any agency, partnership, joint venture or other joint relationship between the Parties

hereto. Subject to the provisions of the Contract, the Contractor shall be solely responsible for the manner in which the Contract is performed. All employees, representatives or Subcontractors engaged by the Contractor in connection with the performance of the Contract shall be under the complete control of the Contractor and shall not be deemed to be employees of the Procuring Entity, and nothing contained in the Contractor in any subcontract awarded by the Contractor shall be construed to create any contractual relationship between any such employees, representatives or Subcontractors and the Procuring Entity.

3.6 Non-Waiver

- 3.6.1 Subject to GCC Sub-Clause 3.6.2 below, no relaxation, forbearance, delay or indulgence by either Party in enforcing any of the terms and conditions of the Contract or the granting of time by either Party to the other shall prejudice, affect or restrict the rights of that Party under the Contract, nor shall any waiver by either Party of any breach of Contract operate as waiver of any subsequent or continuing breach of Contract.
- 3.6.2 Any waiver of a Party's rights, powers or remedies under the Contract must be in writing, must be dated and signed by an authorized representative of the Party granting such waiver, and must specify the right and the extent to which it is being waived.

3.7 Severability

If any provision or condition of the Contract is prohibited or rendered invalid or unenforceable, such prohibition, in validity or unenforced ability shall not affect the validity or enforce ability of any other provisions and conditions of the Contract.

3.8 Country of Origin

"Origin" means the place where the plant and component parts thereof are mined, grown, produced or manufactured, and from which the services are provided. Plant components are produced when, through manufacturing, processing, or substantial or major assembling of components, a commercially recognized product results that is substantially in its basic characteristics or in purpose or utility from its components.

4 Communications

4.3 Wherever these Conditions provide for the giving or issuing of approvals, certificates, consents, determinations, notices, requests and discharges, these communications shall be:

In writing and delivered against receipt; and

delivered, sent or transmitted to the address for the recipient's communications as stated in the Contract Agreement.

When a certificate is issued to a Party, the certifier shall send a copy to the other Party. When a notice is issued to a Party, by the other Party or the Project Manager, a copy shall be sent to the Project Manager or the other Party, as the case may be.

5 Law and Language

- 5.3 The Contract shall be governed by in accordance with laws of Kenya
- 5.4 The ruling language of the Contract shall be English Language.
- 5.5 The language for communications shall be the English language.

6 Fraud and Corruption

- The Procuring Entity requires compliance with the provisions of the Public Procurement and Asset Disposal Act, 2015, Section 62 as set forth in Section "Declaration not to engage in corruption". The
 - tender submitted by a person shall include a declaration that the person shall not engage in any corrupt or fraudulent practice and a declaration that the person or his or her sub-contractors are not debarred from participating in public procurement proceedings.
- 6.2 Tenderers shall permit and shall cause their agents (where declared or not), subcontractors, subconsultants, service providers, suppliers, and their personnel, to permit the PPRA to inspect all accounts, records and other documents relating to any initial selection process, prequalification process, tender submission, proposal submission, and contract performance (in the case of award), and to have them audited by auditors appointed by the PPRA.

Subject Matter of Contract

7Scope of Facilities

- 7.1 Unless otherwise expressly limited in the Procuring Entity's Requirements, the Contractor's obligations cover the provision of all Plant and the performance of all Installation Services required for the design, and the manufacture (including procurement, quality assurance, construction, installation, associated civil works, Pre- commissioning and delivery) of the Plant, and the installation, completion and commissioning of the Facilities in accordance with the plans, procedures, specifications, drawings, codes and any other documents as specified in the Section, Procuring Entity's Requirements. Such specifications include, but are not limited to, the provision of supervision and engineering services; the supply of labor, materials, equipment, spare parts (as specified in GCC Sub-Clause 7.3 below) and accessories; Contractor's Equipment; construction utilities and supplies; temporary materials, structures and facilities; transportation (including, without limitation, unloading and hauling to, from and at the Site); and storage, except for those supplies, works and services that will be provided or performed by the Procuring Entity, asset for thin the Appendix to the Contract Agreement titled Scope of Works and Supply by the Procuring Entity.
- 7.2 The Contractor shall, unless specifically excluded in the Contract, perform all such work and/or supply all such items and materials not specifically mentioned in the Contract but that can be reasonably inferred from the Contract as being required for attaining Completion of the Facilities as if such work and/or items and materials were expressly mentioned in the Contract.
- 7.3 In addition to the supply of Mandatory Spare Parts included in the Contract, the Contractor agrees to supply spare parts required for the operation and maintenance of the Facilities for the period specified in the SCC and the provisions, if any, specified in the SCC. However, the identity, specifications and quantities of such spare parts and the terms and conditions relating to the supply there of are to be agreed between the Procuring Entity and the Contractor, and the price of such spare parts shall be that given in Price Schedule No.6, which shall not be added to the Contract Price. The price of such spare parts shall include the purchase price there for and other costs and expenses (including the Contractor's fees) relating to the supply of spare parts.

8 Time for Commencement and Completion

- 8.1 The Contractor shall commence work on the Facilities within the period specified in the SCC and without prejudice to GCC Sub-Clause 26.2 hereof, the Contractor shall thereafter proceed with the Facilities in accordance with the time schedule specified in the Appendix to the Contract Agreement titled Time Schedule.
- 8.2 The Contractor shall attain Completion of the Facilities or of a part where a separate time for Completion of such part is specified in the Contract, within the time stated in the SCC or within such extended time towhich the Contractor shall be entitled under GCC Clause 40 hereof.

9 Contractor's Responsibilities

- 9.1 The Contractor shall design, manufacture including associated purchases and/or subcontracting, install and complete the Facilities in accordance with the Contract. When completed, the Facilities should be fit for the purposes for which they are intended as defined in the Contract.
- 9.2 The Contractor confirms that it has entered in to this Contract on the basis of a proper examination of the data relating to the Facilities including any data as to boring tests provided by the Procuring Entity, and on the basis of information that the Contractor could have obtained from a visual inspection of the Site if access there to was available and of other data readily available to it relating to the Facilities as of the date twenty- eight (28) days prior to Tender submission. The Contractor acknowledges that any failure to acquaint itself with all such data and information shall not relieve its responsibility for properly estimating the difficulty or cost of successfully performing the Facilities.
- 9.3 The Contractor shall acquire and pay for all permits, approvals and /or licenses from all local, state or national government authorities or public service undertakings in the country where the Site is located which such authorities or undertakings require the Contractor to obtain in its name and which are necessary for the performance of the Contract, including, without limitation, visas for the Contractor's and Subcontractor's personnel and entry permits for all imported Contractor's Equipment. The Contractor shall acquire all other permits, approvals and/or licenses that are not the responsibility of the Procuring Entity under GCC Sub- Clause10.3 hereof and that are necessary for the performance of the Contract.
- 9.4 The Contractor shall comply with all laws in force in the country where the Facilities are to be implemented. The laws will include all local, state, national or other laws that affect the performance of the Contract and bind upon the Contractor. The Contractor shall indemnify and hold harmless the Procuring Entity from and against any and all liabilities, damages, claims, fines, penalties and expenses of whatever nature arising or resulting from the violation of such laws by the Contractor or its personnel, including the Subcontractors and their personnel, but without prejudice to GCC Sub-Clause 10.1 hereof.
- 9.5 Any Plant and Installation Services that will be incorporated in or be required for the Facilities and other supplies shall have their origin as specified under GCC Clause 1 (Country of Origin). Any subcontractors retained by the Contractor shall be from a country as specified in GCC Clause1 Country of Origin).
- 9.6 If the Contractor is a joint venture, or association (JV) of two or more persons, all such persons shall be jointly and severally bound to the Procuring Entity for the fulfillment of the provisions of the Contract, and shall designate one of such persons to act as a leader with authority to bind the JV. The composition or the constitution of the JV shall not be altered without the prior consent of the Procuring Entity.
- 9.7 Pursuant to paragraph 2.2 e. of Appendix B to the General Conditions the Contractor shall permit and shall cause its subcontractors and sub-consultants to permit, PPRA and/or persons appointed by PPRA to inspect the Site and/or the accounts and records relating to the procurement process, selection and/or contract execution, and to have such accounts and records audited by auditors appointed by PPRA. The Contractor's and its Subcontractors' and sub-consultants' attention is drawn to Sub-Clause 6.1 which provides, interalia, that acts intended to materially impede the exercise of the PPRA's inspection and audit rights constitute a prohibited practice subject to contract termination.
- 9.8 The Contractor shall conform to the sustainable procurement contractual provisions, if and as specified in the SCC.

10 Procuring Entity's Responsibilities

- 10.1 All information and/or data to be supplied by the Procuring Entity as described in the Appendix to the Contract Agreement titled Scope of Works and Supply by the Procuring Entity, shall be deemed to be accurate, except when the Procuring Entity expressly states otherwise.
- 10.2 The Procuring Entity shall be responsible for acquiring and providing legal and physical possession of the Site and access thereto, and for providing possession of and access to all other areas reasonably required for the proper execution of the Contract, including all requisite rights of way, as specified in the Appendix to the Contract Agreement titled Scope of Works and Supply by the Procuring Entity. The Procuring Entity shall give full possession of an accord all rights of access there to on or before the date (s) specified in that Appendix.
 - 10.3 The Procuring Entity shall acquire and pay for all permits, approvals and/or licenses from all local, state or national government authorities or public service under takings in the country where the Site is located which such authorities or under takings require the Procuring Entity to obtain in the Procuring Entity's name, are necessary for the execution of the Contract, including those required for the performance by both the Contractor and the Procuring Entity of their respective obligations under the Contract, and (c) are specified in the Appendix (Scope of Works and Supply by the Procuring Entity).
- 10.4 If requested by the Contractor, the Procuring Entity shall use its best endeavors to assist the Contractor in obtaining in a timely and expeditious manner all permits, approvals and/or licenses necessary for the execution of the Contract from all local, state or national government authorities or public service under takings that such authorities or undertakings require the Contractor or Subcontractors or the personnel of the Contractor or Subcontractors, as the case may be, to obtain.
- 10.5 Unless otherwise specified in the Contract or agreed upon by the Procuring Entity and the Contractor, the Procuring Entity shall provide sufficient, properly qualified operating and maintenance personnel; shall supply and make available all raw materials, utilities, lubricants, chemicals, catalysts, other materials and facilities; and shall perform all work and services of whatsoever nature, including those required by the Contractor to properly carry out Precommissioning, Commissioning and Guarantee Tests, all in accordance with the provisions of the Appendix to the Contract Agreement titled Scope of Works and Supply by the Procuring Entity, at or before the time specified in the program furnished by the Contractor under GCC Sub- Clause18.2 hereof and in the manner thereupon specified or as otherwise agreed upon by the Procuring Entity and the Contractor.
- 10.6 The Procuring Entity shall be responsible for the continued operation of the Facilities after Completion, in accordance with GCC Sub-Clause 24.8, and shall be responsible for facilitating the Guarantee Test (s) for the Facilities, in accordance with GCC Sub-Clause 25.2.
- 10.7 All costs and expenses involved in the performance of the obligations under this GCC Clause 10 shall be the responsibility of the Procuring Entity, save those to be incurred by the Contractor with respect to the performance of Guarantee Tests, in accordance with GCC Sub-Clause 25.2.
- 10.8 In the event that the Procuring Entity shall be in breach of any of his obligations under this Clause, the additional cost incurred by the Contractor in consequence there of shall be determined by the Project Manager and added to the Contract Price.

Payment

11 Contract Price

- 11.1 Contract as specified in Article 2 (Contract Price and Terms of Payment) of the Contract Agreement.
- 11.2 Unless an adjustment clause is provided for in the SCC, the Contract Price shall be a firm lump sum not subject to any alteration, except in the event of a Change in the Facilities or as otherwise provided in the Contract.
- 11.3 Subject to GCC Sub-Clauses 9.2,10.1 and 35 hereof, the Contractor shall be deemed to have satisfied itself as to the correctness and sufficiency of the Contract Price, which shall, except as otherwise

provided for in the Contract, cover all its obligations under the Contract.

12 Terms of Payment

- 12.1 The Contract Price shall be paid as specified in Article 2 (Contract Price and Terms of Payment) of the Contract Agreement and in the Appendix to the Contract Agreement titled Terms and Procedures of Payment, which also outlines the procedures to be followed in making application for and processing payments.
- 12.2 No payment made by the Procuring Entity herein shall be deemed to constitute acceptance by the Procuring Entity of the Facilities or any part (s) thereof.
- 12.3 In the event that the Procuring Entity fails to make any payment by its respective due date or within the period set for thin the Contract, the Procuring Entity shall pay to the Contractor interest on the amount of such delayed payment at the rate(s) shown in the Appendix to the Contract Agreement titled Terms and Procedures of Payment, for the period of delay until payment has been made in full, whether before or after judgment or arbitrage award.
- 12.4 The currency or currencies in which payments are made to the Contractor under this Contract shall be specified in the Appendix to the Contract Agreement titled Terms and Procedures of Payment, subject to the general principle that payments will be made in the currency or currencies in which the Contract Price has been stated in the Contractor's Tender.

13 Securities

13.1 Issuance of Securities

The Contractor shall provide the securities specified below in favor of the Procuring Entity at the times, and in the amount, manner and form specified below.

13.2 Advance Payment Security

- 13.2.1 The Contractor shall, within twenty-eight (28) days of the notification of contract award, provide a security in an amount equal to the advance payment calculated in accordance with the Appendix to the Contract Agreement titled Terms and Procedures of Payment, and in the same currency or currencies.
- 13.2.2 The security shall be in the form provided in the Tendering documents or in another form acceptable to the Procuring Entity. The amount of the security shall be reduced in proportion to the value of the Facilities executed by and paid to the Contractor from time to time, and shall automatically become null and void when the full amount of the advance payment has been recovered by the Procuring Entity. The security shall be returned to the Contractor immediately after its expiration.

13.3 Performance Security

- 13.3.1 The Contractor shall, within twenty-eight (28) days of the notification of contract award, provide a security for the due performance of the Contract in the amount specified in the **SCC**.
- 13.3.2 The Performance Security shall be denominated in the currency or currencies of the Contract, or in a freely convertible currency acceptable to the Procuring Entity, and shall be in the form provided in Section X, Contract Forms, corresponding to the type of bank guarantee stipulated by the Procuring Entity in the SCC, or in another form acceptable to the Procuring Entity.
- 13.3.3 Unless otherwise specified in the **SCC**, the security shall be reduced by half on the date of the Operational Acceptance. The Security shall become null and void, or shall be reduced prorata to the Contract Price of a part of the Facilities for which a separate Time for Completion is provided, five hundred and forty (540) days after Completion of the Facilities or three hundred and sixty five (365) days after Operational Acceptance of the Facilities, whichever occurs first; provided, however, that if the Defects Liability Period has been extended on any part of the Facilities pursuant to GCC Sub-Clause27.8 hereof, the Contractor shall issue an additional security in an amount proportionate

to the Contract Price of that part. The security shall be returned to the Contractor immediately after its expiration, provided, however, that if the Contractor, pursuant to GCC Sub-Clause 27.10, is liable for an extended defect liability obligation, the Performance Security shall be extended for the period specified in the SCC pursuant to GCC Sub-Clause 27.10 and up to the amount specified in the SCC.

13.3.4 The Procuring Entity shall not make a claim under the Performance Security, except for amounts to which the Procuring Entity is entitled under the Contract. The Procuring Entity shall indemnify and hold the Contractor harmless against and from all damages, losses and expenses (including legal fees and expenses) resulting from a claim under the Performance Security to the extent to which the Procuring Entity was not entitled to make the claim.

14 Taxes and Duties

- 14.1 Except as otherwise specifically provided in the Contract, the Contractor shall bear and pay all taxes, duties, levies and charges assessed on the Contractor, its Subcontractors or their employees by all municipal, state or national government authorities in connection with the Facilities in and outside of the country wherethe Site is located.
- 14.2 If any tax exemptions, reductions, allowances or privileges may be available to the Contractor in Kenya, the Procuring Entity shall use its best endeavors to enable the Contractor to benefit from any such tax savings to the maximum allowable extent.
- 14.3 For the purpose of the Contract, it is agreed that the Contract Price specified in Article 2 (Contract Price and Terms of Payment) of the Contract Agreement is based on the taxes, duties, levies and charges prevailing at the date twenty-eight (28) days prior to the date of Tender submission in Kenya (hereinafter called "Tax" in this GCC Sub-Clause14.4). If any rates of Tax are increased or decreased, a new Tax is introduced, an existing Tax is abolished, or any change in interpretation or application of any Tax occurs in the course of the performance of Contract, which was or will be assessed on the Contractor, Subcontractors or their employees in connection with performance of the Contract, an equitable adjustment of the Contract Price shall be made to fully take in to account any such change by addition to the Contract Price or deduction therefrom, as the case may be, in accordance with GCC Clause36 hereof.

Intellectual Property

15 License/Use of Technical Information

- 15.1 For the operation and maintenance of the Plant, the Contractor hereby grants a non-exclusive and non- transferable license (without the right to sub-license) to the Procuring Entity under the patents, utility models or other industrial property rights owned by the Contractor or by a third Party from whom the Contractor has received the right to grant licenses there under, and shall also grant to the Procuring Entity a non-exclusive and non-transferable right (without the right to sub-license) to use the know-how and other technical information disclosed to the Procuring Entity under the Contract. Nothing contained herein shall be construed as transferring ownership of any patent, utility model, trademark, design, copyright, know-how or other intellectual property right from the Contractor or any third Party to the Procuring Entity.
- 15.2 The copy right in all drawings, documents and other materials containing data and information furnished to the Procuring Entity by the Contractor here in shall remain vested in the Contractor or, if they are furnished to the Procuring Entity directly or through the Contractor by any third Party, including suppliers of materials, the copy right in such materials shall remain vested in such third Party.

Confidential Information

- 16.1 The Procuring Entity and the Contractor shall keep confidential and shall not, without the written consent of the other Party hereto, divulge to any third Party any documents, data or other information furnished directly or indirectly by the other Party hereto in connection with the Contract, whether such information has been furnished prior to, during or following termination of the Contract. Notwithstanding the above, the Contractor may furnish to its Subcontractor (s) such documents, data and other information it receives from the Procuring Entity to the extent required for the Subcontractor (s) to perform its work under the Contract, in which event the Contractor shall obtain from such Subcontractor (s) an under taking of confidentiality similar to that imposed on the Contractor under this GCC Clause16.
- 16.2 The Procuring Entity shall not use such documents, data and other information received from the Contractor for any purpose other than the operation and maintenance of the Facilities. Similarly, the Contractor shall not use such documents, data and other information received from the Procuring Entity for any purpose other than the design, procurement of Plant, construction or such other work and services as are required for the performance of the Contract.
- 16.3 The obligation of a Party under GCC Sub-Clauses 16.1 and 16.2 above, however, shall not apply to that information which

Now or here after enters the public domain through no fault of that Party can be proven to have been possessed by that Party at the time of disclosure and which was notpreviously obtained, directly or indirectly, from the other Party hereto otherwise lawfully becomes available to that Party from a third Party that has no obligation of confidentiality.

- 16.4 The above provisions of this GCC Clause 16 shall not in any way modify any undertaking of confidentiality given by either of the Parties hereto prior to the date of the Contract in respect of the Facilities or any part thereof.
- 16.5 The provisions of this GCC Clause 16 shall survive termination, for whatever reason, of the Contract.

Execution of the Facilities

17 Representatives

17.1 Project Manager

If the Project Manager is not named in the Contract, then within fourteen (14) days of the Effective Date, the Procuring Entity shall appoint and notify the Contractor in writing of the name of the Project Manager. The Procuring Entity may from time to time appoint some other person as the Project Manager in place of the person previously so appointed, and shall give a notice of the name of such other person to the Contractor without delay. No such appointment shall be made at such a time or in such a manner as to impede the progress of work on the Facilities. Such appointment shall only take effect upon receipt of such notice by the Contractor. The Project Manager shall represent and act for the Procuring Entity at all times during the performance of the Contract. All notices, instructions, orders, certificates, approvals and all other communications under the Contract shall be given by the Project Manager, except as here in otherwise provided.

All notices, instructions, information and other communications given by the Contractor to the Procuring Entity under the Contract shall be given to the Project Manager, except as herein otherwise provided.

- 17.2 Contractor's Representative & Construction Manager
- 17.2.1 If the Contractor's Representative is not named in the Contract, then within fourteen (14) days of the Effective Date, the Contractor shall appoint the Contractor's Representative and shall request the Procuring Entity in writing to approve the person so appointed. If the Procuring Entity makes no objection to the appointment within fourteen (14) days, the Contractor's Representative shall be deemed to have been approved. If the Procuring Entity objects to the appointment within fourteen (14) days giving the reason therefor, then the Contractor shall appoint a replacement within fourteen (14) days of such objection, and the foregoing provisions of this GCC Sub-Clause17.2.1 shall apply thereto.
- 17.2.2 The Contractor's Representative shall represent and act for the Contractor at all times during the performance of the Contract and shall give to the Project Manager all the Contractor's notices, instructions, information and all other communications under the Contract.
- 17.2.3 All notices, instructions, information and all other communications given by the Procuring Entity or the Project Manager to the Contractor under the Contract shall be given to the Contractor's Representative or, in its absence, its deputy, except as herein otherwise provided.
- 17.2.4 The Contractor shall not revoke the appointment of the Contractor's Representative without the Procuring Entity's prior written consent, which shall not be unreasonably withheld. If the Procuring Entity consents thereto, the Contractor shall appoint some other person as the Contractor's Representative, pursuant to the procedure set out in GCC Sub-Clause 17.2.1.
- 17.2.5 The Contractor's Representative may, subject to the approval of the Procuring Entity which shall not be unreasonably withheld, at any time delegate to any person any of the powers, functions and authorities vested in him or her. Any such delegation may be revoked at any time. Any such delegation or revocation shall be subject to a prior notice signed by the Contractor's Representative, and shall specify the powers, functions and authorities there by delegated or revoked. No such delegation or revocation shall take effect unless and until a copy there of has been delivered to the Procuring Entity and the Project Manager.
- 17.2.6 Any actor exercise by any person of powers, functions and authorities so delegated to him or her in accordance with this GCC Sub-Clause 17.2.3 shall be deemed to be an actor exercise by the Contractor's Representative.
- 17.2.7 From the commencement of installation of the Facilities at the Site until Completion, the Contractor's Representative shall appoint a suitable person as the Construction Manager. The Construction Manager shall supervise all work done at the Site by the Contractor and shall be present at the Site throughout normal working hours except when on leave, sick or absent for reasons connected with the proper performance of the Contract. Whenever the Construction Manager is absent from the Site, a suitable person shall be appointed to act as the Construction Manager's deputy.
- 17.2.8 The Procuring Entity may by notice to the Contractor object to any representative or person employed by the Contractor in the execution of the Contract who, in the reasonable opinion of the Procuring Entity, may be have inappropriately, may be incompetent or negligent, or may commit a serious breach of the Site regulations provided under GCC Sub-Clause 22.4. The Procuring Entity shall provide evidence of the same, where upon the Contractor shall remove such person from the Facilities.
- 17.2.9 If any representative or person employed by the Contractor is removed in accordance with GCC Sub- Clause 17.2.5, the Contractor shall, where required, promptly appoint a replacement.

18 Work Program

18.1 Contractor's Organization
The Contractor shall supply to the Procuring Entity and the Project Manager a chart showing the

proposed organization to be established by the Contractor for carrying out work on the Facilities within twenty-one days of the Effective Date. The chart shall include the identities of the key personnel and the curricula vitae of such key personnel to be employed shall be supplied together with the chart. The Contractor shall promptly inform the Procuring Entity and the Project Manager in writing of any revision or alteration of such an organization chart.

18.2 Program of Performance

Within twenty-eight (28) days after the Effective Date, the Contractor shall submit to the Project Manager a detailed program of performance of the Contract, made in a form acceptable to the Project Manager and showing the sequence in which it proposes to design, manufacture, transport, assemble, install and pre- commission the Facilities, as well as the date by which the Contractor reasonably requires that the Procuring Entity shall have fulfilled its obligations under the Contract so as to enable the Contractor to execute the Contract in accordance with the program and to achieve Completion, Commissioning and Acceptance of the Facilities in accordance with the Contract. The program so submitted by the Contractor shall accord with the Time Schedule included in the Appendix to the Contract Agreement titled Time Schedule, and any other dates and periods specified in the Contract. The Contractor shall update and revise the program as and when appropriate or when required by the Project Manager, but without modification in the Times for Completion specified in the SCC pursuant to Sub-Clause 8.2 and any extension granted in accordance with GCC Clause 40, and shall submit all such revisions to the Project Manager.

18.3 Progress Report

The Contractor shall monitor progress of all the activities specified in the program referred to in GCC Sub- Clause 18.2 above, and supply a progress report to the Project Manager every month.

The progress report shall be in a form acceptable to the Project Manager and shall indicate: (a) percentage completion achieved compared with the planned percentage completion for each activity; and (b) where any activity is behind the program, giving comments and likely consequences and stating the corrective action being taken.

18.4 Progress of Performance

If at any time the Contractor's actual progress falls behind the program referred to in GCC Sub-Clause 18.2, or it becomes apparent that it wills of all behind, the Contractor shall, at the request of the Procuring Entity or the project Manager, prepare and submit to the Project Manager a revised program, taking into account the prevailing circumstances, and shall notify the Project Manager of the steps being taken to expedite progress so as to attain Completion of the Facilities within the Time for Completion under GCC Sub-Clause 8.2, any extension thereof entitled under GCC Sub-Clause 40.1, or any extended period as may otherwise be agreed upon between the Procuring Entity and the Contractor.

18.5 Procedures

The Contract shall be executed in accordance with the Contract Documents including the procedures given in the Forms and Procedures of the Procuring Entity's Requirements.

The Contractor may execute the Contract in accordance with its own standard project execution plans and procedures to the extent that they do not conflict with the provisions contained in the Contract.

19 Subcontracting

19.1 The Appendix to the Contract Agreement titled List of Major Items of Plant and Installation Services and List of Approved Subcontractors, specifies major items of supply or services and a list of approved Subcontractors against each item, including manufacturers. In so far as no Subcontractors are listed against any such item, the Contractor shall prepare a list of Subcontractors for such item for inclusion in such list. The Contractor may from time to time propose any addition to or deletion from any such list. The Contractor shall submit any such list or any modification thereto to the

Procuring Entity for its approval in sufficient time so as not to impede the progress of work on the Facilities. Such approval by the Procuring Entity for any of the Subcontractors shall not relieve the Contractor from any of its obligations, duties or responsibilities under the Contract.

- 19.2 The Contractor shall select and employ its Subcontractors for such major items from those listed in the lists referred to in GCC Sub-Clause19.1.
- 19.3 For items or parts of the Facilities not specified in the Appendix to the Contract Agreement titled List of Major Items of Plant and Installation Services and List of Approved Subcontractors, the Contractor may employ such Subcontractors as it may select, at its discretion.
- 19.4 Each sub-contract shall include provisions which would entitle the Procuring Entity to require the sub-contract to be assigned to the Procuring Entity under GCC19.5 (if and when applicable), or in event of termination by the Procuring Entity under GCC 42.2.
- 19.5 If a subcontractor's obligations extend beyond the expiry date of the relevant Defects Liability Period and the Project Manager, prior to that date, instructs the Contractor to assign the benefits of such obligations to the Procuring Entity, then the Contractor shall do so.

20` Design and Engineering

- 20.1 Specifications and Drawings
- 20.1.1The Contractor shall execute the basic and detailed design and the engineering work in compliance with the provisions of the Contract, or where not so specified, in accordance with good engineering practice.
- 20.1.2The Contractor shall be responsible for any discrepancies, errors or omissions in the specifications, drawings and other technical documents that it has prepared, whether such specifications, drawings and other documents have been approved by the Project Manager or not, provided that such discrepancies, errors or omissions are not because of inaccurate information furnished in writing to the Contractor by or on behalf of the Procuring Entity.
- 20.1.2The Contractor shall be entitled to disclaim responsibility for any design, data, drawing, specification or other document, or any modification thereof provided or designated by or on behalf of the Procuring Entity, by giving a notice of such disclaimer to the Project Manager.
- 20.2 Codes and Standards

Wherever references are made in the Contract to codes and standards in accordance with which the Contract shall be executed, the edition or the revised version of such codes and standards current at the date twenty- eight (28) days prior to date of Tender submission shall apply unless otherwise specified. During Contract execution, any changes in such codes and standards shall be applied subject to approval by the Procuring Entity and shall be treated in accordance with GCC Clause 39.

- 20.3 Approval/ Review of Technical Documents by Project Manager.
- 20.3.1 The Contractor shall prepare or cause its Subcontractors to prepare, and furnish to the Project Manager the documents listed in the Appendix to the Contract Agreement titled List of Documents for Approval or Review, for its approval or review as specified and in accordance with the requirements of GCC Sub-Clause 18.2 (Program of Performance).
- 20.3.2Any part of the Facilities covered by or related to the documents to be approved by the Project Managershall be executed only after the Project Manager's approval thereof.

GCC Sub-Clauses 20.3.2 through 20.3.7 shall apply to those documents requiring the Project Manager's approval, but not to those furnished to the Project Manager for its review only.

- 20.2.3Within fourteen (14) days after receipt by the Project Manager of any document requiring the Project Manager's approval in accordance with GCC Sub-Clause 20.3.1, the Project Manager shall either return one copy thereof to the Contractor with its approval endorsed there on or shall notify the Contractor in writing of its disapproval thereof and the reasons therefor and the modifications that the Project Manager proposes.
 - If the Project Manager fails to take such action within the said fourteen (14) days, then the said documentshall be deemed to have been approved by the Project Manager.
- 20.3.4 The Project Manager shall not disapprove any document, except on the grounds that the document does not comply with the Contractor that it is contrary to good engineering practice.
- 20.3.5 If the Project Manager disapproves the document, the Contractor shall modify the document and resubmit it for the Project Manager's approval in accordance with GCC Sub-Clause 20.3.2. If the Project Manager approves the document subject to modification(s), the Contractor shall make the required modification (s), where upon the document shall be deemed to have been approved.
- 20.3.6 If any dispute or difference occurs between the Procuring Entity and the Contractor in connection with or arising out of the disapproval by the Project Manager of any document and/or any modification (s) there to that cannot be settled between the Parties within a reasonable period, then such dispute or difference may be referred to a Dispute Board for determination in accordance with GCC Sub-Clause 46.1 hereof. If such dispute or difference is referred to a Dispute Board, the Project Manager shall give instructions as to whether and if so, how, performance of the Contract is to proceed. The Contractor shall proceed with the Contract in accordance with the Project Manager's instructions, provided that if the Dispute Board upholds the Contractor's view on the dispute and if the Procuring Entity has not given notice under GCC Sub-Clause

 46.3 hereof, then the Contractor shall be reimbursed by the Procuring Entity for any additional costs incurred by reason of such instructions and shall be relieved of such responsibility or liability in
 - 46.3 hereof, then the Contractor shall be reimbursed by the Procuring Entity for any additional costs incurred by reason of such instructions and shall be relieved of such responsibility or liability in connection with the dispute and the execution of the instructions as the Dispute Board shall decide, and the Time for Completion shall be extended accordingly.
- 20.3.7 The Project Manager's approval, with or without modification of the document furnished by the Contractor, shall not relieve the Contractor of any responsibility or liability imposed upon it by any provisions of the Contract except to the extent that any subsequent failure results from modifications required by the Project Manager.
- 20.3.8 The Contractor shall not depart from any approved document unless the Contractor has first submitted to the Project Manager an amended document and obtained the Project Manager's approval thereof, pursuant to the provisions of this GCC Sub-Clause 20.3.
 - If the Project Manager requests any change in any already approved document and/or in any documentbased there on, the provisions of GCC Clause 39 shall apply to such request.

21 Procurement

21.1 Plant

Subject to GCC Sub-Clause 14.2, the Contractor shall procure and transport all Plant in an expeditious and orderly manner to the Site.

21.2 Procuring Entity-Supplied Plant

If the Appendix to the Contract Agreement titled Scope of Works and Supply by the Procuring Entity, provides that the Procuring Entity shall furnish any specific items to the Contractor, the following provisions shall apply:

- 21.2.1 The Procuring Entity shall, at its own risk and expense, transport each item to the place on or near the Site as agreed upon by the Parties and make such item available to the Contractor at the time specified in the program furnished by the Contractor, pursuant to GCC Sub-Clause18.2, unless otherwise mutually agreed.
- 21.2.2 Upon receipt of such item, the Contractor shall inspect the same visually and notify the Project Manager of any detected shortage, defect or default. The Procuring Entity shall

immediately remedy any shortage, defector default, or the Contractor shall, if practicable and possible, at the request of the Procuring Entity, remedy such shortage, defect or default at the Procuring Entity's cost and expense. After inspection, such item shall fall under the care, custody and control of the Contractor. The provision of this GCC Sub-Clause21.2.2 shall apply to any item supplied to remedy any such shortage or default or to substitute for any defective item, or shall apply to defective items that have been repaired.

21.2.3 The foregoing responsibilities of the Contractor and its obligations of care, custody and control shall not relieve the Procuring Entity of liability for any undetected shortage, defect or default, nor place the Contractor under any liability for any such shortage, defect or default whether under GCC Clause 27 or under any other provision of Contract.

21.3 Transportation

- 21.3.1 The Contractor shall at its own risk and expense transport all the materials and the Contractor's Equipment to the Site by the mode of transport that the Contractor judges most suitable under all the circumstances.
- 21.3.2 Unless otherwise provided in the Contract, the Contractor shall be entitled to select any safe mode of transport operated by any person to carry the materials and the Contractor's Equipment.
- 21.3.3 Upon dispatch of each shipment of materials and the Contractor's Equipment, the Contractor shall notify the Procuring Entity by telex, cable, facsimile or electronic means, of the description of the materials and of the Contractor's Equipment, the point and means of dispatch, and the estimated time and point of arrival in the Kenya, if applicable, and at the Site. The Contractor shall furnish the Procuring Entity with relevant shipping documents to be agreed upon between the Parties.
- 21.3.4 The Contractor shall be responsible for obtaining, if necessary, approvals from the authorities for transportation of the materials and the Contractor's Equipment to the Site. The Procuring Entity shall use its best endeavors in a timely and expeditious manner to assist the Contractor in obtaining such approvals, if requested by the Contractor. The Contractor shall indemnify and hold harmless the Procuring Entity from and against any claim for damage to roads, bridges or any other traffic facilities that may be caused by the transport of the materials and the Contractor's Equipment to the Site.

21.4 Customs Clearance

21.4.1 The Contractor shall, at its own expense, handle all imported materials and Contractor's Equipment at the point(s) of import and shall handle any formalities for customs clearance, subject to the Procuring Entity's obligations under GCC Sub-Clause 14.2, provided that if applicable laws or regulations require any application or act to be made by or in the name of the Procuring Entity, the Procuring Entity shall take all necessary steps to comply with such laws or regulations. In the event of delays in customs clearance that are not the fault of the Contractor, the Contractor shall be entitled to an extension in the Time for Completion, pursuant to GCC Clause40.

22 Installation

22.1 Setting Out/ Supervision

22.1.1Bench Mark: The Contractor shall be responsible for the true and proper setting-out of the Facilities in relation to bench marks, reference marks and lines provided to it in writing by or on behalf of the Procuring Entity.

If, at any time during the progress of installation of the Facilities, any error shall appear in the position, level or alignment of the Facilities, the Contractor shall forth with notify the Project

Manager of such error and, at its own expense, immediately rectify such error to the reasonable satisfaction of the Project Manager. If such error is based on incorrect data provided in writing by or on behalf of the Procuring Entity, the expense of rectifying the same shall be borne by the Procuring Entity.

22.1.2Contractor's Supervision: The Contractor shall give or provide all necessary superintendence during the installation of the Facilities, and the Construction Manager or its deputy shall be constantly on the Site to provide full-time super intendance of the installation. The Contractor shall provide and employ only technical personnel who are skilled and experienced in their respective callings and supervisory staff who are competent to adequately supervise the work at hand.

22.2 Labor:

22.2.1 Engagement of Staff and Labor

Except as otherwise stated in the Specification, the Contractor shall make arrangements for the engagement of all staff and labor, local or otherwise, and for their payment, housing, feeding and transport.

The Contractor shall provide and employ on the Site in the installation of the Facilities such skilled, semi-skilled and unskilled labor as is necessary for the proper and timely execution of the Contract. The Contractor is encouraged to use local labor that has the necessary skills.

The Contractor shall be responsible for obtaining all necessary permit(s) and/or visa(s) from the appropriate authorities for the entry of all labor and personnel to be employed on the Site into Kenya. The Procuring Entity will, if requested by the Contractor, use his best endeavors in a timely and expeditious manner to assist the Contractor in obtaining any local, state, national or government permission required for bringing in the Contractor's personnel.

The Contractor shall at its own expense provide the means of repatriation to all of its and its Subcontractor's personnel employed on the Contract at the Site to the place where they were recruited or to their domicile. It shall also provide suitable temporary maintenance of all such persons from the cessation of their employment on the Contract to the date programmed for their departure. In the event that the Contractor defaults in providing such means of transportation and temporary maintenance, the Procuring Entity may provide the same to such personnel and recover the cost of doing so from the Contractor.

22.2.2 Persons in the Service of Procuring Entity

The Contractor shall not recruit, or attempt to recruit, staff and labor from amongst the Procuring Entity's Personnel.

22.2.3 Labor Laws

The Contractor shall comply with all the relevant labor Laws applicable to the Contractor's Personnel, including Laws relating to their employment, health, safety, welfare, immigration and emigration, and shall allow them all their legal rights.

The Contractor shall at all times during the progress of the Contract use its best endeavors to prevent any unlawful, riotous or disorderly conduct or behavior by or amongst its employees and the labor of its Subcontractors.

The Contractor shall, in all dealings with its labor and the labor of its Subcontractors currently employed on or connected with the Contract, pay due regard to all recognized festivals, official holidays, religious or other customs and all local laws and regulations pertaining to the employment of labor.

22.2.4 Rates of Wages and Conditions of Labor

The Contractor shall pay rates of wages, and observe conditions of labor, which are not lower than those established for the trade or industry where the work is carried out. If no established rates or conditions are applicable, the Contractor shall pay rates of wages and observe conditions which are not lower than the general level of wages and conditions observed locally by Procuring Entities whose trade or industry is similar to that of the Contractor.

The Contractor shall in form the Contractor's Personnel about their liability to pay personal income taxes in the Country in respect of such of their salaries, wages and allowances as are chargeable under the Laws for the time being in force, and the Contractor shall perform such duties in regard to such deductions thereof as may be imposed on him by such Laws.

22.2.5 Working Hours

No work shall be carried out on the Site on locally recognized days of rest, or outside the normal working hours stated in the SCC, unless:

Otherwise stated in the Contract.

The Project Manager gives consent, or

The work is unavoidable, or necessary for the protection of life or property or for the safety of the Works, in which case the Contractor shall immediately advise the Project Manager.

If and when the Contractor considers it necessary to carryout work at night or on public holidays so as to meet the Time for Completion and requests the Project Manager's consent thereto, the Project Manager shall not unreasonably withhold such consent.

This Sub-Clause shall not apply to any work which is customarily carried out by rotary or double-shifts.

22.2.6 Facilities for Staff and Labor

Except as otherwise stated in the Specification, the Contractor shall provide and maintain all necessary accommodation and welfare facilities for the Contractor's Personnel. The Contractor shall also provide facilities for the Procuring Entity's Personnel as stated in the Specification.

The Contractor shall not permit any of the Contractor's Personnel to maintain any temporary or permanent living quarters within the structures forming part of the Permanent Works.

22.2.7 Health and Safety

The Contractor shall at all times take all reasonable precautions to maintain the health and safety of the Contractor's Personnel. In collaboration with local health authorities, the Contractor shall ensure that medical staff, first aid facilities, sick bay and ambulance service are available at all times at the Site and at any accommodation for Contractor's and Procuring Entity's Personnel, and that suitable arrangements are made for all necessary welfare and hygiene requirements and for the prevention of epidemics.

The Contractor shall appoint an accident prevention officer at the Site, responsible for maintaining safety and protection against accidents. This person shall be qualified for this responsibility, and shall have the authority to issue instructions and take protective measures to prevent accidents. Throughout the performance of the Contract, the Contractor shall provide whatever is required by this person to exercise this responsibility and authority.

The Contractor shall send to the Project Manager, details of any accident as soon as practicable after its occurrence. The Contractor shall maintain records and make reports concerning health, safety and welfare of persons, and damage to property, as the Project Manager may reasonably require.

The Contractor shall throughout the contract (including the Defects Notification Period): (i) conduct Information, Education and Consultation Communication (IEC) campaigns, at least every other

month, addressed to all the Site staff and labor (including all the Contractor's employees, all Subcontractors and Procuring Entity's and Project Manager's' employees, and all truck drivers and crew making deliveries to Site for construction activities) and to the immediate local communities, concerning the risks, dangers and impact, and appropriate avoidance behavior with respect to of Sexually Transmitted Diseases (STD) - or Sexually Transmitted Infections (STI) in general and HIV/AIDS in particular; (ii) provide male or female condoms for all Site staff and labor as appropriate; and (iii) provide for STI and HIV/AIDS screening, diagnosis, counseling and referral to a dedicated national STI and HIV/AIDS program, (unless otherwise agreed) of all Site staff and labor.

The Contractor shall include in the program to be submitted for the execution of the Facilities under Sub- Clause18.2 an alleviation program for Site staff and labor and their families in respect of Sexually Transmitted Infections (STI) and Sexually Transmitted Diseases (STD) including HIV/AIDS. The STI, STD and HIV/AIDS alleviation program shall indicate when, how and at what cost the Contractor plans to satisfy the requirements of this Sub-Clause and the related specification. For each component, the program shall detail the resources to be provided or utilized and any related subcontracting proposed. The program shall also include provision of a detailed cost estimate with supporting documentation. Payment to the Contractor for preparation and implementation this program shall not exceed the Provisional Sum dedicated for this purpose.

22.2.8 Funeral Arrangements

In the event of the death of any of the Contractor's personnel or accompanying members of their families, the Contractor shall be responsible for making the appropriate arrangements for their return or burial, unless otherwise specified in the **SCC**.

22.2.9 Records of Contractor's Personnel

The Contractor shall keep accurate records of the Contractor's personnel, including the number of each class of Contractor's Personnel on the Site and the names, ages, genders, hours worked and wages paid to all workers. These records shall be summarized on a monthly basis in a form approved by the Project Manager and shall be available for inspection by the Project Manager until the Contractor has completed all work.

22.2.10 Supply of Food stuffs

The Contractor shall arrange for the provision of a sufficient supply of suitable food as may be stated in the Specification at reasonable prices for the Contractor's Personnel for the purposes of or in connection with the Contract.

22.2.11 Supply of Water

The Contractor shall, having regard to local conditions, provide on the Site an adequate supply of drinking and other water for the use of the Contractor's Personnel.

22.2.12 Measures against Insect and Pest Nuisance

The Contractor shall at all times take the necessary precautions to protect the Contractor's Personnel employed on the Site from insect and pest nuisance, and to reduce their danger to health. The Contractor shall comply with all the regulations of the local health authorities, including use of appropriate insecticide.

22.2.13 Alcoholic Liquor or Drugs

The Contractor shall not, otherwise than in accordance with the Laws of Kenya, import, sell, give barter or otherwise dispose of any alcoholic liquor or drugs, or permit or allow importation, sale, gift barter ordisposal by Contractor's Personnel.

22.2.14 Arms and Ammunition

The Contractor shall not give, barter, or otherwise dispose of, to any person, any arms or ammunition of any kind, or allow Contractor's Personnel to do so.

22.2.15 Prohibition of All Forms of Forced or Compulsory Labor

The contractor shall not employ "forced or compulsory labor" in any form. "Forced or compulsory labor" consists of all work or service, not voluntarily performed, that is extracted from an individual under threat offorce or penalty.

22.2.16 Prohibition of Harmful Child Labor

The Contractor shall not employ any child to perform any work that is economically exploitative, or is likely to be hazardous to, or to interfere with, the child's education, or to be harmful to the child's health or physical, mental, spiritual, moral, or social development.

22.3 Contractor's Equipment

- 22.3.1All Contractor's Equipment brought by the Contractor on to the Site shall be deemed to be intended to be used exclusively for the execution of the Contract. The Contractor shall not remove the same from the Site without the Project Manager's consent that such Contractor's Equipment is no longer required for the execution of the Contract.
- 22.3.2Unless otherwise specified in the Contract, upon completion of the Facilities, the Contractor shall remove from the Site all Equipment brought by the Contractor on to the Site and any surplus materials remaining there on.
- 22.3.3The Procuring Entity will, if requested, use its best endeavors to assist the Contractor in obtaining any local, state or national government permission required by the Contractor for the export of the Contractor's Equipment imported by the Contractor for use in the execution of the Contract that is no longer required for the execution of the Contract.

22.4 Site Regulations and Safety

The Procuring Entity and the Contractor shall establish Site regulations setting out the rules to be observed in the execution of the Contract at the Site and shall comply there with. The Contractor shall prepare and submit to the Procuring Entity, with a copy to the Project Manager, proposed Site regulations for the Procuring Entity's approval, which approval shall not be unreasonably withheld.

Such Site regulations shall include, but shall not be limited to, rules in respect of security, safety of the Facilities, gate control, sanitation, medical care, and fire prevention.

22.5 Opportunities for Other Contractors

- 22.5.1The Contractor shall, upon written request from the Procuring Entity or the Project Manager, give all reasonable opportunities for carrying out the work to any other contractors employed by the Procuring Entityon or near the Site.
- 22.5.2If the Contractor, upon written request from the Procuring Entity or the Project Manager, makes available to other contractors any roads or ways the maintenance for which the Contractor is responsible, permits the use by such other contractors of the Contractor's Equipment, or provides any other service of whatsoever nature for such other contractors, the Procuring Entity shall fully compensate the Contractor for any loss or damage caused or occasioned by such other contractors in respect of any such use or service, and shall pay to the Contractor reasonable remuneration for the use of such equipment or the provision of such services.
- 22.5.3The Contractor shall also so arrange to perform its work as to minimize, to the extent possible, interference with the work of other contractors. The Project Manager shall determine the resolution of any difference or conflict that may arise between the Contractor and other contractors and the workers of the Procuring Entity in regard to their work.

22.5.4The Contractor shall notify the Project Manager promptly of any defects in the other contractors' work that come to its notice, and that could affect the Contractor's work. The Project Manager shall determine the corrective measures, if any, required to rectify the situation after inspection of the Facilities. Decisions made by the Project Manager shall be binding on the Contractor.

22.6 Emergency Work

If, by reason of an emergency arising in connection with and during the execution of the Contract, any protective orremedial work is necessary as a matter of urgency to prevent damage to the Facilities, the Contractor shall immediately carry out such work.

If the Contractor is unable or unwilling to do such work immediately, the Procuring Entity may door cause such work to be done as the Procuring Entity may determine is necessary in order to prevent damage to the Facilities. In such event the Procuring Entity shall, as soon as practicable after the occurrence of any such emergency, notify the Contractor in writing of such emergency, the work done and the reasons there for. If the work done or caused to be done by the Procuring Entity is work that the Contractor was liable to do at its own expense under the Contract, the reasonable costs incurred by the Procuring Entity in connection there with shall be paid by the Contractor to the Procuring Entity. Otherwise, the cost of such remedial work shall be borne by the Procuring Entity.

22.7 Site Clearance

- 22.7.1Site Clearance in Course of Performance: In the course of carrying out the Contract, the Contractor shall keep the Site reasonably free from all unnecessary obstruction, store or remove any surplus materials, clear away any wreckage, rubbish or temporary works from the Site, and remove any Contractor's Equipment no longer required for execution of the Contract.
- 22.7.2Clearance of Site after Completion: After Completion of all parts of the Facilities, the Contractor shall clear away and remove all wreckage, rubbish and debris of any kind from the Site, and shall leave the Site and Facilities in a clean and safe condition.

22.8 Watching and Lighting

The Contractor shall provide and maintain at its own expense all lighting, fencing, and watching when and Where necessary for the proper execution and the protection of the Facilities, or for the safety of the owners and occupiers of adjacent property and for the safety of the public.

23 Test and Inspection

- 23.1 The Contractor shall at its own expense carryout at the place of manufacture and/or on the Site all such tests and/ or inspections of the Plant and any part of the Facilities as are specified in the Contract.
- 23.2 The Procuring Entity and the Project Manager or their designated representatives shall be entitled to attend the afore said test and/ or inspection, provided that the Procuring Entity shall bear all costs and expenses incurred in connection with such attendance including, but not limited to, all traveling andboard and lodging expenses.
- 23.3 Whenever the Contractor is ready to carry out any such test and/or inspection, the Contractor shall give a reasonable advance notice of such test and/or inspection and of the place and time thereof to the Project Manager. The Contractorshall obtain from any relevant third Party or manufacturer any necessary permis sion or consent to enable the Procuring Entity and the Project Manager or their designated representatives to attend the test and/or inspection.

- 23.4 The Contractor shall provide the Project Manager with a certified report of the results of any such test and/ or inspection. If the Procuring Entity or Project Manager or their designated representatives fails to attend the test and/or inspection, or if it is agreed between the Parties that such persons shall not do so, then the Contractor may proceed with the test and/ or inspection in the absence of such persons, and may provide the Project Manager with a certified report of the results thereof.
- 23.5 The Project Manager may require the Contractor to carry out any test and/or inspection not required by the Contract, provided that the Contractor's reasonable costs and expenses incurred in the carrying out of such test and/or inspection shall be added to the Contract Price. Further, if such test and/or inspection impede the progress of work on the Facilities and/or the Contractor's performance of its other obligations under the Contract, due allowance will be made in respect of the Time for Completion and the other obligations so affected.
- 23.6 If any Plant or any part of the Facilities fails to pass any test and/ or inspection, the Contractor shall either rectify or replace such Plant or part of the Facilities and shall repeat the test and/or inspection upongiving a notice under GCC Sub-Clause 23.3.
- 23.7 If any dispute or difference of opinion shall arise between the Parties in connection with or arising out of the test and/or inspection of the Plant or part of the Facilities that cannot be settled between the Parties within a reasonable period of time, it may be referred to a Dispute Board for determination in accordance with GCCSub-Clause 46.3.
- 23.8 The Contractor shall afford the Procuring Entity and the Project Manager, at the Procuring Entity's expense, access at any reasonable time to any place where the Plant are being manufactured or the Facilities are being installed, in order to inspect the progress and the manner of manufacture or installation, provided that the Project Manager shall give the Contractor a reasonable prior notice.
- 23.9 The Contractor agrees that neither the execution of a test and/ or inspection of Plant or any part of the Facilities, nor the attendance by the Procuring Entity or the Project Manager, nor the issue of any test certificate pursuant to GCC Sub-Clause 23.4, shall release the Contractor from any other responsibilities under the Contract.
- 23.10 No part of the Facilities or foundations shall be covered upon the Site without the Contractor carrying out any test and/or inspection required under the Contract. The Contractor shall give a reasonable notice to the Project Manager whenever any such parts of the Facilities or foundations are ready or about to be ready for test and/or inspection; such test and/or inspection and notice there of shall be subject to the requirements of the Contract.
- 23.11 The Contractor shall uncover any part of the Facilities or foundations, or shall make openings in or through the same as the Project Manager may from time to time require at the Site, and shall reinstate and make goodsuch part or parts.

If any parts of the Facilities or foundations have been covered up at the Site after compliance with the requirement of GCC Sub-Clause 23.10 and are found to be executed in accordance with the Contract, the expenses of uncovering, making openings in or through, reinstating, and making good the same shall be borne by the Procuring Entity, and the Time for Completion shall be reasonably adjusted to the extent that the contractor has thereby been delayed or impeded in the performance of any of its obligations under the Contract.

24 Completion of the Facilities

24.1 As soon as the Facilities or any part thereof has, in the opinion of the Contractor, been completed operationally and structurally and put in a tight and clean condition as specified in the Procuring

- Entity's Requirements, excluding minor items not materially affecting the operation or safety of the Facilities, the Contractor shall so notify the Procuring Entity in writing.
- 24.2 Within seven (7) days after receipt of the notice from the Contractor under GCC Sub-Clause 24.1, the Procuring Entity shall supply the operating and maintenance personnel specified in the Appendix to the Contract Agreement titled Scope of Works and Supply by the Procuring Entity for Precommissioning of the Facilities or any part thereof.
- 24.3 Pursuant to the Appendix to the Contract Agreement titled Scope of Works and Supply by the Procuring Entity, the Procuring Entity shall also provide, within the said seven (7) day period, the raw materials, utilities, lubricants, chemicals, catalysts, facilities, services and other matters required for Pre- commissioning of the Facilities or any part thereof.
- 24.4 As soon as reasonably practicable after the operating and maintenance personnel have been supplied by the Procuring Entity and the raw materials, utilities, lubricants, chemicals, catalysts, facilities, services and other matters have been provided by the Procuring Entity in accordance with GCC Sub-Clause24.2, the Contractor shall commence Pre-commissioning of the Facilities or the relevant part thereof in preparation for Commissioning, subject to GCC Sub-Clause 25.5.
- 24.5 As soon as all works in respect of Pre-commissioning are completed and, in the opinion of the Contractor, the Facilities or any part thereof is ready for Commissioning, the Contractor shall so notify the Project Manager in writing.
- 24.6 The Project Manager shall, within fourteen (14) days after receipt of the Contractor's notice under GCC Sub-Clause24.4, either issue a Completion Certificate in the form specified in the Procuring Entity's Requirements (Forms and Procedures), stating that the Facilities or that part thereof have reached Completion as of the date of the Contractor's notice under GCC Sub-Clause 24.4, or notify the Contractor in writing of any defects and/or deficiencies.

If the Project Manager notifies the Contractor of any defects and/or deficiencies, the Contractor shall then correct such defects and/or deficiencies, and shall repeat the procedure described in GCC Sub-Clause 24.4. If the Project Manager is satisfied that the Facilities or that part thereof have reached Completion, the Project Manager shall, within seven (7) days after receipt of the Contractor's repeated notice, issue a Completion Certificate stating that the Facilities or that part thereof have reached Completion as of the date of the Contractor's repeated notice.

If the Project Manager is not so satisfied, then it shall notify the Contractor in writing of any defects and/or deficiencies within seven (7) days after receipt of the Contractor's repeated notice, and the above procedure shall be repeated.

- 24.7 If the Project Manager fails to issue the Completion Certificate and fails to inform the Contractor of any defects and/or deficiencies within fourteen (14) days after receipt of the Contractor's notice under GCC Sub-Clause 24.4 or within seven (7) days after receipt of the Contractor's repeated notice under GCC Sub-Clause 24.5, or if the Procuring Entity makes use of the Facilities or part thereof, then the Facilities or that part there of shall be deemed to have reached Completion as of the date of the Contractor's notice or repeated notice, or as of the Procuring Entity's use of the Facilities, as the case may be.
 - 24.8 As soon as possible after Completion, the Contractor shall complete all outstanding minor items so that the Facilities are fully in accordance with the requirements of the Contract, failing which the Procuring Entity will undertake such completion and deduct the costs there of from any monies owing to the Contractor.
 - 24.9 Upon Completion, the Procuring Entity shall be responsible for the care and custody of the Facilities or the relevant part thereof, together with the risk of loss or damage thereto, and shall thereafter take over the Facilities or the relevant part thereof.

25 Commissioning and Operational Acceptance

25.1 Commissioning

- 25.1.1 Commissioning of the Facilities or any part there of shall be commenced by the Contractor immediately after issue of the Completion Certificate by the Project Manager, pursuant to GCC Sub-Clause 24.5, or immediately after the date of the deemed Completion, under GCC Sub-Clause 24.6
- 25.1.2 The Procuring Entity shall supply the operating and maintenance personnel and all raw materials, utilities, lubricants, chemicals, catalysts, facilities, services and other matters required for Commissioning.
- 25.1.3 In accordance with the requirements of the Contract, the Contractor's and Project Manager's advisory personnel shall attend the Commissioning, including the Guarantee Test, and shall advise and assist the Procuring Entity.

25.2 Guarantee Test

- 25.2 Subject to GCC Sub-Clause 25.5, the Guarantee Test and repeats there of shall be conducted by the Contractor during Commissioning of the Facilities or the relevant part thereof to ascertain whether the Facilities or the relevant part can attain the Functional Guarantees specified in the Appendix to the Contract Agreement titled Functional Guarantees. The Procuring Entity shall promptly provide the Contractor with such information as the Contractor may reasonably require in relation to the conduct and results of the Guarantee Test and any repeats thereof.
- 25.1.1 If for reasons not attributable to the Contractor, the Guarantee Test of the Facilities or the relevant part thereof cannot be successfully completed within the period from the date of Completion specified in the SCC or any other period agreed upon by the Procuring Entity and the Contractor, the Contractor shall be deemed to have fulfilled its obligations with respect to the Functional Guarantees, and GCC Sub-Clauses 28.2 and 28.3 shall not apply.

25.3 Operational Acceptance

25.3.1 Subject to GCC Sub-Clause 25.4 below, Operational Acceptance shall occur in respect of the Facilities or any part thereof when

The Guarantee Test has been successfully completed and the Functional Guarantees are met; or the Guarantee Test has not been successfully completed or has not been carried out for reasons not attributable to the Contractor within the period from the date of Completion specified in the SCC pursuant to GCC Sub-Clause 25.2.2 above or any other period agreed upon by the Procuring Entity and the Contractor; or the Contractor has paid the liquidated damages specified in GCC Sub-Clause 28.3hereof; and any minor items mentioned in GCC Sub-Clause 24.7 here of relevant to the Facilities or that part thereof have been completed.

- 25.3.2 At any time after any of the events set out in GCC Sub-Clause 25.3.1 have occurred, the Contractor may give a notice to the Project Manager requesting the issue of an Operational Acceptance Certificate in the form provided in the Procuring Entity's Requirements (Forms and Procedures) in respect of the Facilities or the part there of specified in such notice as of the date of such notice.
- 25.3.3 The Project Manager shall, after consultation with the Procuring Entity, and within seven (7) days after receipt of the Contractor's notice, issue an Operational Acceptance Certificate.
- 25.3.4 If within seven (7) days after receipt of the Contractor's notice, the Project Manager fails to issue the Operational Acceptance Certificate or fails to inform the Contractor in writing of the justifiable reasons why the Project Manager has not issued the Operational Acceptance Certificate, the Facilities or the relevant part there of shall be deemed to have been accepted as of the date of the Contractor's said notice.

25.4 Partial Acceptance

- 25.4.1 If the Contract specifies that Completion and Commissioning shall be carried out in respect of parts of the Facilities, the provisions relating to Completion and Commissioning including the Guarantee Test shall apply to each such part of the Facilities individually, and the Operational Acceptance Certificate shall be issued accordingly for each such part of the Facilities.
- 25.4.2 If a part of the Facilities comprises facilities such as buildings, for which no Commissioning or Guarantee Test is required, then the Project Manager shall issue the Operational Acceptance Certificate for such facility when it attains Completion, provided that the Contractor shall there after complete any outstanding minor items that are listed in the Operational Acceptance Certificate.
- 25.5 Delayed Pre-commissioning and/or Guarantee Test
- 25.5.1 In the event that the Contractor is unable to proceed with the Pre-commissioning of the Facilities pursuant to Sub-Clause 24.3, or with the Guarantee Test pursuant to Sub-Clause 25.2, for reasons attributable to the Procuring Entity either on account of non-availability of other facilities under the responsibilities of other contractor(s), or for reasons beyond the Contractor's control, the provisions leading to "deemed" completion of activities such as Completion, pursuant to GCC Sub-Clause 24.6, and Operational Acceptance, pursuant to GCC Sub-Clause 25.3.4, and Contractor's obligations regarding Defect Liability Period, pursuant to GCC Sub-Clause 27.2, Functional Guarantee, pursuant to GCC Clause 28, and Care of Facilities, pursuant to GCC Clause 32, and GCC Clause 41.1, Suspension, shall not apply. In this case, the following provisions shall apply.
- 25.5.2 When the Contractor is notified by the Project Manager that he will be unable to proceed with the activities and obligations pursuant to above Sub-Clause 25.5.1, the Contractor shall be entitled to the following:

The Time of Completion shall be extended for the period of suspension without imposition of liquidated damages pursuant to GCC Sub-Clause 26.2;

payments due to the Contractor in accordance with the provision specified in the Appendix to the Contract Agreement titled Terms and Procedures of Payment, which would not have been payable innormal circumstances due to non-completion of the subject activities, shall be released to the Contractor against submission of a security in the form of a bank guarantee of equivalent amount acceptable to the Procuring Entity, and which shall become null and void when the Contractor will have complied with its obligations regarding those payments, subject to the provision of Sub-Clause 25.5.3 below;

the expenses towards the above security and extension of other securities under the contract, of which validity needs to be extended, shall be reimbursed to the Contractor by the Procuring Entity;

the additional charges towards the care of the Facilities pursuant to GCC Sub-Clause 32.1 shall be reimbursed to the Contractor by the Procuring Entity for the period between the notification mentioned above and the notification mentioned in Sub-Clause 25.5.4 below. The provision of GCC Sub-Clause 33.2 shall apply to the Facilities during the same period.

Where the contract price is different from the corrected tender price, in order to ensure the contractor is not paid less or more relative to the contract price (which would be the tender price), payment valuation certificates and variation orders on omissions and additions valued based on rates in the Bill of Quantities or schedule of rates in the Tender, will be adjusted by a plus or minus percentage. The percentage already worked out during tender evaluation is worked out as follows: (corrected tender price –tender price)/ tender price X100.

- 25.5.3 In the event that the period of suspension under above Sub-Clause 25.5.1 actually exceeds one hundred eighty days, the Procuring Entity and Contractor shall mutually agree to any additional compensation payable to the Contractor.
- 25.5.4 When the Contractor is notified by the Project Manager that the plant is ready for Precommissioning, the Contractor shall proceed without delay in performing Pre-commissioning in accordance with Clause 24.

Guarantees and Liabilities

26 Completion Time

Guarantee

- 26.1 The Contractor guarantees that it shall attain Completion of the Facilities (or a part for which a separate time for completion is specified) within the Time for Completion specified in the SCC pursuant to GCC Sub-Clause 8.2, or within such extended time to which the Contractor shall be entitled under GCC Clause 40 hereof.
- 26.2 If the Contractor fails to attain Completion of the Facilities or any part thereof within the Time for Completion or any extension thereof under GCC Clause 40, the Contractor shall pay to the Procuring Entity liquidated damages in the amount specified in the SCC as a percentage rate of the Contract Price or the relevant part thereof. The aggregate amount of such liquidated damages shall in no event exceed the amount specified as "Maximum" in the SCC as a percentage rate of the Contract Price. Once the "Maximum" is reached, the Procuring Entity may consider termination of the Contract, pursuant to GCC Sub-Clause 42.2.2.
- 26.3 Such payment shall completely satisfy the Contractor's obligation to attain Completion of the Facilities or the relevant part thereof within the Time for Completion or any extension thereof under GCC Clause 40. The Contractor shall have no further liability whatsoever to the Procuring Entity in respect thereof.
 - 4 However, the payment of liquidated damages shall not in any way relieve the Contractor from any of its obligations to complete the Facilities or from any other obligations and liabilities of the Contractor under the Contract.
 - 5 Save for liquidated damages payable under this GCC Sub-Clause 26.2, the failure by the Contractor to attain any milestone or other act, matter or thing by any date specified in the Appendix to the Contract Agreement titled Time Schedule, and/or other program of work prepared pursuant to GCC Sub-Clause 18.2 shall not render the Contractor liable for any loss or damage there by suffered by the Procuring Entity.
- 26.6 If the Contractor attains Completion of the Facilities or any part there of before the Time for Completion or any extension thereof under GCC Clause 40, the Procuring Entity shall pay to the Contractor a bonus in the amount specified in the SCC. The aggregate amount of such bonus shall in no event exceed the amount specified as "Maximum" in the SCC.

27 Defect Liability

- 27.1 The Contractor warrants that the Facilities or any part thereof shall be free from defects in the design, engineering, materials and workmanship of the Plant supplied and of the work executed.
- 27.2 The Defect Liability Period shall be five hundred and forty (540) days from the date of Completion of the Facilities (or any part thereof) or one year from the date of Operational Acceptance of the Facilities (or any part thereof), whichever first occurs, unless specified otherwise in the SCC pursuant to GCC Sub-Clause 27.10.

If during the Defect Liability Period any defect should be found in the design, engineering, materials and workmanship of the Plant supplied or of the work executed by the Contractor, the Contractor shall promptly, in consultation and agreement with the Procuring Entity regarding appropriate remedying of the defects, and at its cost, repair, replace or otherwise make good as the Contractor shall determine at its discretion, such defect as well as any damage to the Facilities caused by such defect. The Contractor shall not be responsible for the repair, replacement or making good of any defector of any damage to the Facilities arising out of or resulting from any of the following causes:

Improper operation or maintenance of the Facilities by the Procuring

Entity; Operation of the Facilities outside specifications provided in

the Contract; or Normal wear and tear.

27.3 The Contractor's obligations under this GCC Clause 27 shall not apply to:

any materials that are supplied by the Procuring Entity under GCC Sub-Clause 21.2, are normally consumed in operation, or have a normal life shorter than the Defect Liability Period stated herein;

any designs, specifications or other data designed, supplied or specified by or on behalf of the Procuring Entity or any matters for which the Contractor has disclaimed responsibility herein; or any other materials supplied or any other work executed by or on behalf of the Procuring Entity, except for the work executed by the Procuring Entity under GCC Sub-Clause 27.7.

- 27.4 The Procuring Entity shall give the Contractor a notice stating the nature of any such defect together with all available evidence thereof, promptly following the discovery thereof. The Procuring Entity shall afford all reasonable opportunity for the Contractor to inspect any such defect.
- 27.5 The Procuring Entity shall afford the Contractor all necessary access to the Facilities and the Site to enable the Contractor to perform its obligations under this GCC Clause 27.

The Contractor may, with the consent of the Procuring Entity, remove from the Site any Plant or any part of the Facilities that are defective if the nature of the defect, and/or any damage to the Facilities caused by the defect, is such that repairs cannot be expeditiously carried out at the Site.

- 27.6 If the repair, replacement or making good is of such a character that it may affect the efficiency of the Facilities or any part thereof, the Procuring Entity may give to the Contractor a notice requiring that tests of the defective part of the Facilities shall be made by the Contractor immediately upon completion of such remedial work, where upon the Contractor shall carryout such tests.
- 27.7 If such part fails the tests, the Contractor shall carryout further repair, replacement or making good, as the case may be, until that part of the Facilities passes such tests. The tests shall be agreed upon by the Procuring Entity and the Contractor.
- 27.8 If the Contractor fails to commence the work necessary to remedy such defector any damage to the Facilities caused by such defect within a reasonable time (which shall in no event be considered to be less than fifteen (15) days), the Procuring Entity may, following notice to the Contractor, proceed to do such work, and the reasonable costs incurred by the Procuring Entity in connection there with shall be paid to the Procuring Entity by the Contractor or may be deducted by the Procuring Entity from any monies due the Contractor or claimed under the Performance Security.
- 27.9 If the Facilities or any part thereof cannot be used by reason of such defect and/or making good of such defect, the Defect Liability Period of the Facilities or such part, as the case may be, shall be extended by a period equal to the period during which the Facilities or such part cannot be used

by the Procuring Entity because of any of the aforesaid reasons.

- 27.10 Except as provided in GCC Clauses 27 and 33, the Contractor shall be under no liability whatsoever and how so ever arising, and whether under the Contractor at law, in respect of defects in the Facilities or any part thereof, the Plant, design or engineering or work executed that appear after Completion of the Facilities or any part thereof, except where such defects are the result of the gross negligence, fraud, or criminal or willful action of the Contractor.
- 27.11 In addition, any such component of the Facilities, and during the period of time as may be specified in the **SCC**, shall be subject to an extended defect liability period. Such obligation of the Contractor shall be in addition to the defect liability period specified under GCC Sub-Clause 27.2.

28 Functional Guarantees

- 28.1 The Contractor guarantees that during the Guarantee Test, the Facilities and all parts thereof shall attain the Functional Guarantees specified in the Appendix to the Contract Agreement titled Functional Guarantees, subject to and upon the conditions therein specified.
- 28.2 If, for reasons attributable to the Contractor, the minimum level of the Functional Guarantees specified in the Appendix to the Contract Agreement titled Functional Guarantees, are not met either in whole or in part, the Contractor shall at its cost and expense make such changes, modifications and/ or additions to the Plant or any part there of as may be necessary to meet at least the minimum level of such Guarantees. The Contractor shall notify the Procuring Entity upon completion of the necessary changes, modifications and/or additions, and shall request the Procuring Entity to repeat the Guarantee Test until the minimum level of the Guarantees has been met. If the Contractor eventually fails to meet the minimum level of Functional Guarantees, the Procuring Entity may consider termination of the Contract, pursuant to GCC Sub-Clause 42.2.2.
- 28.3 If, for reasons attributable to the Contractor, the Functional Guarantees specified in the Appendix to the Contract Agreement titled Functional Guarantees, are not attained either in whole or in part, but the minimum level of the Functional Guarantees specified in the said Appendix to the Contract Agreement is met, the Contractor shall, at the Contractor's option, either

Make such changes, modifications and/or additions to the Facilities or any part there of that are necessary to attain the Functional Guarantees at its cost and expense, and shall request the Procuring Entity to repeat the Guarantee Test or

Pay liquidated damages to the Procuring Entity in respect of the failure to meet the Functional Guarantees in accordance with the provisions in the Appendix to the Contract Agreement titled Functional Guarantees.

The payment of liquidated damages under GCC Sub-Clause 28.3, up to the limitation of liabilityspecified in the Appendix to the Contract Agreement titled Functional Guarantees, shall completely satisfy the Contractor's guarantees under GCC Sub-Clause 28.3, and the Contractor shall have no further liability whatsoever to the Procuring Entity in respect thereof. Upon the payment of such liquidated damages by the Contractor, the Project Manager shall issue the Operational Acceptance

Certificate for the Facilities or any part thereof in respect of which the liquidated damages have been so paid.

29 Patent Indemnity

29.1 The Contractor shall, subject to the Procuring Entity's compliance with GCC Sub-Clause 29.2, indemnify and hold harmless the Procuring Entity and its employees and officers from and against any and all suits, actions or administrative proceedings, claims, demands, losses, damages, costs, and expenses of whatsoever nature, including attorney's fees and expenses, which the Procuring Entity may suffer as a result of any infringement or alleged infringement of any patent, utility model, registered design, trademark, copy right or other intellectual property right registered or

otherwise existing at the date of the Contract by reason of: (a) the installation of the Facilities by the Contractor or the use of the Facilities in Kenya; and (b) the sale of the products produced by the Facilities in any country.

- 29.2 Such indemnity shall not cover any use of the Facilities or any part thereof other than for the purpose indicated by or to be reasonably inferred from the Contract, any infringement resulting from the use of the Facilities or any part thereof, or any products produced thereby in association or combination with any other equipment, plant or materials not supplied by the Contractor, pursuant to the Contract Agreement.
- 29.3 If any proceedings are brought or any claim is made against the Procuring Entity arising out of the matters referred to in GCC Sub-Clause 29.1, the Procuring Entity shall promptly give the Contractor a notice thereof, and the Contractor may at its own expense and in the Procuring Entity's name conduct such proceedings or claim and any negotiations for the settlement of any such proceedings or claim.
- 29.4 If the Contractor fails to notify the Procuring Entity within twenty-eight (28) days after receipt of such notice that it intends to conduct any such proceedings or claim, then the Procuring Entity shall be free to conduct the same on its own behalf. Unless the Contractor has so failed to notify the Procuring Entity within the twenty- eight (28) day period, the Procuring Entity shall make no admission that may be prejudicial to the defense of any such proceedings or claim.
- 29.5 The Procuring Entity shall, at the Contractor's request, afford all available assistance to the Contractor in conducting such proceedings or claim, and shall be reimbursed by the Contractor for all reasonable expenses incurred in so doing.
- 29.6 The Procuring Entity shall indemnify and hold harmless the Contractor and its employees, officers and Subcontractors from and against any and all suits, actions or administrative proceedings, claims, demands, losses, damages, costs, and expenses of whatsoever nature, including attorney's fees and expenses, which the Contractor may suffer as a result of any infringement or alleged infringement of any patent, utility model, registered design, trademark, copyright or other intellectual property right registered or otherwise existing at the date of the Contract arising out of or in connection with any design, data, drawing, specification, or other documents or materials provided or designed by or on behalf of the Procuring Entity.

30 Limitation of Liability

30.1 Except in cases of criminal negligence or willful misconduct,

Neither Party shall be liable to the other Party, whether in contract, tort, or otherwise, for any in director consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, which may be suffered by the other Party in connection with the Contract, other than specifically provided as any obligation of the Party in the Contract, and

the aggregate liability of the Contractor to the Procuring Entity, whether under the Contract, in tort or otherwise, shall not exceed the amount resulting from the application of the multiplier specified in the **SCC**, to the Contract Price or, if a multiplier is not so specified, the total Contract Price, provided that this limitation shall not apply to the cost of repairing or replacing defective equipment, or to any obligation of the Contractor to indemnify the Procuring Entity with respect to patent infringement.

Risk Distribution

31 Transfer of Ownership

31.1 Ownership of the Plant (including spare parts) to be imported in to Kenya shall be transferred to the Procuring Entity upon loading on to the mode of transport to be used to convey the Plant from the country of origin to that country.

- 31.2 Ownership of the Plant (including spare parts) procured in Kenya shall be transferred to the Procuring Entity when the Plant are brought on to the Site.
- 31.3 Ownership of the Contractor's Equipment used by the Contractor and its Subcontractors in connection with the Contract shall remain with the Contractor or its Subcontractors.
- 31.4 Ownership of any Plant in excess of the requirements for the Facilities shall revert to the Contractor upon Completion of the Facilities or at such earlier time when the Procuring Entity and the Contractor agree that the Plant in question are no longer required for the Facilities.
- 31.5 Notwithstanding the transfer of ownership of the Plant, the responsibility for care and custody thereof together with the risk of loss or damage there to shall remain with the Contractor pursuant to GCC Clause 32 (Care of Facilities) hereof until Completion of the Facilities or the part there of in which such Plant are incorporated.

32 Care of Facilities

- 32.1 The Contractor shall be responsible for the care and custody of the Facilities or any part thereof until the date of Completion of the Facilities pursuant to GCC Clause 24 or, where the Contract provides for Completion of the Facilities in parts, until the date of Completion of the relevant part, and shall make good at its own cost any loss or damage that may occur to the Facilities or the relevant part thereof from any cause whatsoever during such period. The Contractor shall also be responsible for any loss or damage to the Facilities caused by the Contractor or its Subcontractors in the course of any work carried out, pursuant to GCC Clause 27. Notwithstanding the foregoing, the Contractor shall not be liable for any loss or damage to the Facilities or that part thereof caused by reason of any of the matters specified or referred to in paragraphs (a), (b) and (c) of GCC Sub-Clauses 32.2 and 38.1.
- 32.2 If any loss or damage occurs to the Facilities or any part, thereof or to the Contractor's temporary facilities by reason of insofar as they relate to Kenya, nuclear reaction, nuclear radiation, radioactive contamination, pressure wave caused by aircraft or other aerial objects, or any other occurrences that an experienced contract or could not reasonably foresee, or if reasonably foreseeable could not reasonably make provision for or insure against, in so far as such risks are not normally insurable on the insurance market and are mentioned in the general exclusions of the policy of insurance, including War Risks and Political Risks, taken out under GCC Clause 34 hereof; or any use or occupation by the Procuring Entity or any third Party other than a Subcontractor, authorized by the Procuring Entity of any part of the Facilities; or any use of or reliance upon any design, data or specification provided or designated by or on behalf of the Procuring Entity, or any such matter for which the Contractor has disclaimed responsibility herein, the Procuring Entity shall pay to the Contractor all sums payable in respect of the Facilities executed, notwithstanding that the same be lost, destroyed or damaged, and will pay to the Contractor the replacement value of all temporary facilities and all parts thereof lost, destroyed or damaged. If the Procuring Entity requests the Contractor in writing to make good any loss or damage to the Facilities thereby occasioned, the Contractor shall make good the same at the cost of the Procuring Entity in accordance with GCC Clause 39. If the Procuring Entity does not request the Contractor in writing to make good any loss or damage to the Facilities thereby occasioned, the Procuring Entity shall either request a change in accordance with GCC Clause 39, excluding the performance of that part of the Facilities there by lost, destroyed or damaged, or, where the loss or damage affects a substantial part of the Facilities, the Procuring Entity shall terminate the Contract pursuant to GCC Sub-Clause 42.1 hereof.
- 32.3 The Contractor shall be liable for any loss of or damage to any Contractor's Equipment, or any other property of the Contractor used or intended to be used for purposes of the Facilities, except (i) as mentioned in GCC Sub-Clause 32.2 with respect to the Contractor's temporary facilities, and (ii) where such loss or damage arises by reason of any of the matters specified in GCC Sub-Clauses 32.2 (b) and (c) and 38.1.

32.4 With respect to any loss or damage caused to the Facilities or any part thereof or to the Contractor's Equipment by reason of any of the matters specified in GCC Sub-Clause 38.1, the provisions of GCC Sub- Clause 38.3 shall apply.

33 Loss of or Damage to Property; Accident or Injury to Workers; Indemnification

- 33.1 Subject to GCC Sub-Clause 33.3, the Contractor shall indemnify and hold harmless the Procuring Entity and its employees and officers from and against any and all suits, actions or administrative proceedings, claims, demands, losses, damages, costs, and expenses of whatsoever nature, including attorney's fees and expenses, in respect of the death or injury of any person or loss of or damage to any property other than the Facilities whether accepted or not, arising in connection with the supply and installation of the Facilities and by reason of the negligence of the Contractor or its Subcontractors, or their employees, officers or agents, except any injury, death or property damage caused by the negligence of the Procuring Entity, its contractors, employees, officers or agents.
- 33.2 If any proceedings are brought or any claim is made against the Procuring Entity that might subject the Contractor to liability under GCC Sub-Clause33.1, the Procuring Entity shall promptly give the Contractor a notice thereof and the Contractor may at its own expense and in the Procuring Entity's name conduct such proceedings or claim and any negotiations for the settlement of any such proceedings or claim.
- 33.8 If the Contractor fails to notify the Procuring Entity within twenty-eight (28) days after receipt of such notice that it intends to conduct any such proceedings or claim, then the Procuring Entity shall be free to conduct the same on its own behalf. Unless the Contractor has so failed to notify the Procuring Entity within the twenty- eight (28) day period, the Procuring Entity shall make no admission that may be prejudicial to the defense of any such proceedings or claim.
- 33.9 The Procuring Entity shall, at the Contractor's request, afford all available assistance to the Contractor in conducting such proceedings or claim, and shall be reimbursed by the Contractor for all reasonable expenses incurred in so doing.
- 33.10 The Procuring Entity shall indemnify and hold harmless the Contractor and its employees, officers and Subcontractors from any liability for loss of or damage to property of the Procuring Entity, other than the Facilities not yet taken over, that is caused by fire, explosion or any other perils, in excess of the amount recoverable from insurances procured under GCC Clause 34, provided that such fire, explosion or other perils were not caused by any actor failure of the Contractor.
- 33.11 The Party entitled to the benefit of an indemnity under this GCC Clause 33 shall take all reasonable measures to mitigate any loss or damage which has occurred. If the Party fails to take such measures, the other Party's liabilities shall be correspondingly reduced.

34 Insurance

34.1 To the extent specified in the Appendix to the Contract Agreement titled Insurance Requirements, the Contractor shall at its expense take out and maintain in effect, or cause to be taken out and maintained in effect, during the performance of the Contract, the insurances set forth below in the sums and with the deductibles and other conditions specified in the said Appendix. The identity of the insurers and the form of the policies shall be subject to the approval of the Procuring Entity, who should not unreasonably withhold such approval.

a. Cargo Insurance During Transport

Covering loss or damage occurring while in transit from the Contractor's or Subcontractor's works or stores until arrival at the Site, to the Plant (including spare parts therefor) and to the Contractor's Equipment.

Installation All Risks Insurance

Covering physical loss or damage to the Facilities at the Site, occurring prior to Completion of the Facilities, with an extended maintenance coverage for the Contractor's liability in respect of any loss or damage occurring during the Defect Liability Period while the Contractor is on the Site for the purpose of performing its obligations during the Defect Liability Period.

Third Party Liability Insurance

Covering bodily injury or death suffered by third Parties including the Procuring Entity's personnel, and loss of or damage to property occurring in connection with the supply and installation of the Facilities.

Automobile Liability Insurance

Covering use of all vehicles used by the Contractor or its Subcontractors, whether or not owned by them, in connection with the execution of the Contract.

Workers' Compensation

In accordance with the statutory requirements applicable in any country where the Contract or any partthereof is executed.

Procuring Entity's Liability

In accordance with the statutory requirements applicable in any country where the Contract or any partthereof is executed.

Other Insurances

Such other insurances as may be specifically agreed upon by the Parties here to as listed in the Appendixto the Contract Agreement titled Insurance Requirements.

- 34.2 The Procuring Entity shall be named as co-insured under all insurance policies taken out by the Contractor pursuant to GCC Sub-Clause 34.1, except for the Third Party Liability, Workers' Compensation and Procuring Entity's Liability Insurances, and the Contractor's Subcontractors shall be named as co-insureds under all insurance policies taken out by the Contractor pursuant to GCC Sub-Clause 34.1 except for the Cargo Insurance During Transport, Workers' Compensation and Procuring Entity's Liability Insurances. All insurers' rights of subrogation against such co-insureds for losses or claims arising out of the performance of the Contract shall be waived under such policies.
- 34.3 The Contractor shall, in accordance with the provisions of the Appendix to the Contract Agreement titled Insurance Requirements, deliver to the Procuring Entity certificates of insurance or copies of the insurance policies as evidence that the required policies are in full force and effect. The certificates shall provide that no less than twenty-one (21) days' notice shall be given to the Procuring Entity by insurers prior to cancellationor material modification of a policy.
- 34.4 The Contractor shall ensure that, where applicable, its Subcontractor(s) shall take out and maintain in effect adequate insurance policies for their personnel and vehicles and for work executed by them under the Contract, unless such Subcontractors are covered by the policies taken out by the Contractor.
- 34.5 The Procuring Entity shall at its expense take out and maintain in effect during the performance of the Contract those insurances specified in the Appendix to the Contract Agreement titled Insurance Requirements, in the sums and with the deductibles and other conditions specified in the said Appendix. The Contractor and the Contractor's Subcontractors shall be named as co-insureds under all such policies. All insurers' rights of subrogation against such co-insureds for losses or claims arising out of the performance of the Contract shall be waived under such policies. The Procuring Entity shall deliver to the Contractor satisfactory evidence that the required insurances are in full force and effect. The policies shall provide that not less than twenty-one
 - (21) days' notice shall be given to the Contractor by all insurers prior to any cancellation or material modification of the policies. If so requested by the Contractor, the Procuring Entity shall provide

copies of the policies taken out by the Procuring Entity under this GCC Sub-Clause 34.5.

- If the Contractor fails to take out and/or maintain in effect the insurances referred to in GCC Sub-Clause 34.1, the Procuring Entity may take out and maintain in effect any such insurances and may from time to time deduct from any amount due the Contractor under the Contract any premium that the Procuring Entity shall have paid to the insurer, or may otherwise recover such amount as a debt due from the Contractor. If the Procuring Entity fails to take out and/or maintain in effect the insurances referred to in GCC 34.5, the Contractor may take out and maintain in effect any such insurances and may from time to time deduct from any amount due the Procuring Entity under the Contract any premium that the Contractor shall have paid to the insurer, or may otherwise recover such amount as a debt due from the Procuring Entity. If the Contractor fails to or is unable to take out and maintain in effect any such insurances, the Contractor shall nevertheless have no liability or responsibility towards the Procuring Entity, and the Contractor shall have full recourse against the Procuring Entity for any and all liabilities of the Procuring Entity herein.
- 34.7 Unless otherwise provided in the Contract, the Contractor shall prepare and conduct all and any claims made under the policies effected by it pursuant to this GCC Clause 34, and all monies payable by any insurers shall be paid to the Contractor. The Procuring Entity shall give to the Contractor all such reasonable assistance as may be required by the Contractor. With respect to insurance claims in which the Procuring Entity's interest is involved, the Contractor shall not give any release or make any compromise with the insurer without the prior written consent of the Procuring Entity. With respect to insurance claims in which the Contractor's interest is involved, the Procuring Entity shall not give any release or make any compromise with the insurer without the prior written consent of the Contractor.

Unforeseen Conditions

If, during the execution of the Contract, the Contractor shall encounter on the Site any physical 35.1 conditions other than climatic conditions, or artificial obstructions that could not have been reasonably foreseen prior to the date of the Contract Agreement by an experienced contractor on the basis of reasonable examination of the data relating to the Facilities including any data as to boring tests, provided by the Procuring Entity, and on the basis of information that it could have obtained from a visual inspection of the Site if access thereto was available, or other data readily available to it relating to the Facilities, and if the Contractor determines that it will in consequence of such conditions or obstructions incur additional cost and expense or require additional time to perform its obligations under the Contract that would not have been required if such physical conditions or artificial obstructions had not been encountered, the Contractor shall promptly, and before performing additional work or using additional Plant or Contractor's Equipment, notify the Project Manager in writing of the physical conditions or artificial obstructions on the Site that could not have been reasonably foreseen; the additional work and/or Plant and/or Contractor's Equipment required, including the steps which the Contractor will or proposes to take to overcome such conditions or obstructions; the extent of the anticipated delay; and the additional cost and expense that the Contractor is likely to incur.

On receiving any notice from the Contractor under this GCC Sub-Clause 35.1, the Project Manager shall promptly consult with the Procuring Entity and Contractor and decide upon the actions to be taken to overcome the physical

35.2 If the Contractor is delayed or impeded in the performance of the Contract because of any such physical conditions or artificial obstructions referred to in GCC Sub-Clause 35.1, the Time for Completion shall be extended in accordance with GCC Clause 40.

Change in Laws and Regulations

36.1 If, after the date twenty-eight (28) days prior to the date of Tender submission, in Kenya, any law, regulation, ordinance, order or by-law having the force of law is enacted, promulgated, abrogated or changed which shall be deemed to include any change in interpretation or application by the competent authorities, that subsequently affects the costs and expenses of the Contractor and/or the Time for Completion, the Contract Price shall be correspondingly increased or decreased,

and/or the Time for Completion shall be reasonably adjusted to the extent that the Contractor has thereby been affected in the performance of any of its obligations under the Contract. Notwithstanding the foregoing, such additional or reduced costs shall not be separately paid or credited if the same has already been accounted for in the price adjustment provisions where applicable, in accordance with the **SCC** pursuant to GCC Sub-Clause 11.2.

Force Majeure

- "Force Majeure" shall mean any event beyond the reasonable control of the Procuring Entity or 37.1 of the Contractor, as the case may be, and which is unavoidable notwithstanding the reasonable care of the Party affected, and shall include, without limitation, the following war, hostilities or warlike operations whether a state of war be declared or not, invasion, act of foreign enemy and civil war rebellion, revolution, insurrection, mutiny, usurpation of civil or military government. conspiracy, riot, civil commotion and terrorist acts confiscation, nationalization, mobilization, commandeering or requisition by or under the order of any government or de jure or de facto authority or ruler or any other act or failure to act of any local state or national government authority strike, sabotage, lockout, embargo, import restriction, port congestion, lack of usual means of public transportation and communication, industrial dispute, shipwreck, shortage or restriction of power supply, epidemics, quarantine and plague earthquake, landslide, volcanic activity, fire, flood or inundation, tidal wave, typhoon or cyclone, hurricane, storm, lightning, or other inclement weather condition, nuclear and pressure waves or other natural or physical disaster shortage of labor, materials or utilities where caused by circumstances that are themselves Force Majeure.
- 37.2 If either Party is prevented, hindered or delayed from or in performing any of its obligations under the Contract by an event of Force Majeure, then it shall notify the other in writing of the occurrence of such event and the circumstances thereof within fourteen (14) days after the occurrence of such event.
- 37.3 The Party who has given such notice shall be excused from the performance or punctual performance of its obligations under the Contract for so long as the relevant event of Force Majeure continues and to the extent that such Party's performance is prevented, hindered or delayed. The Time for Completion shall be extended in accordance with GCC Clause 40.
- The Party or Parties affected by the event of Force Majeure shall use reasonable efforts to mitigate the effect thereof upon its or their performance of the Contract and to fulfill its or their obligations under the Contract, but without prejudice to either Party's right to terminate the Contract under GCC Sub-Clauses 37.6 and 38.5.
- 37.5 No delay or nonperformance by either Party hereto caused by the occurrence of any event of Force Majeure shall constitute a default or breach of the Contract, or give rise to any claim for damages or additional cost or expense occasioned thereby, subject to GCC Sub-Clauses 32.2, 38.3 and 38.4 if and to the extent that such delay or nonperformance is caused by the occurrence of an event of Force Majeure.
- 37.6 If the performance of the Contract is substantially prevented, hindered or delayed for a single period of more than sixty (60) days or an aggregate period of more than one hundred and twenty (140) days on account of one or more events of Force Majeure during the currency of the Contract, the Parties will attempt to develop a mutually satisfactory solution, failing which either Party may terminate the Contract by giving a notice to the other, but without prejudice to either Party's right to terminate the Contract under GCC Sub-Clause 38.5.
- 37.7 In the event of termination pursuant to GCC Sub-Clause 37.6, the rights and obligations of the Procuring Entity and the Contractor shall be as specified in GCC Sub-Clauses 42.1.2 and 42.1.3.

37.8 Notwithstanding GCC Sub-Clause 37.5, Force Majeure shall not apply to any obligation of the Procuring Entity to make payments to the Contractor herein.

War Risks

- 38.1 "War Risks" shall mean any event specified in paragraphs (a) and (b) of GCC Sub-Clause 37.1 and any explosion or impact of any mine, bomb, shell, grenade or other projectile, missile, munitions or explosive of war, occurring or existing in or near the country (or countries) where the Site is located.
- 38.2 Notwithstanding anything contained in the Contract, the Contractor shall have no liability whatsoever foror with respect to destruction of or damage to Facilities, Plant, or any part thereof; destruction of or damage to property of the Procuring Entity or any third Party; or injury or loss of life if such destruction, damage, injury or loss of life is caused by any War Risks, and the Procuring Entity shall indemnify and hold the Contractor harmless from and against any and all claims, liabilities, actions, lawsuits, damages, costs, charges or expenses arising in consequence of or in connection with the same.
- If the Facilities or any Plant or Contractor's Equipment or any other property of the Contractor 38.3 used or intended to be used for the purposes of the Facilities shall sustain destruction or damage by reason of any War Risks, the Procuring Entity shall pay the Contractor for any part of the Facilities or the Plant so destroyed or damaged to the extent not already paid for by the Procuring Entity and so far as may be required by the Procuring Entity, and as may be necessary for completion of the Facilities replacing or making good any Contractor's Equipment or other property of the Contractor so destroyed or damaged replacing or making good any such destruction or damage to the Facilities or the Plant or any part thereof. If the Procuring Entity does not require the Contractor to replace or make good any such destruction or damage to the Facilities, the Procuring Entity shall either request a change in accordance with GCC Clause 39, excluding the performance of that part of the Facilities thereby destroyed or damaged or, where the loss, destruction or damage affects a substantial part of the Facilities, shall terminate the Contract, pursuant to GCC Sub-Clause 42.1. If the Procuring Entity requires the Contractor to replace or make good on any such destruction or damage to the Facilities, the Time for Completion shall be extended in accordance with GCC 40.
- Notwithstanding anything contained in the Contract, the Procuring Entity shall pay the Contractor for any increased costs or incidentals to the execution of the Contract that are in any way attributable to, consequent on, resulting from, or in any way connected with any War Risks, provided that the Contractor shall as soon as practicable notify the Procuring Entity in writing of any such increased cost.
- 38.5 If during the performance of the Contract any War Risks shall occur that financially or otherwise materially affect the execution of the Contract by the Contractor, the Contractor shall use its reasonable efforts to execute the Contract with due and proper consideration given to the safety of its and its Subcontractors' personnel engaged in the work on the Facilities, provided, however, that if the execution of the work on the Facilities becomes impossible or is substantially prevented for a single period of more than sixty (60) days or an aggregate period of more than one hundred and twenty (140) days on account of any War Risks, the Parties will attempt to develop a mutually satisfactory solution, failing which either Party may terminate the Contract by giving a notice to the other.
- 38.6 In the event of termination pursuant to GCC Sub-Clauses 38.3 or 38.5, the rights and obligations of the Procuring Entity and the Contractor shall be specified in GCC Sub-Clauses 42.1.2 and 42.1.3. A. Changein Contract Elements.

Change in Contract Elements

Change in the Facilities

39.1 Introducing a Change

- 39.1.1 Subject to GCC Sub-Clauses 39.2.5 and 39.2.7, the Procuring Entity shall have the right to propose, and subsequently require, that the Project Manager order the Contractor from time to time during the performance of the Contract to make any change, modification, addition or deletion to, in or from the Facilities here in after called "Change", provided that such Change falls within the general scope of the Facilities and does not constitute unrelated work and that it is technically practicable, taking into account both the state of advancement of the Facilities and the technical compatibility of the Change envisagedwith the nature of the Facilities as specified in the Contract.
- 39.1.2 Value Engineering: The Contractor may prepare, at its own cost, a value engineering proposal at any time during the performance of the contract. The value engineering proposal shall, at a minimum, include the following; The proposed change (s), and a description of the difference to the existing contract requirements; a full cost/benefit analysis of the proposed change(s) including a description and estimate of costs (including life cycle costs) the Procuring Entity may incur in implementing the value engineering proposal; and a description of any effect (s) of the change on performance/ functionality. The Procuring Entity may accept the value engineering proposal if the proposal demonstrates benefits that: accelerates the delivery period; or reduces the Contract Price or the life cycle costs to the Procuring Entity; or improves the quality, efficiency, safety or sustain ability of the Facilities; or yields any other benefits to the Procuring Entity, without compromising the necessary functions of the Facilities. If the value engineering proposal is approved by the Procuring Entity and results in: a reduction of the Contract Price; the amount to be paid to the Contractor shall be the percentage specified in the SCC of the reduction in the Contract Price; or an increase in the Contract Price; but results in a reduction in life cycle costs due to any benefit described in (a) to (d) above, the amount to be paid to the Contractor shall be the full increase in the Contract Price.
- 39.1.3 Notwithstanding GCC Sub-Clauses 39.1.1 and 39.1.2, no change made necessary because of any default of the Contractor in the performance of its obligations under the Contract shall be deemed to be a Change, and such change shall not result in any adjustment of the Contract Price or the Time for Completion.
- 39.1.4 The procedure on how to proceed with and execute Changes is specified in GCC Sub-Clauses 39.2 and 39.3, and further details and forms are provided in the Procuring Entity's Requirements (Forms and Procedures).
- **39.2** Changes Originating from Procuring Entity
- 39.2.1 If the Procuring Entity proposes a Change pursuant to GCC Sub-Clause 39.1.1, it shall send to the Contractor a "Request for Change Proposal," requiring the Contractor to prepare and furnish to the Project Manager as soon as reasonably practicable a "Change Proposal," which shall include the following: Brief description of the Change Effect on the Time for Completion Estimated cost of the Change Effect on Functional Guarantees (if any) Effect on the Facilities Effect on any other provisions of the Contract.
- 39.2.2 Prior to preparing and submitting the "Change Proposal," the Contractor shall submit to the Project Manager an "Estimate for Change Proposal," which shall be an estimate of the cost of preparing and submitting the Change Proposal. Upon receipt of the Contractor's Estimate for Change Proposal, the Procuring Entity shall do one of the following: Accept the Contractor's estimate with instructions to the Contractor to proceed with the preparation of the Change Proposal Advise the Contractor of any part of its Estimate for Change Proposal that is unacceptable and request the Contractor to review its estimate Advise the Contractor that the Procuring Entity does not intend to proceed with the Change.

- 39.2.3 Upon receipt of the Procuring Entity's instruction to proceed under GCC Sub-Clause 39.2.2 (a), the Contractor shall, with proper expedition, proceed with the preparation of the Change Proposal, in accordance with GCC Sub-Clause 39.2.1.
- 39.2.4 The pricing of any Change shall, as far as practicable, be calculated in accordance with the rates and prices included in the Contract. If such rates and prices are inequitable, the Parties there to shall agree on specific rates for the valuation of the Change.
- 39.1.5 If before or during the preparation of the Change Proposal it becomes apparent that the aggregate effect of compliance there with and with all other Change Orders that have already become binding upon the Contractor under this GCC Clause 39 would be to increase or decrease the Contract Price as originally set for thin Article 2 (Contract Price) of the Contract Agreement by more than fifteen percent (15%), the Contractor may give a written notice of objection there to prior to furnishing the Change Proposal as aforesaid. If the Procuring Entity accepts the Contractor's objection, the Procuring Entity shall withdrawthe proposed Change and shall notify the Contractor in writing thereof.

The Contractor's failure to so object shall neither affect its right to object to any subsequent requested Changes or Change Orders here in, nor affect its right to take in to account, when making such subsequent objection, the percentage increase or decrease in the Contract Price that any Change not objected to by the Contractor represents.

39.1.6 Upon receipt of the Change Proposal, the Procuring Entity and the Contractor shall mutually agree upon all matters therein contained. Within fourteen (14) days after such agreement, the Procuring Entity shall, if it intends to proceed with the Change, issue the Contractor with a Change Order.

If the Procuring Entity is unable to reach a decision within fourteen (14) days, it shall notify the Contractor with details of when the Contractor can expect a decision.

If the Procuring Entity decides not to proceed with the Change for whatever reason, it shall, within the said period of fourteen (14) days, notify the Contractor accordingly. Under such circumstances, the Contractor shall be entitled to reimbursement of all costs reasonably incurred by it in the preparation of the Change Proposal, provided that these do not exceed the amount given by the Contractor in its Estimate for Change Proposal submitted in accordance with GCC Sub-Clause 39.2.2.

39.1.7 If the Procuring Entity and the Contractor cannot reach agreement on the price for the Change, an equitable adjustment to the Time for Completion, or any other matters identified in the Change Proposal, the Procuring Entity may nevertheless instruct the Contractor to proceed with the Change by issue of a "Pending Agreement Change Order."

Upon receipt of a Pending Agreement Change Order, the Contractor shall immediately proceed with effecting the Changes covered by such Order. The Parties shall there after attempt to reach agreement on the outstanding issues under the Change Proposal.

If the Parties cannot reach agreement within sixty (60) days from the date of issue of the Pending Agreement Change Order, then the matter may be referred to the Dispute Board in accordance with the provisions of GCC Sub-Clause 46.1.

- 39.1.8 Changes Originating from Contractor
- 39.1.9 If the Contractor proposes a Change pursuant to GCC Sub-Clause 39.1.2, the Contractor shall submit to the Project Manager a written "Application for Change Proposal," giving reasons for the proposed Change and including the information specified in GCC Sub-Clause 39.1.2.
- 39.1.10 Upon receipt of the Application for Change Proposal, the Parties shall follow the procedures outlined in GCC Sub-Clauses 39.2.6 and 39.2.7. However, the Contractor shall not be entitled to recover the costs of preparing the Application for Change Proposal.

Extension of Time for Completion

- The Time(s) for Completion specified in the SCC pursuant to GCC Sub-Clause 8.2 shall be 40.1 extended if the Contractor is delayed or impeded in the performance of any of its obligations under the Contract by reason of any of the following: any Change in the Facilities as provided in GCC Clause 39 any occurrence of Force Majeure as provided in GCC Clause 37, unforeseen conditions as provided in GCC Clause 35, or other occurrence of any of the matters specified or referred to in paragraphs (a), (b) and (c) of GCC Sub-Clause 32.2. Any suspension order given by the Procuring Entity under GCC Clause 41 here of or reduction in the rate of progress pursuant to GCC Sub-Clause 41.2 or Any changes in laws and regulations as provided in GCC Clause 36 or Any default or breach of the Contract by the Procuring Entity, Appendix to the Contract Agreement titled, or any activity, actor omission of the Procuring Entity, or the Project Manager, or any other contractors employed by the Procuring Entity, or Any delay on the part of a Subcontractor, provided such delay is due to a cause for which the Contractor himself would have been entitled to an extension of time under this sub-clause, or Delays attributable to the Procuring Entity or caused by customs, or any other matter specifically mentioned in the Contract by such period as shall be fair and reasonable in all the circumstances and as shall fairly reflect the delay or impediment sustained by the Contract or. 40.2 Except where otherwise specifically provided in the Contract, the Contractor shall submit to the Project Manager a notice of a claim for an extension of the Time for Completion, together with particulars of the event or circumstance justifying such extension as soon as reasonably practicable after the commencement of such event or circumstance. As soon as reasonably practicable after receipt of such notice and supporting particulars of the claim, the Procuring Entity and the Contractor shall agree upon the period of such extension. In the event that the Contractor does not accept the Procuring Entity's estimate of a fair and reasonable time extension, the Contractor shall be entitled to refer the matter to a Dispute Board, pursuant to GCC Sub-Clause 46.1.
 - 40.3 The Contractor shall at all times use its reasonable efforts to minimize any delay in the performance of its obligations under the Contract.

40.4 In all cases where the Contractor has given a notice of a claim for an extension of time under GCC 40.2, the Contractor shall consult with the Project Manager in order to determine the steps (if any) whichcan be taken to overcome or minimize the actual or anticipated delay. The Contractor shall there aftercomply with all reasonable instructions which the Project Manager shall give in order to minimize suchdelay. If compliance with such instructions shall cause the Contractor to incur extra costs and the Contractor is entitled to an extension of time under GCC 40.1, the amount of such extra costs shall beadded to the Contract Price.

Suspension

41.1 Procuring Entity may request the Project Manager, by notice to the Contractor, to order the Contractor to suspend performance of any or all of its obligations under the Contract. Such notice shall specify the obligation of which performance is to be suspended, the effective date of the suspension and the reasons therefor. The Contractor shall thereupon suspend performance of such obligation, except those obligations necessary for the care or preservation of the Facilities, until ordered in writing to resume such performance by the Project Manager. If, by virtue of a suspension order given by the Project Manager, other than by reason of the Contractor's default or breach of the Contract, the Contractor's performance of any of its obligations is suspended for an aggregate period of more than ninety (90) days, then at any time there after and provided that at that time such performance is still suspended, the Contractor may give a notice to the Project Manager requiring that the Procuring Entity shall, within twenty-eight (28) days of receipt of the notice, order the resumption of such performance or request and subsequently order a change in accordance with GCC Clause 39, excluding the performance of the suspended obligations from the Contract.

- 41.2 If the Procuring Entity fails to do so within such period, the Contractor may, by a further notice to the Project Manager, elect to treat the suspension, where it affects apart only of the Facilities, as a deletion of such part in accordance with GCC Clause 39 or, where it affects the whole of the Facilities, as termination of the Contract under GCC Sub-Clause.
- If Procuring Entity has failed to pay the Contractor any sum due under the Contract within the 41.3 specified period, has failed to approve any invoice or supporting documents without just cause pursuant to the Appendix to the Contract Agreement titled Terms and Procedures of Payment, or commits a substantial breach of the Contract, the Contractor may give a notice to the Procuring Entity that requires payment of such sum, with interest there on as stipulated in GCC Sub-Clause 12.3, requires approval of such invoice or supporting documents, or specifies the breach and requires the Procuring Entity to remedy the same, as the case may be. If the Procuring Entity fails to pay such sum together with such interest, fails to approve such invoice or supporting documents or give its reasons for withholding such approval, or fails to remedy the breach or take steps to remedy the breach within fourteen (14) days after receipt of the Contractor's notice or The Contractor is unable to carry out any of its obligations under the Contract for any reason attributable to the Procuring Entity, including but not limited to the Procuring Entity's failure to provide possession of or access to the Site or other areas in accordance with GCC Sub-Clause 10.2, or failure to obtain any governmental permit necessary for the execution and/or completion of the Facilities, then the Contractor may by fourteen (14) days' notice to the Procuring Entity suspend performance of all or any of its obligations under the Contract, or reduce the rate of progress.
- 41.3 If the Contractor's performance of its obligations is suspended or the rate of progress is reduced pursuant to this GCC Clause 41, then the Time for Completion shall be extended in accordance with GCC Sub-Clause 40.1, and any and all additional costs or expenses incurred by the Contractor as a result of such suspension or reduction shall be paid by the Procuring Entity to the Contractor in addition to the Contract Price, except in the case of suspension order or reduction in the rate of progress by reason of the Contractor's default or breach of the Contract.
- During the period of suspension, the Contractor shall not remove from the Site any Plant, any part of the Facilities or any Contractor's Equipment, without the prior written consent of the Procuring Entity.

Termination

42.1 Termination for Procuring Entity's Convenience

- 42.1.1 The Procuring Entity may at any time terminate the Contract for any reason by giving the Contractor a notice of termination that refers to this GCC Sub-Clause 42.1.
- 42.1.2 Upon receipt of the notice of termination under GCC Sub-Clause 42.1.1, the Contractor shall either immediately or upon the date specified in the notice of termination cease all further work, except for such work as the Procuring Entity may specify in the notice of termination for the sole purpose of protecting that part of the Facilities already executed, or any work required to leave the Site in a clean and safe condition, terminate all subcontracts, except those to be assigned to the Procuring Entity pursuant to paragraph (d) below, remove all Contractor's Equipment from the Site, repatriate the Contractor's and its Subcontractors' personnel from the Site, remove from the Site any wreckage, rubbish and debris of any kind, and leave the whole of the Site in a clean and safe condition, and subject to the payment specified in GCC Sub-Clause 42.1.3, deliver to the Procuring Entity the parts of the Facilities executed by the Contractor up to the date of termination to the extent legally possible, assign to the Procuring Entity all right, title and benefit of the Contractor to the Facilities and to the Plant as of the date of termination, and, as may be required by the Procuring Entity, in any subcontracts concluded between the Contractor and its Subcontractors; and deliver to the Procuring Entity all non-proprietary drawings,

specifications and other documents prepared by the Contractor or its Subcontractors as at the date of termination in connection with the Facilities.

42.1.3 In the event of termination of the Contract under GCC Sub-Clause 42.1.1, the Procuring Entity shall pay to the Contractor the following amounts: The Contract Price, properly attributable to the parts of the Facilities executed by the Contractor as of the date of termination, the costs reasonably incurred by the Contractor in the removal of the Contractor's Equipment from the Site and in the repatriation of the Contractor's and its Subcontractors' personnel, any amounts to be paid by the Contractor to its Subcontractors in connection with the termination of any subcontracts, including any cancellation charges, costs incurred by the Contractor in protecting the Facilities and leaving the Site in a clean and safe condition pursuant to paragraph (a) of GCC Sub-Clause 42.1.2 the cost of satisfying all other obligations, commitments and claims that the Contractor may in good faith have under taken with third Parties in connection with the Contract and that are not covered by paragraphs (a) through (d) above.

42.2 Termination by the Contractor

42.2.1 The Procuring Entity, without prejudice to any other rights or remedies it may possess, may terminate the Contract forth within the following circumstances by giving a notice of termination and its reasons therefor to the Contractor, referring to this GCC Sub-Clause 42.2:

If the Contractor becomes bankrupt or in solvent, has a receiving order issued against it, compounds with its creditors, or, if the Contractor is a corporation, are solution is passed or order is made for its winding up, other than a voluntary liquidation for the purposes of amalgamation or reconstruction, a receiver is appointed over any part of its undertaking or assets, or if the Contractor takes or suffers any other analogous action in consequence of debt

if the Contractor assigns or transfers the Contract or any right or interest therein in violation of the provision of GCC Clause 43.

If the Contractor, in the judgment of the Procuring Entity has engaged in Fraud and Corruption, as defined in paragraph 2.2a. of Appendix B to the GCC, in competing for or in executing the Contract.

42.2.2 If the Contractor

Has abandoned or repudiated the Contract

Has without valid reason failed to commence work on the Facilities promptly or has suspended, other than pursuant to GCC Sub-Clause 41.2, the progress of Contract performance for more than twenty- eight (28) days after receiving a written instruction from the Procuring Entity to proceed Persistently fails to execute the Contract in accordance with the Contractor persistently neglects to carry out its obligations under the Contract without just cause

Refuses or is unable to provide sufficient materials, services or labor to execute and complete the Facilities in the manner specified in the program furnished under GCC Sub-Clause 18.2 at rates of progress that give reasonable assurance to the Procuring Entity that the Contractor can attainCompletion of the Facilities by the Time for Completion as extended, then the Procuring Entity may, without prejudice to any other rights it may possess under the Contract, give a notice to the Contractorstating the nature of the default and requiring the Contractor to remedy the same. If the Contractor fails to remedy or to take steps to remedy the same within fourteen (14) days of its receipt of such notice, then the Procuring Entity may terminate the Contract forth with by giving a notice of termination to the Contractor that refers to this GCC Sub-Clause 42.2.

42.2.3 Upon receipt of the notice of termination under GCC Sub-Clauses 42.2.1 or 42.2.2, the Contractor shall, either immediately or upon such date as is specified in the notice of termination, cease all further work, except for such work as the Procuring Entity may specify in the notice of termination for the sole purpose of protecting that part of the Facilities already executed, or any work required to leave the Site in a clean and safe condition. Terminate all

subcontracts, except those to be assigned to the Procuring Entity pursuant to paragraph (d) below, deliver to the Procuring Entity the parts of the Facilities executed by the Contractor up to the date oftermination, to the extent legally possible, assign to the Procuring Entity all right, title and benefit of the Contractor to the Facilities and to the Plant as of the date of termination, and, as may be required by the Procuring Entity, in any subcontracts concluded between the Contractor and its Subcontractors, deliver to the Procuring Entity all drawings, specifications and other documents prepared by the Contractor or its Subcontractors as of the date of termination in connection with the Facilities.

- 42.2.4 The Procuring Entity may enter upon the Site, expel the Contractor, and complete the Facilities itself or by employing any third Party. The Procuring Entity may, to the exclusion of any right of the Contractor over the same, take over and use with the payment of a fair rental rate to the Contractor, with all the maintenance costs to the account of the Procuring Entity and with an indemnification by the Procuring Entity for all liability including damage or injury to persons arising out of the Procuring Entity's use of such equipment, any Contractor's Equipment owned by the Contractor and on the Site in connection with the Facilities for such reasonable period as the Procuring Entity considers expedient for the supply and installation of the Facilities.
- 42.2.5 Upon completion of the Facilities or at such earlier date as the Procuring Entity thinks appropriate, the Procuring Entity shall give notice to the Contractor that such Contractor's Equipment will be returned to the Contractor at or near the Site and shall return such Contractor's Equipment to the Contractor in accordance with such notice. The Contractor shall thereafter without delay and at its cost remove or arrange removal of the same from the Site.
- 42.2.6 Subject to GCC Sub-Clause 42.2.6, the Contractor shall be entitled to be paid the Contract Price attributable to the Facilities executed as of the date of termination, the value of any unused or partially used Plant on the Site, and the costs, if any, incurred in protecting the Facilities and in leaving the Site in a clean and safe condition pursuant to paragraph (a) of GCC Sub-Clause 42.2.3. Any sums due the Procuring Entity from the Contractor accruing prior to the date of termination shall be deducted from the amount to be paid to the Contractor under this Contract.
- 42.2.7 If the Procuring Entity completes the Facilities, the cost of completing the Facilities by the Procuring Entityshall be determined.
- 42.2.8 If the sum that the Contractor is entitled to be paid, pursuant to GCC Sub-Clause 42.2.5, plus the reasonable costs incurred by the Procuring Entity in completing the Facilities, exceeds the Contract Price, the Contractor shall be liable for such excess.
- 42.2.9 If such excess is greater than the sums due the Contractor under GCC Sub-Clause 42.2.5, the Contractor shall pay the balance to the Procuring Entity, and if such excess is less than the sums due the Contractor under GCC Sub-Clause 42.2.5, the Procuring Entity shall pay the balance to the Contractor. The Procuring Entity and the Contractor shall agree, in writing, on the computation described above and the manner in which any sums shall be paid.
- **42.3** Termination by the Contractor
- 42.3.1 If The Procuring Entity has failed to pay the Contractor any sum due under the Contract within the specified period, has failed to approve any invoice or supporting documents without just cause pursuant to the Appendix to the Contract Agreement titled Terms and Procedures of Payment, or commits a substantial breach of the Contract, the Contractor may give a notice to the Procuring Entity that requires payment of such sum, with interest there on as stipulated in GCC Sub-Clause 12.3, requires approval of such invoice or supporting documents, or specifies the breach and requires the Procuring Entity to remedy the same, as the case may be. If the Procuring Entity fails to pay such sum together with such interest, fails to approve such invoice or supporting documents or give its reasons for withholding such approval, fails to remedy the breach or take steps to remedy the breach within fourteen (14) days after receipt of the Contractor's notice, or The Contractor is unable to carry out any of its obligations under the Contract for any reason attributable to the Procuring Entity, including but not limited to the Procuring Entity's failure to

provide possession of or access to the Site or other areas or failure to obtain any governmental permit necessary for the execution and/or completion of the Facilities, then the Contractor may give a notice to the Procuring Entity thereof, and if the Procuring Entity has failed to pay the outstanding sum, to approve the invoice or supporting documents, to give its reasons for withholding such approval, or to remedy the breach within twenty-eight (28) days of such notice, or if the Contractor is still unable to carry out any of its obligations under the Contract for any reason attributable to the Procuring Entity within twenty-eight (28) days of the said notice, the Contractor may by a further notice to the Procuring Entity referring to this GCC Sub-Clause 42.3.1, forth with terminate the Contract.

- 42.3.2 The Contractor may terminate the Contract forth with by giving a notice to the Procuring Entity to that effect, referring to this GCC Sub-Clause 42.3.2, if the Procuring Entity becomes bankrupt or insolvent, has a receiving order issued against it, compounds with its creditors, or, being a corporation, if are solution is passed or order is made for its winding up (other than a voluntary liquidation for the purposes of amalgamation or reconstruction), a receiver is appointed over any part of its undertaking or assets, or if the Procuring Entity takes or suffers any other analogous action in consequence of debt.
- 42.3.3 If the Contract is terminated under GCC Sub-Clauses 42.3.1 or 42.3.2, then the Contractor shall immediately cease all further work, except for such work as may be necessary for the purpose of protecting that part of the Facilities already executed, or any work required to leave the Site in a clean and safe condition terminate all subcontracts, except those to be assigned to the Procuring Entity pursuant to paragraph (ii) remove all Contractor's Equipment from the Site and repatriate the Contractor's and its Subcontractors' personnel from the Site, and subject to the payment specified in GCC Sub-Clause 42.3.4, deliver to the Procuring Entity the parts of the Facilities executed by the Contractor up to the date of termination to the extent legally possible, assign to the Procuring Entity all right, title and benefit of the Contractor to the Facilities and to the Plant as of the date of termination, and, as may be required by the Procuring Entity, in any subcontracts concluded between the Contractor and its Subcontractors, and deliver to the Procuring Entity all drawings, specifications and other documents prepared by the Contractor or its Subcontractors as of the date of termination in connection with the Facilities.
- 42.3.4 If the Contract is terminated under GCC Sub-Clauses 42.3.1 or 42.3.2, the Procuring Entity shall pay to the Contractor all payments specified in GCC Sub-Clause 42.1.3, and reasonable compensation for all loss, except for loss of profit, or damage sustained by the Contractor arising out of, in connection with or in consequence of such termination.
- 42.3.5 Termination by the Contractor pursuant to this GCC Sub-Clause 42.3 is without prejudice to any other rights or remedies of the Contractor that may be exercised in lieu of or in addition to rights conferred by GCC Sub-Clause 42.3.
- 42.4 In this GCC Clause 42, the expression "Facilities executed" shall include all work executed, Installation Services provided, and all Plant acquired, or subject to a legally binding obligation to purchase, by the Contractor and used or intended to be used for the purpose of the Facilities, up to and including the date of termination.
- 42.5 In this GCC Clause 42, in calculating any monies due from the Procuring Entity to the Contractor, account shall be taken of any sum previously paid by the Procuring Entity to the Contractor under the Contract, including any advance payment paid pursuant to the Appendix to the Contract Agreement titled Terms and Procedures of Payment.

Assignment

43.1 Neither the Procuring Entity nor the Contractor shall, without the express prior written consent of the other Party, which consent shall not be unreasonably withheld, assign to any third Party the Contract or any part thereof, or any right, benefit, obligation or interest therein or thereunder,

except that the Contractor shall be entitled to assign either absolutely or by way of charge any monies due and payable to it or that maybecome due and payable to it under the Contract.

Export Restrictions

44.1 Notwithstanding any obligation under the Contract to complete all export formalities, any export restrictions attributable to the Procuring Entity, to Kenya or to the use of the Plant and Installation Services to be supplied which arise from trade regulations from a country supplying those Plant and Installation Services, and which substantially impede the Contractor from meeting its obligations under the Contract, shall release the Contractor from the obligation to provide deliveries or services, always provided, however, that the Contractor can demonstrate to the satisfaction of the Procuring Entity and of the Bank that it has completed all formalities in a timely manner, including applying for permits, authorizations and licenses necessary for the export of the Plant and Installation Services under the terms of the Contract. Termination of the Contract on this basis shall be for the Procuring Entity's convenience pursuant to Sub-Clause 42.1.

Claims, Disputes and Arbitration

Contractor's Claims

- 45.1 If the Contractor considers himself to be entitled to any extension of the Time for Completion and/or any additional payment, under any Clause of these Conditions or otherwise in connection with the Contract, the Contractor shall submit a notice to the Project Manager, describing the event or circumstance giving rise to the claim. The notice shall be given as soon as practicable, and not later than 28 days after the Contractor became aware, or should have become aware, of the event or circumstance.
- 45.2 If the Contractor fails to give notice of a claim within such period of 28 days, the Time for Completion shall not be extended, the Contractor shall not be entitled to additional payment, and the Procuring Entity shall be discharged from all liability in connection with the claim. Otherwise, the following provisions of this Sub-Clause shall apply. The Contractor shall also submit any other notices which are required by the Contract, and supporting particulars for the claim, all as relevant to such event or circumstance. The Contractor shall keep such contemporary records as may be necessary to substantiate any claim, either on the Site or at another location acceptable to the Project Manager. Without admitting the Procuring Entity's liability, the Project Manager may, after receiving any notice under this Sub- Clause, monitor the record-keeping and/or instruct the Contractor to keep further contemporary records. The Contractor shall permit the Project Manager to inspect all these records, and shall (if instructed) submit copies to the Project Manager.
- Within 42 days after the Contractor became aware (or should have become aware) of the event or circumstance giving rise to the claim, or within such other period as may be proposed by the Contractor and approved by the Project Manager, the Contractor shall send to the Project Manager a fully detailed claim which includes full supporting particulars of the basis of the claim and of the extension of time and/or additional payment claimed. If the event or circumstance giving rise to the claim has a continuing effect: this fully detailed claim shall be considered as interim; the Contractor shall send further interim claims at monthly intervals, giving the accumulated delay and/or amount claimed, and such further particulars as the Project Manager may reasonably require; and the Contractor shall send a final claim within 28 days after the end of the effects resulting from the event or circumstance, or within such other period as may be proposed by the Contractor and approved by the Project Manager.
- Within 42 days after receiving a claim or any further particulars supporting a previous claim, or within such other period as may be proposed by the Project Manager and approved by the Contractor, the Project Manager shall respond with approval, or with disapproval and detailed comments. He may also request any necessary further particulars, but shall nevertheless give his response on the principles of the claim within such time.
- 45.5 Each Payment Certificate shall include such amounts for any claim as have been reasonably substantiated as due under the relevant provision of the Contract. Unless and until the particulars supplied are sufficient to substantiate the whole of the claim, the Contractor shall only be entitled to payment for such part of the claim as he has been able to substantiate.
- The Project Manager shall agree with the Contractor or estimate: (i) the extension (if any) of the Time for Completion (before or after its expiry) in accordance with GCC Clause 40, and/or (ii) the additional payment (if any) to which the Contractor is entitled under the Contract.
- 45.7 The requirements of this Sub-Clause are in addition to those of any other Sub-Clause which may apply to a claim. If the Contractor fails to comply with this or another Sub-Clause in relation to any claim, any extension of time and/or additional payment shall take account of the extent (if any) to which the failure has prevented or prejudiced proper investigation of the claim, unless the claim is excluded under the second paragraph of this Sub-Clause.
- 45.8 In the event that the Contractor and the Procuring Entity cannot agree on any matter relating to a claim, either Party may refer the matter to the Dispute Board pursuant to GCC 46 hereof.

Claims, Disputes and Arbitration

- 46.1 Contractor's Claims
- 46.1.1 If the Contractor considers himself to be entitled to any extension of the Time for Completion and/or any additional payment, under any Clause of these Conditions or otherwise in connection with the Contract, the Contractor shall give notice to the Project Manager, describing the event or circumstance giving rise to the claim. The notice shall be given as soon as practicable, and not later than 28 days after the Contractor became aware, or should have become aware, of the event or circumstance.
- 46.1.2 If the Contractor fails to give notice of a claim within such period of 28 days, the Time for Completionshall not be extended, the Contractor shall not be entitled to additional payment, and the Procuring Entity shall be discharged from all liability in connection with the claim. Otherwise, the following provisions of this Sub-Clause shall apply. The Contractor shall also submit any other notices which are required by the Contract, and supporting particulars for the claim, all as relevant to such event or circumstance.
- 46.1.3 The Contractor shall keep such contemporary records as may be necessary to substantiate any claim, either on the Site or at another location acceptable to the Project Manager. Without admitting the Procuring Entity's liability, the Project Manager may, after receiving any notice under this Sub-Clause, monitor the record-keeping and/or instruct the Contractor to keep further contemporary records. The Contractor shall permit the Project Manager to inspect all these records, and shall (if instructed) submit copies to the Project Manager.
- 46.1.4 Within 42 days after the Contractor became aware (or should have become aware) of the event or circumstance giving rise to the claim, or within such other period as may be proposed by the Contractor and approved by the Project Manager, the Contractor shall send to the Project Manager a fully detailed claim which includes full supporting particulars of the basis of the claim and of the extension of time and/or additional payment claimed. If the event or circumstance giving rise to the claim has a continuing effect: this fully detailed claim shall be considered as interim; the Contractor shall send further interim claims at monthly intervals, giving the accumulated delay and/or amount claimed, and such further particulars as the Project Manager may reasonably require; and the Contractor shall send a final claim within 28 days after the end of the effects resulting from the event or circumstance, or within such other period as may be proposed by the Contractor and approved by the Project Manager.
- 46.1.5 Within 42 days after receiving a claim or any further particulars supporting a previous claim, or within such other period as may be proposed by the Project Manager and approved by the Contractor, the Project Manager shall respond with approval, or with disapproval and detailed comments. He may also request any necessary further particulars, but shall nevertheless give his response on the principles of the claim within the above defined time period.
- 46.1.6 Within the above defined period of 42 days, the Project Manager shall proceed in accordance with Sub- Clause 3.5 [Determinations] to agree or determine (i) the extension (if any) of the Time for Completion (before or after its expiry) in accordance with Sub-Clause 8.4 [Extension of Time for Completion], and/or
 - (ii) the additional payment (if any) to which the Contractor is entitled under the Contract.
- 46.1.7 Each Payment Certificate shall include such additional payment for any claim as has been reasonably substantiated as due under the relevant provision of the Contract. Unless and until the particulars supplied are sufficient to substantiate the whole of the claim, the Contractor shall only be entitled to payment for such part of the claim as he has been able to substantiate.
- 46.1.8 If the Project Manager does not respond within the timeframe defined in this Clause, either Party may consider that the claim is rejected by the Project Manager and any of the Parties may refer the matter to Arbitration in accordance with Sub-Clause 46.4.

46.1.9 The requirements of this Sub-Clause are in addition to those of any other Sub-Clause which may apply to a claim. If the Contractor fails to comply with this or another Sub-Clause in relation to any claim, any extension of time and/or additional payment shall take account of the extent (if any) to which the failure has prevented or prejudiced proper investigation of the claim, unless the claim is excluded under the second paragraph of this Sub-Clause.

46.2 Issuing a Notice of Dissatisfaction

If a dispute (of any kind whatsoever) arises between the Parties in connection with, or arising out of, the Contract or the execution of the Works, including any dispute as to any certificate, determination, instruction, opinion or valuation of the Project Manager, either Party may refer the dispute in writing to the Project Manager by issuing a Notice of Dissatisfaction and requesting the matter be referred to Arbitration.

46.3 Amicable Settlement

Where a Notice of Dissatisfaction has been given, both Parties shall attempt to settle the dispute amicably before the commencement of arbitration. However, unless both Parties agree otherwise, the Party giving a Notice of Dissatisfaction should move to commence arbitration after the fifty-sixth day from the day on which a Notice of Dissatisfaction was given, even if no attempt at an amicable settlement has been made.

46.4 Arbitration

- 46.4.1 Any dispute between the Parties arising out of or in connection with the Contract not settled amicably in accordance with Sub-Clause 46.3 above shall be finally settled by arbitration. Arbitration shall be conducted as follows: if the contract is with foreign contractors, the dispute shall be referred to international arbitration either: with proceedings administered by the arbitration institution designated in the Special Conditions of Contract, and conducted under the rules of arbitration of such institution; or, if so specified in the Special Conditions of Contract, or international arbitration in accordance with the arbitration rules of the United Nations Commission on International Trade Law (UNCITRAL), unless specified otherwise in the SCC; if the Contract is with domestic contractors, arbitration with proceedings conducted in accordance with the Arbitration Laws of Kenya.
- 46.4.2 The place of arbitration shall be the neutral location specified in the Special Conditions of Contract; and thearbitration shall be conducted in the English Language for all communications.
- 46.4.3 The arbitrators shall have full power to open up, review and revise any certificate, determination, instruction, opinion or valuation of the Project Manager. Nothing shall disqualify representatives of the Parties and the Project Manager from being called as a witness and giving evidence before the arbitrators on any matter whatsoever relevant to the dispute.
- 46.4.4 Neither Party shall be limited in the proceedings before the arbitrators to the evidence to obtain its decision, or to the reasons for dissatisfaction given in its Notice of Dissatisfaction.
- 46.4.5 Arbitration may be commenced prior to or after completion of the Works. The obligations of the Parties and the Project Manager shall not be altered by reason of any arbitration being conducted during the progress of the Works.
- 46.4.6 The Decision of the Arbitration proceedings will be final and binding on both parties.

SECTION IX - SPECIAL CONDITIONS OF CONTRACT

The following Special Conditions of Contract shall supplement the General Conditions of Contract in Section VIII. Whenever there is a conflict, the provisions herein shall prevail over those in the General Conditions.

Special Conditions of Contract (SCC)

The following Special Conditions (SCC) shall supplement the General Conditions (GCC). Whenever there is a conflict, the provisions here in shall prevail over those in the GCC. The clause number of the SCC is the corresponding clause number of the GCC.

Number of GC	Amendments of, and Supplements to, Clauses in the General Conditions of Contract			
Clause				
SCC 1. Definitions	The Procuring Entity is: Kenyatta National Hospital			
	The Project Manager is: Director AID			
	Country of Origin: all countries and territories as indicated in Section V of the Tendering Document, Eligible Countries.			
SCC 5. Law and	SCC 5.1 The Contract shall be interpreted in accordance with the laws of: Kenya.			
Language				
	SCC 5.2 The ruling language is: English			
	SCC 5.3 The language for communications is: English			
SCC 7. Scope of	SCC 7.3 The Contractor agrees to supply spare parts for a period of years: As per the schedule of requirements			
Facilities [Spare Parts] (GCC Clause	Sample Addition to SCC 7.3			
The Contractor shall carry sufficient inventories to ensure an ex-stock supply o consumable spares for the Plant. Other spare parts and components shall be supplied as promptly as possible, but				
	the most within six (6) months of placing the order and opening the Form of cred In addition, in the event of termination of the production of spare parts, advance notification will be made to the Procuring Entity of the pending termination, with sufficient time to permit the Procuring Entity to procure the needed requirement.			
	Following such termination, the Contractor will furnish to the			
	extent possible and at no cost to the Procuring Entity the blueprints, drawings and specifications of the spare parts, if requested.			
SCC 8. Time for Commencement	SCC 8.1 The Contractor shall commence work on the Facilities withinfrom the Effective Date for determining Time for Completion as specified in the Contract Agreement.			
and Completion	SCC 8.2 The Time for Completion of the whole of the Facilities shall be 6			
	months _from the Effective Date as described in the Contract Agreement			
SCC 9. Contractor's Responsibilities	The following sustainable procurement contractual provisions apply:			
SCC 11. Contract	SCC 11.2 The Contract Price shall be adjusted in accordance with the provisions of the			
Price	Appendix to the Contract Agreement Titled Adjustment Clause.			

SCC 13. Securities	SCC 13.3.1 The amount of Performance Security, as a percentage of the Contract Price for the Facility or for the part of the Facility for which a separate Time for Completion is provided, shall be: (10%) in form of Bank Guarantee. SCC 13.3.2 The Performance Security shall be in the form of the Bank Guarantee attached hereto in Section X, Contract Forms. SCC 13.3.3 The Performance Security shall not be reduced on the date of the Operational Acceptanc e. SCC 13.3.3 The Performance Security shall be reduced to ten percent (10%) of the value of the component covered by the extended defect liability to cover the Contractor's extended defect liability in accordance with the provision in the SCC, pursuant to GCC Sub-Clause
	27.10. SCC22.2.5 Working Hours
SCC 22 Installation	Normal working hours are:
Number of GC Clause	Amendments of, and Supplements to, Clauses in the General Conditions of Contract
	SCC 22.2.8 Funeral Arrangements:
SCC 25.	SCC 25.2.2 The Guarantee Test of the Facilities shall be successfully completed within 1 year
Commissioning and Operational Acceptance	from the date of Completion.
SCC 26. Completion Time Guarantee	Applicable rate for liquidated damages: 1% per month The above rate applies to the price of the part of the Facilities, as quoted in the Price Schedule, for that part for which the Contractor fails to achieve Completion within the particular
	Time for Completion. Maximum deduction for liquidated damages: 25% of the contract sum SCC 26.3 Applicable (amount or rate) for the bonus for early Completion: Maximum bonus: N/A SCC 26.3 No bonus will be given for earlier Completion of the Facilities or part thereof. N/A
SCC 27. Defect Liability	SCC 27.10 The critical components covered under the extended defect liability are In the specifications, and the period shall be 6 months from date of completion (to be inserted only when an extended defect liability is requested).
SCC 30. Limitation of Liability	SCC 30.1 (b) The multiplier of the Contract Price is: N/A
SCC 39. Value Engineering	SCC 39.1.2 If the value engineering proposal is approved by the Procuring Entity the amount to be paid to the Contractor shall be NA (insert appropriate percentage. The percentage is normally up to 50%) of the reduction in the Contract Price
SCC 46.4(a)(ii) Arbitration	[Insert rules of arbitration if different from those of the International Chamber of Commerce]

SECTION VIII - CONTRACT FORMS

Notification of Award - Form of Acceptance

Contract Agreement

Appendix 1. Terms and Procedures of

Payment Appendix 2. Price Adjustment

Appendix 3. Insurance

Requirements Appendix 4. Time

Schedule

Appendix 5. List of Major Items of Plant and Installation Services and List of Approved

Subcontractors Appendix 6. Scope of Works and Supply by the Procuring Entity Appendix 7.

List of Documents for Approval or Review

Appendix 8. Functional Guarantees

Performance Security Form OPTION 1 – Demand Bank

Guarantee Performance Security Form OPTION 2 -

Performance Bond Advance Payment Security- Demand

Bank Guarantee Beneficial Ownership Disclosure

NOTIFICATION OF INTENTION TO AWARD

[This Notification of Intention to Award shall be sent to each Tenderer that submitted a Tender.] [Send this Notification to the Tenderer's Authorized Representative named in the Tenderer Information Form]

Address: [insert Authorized Representative's Address]

Telephone/Fax numbers: [insert Authorized Representative's telephone /fax numbers]

Email Address: [insert Authorized Representative's email address]

[IMPORTANT: insert the date that this Notification is transmitted to Tenderers. The Notification must be sent to all Tenderers simultaneously. This means on the same date and as close to the same time as possible.]

DATE OF TRANSMISSION: This Notification is sent by: [email/fax] on [date] (local time)

Notification of Intention to Award

Procuring Entity[insert the name of the Procuring Entity]

Project[insert name of project]

Contract title: [insert the name of the contract]

ITT No: [insert ITT reference number from Procurement Plan]

This Notification of Intention to Award (Notification) notifies you of our decision to award theabove contract. The transmission of this Notification begins the Standstill Period. During the Standstill Period, you may:

Request a debriefing in relation to the evaluation of your Tender, and/or

Submit a Procurement-related Complaint in relation to the decision to award the contract.

The successful Tenderer

Name:	[insert name of successful Tenderer]
Address:	[insert address of the successful Tenderer]
Contract price:	[insert contract price of the successful Tender]

Other Tenderers [INSTRUCTIONS: insert names of all Tenderers that submitted a Tender. If the Tender's price was evaluated include the evaluated price as well as the Tender price asread out.]

Name of Tenderer	Tender price	Evaluated Tender
	•	Cost
[insert name]	[insert Tender price]	[insert evaluated cost]
[insert name]	[insert Tender price]	[insert evaluated cost]
[insert name]	[insert Tender price]	[insert evaluated cost]

Reason/s why your Tender was unsuccessful

[INSTRUCTIONS: State the reasons/why this Tenderer's Tender was unsuccessful. Do NOT include: (a) appoint by point comparison with another Tenderer's Tender, or (b) information that is marked "Confidential" by the Tenderer in its Tender.]

How to request a debriefing?

DEADLINE: The deadline to request a debriefing expires at midnight on [insert date] (local time).

You may request a debriefing in relation to the results of the evaluation of your Tender. If you decide to request a debriefing, your written request must be made within three (3) Business Days of receipt of this Notification of Intention to Award.

Provide the contract name, reference number, name of the Tenderer, contact details; and address the request for debriefing as follows:

Attention: [insert full name of person, if applicable]

Title/position:..... [insert title/position]

Agency......[insert name of Procuring

Entity] Email address.....[insert email address]

Fax number.....[insert fax number] delete if not used

If your request for a debriefing is received within the 3 Business Days deadline, we will provide the debriefing within five (5) Business Days of receipt of your request. If we are unable to provide the debriefing within this period, the Standstill Period shall be extended by five (5) Business Days after the date that the debriefing is provided. If this happens, we will notify you and confirm the date that the extended Standstill Period will end.

The debriefing may be in writing, by phone, video conference call or in person. We shall promptly advise you in writing how the debriefing will take place and confirm the date and time.

If the deadline to request a debriefing has expired, you may still request a debriefing. In this case, we will provide the debriefing as soon as practicable, and normally no later than fifteen (15) Business Days from the date of publication of the Contract Award Notice.

How to make a complaint

Period: Procurement-related Complaint challenging the decision to award shall be submitted by midnight, [insert date] (local time).

Provide the contract name, reference number, name of the Tenderer, contact details; and address the Procurement- related Complaint as follows:

[insert full name of person, if applicable] [insert title/position]	Attention: Title/position:
[insert name of Procuring Entity]	Agency:
[insert email address]	Email address:
[insert fax number] delete if not	Fax number:

At this point in the procurement process, you may submit a Procurement-related Complaint challenging the decision to award the contract. You do not need to have requested, or received, a debriefing before making this complaint. Your complaint must be submitted within the Standstill Period and received by us before the Standstill Period ends.

Further information:

Further information: For more information refer to the Public Procurement and Disposals Act 2015 and its Regulations available from the Website: info@ppra.go.ke or complaints@ppra.go.ke.

In summary, there are four essential requirements:

You must bean' interested party'. In this case, that means a Tenderer who submitted a Tender in this Tenderingprocess, and is the recipient of a Notification of Intention to Award.

The complaint can only challenge the decision to award the contract. You must submit the complaint within the period stated above.

You must include, in your complaint, all of the information required by the Procurement Regulations (as described in Annex III).

Standstill Period

DEADLINE: The Standstill Period is due to end at midnight on [insert date] (local time).

The Standstill Period lasts ten (10) Business Days after the date of transmission of this Notification of Intention to Award.

The Standstill Period may be extended as stated in Section 4 above.

If you have any questions regarding this Notification please do not hesitate to contact us. On behalf of the Procuring Entity:

Signature:			
Name:			
Title/position:			
Telephone:			
Fmail:			

Board Secretary

FORM FOR REVIEW (r.203(1))

PUBLIC PROCUREMENT ADMINISTRATIVE REVIEW BOARD
APPLICATION NOOF20
BETWEEN
APPLICA
NTAND
RESPONDENT (Procuring Entity)
Request for review of the decision of the (Name of the Procuring Entity of
REQUEST FOR REVIEW
I/We
grounds, namely:1.
2.
By this memorandum, the Applicant requests the Board for an
order/orders that:1.
2.
SIGNED(Applicant) Dated onday of/20
FOR OFFICIAL USE ONLY Lodged with the Secretary Public Procurement Administrative Review Board on of
SIGNED

day

3. LETTER OF AWARD

To:			
This is to notify you that your Tender dated Contract Price in the aggregate of with the Instructions to Tenderers is hereby accept	, as corrected	for and modified in	the accordanc e
You are requested to furnish the Performance Second Contract, using for that purpose one of the Contract Forms, of the Tendering document.	•		
Authorized Signature:		·•	
Name and Title of Signatory:		•••	
Name of Agency:			
Attachment: Contract Agreement:			

4	CONTRACT ACREMENT
4.	CONTRACT AGREEMENT
	AGREEMENT is made theday of,, WEEN
1)	a corporation incorporated under the laws ofand having its principal place of business at(hereinafter called "the Procuring Entity"), and (2), a corporation incorporated under the laws ofand having its principal place of business at(herein after called "the Contractor").
	WHEREAS the Procuring Entity desires to engage the Contractor to design, manufacture, test, deliver, install, complete and commission certain Facilities, viz. ("the Facilities"), and the Contractor has agreed to such engagement upon and subject to the terms and conditions herein after appearing.
	NOW IT IS HEREBY AGREED as follows:
Artic	le 1. Contract Documents
1.1	Contract Documents (Reference GCC Clause2)
	The following documents shall constitute the Contract between the Procuring Entity and the Contractor, and each shall be read and construed as an integral part of the Contract: This Contract Agreement and the Appendices hereto Form of Tender and Price Schedules submitted by the ContractorSpecial Conditions of Contract General Conditions of ContractSpecification Drawings Other completed Tendering forms submitted with the Tender Any other documents forming part of the Procuring Entity's RequirementsAny other documents shall be added here
1.2	Order of Precedence (Reference GCC Clause2)
	In the event of any ambiguity or conflict between the Contract Documents listed above, the order ofprecedence shall be the order in which the Contract Documents are listed in Article1.1 (Contract Documents) above.
1.3	Definitions (Reference GCC Clause1) Capitalized words and phrases used here in shall have the same meanings as ascribed to them in the GeneralConditions.
Artic	le 2. Contract Price and Terms of Payment
2.1	Contract Price (Reference GCC Clause11)

The Procuring Entity hereby agrees to pay to the Contractor the Contract Price in consideration of the performance by the Contractor of its obligations hereunder. The Contract Price shall be the

as specified in Price Schedule No 5 (Grand Summary), and ______, or such other sums as may be determined in accordance

aggregate of:

with the terms and conditions of the Contract.

2.2 Terms of Payment (Reference GCC Clause 12)

The terms and procedures of payment according to which the Procuring Entity will reimburse the Contractor are given in the Appendix (Terms and Procedures of Payment) hereto.

The Procuring Entity may instruct its bank to issue an irrevocable confirmed documentary credit made available to the Contractor in a bank in the country of the Contractor. The credit shall be for an amount of _____ and shall be subject to the Uniform Customs and Practice for DocumentaryCredits 2007 Revision, ICC Publication No.600.

In the event that the amount payable under Schedule No.1 is adjusted in accordance with GCC 11.2 or with any of the other terms of the Contract, the Procuring Entity shall arrange for the documentary credit to be amended accordingly.

Article 3. Effective Date

3.1 Effective Date (Reference GCC Clause1)

The Effective Date from which the Time for Completion of the Facilities shall be counted is the date when all of the following conditions have been fulfilled:

This Contract Agreement has been duly executed for and on behalf of the Procuring Entity and the Contractor;

The Contractor has submitted to the Procuring Entity the Performance Security and theadvance payment guarantee;

The Procuring Entity has paid the Contractor the advance payment

The Contractor has been advised that the documentary credit referred to in Article 2.2 above has been issued in its favor.

Each party shall use its best efforts to fulfill the above conditions for which it is responsible as soon as practicable.

3.2 If the conditions listed under 3.1 are not fulfilled within two (2) months from the date of this Contract notification because of reasons not attributable to the Contractor, the Parties shall discuss and agree on an equitable adjustment to the Contract Price and the Time for Completion and/or other relevant conditions of the Contract.

Article 4. Communications

4.1	The address of the Procuring Entity for notice purposes, pursuant to GCC 4.1is:	
-----	---	--

4.2 The address of the Contractor for notice purposes, pursuant to GCC 4.1is: ______

Article 5. Appendices

- 5.1 The Appendices listed in the attached List of Appendices shall be deemed to form an integral part of this Contract Agreement.
- 5.2 Reference in the Contract to any Appendix shall mean the Appendices attached here to, and the Contract shall be read and construed accordingly.

IN WITNESS WHEREOF the Procuring Entity and the Contractor have caused this Agreement to be duly executed by their duly authorized representatives the day and year first above written.

Signed by, for and on behalf of the Procuring Entity
[Signature]
in the presence of
Signed by, for and on behalf of the Contractor
[Signature]
in the presence of



APPENDIX 1: TERMS AND PROCEDURES OF PAYMENT

In accordance with the provisions of GCC Clause12 (Terms of Payment), the Procuring Entity shall pay the Contractor in the following manner and at the following times, on the basis of the Price Break down given in the section on Price Schedules. Payments will be made in the currencies quoted by the Tenderer unless otherwise agreed between the Parties. Applications for payment in respect of part deliveries may be made by the Contractoras work proceeds.

TERMS OF PAYMENT

Schedule No. 1. Plant and Equipment Supplied from Abroad

In respect of plant and equipment supplied from abroad, the following payments shall be made:

Ten percent (10%) of the total CIP amount as an advance payment against receipt of invoice and an irrevocable advance payment security for the equivalent amount made out in favor of the Procuring Entity. The advance payment security may be reduced in proportion to the value of the plant and equipment delivered to the site, as evidenced by shipping and delivery documents.

Eighty percent (80%)of the total or pro rata CIP amount upon Incoterm "CIP", upon delivery to the carrier withinforty- five (45) days after receipt of documents.

Five percent (5%) of the total or pro rata CIP amount upon issue of the Completion Certificate, within forty-five (45) days after receipt of invoice.

Five percent (5%) of the total or pro rata CIP amount upon issue of the Operational Acceptance Certificate, within forty- five (45) days after receipt of invoice.

Schedule No. 2. Plant and Equipment Supplied from within Kenya

In respect of plant and equipment supplied from Kenya, the following payments shall be made:

Ten percent (10%) of the total EXW amount as an advance payment against receipt of invoice, and an irrevocable advance payment security for the equivalent amount made out in favor of the Procuring Entity. The advance payment security may be reduced in proportion to the value of the plant and equipment delivered to the site, as evidenced by shipping and delivery documents.

Eighty percent (80%) of the total or pro rata EXW amount upon Incoterm "Ex-Works," upon delivery to the carrier within forty-five (45) days after receipt of invoice and documents.

Five percent (5%) of the total or pro rata EXW amount upon issue of the Completion Certificate, within forty-five (45) days after receipt of invoice.

Five percent (5%) of the total or pro rata EXW amount upon issue of the Operational Acceptance Certificate, within forty-five (45) days after receipt of invoice.

Schedule No. 3. Design Services

In respect of design services for both the foreign currency and the local currency portions, the following payments shall be made:

Ten percent (10%) of the total design services amount as an advance payment against receipt of invoice, and anirrevocable advance payment security for the equivalent amount made out in favor of the Procuring Entity.

Ninety percent (90%) of the total or pro rata design services amount upon acceptance of design in accordance with GCC Clause 20 by the Project Manager within forty-five (45) days after receipt of invoice.

Schedule No. 4. Installation Services

In respect of installation services for both the foreign and local currency portions, the following payments shall be made:

Ten percent (10%) of the total installation services amount as an advance payment against receipt of invoice, and an irrevocable advance payment security for the equivalent amount made out in favor of the Procuring Entity. The advance payment security may be reduced in proportion to the value of work performed by the Contractor as evidenced by the invoices for installation services.

Eighty percent (80%) of the measured value of work performed by the Contractor, as identified in the said Program of Performance, during the preceding month, as evidenced by the Procuring Entity's authorization of the Contractor's application, will be made monthly within forty-five (45) days after receipt of invoice.

Five percent (5%) of the total or pro rata value of installation services performed by the Contractor as evidenced by the Procuring Entity's authorization of the Contractor's monthly applications, upon issue of the Completion Certificate, within forty-five (45) days after receipt of invoice.

Five percent (5%) of the total or pro rata value of installation services performed by the Contractor as evidenced by the Procuring Entity's authorization of the Contractor's monthly applications, upon issue of the Operational Acceptance Certificate, within forty-five (45) days after receipt of invoice.

In the event that the Procuring Entity fails to make any payment on its respective due date, the Procuring Entity shallpay			
to the Contractor interest on the amount of such delayed payment at the rate of			
] percent (%) per month for period of delay until payment has been made in full.			
PAYMENT PROCEDURES			
The procedures to be followed in applying for certification and making payments shall be as follows:			

APPENDIX 2. PRICE ADJUSTMENT

Where the Contract Period (excluding the Defects Liability Period) exceeds eighteen (18) months, it is normal procedure that prices payable to the Contractor shall be subject to adjustment during the performance of the Contract to reflect changes occurring in the cost of labor and material components. In such cases the Tendering document shall include in this Appendix 2 a formula of the following general type, pursuant to GCC Sub-Clause 11.2.

Where Contracts are of a shorter duration than eighteen (18) months or in cases where there is to be no Price Adjustment, the following provision shall not be included. Instead, it shall be indicated under this Appendix 2 that the prices are to remain firm and fixed for the duration of the Contract.

Sample Price Adjustment Formula

If in accordance with GCC 11.2, prices shall be adjustable, the following method shall be used to calculate the priceadjustment:

Prices payable to the Contractor, in accordance with the Contract, shall be subject to adjustment during performance of the Contract to reflect changes in the cost of labor and material components, in accordance with the following formula:

$$P1 \ \ PO \ \ (a \ \ b \ \ L1 \ \ c \ M1) \ PO$$

in which:

PI = adjustment amount payable to the Contractor

PO = Contract price (base price)

- = percentage of fixed element in Contract price (a = %)
- = percentage of labor component in Contract price (b=%)
- = percentage of material and equipment component in Contract price (c=%)

 L_0 , L_1 = labor indices applicable to the appropriate industry in the country of origin on the base date and the date for adjustment, respectively

 M_0 , M_1 = material and equipment indices in the country of origin on the base date and the date for adjustment, respectively N.B. a+b+c= 100%.

Conditions Applicable to Price Adjustment

The Tenderer shall indicate the source of labor and materials indices, source of exchange rates and the base date indices in its Tender.

Item Source of Indices Used Base Date Indices

The base date shall be the date twenty-eight (28) days prior to the Tender closing date.

The date of adjustment shall be the mid-point of the period of manufacture or installation of

component or Plant. The following conditions shall apply:

No price increase will be allowed beyond the original delivery date unless covered by an extension of time awarded by the Procuring Entity under the terms of the Contract. No price increase will be allowed for periods of delay for which the Contractor is responsible. The Procuring Entity will, however, be entitled to any price decrease occurring during such periods of delay.

If the currency in which the Contract price, PO, is expressed is different from the currency of the country of origin of the labor and/or materials indices, a correction factor will be applied to avoid incorrect adjustments of the Contract price. The correction factor shall be: Z0 / Z1, where,

Z0 = the number of units of currency of the origin of the indices which equal to one unit of the currency of the Contract Price P0 on the Base date, and

Z1 = the number of units of currency of the origin of the indices which equal to one unit of the currency of the Contract Price P0 on the Date of Adjustment.

No price adjustment shall be payable on the portion of the Contract price paid to the Contractor as an advancepayment.

APPENDIX 3. INSURANCE REQUIREMENTS

Insurances to be Taken Out by the Contractor

In accordance with the provisions of GCC Clause 34, the Contractor shall at its expense take out and maintain in effect, or cause to be taken out and maintained in effect, during the performance of the Contract, the insurances set forth below in the sums and with the deductibles and other conditions specified. The identity of the insurers and the form of the policies shall be subject to the approval of the Procuring Entity, such approval not to be unreasonably withheld.

Cargo Insurance

Covering loss or damage occurring, while in transit from the supplier's or manufacturer's works or stores until arrival at the Site, to the Facilities (including spare parts therefor) and to the construction equipment to be provided by the Contractor or its Subcontractors.

Amount Deductible Limits Parties insured from To

Installation All Risks Insurance

Covering physical loss or damage to the Facilities at the Site, occurring prior to completion of the Facilities, with an extended maintenance coverage for the Contractor's liability in respect of any loss or damage occurring during the defect liability period while the Contractor is on the Site for the purpose of performing its obligations during the defect liability period.

Amount Deductible Limits Parties insured from To

Third Party Liability Insurance

Covering bodily injury or death suffered by third parties (including the Procuring Entity's personnel) and loss of or damage to property (including the Procuring Entity's property and any parts of the Facilities that have been accepted by the Procuring Entity) occurring in connection with the supply and installation of the Facilities.

Amount Deductible Limits Parties insured from To

Automobile Liability Insurance

Covering use of all vehicles used by the Contractor or its Subcontractors (whether or not owned by them) in connection with the supply and installation of the Facilities. Comprehensive insurance in accordance with statutory requirements.

Workers' Compensation

In accordance with the statutory requirements applicable in any country where the Facilities or any part thereof is executed.

Procuring Entity's Liability

In accordance with the statutory requirements applicable in any country where the Facilities or any part thereof is executed.

Other Insurances

The Contractor is also required to take out and maintain at its own cost the following insurances:

Details:

Amount Deductible Limits Parties insured from To The Procuring Entity shall be named as co-insured under all insurance policies taken out by the Contractor pursuant to GCC Sub-Clause 34.1, except for the Third-Party Liability, Workers' Compensation and Procuring Entity's Liability Insurances, and the Contractor's Subcontractors shall be named as co-insureds under all insurance policies taken out by the Contractor pursuant to GCC Sub-Clause 34.1, except for the Cargo, Workers' Compensation and Procuring Entity's Liability Insurances. All insurer's rights of subrogation against such co-insureds for losses or claims arising out of the performance of the Contract shall be waivedunder such policies.

The Procuring Entity shall at its expense take out and maintain in effect during the performance of the
Contract the following insurances.
· · · · · · · · · · · · · · · · · · ·
Details:

Amount Deductible Limits Parties insured from ______To_____

Insurances to Be Taken Out by the Procuring Entity

APPENDIX 4. TIME SCHEDULE

APPENDIX 5. LIST OF MAJOR ITEMS OF PLANT AND INSTALLATION SERVICES AND LIST OF APPROVED SUBCONTRACTORS

A list of major items of Plant and Installation Services is provided below.

The following Subcontractors and/or manufacturers are approved for carrying out the items of the Facilities indicated below. Where more than one Subcontractor is listed, the Contractor is free to choose between them, but it must notify the Procuring Entity of its choice in good time prior to appointing any selected Subcontractor. In accordance with GCC Sub-Clause 19.1, the Contractor is free to submit proposals for Subcontractors for additional items from time to time. No Subcontracts shall be placed with any such Subcontractors for additional items until the Subcontractors have been approved in writing by the Procuring Entity and their names have been added to this list of Approved Subcontractors.

Major Items of Plant and Installation Services	Approved Subcontractors/Manufacturers	Nationality	

APPENDIX 6. SCOPE OF WORKS AND SUPPLY BY THE PROCURING ENTITY

The following personnel, facilities, works and supplies will be provided/supplied by the Procuring Entity, and the provisions of GCC Clauses 10, 21 and 24 shall apply as appropriate.

All personnel, facilities, works and supplies will be provided by the Procuring Entity in good time so as not to delaythe performance of the Contractor, in accordance with the approved Time Schedule and Program of Performance pursuant to GCC Sub-Clause18.2.

Unless otherwise indicated, all personnel, facilities, works and supplies will be provided free of charge to the Contractor.

Personnel Charge to Contractor (if any)

Facilities Charge to Contractor (if any)

Works Charge to Contractor (if any)

Supplies Charge to Contractor (if any)

APPENDIX 7. LIST OF DOCUMENTS FOR APPROVAL OR REVIEW

Pursuant to GCC Sub-Clause 20.3.1, the Contractor shall prepare, or cause its Subcontractor to prepare, and present to the Project Manager in accordance with the requirements of GCC Sub-Clause 18.2 (Program of Performance), the following documents for

	Approval
1.	
2.	
3.	
	Review
1.	Review
1.	Review
	Review

APPENDIX 8. FUNCTIONAL GUARANTEES

General

This Appendix sets out

The functional guarantees referred to in GCC Clause 28 (Functional Guarantees)

The pre-conditions to the validity of the functional guarantees, either in production and/or consumption, set forth below

The minimum level of the functional guarantees

The formula for calculation of liquidated damages for failure to attain the functional guarantees.

P	Preconditions
	The Contractor gives the functional guarantees (specified herein) for the facilities, subject to the following preconditions being fully satisfied:
F	unctional Guarantees
	Subject to compliance with the foregoing preconditions, the Contractor guarantees as follows:
3.1	Production Capacity
	and/or

Failure in Guarantees and Liquidated Damages

- 4.1 Failure to Attain Guaranteed Production Capacity
 - If the production capacity of the facilities attained in the guarantee test, pursuant to GCC Sub-Clause 25.2, is less than the guaranteed figure specified in para. 3.1 above, but the actual production capacity attained in the guarantee test is not less than the minimum level specified in para. 4.3 below, and the Contractor elects to pay liquidated damages to the Procuring Entity in lieu of making changes, modifications and/or additions to the Facilities, pursuant to GCC Sub-Clause 28.3, then the Contractor shall pay liquidated damages at the rate of for every complete one percent (1%) of the deficiency in the production
 - capacity of the Facilities, or at a proportionately reduced rate for any deficiency, or part thereof, of less than a complete one percent (1%).
- 4.2 Raw Materials and Utilities Consumption in Excess of Guaranteed Level _______ If the actual measured figure of specified raw materials and utilities consumed per unit (or their average total cost of consumption) exceeds the guaranteed figure specified in para.3.2 above (or their specified average total cost of consumption), but the actual consumption attained in the

guarantee test, pursuant to GCC Sub-Clause 25.2, is not more than the maximum level specified in para. 4.3 below, and the Contractorelects to pay liquidated damages to the Procuring Entity in lieu of making changes, modifications and/or additions to the Facilities pursuant to GCC Sub-Clause 28.3, then the Contractor shall pay liquidated damages at the rate of [amount in the contract currency] for every complete one percent (1%) of the excess consumption of the Facilities, or part thereof, of less than a complete one percent (1%).

4.3 Minimum Levels

Notwithstanding the provisions of this paragraph, if as a result of the guarantee test(s), the following minimum levels of performance guarantees (and consumption guarantees) are not attained by the Contractor, the Contractor shall at its own cost make good any deficiencies until the Facilities reach any of such minimum performance levels, pursuant to GCC Sub-Clause 28.2:

a) production capacity of the Facilities attained in the guarantee test: ninety-five percent (95%) of the guaranteed production capacity (the values offered by the Contractor in its Tender for functional guarantees represents 100%).

and/or

average total cost of consumption of all the raw materials and utilities of the Facilities: one hundred and five percent (105%) of the guaranteed figures (the figures offered by the Contractor in its Tender for functional guarantees represents 100%).

4.4 Limitation of Liability

Subject to para.4.3 above, the Contractor's aggregate liability to pay liquidated damages for failure to attain the functional guarantees shall not exceed_____percent (_%) of the Contract price.

PERFORMANCE SECURITY FORM

OPTION 1 – Demand Bank Guarantee

[Guarantor Form head or SWIFT identifier code]

Beneficiary:	[insert i	name and Address of Procuring
Entity]		
Date:	[Insert	date of issue]
PERFORMANCE GUARANTEE	No.:	[Insert guarantee reference number]
Guarantor:	[Insert name head]	e and address of place of issue, unless indicated in the Form
We have been informed that_ Contract No executionof	dated	(herein after called "the Applicant") has entered into with the Beneficiary, for the called "the Contract").
Furthermore, we understand t	that, according to	to the conditions of the Contract, a performance guarantee is
sum or sums not exceeding in proportions of currencies inw complying demand supported signed document accompanying	total an amoun hich the Contrad by the Benefician or identifying ract, without the	ntor, hereby irrevocably undertake to pay the Beneficiary any nt of ()¹,such sum being payable in the types and act Price is payable, upon receipt by us of the Beneficiary's tary's statement, whether in the demand itself or in a separate githe demand, stating that the Applicant is in breach of its e Beneficiaryneeding to prove or to show grounds for your
This guarantee shall be reduce	d by half upon c	our receipt of:
A copy of the Operational A	Acceptance Certi	ificate; or
Operational Acceptance Certificate within the tir	e Certificate and me required or p	attaching a copy of its notice requesting issuance of the late (ii) stating that the Project Manager has failed to issue such provide in writing justifiable reasons why such Certificate has exceptance is deemed to have occurred.
This guarantee shall expire no	later than the ea	arlier of: ²
twelve months after our red	ceipt of either (a)	a) or (b)
above; oreighteen months	after our receipt	of:
a copy of the Com	npletion Certifica	ate; or
that the Facilities of the from receipt of su	are ready for co uch notice (or se lanager has faile	cant, attaching a copy of the notice to the Project Manager commissioning, and stating that fourteen days have elapsed even days have elapsed if the notice was a repeated notice) ed to issue a Completion Certificate or in form the Applicant encies; or
		ant stating that no Completion Certificate has been issued use of the Facilities; or
c) theday of,2	* ³	

required.

Consequently, any demand for payment under this guarantee must be received by us at this office on orbefore that date.

¹The Guarantor shall insert an amount representing the percentage of the Contract Price specified in the Contract and denominated either in the currency (ies) of the Contract or a freely convertible currency acceptable to the Procuring Entity.

This guarantee is subject to the Uniform Rules for Demand Guarantees (URDG) 2010 Revision, ICCPublication No.758, except that the supporting statement under Article15 (a) is hereby excluded.

[signature(s)]

Note: All italicized text (including footnotes) is for use in preparing this form and shall be deleted from the finalproduct

²This text shall be revised as and where necessary to take into account (i) partial acceptance of the Facilities in accordance with Sub-Clause 25.4 of the GCC; and extension of the Performance Security when the Contractor is liable for an extended warranty obligation pursuant to Sub-Clause 27.10 of the GCC (although in this latter case the Procuring Entity might want to consider an extended warranty security in lieu of the extension of the Performance Security).

Insert the date twenty-eight days after the expected expiration date of the Defect Liability Period. The Procuring Entity should note that in the event of an extension of the time for completion of the Contract, the Procuring Entity would need to request an extension of this guarantee from the Guarantor. Such request must be in writing and must be made prior to the expiration date established in the guarantee. In preparing this guarantee, the Procuring Entity might consider adding the following text to the form, at the end of the pen ultimate paragraph: "The Guarantor agrees to a one-time extension of this guarantee for a period not to exceed [six months] [one year], in response to the Procuring Entity's written request for such extension, such request to be presented to the Guarantor before the expiry of the guarantee."

PERFORMANCE SECURITY OPTION 2 – (Performance Bond)

[Note: Procuring Entities are advised to use Performance Security—Unconditional Demand Bank Guaranteeinstead of Performance Bond due to difficulties involved in calling Bond holder to action]

[Guarantor Form head or \$W	/IFT identifier code]
Beneficiary:	[insert name and Address of Procuring
Date: PERFORMANCE BOND No.:	[Insert date of issue]
Guarantor:	[Insert name and address of place of issue, unless indicated in the Form head]
	as Principal (herein after called "the Contractor")] as Surety (herein after called "the Surety"), are held [] as Obliged (herein after called "the Procuring Entity") in for the payment of which sum well and truly to be made in the types and proportions of Contract Price is payable, the Contractor and the Surety bind themselves, dministrators, successors and assigns, jointly and severally, firmly by these
the day of,20, for amendments there	r has entered in to a written Agreement with the Procuring Entity datedin accordance with the documents, plans, specifications, and herein provided for, are by reference m a depart here of and are herein after act.

NOW, THEREFORE, the Condition of this Obligation is such that, if the Contractor shall promptly and faithfully perform the said Contract (including any amendments there to), then this obligation shall be null and void; otherwise, it shall remain in full force and effect. Whenever the Contractor shall be, and declared by the Procuring Entity to be, in default under the Contract, the Procuring Entity having performed the Procuring Entity's obligations there under, the Surety may promptly remedy the default, or shall promptly:

Complete the Contract in accordance with its terms and conditions; or

Obtain a tender or tenders from qualified tenderers for submission to the Procuring Entity for completing the Contract in accordance with its terms and conditions, and upon determination by the Procuring Entity and the Surety of the lowest responsive Tenderers, arrange for a Contract between such Tenderer, and Procuring Entity and make available as work progresses (even though there should be a default or a succession of defaults under the Contract or Contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion less the Balance of the Contract Price; but not exceeding, including other costs and damages for which the Surety may be liable here under, the amount set for thin the first paragraph hereof. The term "Balance of the Contract Price," as used in this paragraph, shall mean the total amount payable by Procuring Entity to Contractor under the Contract, less the amount properly paid by Procuring Entity to Contractor; or

Pay the Procuring Entity the amount required by Procuring Entity to complete the

Contract in accordance with its terms and conditions up to a total not exceeding the amount of this Bond.

The Surety shall not be liable for a greater sum than the specified penalty of this Bond.

Any suit under this Bond must be instituted before the expiration of one year from the date of the issuing of the Taking-Over Certificate. No right of action shall accrue on this Bond to or for the use of any person or corporation other than the Procuring Entity named here in or the heirs, executors, administrators, successors, and assigns of the Procuring Entity.

representative,	lr	n testimony whereof, the Contractor has hereunto set his hand and affixed his seal, and the Surety has
		caused these presents to be sealed with his corporate seal duly attested by the signature of his legal
this day of 20 .		representative,
/		this dayof20

SIGNED ON	on behalf of
Ву	in the
capacity	
of in the presence of	
SIGNED ON	on behalf of
Ву	in the
capacity	
of in the presence of	
ADVANCE PAYMENT SECURITY - De	emand Bank
Guarantee [Guarantor Form head or .	SWIFT identifier code]
Beneficiary: [Name a Entity]	and Address of Procuring
Date:[Insert of	date of issue]
Advance Payment Guarantee No.:	[Insert guarantee reference number]
	nsert name and address of place of issue, unless indicated in the Form ead]
We have been informed that dated Contract No dated(herein after calls	
Furthermore, we understand that, acc	cording to the Conditions of the Contract, an advance payment in the sum) is to be made against an advance payment guarantee.
sum or sums not exceeding in total ar demand supported by the Beneficiary	Guarantor, hereby irrevocably undertake to pay the Beneficiary any a <u>mount of (</u>) ⁴ upon receipt by us of the Beneficiary's complying 's statement whether in the demand itself or in a separate signed ng the demand, stating either that the applicant:
Has used the advance pay respect of the Facilities; or	ment for purposes other than the costs of mobilization in
The state of the s	vance payment in accordance with the Contract conditions, ch the Applicant has failed to repay.
	be presented as from the presentation to the Guarantor of a stating that the advance payment referred to above has been nt numberat
	ntee shall be progressively reduced by the amount of the advance dicated in copies of interim statements or payment certificates which

shall be presented to us. This guarantee shall expire, at the latest, upon our receipt of documentation indicating full repayment by the Applicant of the amount of the advance payment, or on the day of

, ⁵ , whichever is earlier. Consequently, any demand for payment under this guarantee must be received by us at this office on or before that date.
This guarantee is subject to the Uniform Rules for Demand Guarantees (URDG) 2010 Revision, ICC Publication No. 758, except that the supporting statement under Article 15 (a) is hereby excluded.
[signature(s)]
Note: All italicized text (including footnotes) is for use in preparing this form and shall be deleted from the finalproduct.
⁴ The Guarantor shall insert an amount representing the amount of the advance payment and denominated either in the currency(ies) of the advance payment as specified in the Contract, or in a freely convertible currency acceptable to the Procuring Entity.
5 Inserttheexpected expiration date of the Time for Completion. The Procuring Entity should note that in the event of an extension of the time for completion of the time for comp
Contract, the ProcuringEntity would needtore questa nextension of this guarantee from the Guarantor. Such
requestmustbeinwritingandmustbemadepriorto
the expiration date established in the guarantee. In preparing this guarantee, the ProcuringEntity might consider the ProcuringEntity migh
eraddingthefollowingtexttotheform,attheendof
thepenultimateparagraph: "TheGuarantoragreestoaone-

 $time extension of this guarantee for a period not to exceed \cite{sixmonths} \cite{sixmon$

ryoftheguarantee."

Beneficiary's written request for such extension, such request to be presented to the Guarant or before the expinant of the Guarant or before the expinant or before the expinant of the Guarant or before the expinant of the Guarant or before the expinant or before the expinan

BENEFICIAL OWNERSHIP DISCLOSURE

INSTRUCTIONS TO TENDERERS: DELETE THIS BOX ONCE YOU HAVE COMPLETED THE FORM

This Beneficial Ownership Disclosure Form ("Form") is to be completed by the successful tenderer. In case of joint venture, the tenderer must submit a separate Form for each member. The beneficial ownership information to be submitted in this Form shall be current as of the date of its submission.

For the purposes of this Form, a Beneficial Owner of a Tenderer is any natural person who ultimately owns or controls the Tenderer by meeting one or more of the following conditions:

Directly or indirectly holding 25% or more of the shares.

Directly or in directly holding 25% or more of the voting rights.

Directly or indirectly having the right to appoint a majority of the board of directors or equivalent governing body of the Tenderer.

Tender Reference No.: Name of the Assignment:	[insert identification no] [insert name of the assignment] to:		
[insert complete name of Procuring Entity]			
In response to your notification of award datedadditional information on beneficial ownership:options that are not applicable]	[insert date of notification of award] to furnish [select one option as applicable and delete the		
We here by provide the following beneficial ownersh	ip information.		

Details of beneficial ownership

Identity of Beneficial	Directly or	Directly or indirectly	Directly or indirectly having the right
Owner	indirectly holding 25% or more of the shares (Yes / No)	holding 25 % or more of the Voting Rights (Yes / No)	to appoint a majority of the board of the directors or an equivalent governing body of the Tenderer (Yes / No)
[include full name (last, middle, first), nationality, country of residence]			

OR

We declare that there is no Beneficial Owner meeting one or more of the following conditions: directly or indirectly holding 25% or more of the shares. Directly or indirectly holding 25% or more of the votingrights. Directly or indirectly having the right to appoint a majority of the board of directors or equivalent governing body of the Tenderer.

OR

We declare that we are unable to identify any Beneficial Owner meeting one or more of the following conditions. [If this option is selected, the Tenderer shall provide explanation on why it is unable to identify any Beneficial Owner]

Directly or indirectly holding 25% or more of the shares. Directly or indirectly holding 25% or more of the voting rights.

Directly or indirectly having the right to appoint a majority of the board of directors or equivalent governing bodyof the Tenderer]"

Name of the Tenderer:		Tenderer]		
Name of the person duly authorized to sign the Tender on behalf of the Tenderer: ** [insert complete name of person duly authorized to sign the Tender]				
Title of the person signing a	the Tender[insert complete	e title of the person signing the Tender]		
Signature of the person nar are shown above]	ned above[insert signature	e of person whose name and capacity		
Date signed	linsert date of signing day of	[Insert month] [insert year]		



KENYATTA NATIONAL HOSPITAL SITE VISIT CERTIFICATE

TENDER NO: KNH/T/56/2022-2023

Bidders Name
Address:
This is to confirm the above noted bidder visited KNH site on 30th June, 2022 at 10.30Am.
Bidder's Representative
Namedate
KNH Representative:
Name
This is to confirm the above noted bidder visited KNH site on