

BID DOCUMENT

INVITATION FOR BIDS
FOR
SUPPLY, INSTALLATION, TESTING & COMMISSIONING
OF
MEDICAL EQUIPMENTS ON TURNKEY BASIS
FOR
GOKULDAS TEJPAL HOSPITAL, MUMBAI
UNDER CSR SCHEME OF ONGC

NATIONAL COMPETITIVE BIDDING

BID REFERENCE: IFB No. HSCC/PUR/ONGC/GT-MUMBAI/2007 dated 05.11.2007



HSCC (I) LTD.

(A Govt. of India Enterprises)

Plot No. 6A, Block-E, Sector-1, NOIDA (U.P.) – 201 301.

Tel: 0120-2542436,37,38,40 Ext. 202, 0120-2545960

Fax : 0120-2542447.

FORWARDING LETTER

To,
(Prospective Bidder).....
.....
.....

Our Ref.: IFB No. HSCC/PUR/ONGC/GT-MUMBAI/2007 dated 05.11.2007

Your ref: _____

SUBJECT: INVITATION FOR BIDS FOR SUPPLY, INSTALLATION, TESTING & COMMISSIONING OF MEDICAL EQUIPMENTS FOR GOKULDAS TEJPAL HOSPITAL, MUMBAI

Sir

1. Enclosed please find bid document for various **Schedules** of items.
2. The date for the Bid receipt and opening will be as per IFB. However, in the event of the day of receipt and opening of tender being declared a holiday, the due date of receipt and opening of tenders will be the following working day at the same time.
3. The bidder is eligible to quote only for the **Schedule(s)** for which the payment of Bid Document Fee is made as per the Clause 9[B] of Instructions to Bidders.
4. **Pre-bid meeting on Techno-Commercial conditions shall be held on 16th November, 2007 at 1100 hrs at HSCC (I) Ltd., E-6A Sector 1, Noida – 201 301 (UP). Bidders are requested to bring with them any clarifications required in writing and submit the same during the Pre-bid meeting/discussions. Response to the queries, amendments, if any shall be displayed on the HSCC's website <http://www.hscltd.co.in> by 26th November, 2007.**
5. **Bidders are advised in their own interest to keep visiting HSCC's website <http://www.hscltd.co.in> regularly for any possible amendments/corrigendum etc.**

Kindly acknowledge the receipt of the Bid Document.

Executive Director (Proc & PG-I)

- Encl: 1. Annexure-A – Important Clauses in brief.
2. Invitation For Bid (IFB).
3. Invitation For Bids (IFB) – Details
4. Section-I - Instructions To Bidders (ITB)
5. Section-II - General Conditions Of Contract (GCC)
6. Section-III - Special Conditions Of Contract (SCC)
7. Formats
8. Description & Specifications

Important Clauses in Brief, For Quick Reference only, (BIDDER MUST REFER ALL TERMS & CONDITIONS ETC. ENCLOSED WITH THE BID DOCUMENT IN DETAILS)

Instruction to Bidders (ITB)

1. **Bid Security Amount** - As given in IFB Details.
2. **Price Bid** - Please refer Clause 6 of ITB. Quoted price must include cost of 5 years Comprehensive Warranty with spares and 5 years Comprehensive AMC with spares.
3. **Statutory Variation** - As per Clause 6.4 of ITB. Any variation in the Statutory Levies / Taxes/ Duties/ Cess or any new Levies/ Taxes/ Duties/ Cess on end product shall be payable at actual provided documentary evidence of the prevailing rate quoted at the date of submission of bid and changes at the time of actual supplies (within stipulated delivery period) is furnished.
4. **Optional Items** - As per Clause 6.6 of ITB. Bidder in their own interest should quote separately for any Optional Items of the Technical Specifications. In case the Optional items of the Tender Specifications are not quoted explicitly, then the rate quoted shall be considered for the tendered main item and accordingly price comparison shall be done. No benefit shall be considered for inclusion of Optional Items in the Tendered Item.
5. **Manufacturer's Authorization** - As per Clause 7.2 a of ITB. In case of a Schedule comprising group of items, then Bidder may give Manufacturer's authorisation for main equipment from the Principals and other equipment from other manufacturer's of his choice (indigenous/ imported) for which Bidder shall submit Manufacturer's Authorization as per the Tender format.
6. **Bid Document Fee** - See Clause 9 [B] of ITB.
7. **Bid Validity** - **180** days as per Clause 10.1 of ITB
8. **Amount of Performance Security-** 5% as per Clause 24 of ITB.
9. **Preliminary Examination** - As per Clause 17.4 of ITB. The Bid Form, signed by the Bidder which stipulates acceptance of all the terms & conditions of tender document, shall supercede all other terms & conditions given in the tender by the Bidder.

General Conditions of Contract (GCC)

- 10. **Delivery** - 12 weeks as per Clause No.9 of GCC
- 11. **Insurance** - 110% of Order Value as per Clause No.10 of GCC.
- 12. **Payment Terms** - As per Clause No. 12 of GCC.
- 13. **Liquidated Damages** - 0.5% per week upto 10% as per Clause No.15 of GCC.

Special conditions of Contract (SCC)

- 14. **Minimum Qualification Criteria** - As per Clause 4 A iii of SCC.
- 15. **Minimum Qualification Criteria** - As per Clause 4 A iv of SCC. Bidders should have in the past 5 years, . executed for the **Schedule** offered, at least one single order of like nature of item and quantity not less than 100% of quantity of **Schedule** offered by bidder. The Bidders shall furnish “End User Certificate” indicating contract details i.e. name of person, phone/fax /mobile nos. etc.
- 16. **Other eligibility requirements** - As per Clause 4 B ii) of SCC. The Bidder should submit audited balance sheet and Profit & Loss Account alongwith audited report for the last 3 years to enable the purchaser to assess the financial capability of the bidder or positive networth of the bidder.
- 17. **Bid Form** - To be submitted as per Clause 6 of SCC in the given format.
- 18. **Components & Quantities** - All components/ quantities of a Schedule must be quoted as per Clause 9 of SCC.
- 19. **Turnkey activities** - The offer should be on turn-key basis including all costs incidental to the same as per Clause 12 & 15 of SCC.

ह.स.कं.क.

HSCC

HSCC (INDIA) LIMITED

(A Government of India Enterprises)

Plot No. 6(A), Block-E, Sector-1, NOIDA (U.P.) - 201 301.

Tel : 0120-2542436, 37, 38, 40, Ext. 202, 120-2545960, Fax : 0120-2542447.

INVITATION FOR BIDS (IFB) - NATIONAL COMPETITIVE BIDDING

IFB Reference: HSCC/PUR/GT-MUMBAI/2007

Dated : 05.11.2007

HSCC (India) Ltd., for and on behalf of Oil and Natural Gas Corporation Limited invites sealed bids from manufacturers only in single stage two bid system for Supply, Installation, Testing & Commissioning of the following Medical Equipment for Gokuldas Tejpal Hospital, Lokmanya Tilak Marg, Mumbai-400 001.

Schedule	Description	Quantity	Last Date of Submission of Bids	Bid Security (in Rs.)
RAD-1	Super Conducting 1.5 Tesla Magnetic Resonance Imaging System (MRI)	1	04.12.2007	10,00,000.00
RAD-2	Multi Slice Spiral CT Scanner (64 Slice)	1	04.12.2007	7,50,000.00

BID DOCUMENTS : Bid Documents can be downloaded from <http://www.hsccltd.com/> free of cost from **07.11.2007** to date of submission of bid mentioned in the IFB. Please refer to the Clause 9[B] of ITB of Bid Documents for details regarding payment of the Bid Document fee. Bid Document Fee paid is non-refundable and the Bid Documents are non-transferable. Bid documents requested by mail will be despatched by courier in pdf formate on CD(s), on payment of an amount of Rs. 200/- by crossed account payee Demand Draft in favour of **HSCC (I) Ltd.** drawn on any nationalised/scheduled bank payable at **NOIDA/New Delhi**. HSCC takes no responsibility for delay, loss or non-receipt of tender documents sent by post either way. Bidders in their own interest are requested to visit HSCC website <http://www.hsccltd.com> regularly for any possible amendments/corrigendums etc.

In case of difficulty in downloading the Bid Document from the website, the prospective bidder(s) may please contact the undersigned.

HSCC reserves the right to accept or reject any or all of the tenders in full or in part including the lowest without assigning any reason thereof or incurring any liability thereby.

Executive Director (Proc & PG-I)

HSCC (INDIA) LIMITED

(A Govt. of India Enterprise)

National Competitive Bidding

INVITATION FOR BIDS (IFB)

IFB Reference: **HSCC/PUR/ONGC/GT-MUMBAI/2007**

Dated: **05.11.2007**

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RAD - 1	Super Conducting 1.5 Tesla Magnetic Resonance Imaging System (MRI)	1	04.12.2007	10,00,000.00
RAD - 2	Multi Slice Spiral CT Scanner (64 Slice)	1	04.12.2007	7,50,000.00

- i) Bid evaluation will be made on the basis of total "All inclusive lump sum price" to be offered for each **Schedule**. Any part / incomplete offer in a particular **Schedule** shall be rejected.
- ii) Sealed bids to be submitted in single stage two bid system, i.e., Techno Commercial Bid (un-priced bid) and Price bid, for the above, including Bid Security.
- iii) The bidders shall be required to furnish a Bid Security for each **Schedule** offered along with the Bid for an amount specified herein above in the form of Demand Draft drawn in favour of HSCC (I) Ltd. from any Nationalised bank payable at NOIDA or New Delhi. The successful bidder will be required to furnish Contract Performance Security for 5% of contract value for any **Schedule**, in the form of a Demand Draft drawn in favour of HSCC from any Nationalised bank payable at NOIDA/New Delhi or by Bank Guarantee issued by a Scheduled Bank in India, in favour of the Purchaser within 15 days of issue of notification of award of contract. All relevant terms and conditions of tender and other details are available in bid documents.
- iv) Bidders may quote for any one or more of **Schedules** but Bid Security should be given separately for each **Schedule** as indicated.
- v) A specimen copy of the 'Bid Document' is kept available for inspection (Free of Cost) at HSCC (India) Ltd., Noida for the benefit of prospective bidders.
- vi) Bids shall be evaluated separately for each **Schedule**.
- vii) In case of goods of import origin, a foreign manufacturer can quote through their authorized Indian agent.
- viii) Log on to <http://www.hscltd.com/> for copy of Invitation for Bids.

BID DOCUMENTS: Bid Documents can be downloaded from <http://www.hscltd.com/> free of cost from 07.11.2007 to date of submission of bid mentioned in the IFB. The cost of the bidding documents is Rs.2500/- per Schedule. Please refer to the Clause 9[B] of ITB of Bid Documents for details regarding payment of the Bid

Document fee.

Bid documents requested by mail will be despatched by courier in the PDF formats on CD(s), on payment of an amount of Rs. 200/- by crossed account payee Demand Draft drawn in favour of HSCC (I) Ltd. drawn on any nationalised bank payable at NOIDA/New Delhi,. The last date for submission of bids for various **Schedules** has been indicated in the bid document.

Bidders request for waiver, alteration etc in respect of bid document fee, Bid Security, contract Performance Security etc will not be accepted and hence no formal reply will be given for such request.

Bids should reach the office of HSCC (India) Ltd., on or before the last date (as mentioned above) upto 1400 Hrs.

Only the Techno-Commercial bid shall be opened in the presence of participating Bidders on the respective last date at 1430 hrs. The techno commercial bid shall not be opened of those bidders who have not complied with the provisions of the Bid Document Fee and Bid Security clause in the tender document. Based on Techno-Commercial evaluation, the Price bid of such of those bidders, who are found both technically and commercially eligible, are only to be opened at a later date to be intimated to them.

HSCC takes no responsibility for delay, loss or non-receipt of tender documents sent by post either way.

HSCC reserves the right to accept or reject any or all of the tenders in full or in part including the lowest bid without assigning any reasons thereof or incurring any liability thereby.

Executive Director (Proc & PG-I)

HSCC (I) LTD.

(A Govt. of India Enterprises)

Plot No. 6A, Block-E, Sector-1, NOIDA (U.P.) – 201 301.

Tel: 0120-2542436, 37, 38, 40 Ext. 202, 0120-2545960

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SECTION-I

INSTRUCTIONS TO BIDDERS (ITB)

This bid document should be read in conjunction with the Press Tender Notice/IFB, Ref. No. HSCC/PUR/ONGC/GT-MUMBAI/2007 dated 05.11.2007, a copy of which is enclosed in this document and all clauses to be read in conjunction with any other instruction given else, where, in this document, on the same subject matter of the clause.

1. THE BIDDING DOCUMENTS:

CONTENT OF BIDDING DOCUMENTS:

- 1.1 The Goods required, bidding procedures and tender & contract terms are prescribed in this Bidding Document and includes (i) IFB, (ii) IFB (Details), (iii) Section I (ITB), (iv) Section II (GCC), (v) Section III (SCC), (vi) Annexure-1 (Description & Specifications), (vii) Consignee details for equipment placement, besides formats for Consignee receipt, Bid form, Performance Statement Proforma and Manufacturer's Self Authorisation form & Manufacturer's Authorization form (for Equipments of Imported origin).
- 1.2 The Bidders are expected to examine all instructions, terms, specifications etc. in the Bidding Documents. Failure to furnish information required by Bidding Documents or submission of a Bid not in compliance to the Bidding Documents will be at the Bidder's risk and may result in rejection of its Bid.

1.3 COST OF BIDDING:

The Bidder shall bear all costs associated with the preparation and submission of its Bid, and ONGC Ltd., acting through their Consultants, M/s HSCC (I) Ltd., hereinafter referred to, as "The Purchaser" will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

2. CLARIFICATION IN BIDDING DOCUMENTS:

A prospective Bidder requiring any legitimate clarification of the Bidding Documents may notify the Purchaser in writing at the Consultant's mailing address indicated in the Invitation for Bids. The Purchaser will respond to any request for clarification of the Bidding Documents that it receives **not later than the date of Pre-bid Meeting.** Purchaser's response (including explanation of the query but without identifying the source of inquiry) will be displayed on the HSCC's website <http://www.hsccltd.com> by the date mentioned in the Forwarding Letter.

Please refer to the Notice for Pre-bid meeting to be held at HSCC's office on the date & time mentioned in the forwarding letter.

3. **AMENDMENT OF BIDDING DOCUMENTS :**

- 3.1 At any time prior to the deadline for submission of Bids, the Purchaser may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective Bidder modify the Bidding Documents by amendment.
- 3.2 The amendment will be notified in writing or by Fax or cable to all prospective Bidders who have received the Bidding Documents and will be binding on them.
- 3.3 In order to afford prospective Bidders reasonable time to take the amendment into account in preparing their Bids, the purchaser may, at its discretion, extent the deadline for the submission of Bids.

4. **LANGUAGE OF BID :**

- 4.1 The Bid prepared by the Bidder and all correspondence and documents relating to the Bid exchanged by the Bidder and the purchaser, shall be written in the English language, provided that any printed literature furnished by the Bidder may be written in another language so long as it is accompanied by an English translation of its pertinent passages in which case, for purposes of interpretation of the Bid, the English translation shall govern.

5. **DOCUMENTS COMPRISING THE BID :**

The two-part Bid, that is, Techno-commercial bid and Price bid prepared by the Bidder shall comprise the following:

- a) Techno-commercial Bid (un-priced bid): This should interalia include the following:
- i) Bid Security furnished in accordance with Clause 9.
 - ii) Detailed technical specifications of **Schedules** quoted and if applicable, along with Catalogue / Literature fabrication drawings, make and model of the equipment offered with prices blanked (without indicating the prices).
 - iii) Statement of Deviations parameterwise from Tendered Commercial conditions, if any.
 - iv) Statement of Deviations parameterwise from tendered Technical specifications if any;
 - v) Authority Letter from manufacturer in case Bid is submitted by Agents;
 - vi) Bidders to indicate Name and Address of their Bankers; and
 - vii) Current ITCC and balance sheet in original or a Photostat copy thereof.
 - viii) Documentary evidence established in accordance with Clause 7 that the Bidder is qualified to perform the contract if its Bid is accepted.

- ix) Documentary evidence established in accordance with Clause 8 that the Goods and Ancillary to be supplied by the Bidder are eligible Goods and Services and conform to the Bidding Documents;
 - x) Proof of payment of Bid Document Fee as per clause 9[B].
- b) Price Bid: The information given at Sr. No. 5 (a) (ii) above should be reproduced but with prices indicated. The prices shall be all inclusive lumpsum prices as per description given at Clause No. 6.

6. **BID PRICE :**

- 6.1 (a) The Price bid for the **Schedule** to commensurate with scope of supply indicated against the **Schedule** and should indicate all inclusive lump sum price offered for each equipment/store comprising a **Schedule** including cost of the stores, freight, insurance, transit insurance, packing forwarding, Sales Tax, Excise duty, Basic Custom Duty upon production of CDEC, Inspection/Inspection certificate charges (ISO certified inspection agencies), road permit costs etc. and including charges whatsoever applicable, for equipment installation and commissioning with all the men and material required for the same and including charges, for Five years comprehensive warranty service with spares with downtime not more than 48 hours, regular maintenance plans & **charges for five years Comprehensive Maintenance Contract (CMC) with spares** included after completion of initial five years comprehensive warranty. The all inclusive lump sum price should be on **F.O.R. Site (i.e. destination)**, for the above and inclusive of all charges stated herein above. **The all inclusive lump sum price needs to be accompanied by a statement indicating a clear “break up” of all inclusive lump sum price of its various components constituting it along with values/amount indicating against each of such components adding to arrive at all inclusive lump sum price.** The prices are to be kept valid for acceptance up to 180 days from the date of the opening of bids. No other charges in addition will be payable on any account over and above the lump sum price quoted. The prices should be given both in figures and words. Offers with price variation clause will not be accepted, the rates quoted in ambiguous terms such as “freight on actual basis” or “taxes as applicable extra” or “packing forwarding extra” will render the bid liable for rejection. Sales Tax will be local Sales Tax, VAT or applicable CST (for inter state sales), whichever applicable will be incorporated in the above all inclusive lump sum price. Custom duty exemption certificate and octroi exemption certificate will be issued by consignee and price to be quoted accordingly.

Bidders in their own interest shall ascertain the eligibility of whatsoever concessions and exemptions eligible and applicable and shall advice the purchaser and quote accordingly. Bidders shall indicate the actual amount of octroi, excise duty, normal sales tax, basic custom duty, etc. which becomes otherwise payable in the extreme event of consignee not in a position to release certificates like CDEC, Octroi Exemption Certificate, form D etc.

6.1(b) Offer for Import Origin Goods

Offers for Import origin goods shall clearly indicate firm, "All inclusive lump sum price" calculated in equivalent Indian Rupees and giving break up of as FOB (Free on Board), Marine Insurance, CIF (Cost Insurance Freight), Custom clearance charges, examination, stamp duty, local transportation and Insurance etc. and all other charges for services to be rendered as explained under offer for Indigenous goods. The all inclusive lumpsum price shall take care of impact of foreign exchange rate fluctuations, etc. and accordingly arrive at the all inclusive lump sum price in equivalent Indian Rupees and this shall be the ceiling amount payable against the order irrespective of whatsoever higher fluctuations in exchange rate applicable at the time of L/c negotiation. All ordered conditions shall be adhered with the ceiling amount. Customs handling & clearance will be the responsibility of Indian agent at his cost. CDEC/ NMIC will be provided by Government of Maharashtra.

6.1 (c) The payments to both indigenous supplies as well as import supply shall have a ceiling amount, which would be the All Inclusive lump sum price.

6.2 The purchaser will evaluate Bids based on all inclusive lump sum prices quoted for each **Schedule**.

6.3 **The All inclusive Lump sum price will include wherever applicable charges for Five years Comprehensive Maintenance Contract (CMC) with spares** as required for the purpose of evaluation. The payment to prospective suppliers will not include payment of CMC charges at the time of payment for delivery/receipt of goods. The quantum of 5 years CMC charges with spares should be clearly indicated in the break up lump sum price and this is payable at the end of 6th, 7th, 8th, 9th and 10th year after initial five years comprehensive warranty with spares.

6.4 **Any variation in the Statutory Levies / Taxes/ Duties/ Cess or any new Levies/ Taxes/ Duties/ Cess on end product shall be payable at actual provided documentary evidence of the prevailing rate quoted at the date of submission of bid and changes at the time of actual supplies (within stipulated delivery period) is furnished.**

6.5 The bidder shall bear all taxes / duties/ incidental charges for the parts replaced or supplied during the Warranty period.

6.6 **Bidder in their own interest should quote separately for any Optional Item(s) of the Technical Specifications. In case the Optional items of the Tender Specifications are not quoted explicitly, then the rate quoted shall be considered for the tendered main item and accordingly price comparison shall be done. No benefit shall be considered for inclusion of Optional Items in the Tendered Item.**

7. DOCUMENTS ESTABLISHING BIDDER'S ELIGIBILITY AND QUALIFICATION:

7.1 The Bidder shall, furnish, as part of its Bid, documents establishing the Bidder's qualifications to perform the contract if its Bid is accepted.

7.2 The documentary evidence of the Bidder's qualifications to perform the contract if its Bid is accepted, shall establish to the Purchaser's satisfaction:

- a) that, in the case of a Bidder offering to supply Goods of import origin under the contract which the Bidder did not manufacture or otherwise produce, the Bidder has been duly authorised by the Goods manufacturer or producer to supply the Goods. In this regard, the Bidder should submit an Authority Letter from their manufacturers.

In case of a Schedule comprising group of items, then Bidder may give Manufacturer's authorisation for main equipment from the Principals and other equipment from other manufacturer's of his choice (indigenous/imported) for which Bidder shall submit Manufacturer's Authorization as per the Tender format.

- b) The Purchaser will determine to his satisfaction whether the Bidder selected is qualified as per requirement of minimum qualifying criteria to satisfactorily perform the contract;
- c) The determination will take into account the Bidder's financial, technical and production capabilities. It will be based upon an examination of the documentary evidence of the Bidder's qualifications submitted by the Bidder as well as such other information as the Purchaser deems necessary and appropriate;

Notwithstanding anything stated above, the Purchaser reserves the right to assess the capability and capacity of the Bidder to perform the contract, should the circumstances warrant such as assessment in the overall interest of the Purchaser.

8. **DOCUMENT ESTABLISHING GOODS' ELIGIBILITY AND CONFORMITY TO BIDDING DOCUMENTS:**

8.1 The Bidder shall furnish, as part of its Bid, documents establishing the eligibility and conformity to the Bidding Documents of all Goods and services that the Bidder proposes to supply under the contract.

8.2 The documentary conforming evidence of the Goods' and Services' conforming to the Bidding Documents may be in the form of literature, drawings and data, and shall comprise of:

- a) a detailed description of the Goods essential technical and performance characteristics;
- b) **a clause-by-clause commentary on the Purchaser's technical specifications demonstrating the Goods and Services substantial responsiveness to those specifications or a statement of deviations and exceptions to the provisions of the Technical Specifications.**

8.3 For purpose of the commentary to be furnished pursuant to clause 8.2(b) above, the Bidder shall note that standards for workmanship, material and equipment, and reference to brand names or equipment, and reference to brand names or catalogue numbers designated by the Purchaser in its Technical Specification are intended to be descriptive only and not restrictive. The Bidder may substitute alternative standards, brand names and/or catalogue numbers in its Bid, provided that it demonstrates to the Purchaser's satisfaction that the substitutions are substantially equivalent or superior to those desired & designated in the Technical Specification.

9. **BID SECURITY**

9.1 **The Bidder shall furnish, as part of its Bid, Security as indicated in Invitation for Bids (IFB)/ Press Tender Notice, in a separate single sealed envelope and shall be marked as given under clause 12.0 of this ITB.**

9.2 The Bid Security is required to protect the Purchaser against the risk of Bidder's conduct, which would warrant the security's forfeiture, pursuant to para 9.7.

9.3 **The Bid Security shall be in the form of a demand Draft drawn in favour of M/s HSCC (India) Limited, payable at Noida/New Delhi from a Nationalised/ Scheduled bank.**

9.4 Any Bid not secured in accordance with paras 9.1 to 9.3 will be rejected by the purchaser as non-responsive pursuant to Clause 17 and following which both the techno-commercial & price bid will be treated as invalid.

9.5 Unsuccessful Bidder's Bid Security will be discharged/returned as promptly as possible but not later than 30 days after the expiration of the period of Bid Validity prescribed by, clause 10.

9.6 The successful Bidder's Bid Security will be discharged upon the Bidders furnishing the performance Security, pursuant to Clause 23 & 24.

9.7 The Bid Security may be forfeited:

- a) if a Bidder withdraws or modifies its Bid during the period of Bid validity; or
- b) in the case of a successful Bidder, if the Bidder fails :
 - i) to sign the contract in accordance with Clause 23 ;
 - ii) to furnish Performance Security in accordance with Clause 24.
 - iii) if the bidder does not accept an error correction pursuant to clause 17.2

9.8 No interest will be payable by the Purchaser on the Bid Security.

9 [B] **Bid Document Fee:**

Bid Document Fee is Rs.5000/- for each Schedule. Bid Document Fee paid is non-refundable and the Bid Documents are non-transferable.

Bidders will deposit the Bid Document Fee at HSCC office at Noida. Fee can be deposited either in cash or through crossed account payee Demand Draft drawn in favour of HSCC (I) Ltd. drawn on any nationalized/Scheduled bank payable at NOIDA/New Delhi, before date & time of submission of bid. The Bids will not be accepted without proof of payment of the Bid Document Fee.

The bidder can contact Consultant, for any clarification in the matter.

10. **PERIOD OF VALIDITY OF BIDS:**

10.1 **Bids shall remain valid for 180 days** after the date of Bid opening prescribed by the Purchaser, pursuant to Clause 13. A Bid expressed to be valid for a shorter period may be rejected by the Purchaser as non-responsive.

10.2 In exceptional circumstances, the Purchaser may solicit the Bidder's consent to an extension of the period of validity. The request and the responses thereto shall be made in writing or by cable. The Bid Security provided under Clause 9 shall also be extended suitably. A Bidder may refuse the request without forfeiting its Bid Security.

A bidder granting the request will not be required nor permitted to modify its bid.

11. **PREPARATION AND SIGNING OF BID:**

11.1 The Bidder shall prepare single stage Two part bids, i.e. Techno Commercial Bid (un-priced) in duplicate and Price Bid in duplicate clearly marked as 'original' and 'copy' in addition shall enclose Bid Security in a single sealed third envelope.

11.2 The Bid shall be typed or written in indelible ink and shall be signed by the Bidder or persons duly authorised to bind the Bidder to the contract. The later authorisation shall be indicated by written power-of-attorney accompanying the Bid. All pages of the Bid, except for un-amended printed literature, shall be initialled and stamped by the person or persons signing the Bid.

11.3 The Bid shall contain no inter-lineations, erasures or overwriting except as necessary to correct errors made by the Bidder, in which case such corrections shall be initialled by the person or persons signing the Bid.

12. **SUBMISSION OF BIDS:**

12.1 **SEALING AND MARKING OF BIDS:**

The Bidders shall seal the Bid in an inner and an outer envelope duly marking the envelopes, separately as “Techno-commercial Bid (un-priced)”, “Price Bid” and “Bid Security & Copy of Proof of payment of Bid Document Fee” in a third envelope and all these three envelopes enclosed in another sealed envelope duly marked.

12.2 The inner and outer envelopes shall be:

- (a) Addressed to Executive Director (Proc & PG-I), HSCC (I) Ltd., Plot No. E-6 (A), Sector - 1, NOIDA – 201 301 as indicated in IFB:
- (b) bear (the Project name), the Press Tender Notice reference, and the words "DO NOT OPEN BEFORE....."

12.3 The inner envelope shall indicate the name and address of the Bidder.

12.4 If the outer envelopes is not sealed and marked as required in Para 12.2, the Purchaser will assume no responsibility for the Bid's misplacement or premature opening.

13. **DEADLINE FOR SUBMISSION OF BIDS i.e. TECHNOCOMMERCIAL BID (UNPRICED) AND PRICE BID INCLUDING BID SECURITY**

13.1 As indicated in the Press Tender Notice/IFB.

13.2 Bids sent by post should be preferably sent by Registered Post with Acknowledgement Due. If any Bidder desires to deliver the Bid by hand, such Bid should be put in the Tender (Bid) Box by the specified date and time. Tender (Bid) Box is available in the HSCC office at the mentioned address.

Bids must be received by the Purchaser at the address specified on the date and time as mentioned in the “Press tender Notice”. Bids will be opened in the presence of Bidders' representatives who choose to attend. In the event of due date being declared a closed holiday then the due date for submission of Bids and the opening of Bids will be the following working day at the appointed time.

13.3 The Purchaser may at its discretion extend this deadline for the submission of Bids by amending the Bidding Documents in accordance with clause 3, in which case all rights and obligations of the Purchaser and Bidders previously subject to the deadline will thereafter be subject to the deadline as extended.

14. **LATE BIDS & MODIFICATIONS/WITHDRAWAL OF BIDS**

14.1 Any Bid received by the Purchaser after the deadline for submission of Bids prescribed by the Purchaser, pursuant to clause 13 will be rejected.

- 14.2 The Bidder may modify or withdraw its bid after the bid's submission provided that written notice of the modification or withdrawal is received by the Purchaser prior to the deadline prescribed for submission of bids.
- 14.3 The Bidder's modification or withdrawal notice shall be prepared, sealed, marked and dispatched in accordance with the provisions of ITB Clause 12. A withdrawal (but not modification) notice may also be sent by cable or fax but followed by a signed confirmation copy, post marked not later than the deadline for submission of bids.
- 14.4 No bid may be modified subsequent to the deadline for submission of bids.
- 14.5 No bid may be withdrawn or modified in the interval between the deadline for submission of bids and the expiry of the period of bid validity withdrawal or modification of a bid during this interval may result in the Bidder's forfeiture of its security, pursuant to ITB Clause 9.7.
15. **OPENING OF BIDS BY PURCHASER:**
- 15.1 The Purchaser will open the Techno-commercial bid only, in the presence of Bidder's representatives who choose to attend, in the HSCC office, on the due date and time as mentioned in the IFB. The Bidder's representatives who are present shall, sign a register evidencing their attendance. **The Bidders' representatives shall furnish letter of Authority from their principals to attend the Bid opening.**
- 15.2 The Bidders' names, the presence or absence of the requisite Bid Security and such other details in brief as the Purchaser, at its discretion, may consider appropriate will be announced at the opening.
- 15.3 Price Bid of bidders whose offers (Techno-commercial bid) are found technically and commercially suitable and comply with the Bid Documents will only be opened on a date to be intimated later to these bidders.
- 15.4 Bids that are not opened and read out at bid opening shall not be considered further for evaluation irrespective of the circumstances. Withdrawn bids shall be returned unopened to the bidders.
- 15.5 **Non-submission of Bid Security & Bid document fee by any bidder will render the bidder invalid and such bidder's bid will not be opened.**
16. **CLARIFICATION OF BIDS:**
- 16.1 To assist in the examination, evaluation and comparison of Bids the Purchaser may, at its discretion, ask the Bidder for a clarification of its Bid.
- 16.2 Clarifications sought & reply received to be all in writing, no change in price or substance of Bid permitted.

17. **PRELIMINARY EXAMINATION:**

- 17.1 The Purchaser will examine the Bids to determine whether they are complete, whether any computational errors have been made, whether required sureties have been furnished, whether the documents have been properly signed, stamped and whether the Bids are generally in order.
- 17.2 Arithmetical errors will be rectified 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 purchaser there is an obvious error in the unit rate, in which case the total price against item would prevail and unit rate shall be corrected accordingly). If the supplier does not accept the correction of the errors, its Bid will be rejected. If there is a discrepancy between words and figures, the amount in words will prevail.
- 17.3 The Purchaser may waive any minor informality or non-conformity or irregularity in a bid, which does not constitute a material deviation, provided such a waiver does not prejudice or offers the relative ranking of any Bidder.
- 17.4 Prior to the detailed evaluation, pursuant to ITB Clause 18, the Purchaser will determine the substantial responsiveness of each bid to the bidding documents. For purposes of these Clauses, a substantially responsive bid is one which conforms to all the terms and conditions of the bidding documents without material deviations. Without prejudice to the generality of the foregoing deviations from or objections or reservations to critical provisions such as those concerning Performance Security (GCC Clause 6) Warranty (GCC Clause 26). Force Majeure (GCC Clause 17), Applicable law (GCC Clause 22) and Taxes & Duties (GCC Clause 24) will be deemed to be a material deviation. The Purchaser's determination of a bid's responsiveness is to be based on the contents of the bid itself.

In case of any deviation to the Warranty (GCC Clause 26), Force Majeure (GCC Clause 17), Applicable law (GCC Clause 22) and Taxes & Duties (GCC Clause 24) in the Techno-commercial/ Price Bid, **the Bid Form, signed by the Bidder which stipulates acceptance of all the terms & conditions of tender document, shall supercede all other terms & conditions given in the tender by the Bidder.**

- 17.5 In normal circumstances if a bid is not substantially responsive, it will be rejected by the purchaser.

18. **EVALUATION AND COMPARISON OF BIDS:**

- 18.1 The Purchaser will evaluate and compare the Bids on the basis of techno-commercial evaluations followed by price bid evaluation.

19. **CONTACTING THE PURCHASER:**

- 19.1 Subject to Clause 16, no Bidder shall contact the Purchaser on any matter relating to its Bid from the time of the Bid opening to the time the contract is awarded.

- 19.2 Any effort by a Bidder to influence the Purchaser in the Purchaser's bid evaluation, Bid comparison or contract award decisions may result in the rejection of the Bidder's Bid.
20. **AWARD OF CONTRACT:**
- 20.1 **AWARD CRITERIA:**
- Subject to Clause 22, the Purchaser will award the contract to the successful Bidder whose Bid has been determined to be techno commercially acceptable and lowest, provided further that the Bidder is determined to be qualified to perform the contract satisfactorily.
21. **PURCHASER'S RIGHT TO VARY QUANTITIES AT TIME OF AWARD:**
- The Purchaser reserves the right at the time of award of contract to increase/decrease the total quantity of Goods and services for which bids have been invited by up to 25% of their value.
22. **PURCHASER'S RIGHT TO ACCEPT OR REJECT ANY OR ALL BIDS:**
- The Purchaser reserves the right to accept or reject any Bid and annul the Bidding process and reject all Bids at any time prior to award of contract, without thereby incurring any liability to the affected Bidder or Bidders or any obligation to inform the affected Bidder or Bidders of the grounds of the purchaser's action. The purchaser is not bound to accept the lowest or any bid.
23. **NOTIFICATION OF AWARD AND SIGNING OF CONTRACT:**
- 23.1 Prior to the expiry of the period of Bid validity, the Purchaser will notify the successful Bidder by registered post/fax that its Bid has been accepted by enclosing detailed order copy in duplicate. This will constitute the formation of the contract and date of the contract shall be the date of each notification.
- 23.2 Upon the successful Bidder's returning back one copy of the order within 3 days duly stamped and signed as token of acceptance of the order on the said laid out terms and conditions and also furnishing to Performance Security i.e. Security Deposit pursuant to Clause 24, the Purchaser will promptly discharge Bid Security of successful bidder, pursuant to Clause 9, and also discharge Bid Security of unsuccessful bidders, pursuant to clauses 9.5.
24. **PERFORMANCE SECURITY:**
- 24.1 Within 15 days of the date of notification under Clause 23.1 the Successful Bidder shall furnish the Performance Security/Security Deposit for 5% of the contract price for any **Schedule** in the form of a A/c Payee Demand Draft drawn in favour of HSCC (India) (I) Ltd. payable at Noida/New Delhi from a Nationalised/ 1st Class/ Scheduled bank or Bank Guarantee issued by a Scheduled Bank in India, in favour of the Purchaser. The Bank Guarantee will be valid for a period upto 2 months beyond the Warranty Period.

24.2 Failure of the successful Bidder to comply with the requirement of Clause 23 and Clause 24 shall constitute sufficient grounds for the annulment of the award and the Contract and forfeiture of the Bid Security, in which event the Purchaser may make the award to the next lowest Bidder or call for new Bids.

25. **LOCAL CONDITIONS:**

It will be imperative on each Bidder to fully acquaint himself of all the local conditions and factors that would have any effect on the performance of the contract and cost of the Goods. The Purchaser shall not entertain any request for clarifications from the Bidder regarding such local conditions. No request for the change of price, or time schedule of delivery of Goods shall be entertained after the Purchaser accepts the Bid.

Executive Director (Proc. & PG-I)

SECTION-II

GENERAL CONDITIONS OF CONTRACT (G.C.C.)

1. DEFINITIONS:

1.1 In this contract, the following terms (whether or not spelled with an initial capital letter) shall unless the context otherwise requires be interpreted as indicated.

- (a) "The contract" (or "this contract") means the agreement entered into between the Purchaser and the Supplier, as recorded in the Contract Form signed by the parties, including all attachments and appendices thereto and all documents incorporated by reference therein and includes the Instructions to Bidders (ITB).
- (b) "The Contract Price/All inclusive lump sum Price" means the price payable to the supplier under the contract for the full and proper performance of its contractual obligations;
- (c) "The Goods" means all of the equipment, machinery, and/or other materials, which the Supplier is required to supply to the Purchaser under the contract;
- (d) "Services" means services ancillary to the supply of the Goods, such as transportation and insurance, and any other incidental services;
- (e) "The Purchaser" means the organisation purchasing the Goods i.e., Oil and Natural Gas Corporation Limited, acting through their Consultants HSCC (I) Ltd.
- (f) "The Supplier" means the individual or firm supplying the Goods and services under this contract;
- (g) "Consignee" means where the Goods are required to be delivered at the destination, i.e. Gokuldas Tejpal Hospital, Lokmanya Tilak Marg, Mumbai - 400001.

2. APPLICATION:

2.1 These General "Conditions" shall apply to the extent that provisions in other parts of contract do not supersede them.

3. STANDARDS:

3.1.1 The Goods supplied under this contract shall conform to the standards mentioned in the Technical Specifications, and, when no applicable standard is mentioned, to the authoritative standard appropriate to the Goods and such standards shall be the latest issued by the concerned institution.

4. **USE OF CONTRACT DOCUMENTS AND INFORMATION:**

- 4.1 The Supplier shall not, without the Purchaser's prior written consent, disclose the contract or any provision thereof, or any specification, plan, drawing, pattern sample, or information furnished by or on behalf of the Purchaser in connection therewith, to any person other than a person employed by the Supplier in the performance of the contract. Disclosure to any such employed person shall be made in confidence and shall extend only so far, as may be necessary for purposes of such performance.
- 4.2 The Supplier shall not, without the Purchaser's prior written consent, make use of any documents or information enumerated in para 4.1 except for purposes of performing the contract.
- 4.3 Any document, other than the contract itself enumerated in para 4.1 shall remain the property of the Purchaser and shall be returned (in all copies) to the Purchaser on completion of the Supplier's performance under the contract if so required by the Purchaser.

5. **PATENT RIGHTS:**

- 5.1 The Supplier shall indemnify the Purchaser against all third party claims of infringement of patent, trademark, or industrial design right arising from use of the Goods or any part thereof.

6. **CONTRACT PERFORMANCE SECURITY (SECURITY DEPOSIT):**

- 6.1 Within 15 days after the Supplier's receipt of award notification and order copies of the contract, the Supplier shall furnish performance Security to the Purchaser in the amount specified (IFB) in the document.
- 6.2 The Performance Security as deposited by the supplier shall be used by the purchaser as compensation for any loss or any dues recoverable from the supplier (including liquidated damages where applicable) resulting from the Supplier's failure to complete its obligations under the contract. The Purchaser may retain the whole or such part of it as it considers to be sufficient compensation for such loss. In such an event the balance amount (if any) shall be returned to the supplier not later than the expiry of the period stated in clause 6.3.
- 6.2 The Performance Security unless deposited under GCC clause 6.2 will be discharged by the purchaser not later than 30 days following the date of completion of the suppliers performance obligations, including the warranty obligations under the contract.

7. **INSPECTION & TESTS:**

- 7.1 The Purchaser or its representative shall have the right to inspect and/or to test the Goods to confirm their conformity to the contract. The Special Conditions of Contract and/or the Technical Specifications specify what inspection and tests the Purchaser requires and where they are to be conducted then such specification shall be complied with for the

Goods to which it applies. The Purchaser shall notify the Supplier in writing of the identity of any representative retained for these purposes.

- 7.2 The inspection and tests may be conducted on the premises of the Supplier or its Sub-Supplier (s) at point of deliver and/or at the Goods' final destination. Where conducted on the premises of the Supplier or its Sub-Supplier(s), all reasonable facilities and assistance including access to drawings and production data - shall be furnished to the inspectors at no charge to the Purchaser.
- 7.3 Should any inspected or tested Goods fail to conform to the specifications, the Purchaser may reject them and the Supplier shall either replace the rejected Goods or make all alterations necessary to meet specification requirements free of cost to the Purchaser.
- 7.4 The Purchaser's right to inspect, test and where necessary reject the Goods after the Goods' delivery to the Consignee shall in no way be limited or waited by reasons of the Goods having previously been inspected, tested and passed by the Purchaser or his representative prior to the Goods, shipment.
- 7.5 Nothing in Clause 7 shall in anyway release the Supplier from any warranty or other obligations under this contract.

8. **PACKING:**

- 8.1 The Supplier shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their final destination as indicated in the contract. The packing shall be sufficient to withstand without limitation, rough handling during transit and exposure to extreme temperature, salt and precipitation during transit and open storage. Packing case size and weights shall take into consideration, where appropriate the remoteness of the Goods' final destination and absence of heavy handling facilities at all points in transit.
- 8.2 The packing marking shall show the description of quantity of contents, the name of the consignee and address, the gross weight of the packages, the name of the supplier with a distinctive number of mark sufficient for purposes of identification. Each package shall contain:
 - (a) a packaging note quoting the name of the purchaser
 - (b) the number and date of order
 - (c) nomenclature of the goods
 - (d) schedule of parts for each complete equipment giving part number with reference to assembly
- 8.3 Notwithstanding anything stated in this clause, the supplier shall be entirely responsible for loss, damage, deterioration, and depreciation of the goods due to faulty protective & insecure packing and shall arrange for prompt replacement.

9. **DELIVERY:**

9.1 **Delivery of the Goods shall be made by the Supplier within 12 weeks** from the date of contract (or from the date of establishing Letter of Credit in favour of the Principals in case of imported origin Goods) and installation and commissioning to be done wherever applicable within 30 days thereafter. In case spare parts and tools are also ordered with the Goods, the Bidder will undertake to offer spare parts and tools for delivery along with the main Goods only and not before.

10. **INSURANCE:**

10.1 The Goods supplied under the contract shall be fully insured including transit insurance against various risks as required or approved by the Purchaser arising out of transportation, storage, delivery, erection, installation, testing and commissioning at his cost up to delivery at site. Insurance policy shall be valid upto date of commissioning. Proof of Insurance shall be made available before issuance of dispatch clearance.

10.2 For delivery of goods at site, the insurance shall be obtained by the supplier in an amount equal to 110% of the value of the goods from "Ware house to ware house" (final destination) on "all risks" basis including war, risks, strikes, erection, storage etc. In any event the Goods are at the suppliers risk until delivery to site.

11. **TRANSPORTATION:**

To be arranged by the supplier up to consignee duly insured.

12. **PAYMENT:**

Both for Indian origin goods and for import origin goods. To be read in conjunction with clause 6.0 of ITB.

12.1 The Supplier's request (s) for payment shall be made to the Purchaser in writing, accompanied by an invoice describing as appropriate, the Goods delivered and Services performed and by shipping documents, such Goods to be duly certified and wherever applicable supported with documentary evidence in support there of Satisfactory installation duly certified by authorised personnel of HSCC authorities shall accompany for release of balance payment.

12.2 **FOR INDIGENOUS GOODS:**

i) 90% of the invoice value will be made within 15 days of documentary proof of receipt of the invoiced goods along with necessary documents like transport, transit insurance etc.

- ii) Balance 10% payment subjected to clause 6.1 of ITB will be released within 15 days, upon receipt of satisfactory Installation & Commissioning Certificate from Concerned Authorities/ HSCC.

12.3 **FOR IMPORT ORIGIN GOODS:**

Payment will be made by opening of Irrevocable Letter of Credit in favour of the foreign supplier. The amount of Indian Agency Commission if, any, out of FOB price will be deducted from the C.I.F L/C value, and this Agency Commission shall be paid in equivalent Indian Currency in India to the Indian agent, subject to clause 6.1(c) of ITB after receipt of satisfactory installation & commissioning report of the equipment. Irrespective of the agency commission, **10% of FOB Price will be deducted and L/C opened for net of C.I.F value.** This L/C will have provisions for release of this deducted amount subject to clause 6.1(c) of ITB only after receipt of satisfactory acceptance report, satisfactory Installation & Commissioning Certificate from Hospital Authorities/HSCC.

- 12.4 The stores (both Indians & Import origin goods) should be despatched only after ensuring prudent inspection carried out from ISO Certified Inspection Agencies/ LLOYDS/ SGS etc. and proof of such documents submitted. Foreign manufacturers having ISO certification are themselves authorized to issue inspection certificate.

- 12.5 Payment for turnkey activities shall be released in full on completion of the activity.

13. **PRICES:**

- 13.1 Prices charged by the Supplier for Goods delivered and Services performed under the contract shall not vary from the prices quoted by the Supplier in its Bid.
- 13.2 In receipt of offer in foreign currency, the exchange rate prevailing on the date of opening of bid (Techno Commercial bid) shall be taken for comparison of bid prices.

14. **DELAYS IN THE SUPPLIER'S PERFORMANCE:**

- 14.1 The time and the date specified in the Contract for the delivery of the Goods shall be deemed to be the essence of the Contract.
- 14.2 Delivery of the Goods and performance of Services shall be made by the Supplier in accordance with the time schedule specified by the Purchaser.
- 14.3 An unexcused delay by the Supplier in the performance of its delivery obligations shall render the Supplier liable to any or all of the following sanctions, forfeiture of its Performance Security in accordance with Clause 6.2, imposition of liquidated damages and/or termination of the Contract for default.
- 14.4 If at any time during performance of the Contract, the Supplier or its sub-Supplier (s) should encounter conditions impeding timely delivery of the Goods and performance of the Services, the Supplier shall promptly notify the Purchaser in writing of the fact of the delay, its likely duration and its cause(s). As soon as practicable after receipt of the Supplier's notice the Purchaser shall evaluate the situation and may at its discretion extend

the supplier's time for performance by such period as the purchaser may think fit and shall in the case of Force Majeure extend such time by such period as the Purchaser shall consider fair and reasonable. Clause 14.1 stands extended to include this.

15. **LIQUIDATED DAMAGES:**

15.1 Subject to force majeure, if the Supplier fails to deliver any or all of the Goods or perform the Services within the time period(s) specified in the Contract the Purchaser shall, without prejudice to its other remedies under the Contract or extended under clause 14.3, deduct from the Contract price, as Liquidated Damages, a sum equivalent to **0.5% of the price of the delayed Goods or unperformed Services for each week of delay until actual delivery or performance, up to a maximum deduction of 10% of the value of the delayed portion of work.** Once the maximum is reached, the Purchaser may consider termination of contract.

16. **TERMINATION FOR DEFAULT:**

16.1 The Purchaser may, without prejudice to any other remedy for breach of Contract, by written notice of default sent to the Supplier, terminate the Contract in whole or in part.

(a) If the Supplier fails to deliver any or all of the Goods within the time period(s) specified in the Contract, or any extension thereof granted by the purchaser pursuant to Clause 14, or

(b) If the Supplier fails to perform any other obligation(s) under the Contract.

16.2 In the event the Purchaser terminates the Contract in whole or in part, pursuant to para 16.1, and without prejudice to the Purchaser's other remedies, the Purchaser may procure, upon such terms and in such manner as it deems appropriate, Goods or Services similar to those undelivered or unperformed and the Supplier shall be liable to the Purchaser for any excess costs for such similar Goods. However, the Supplier shall continue performance of the Contract to the extent not terminate.

17. **FORCE MAJEURE:**

17.1 Notwithstanding the provisions of Clauses 6,14,15,16, the Supplier shall not be liable for forfeiture of its Performance Security, liquidated damages or termination for default if and to the extent that it's delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.

17.2 For purposes of this clause and clauses 14.3, 15.1 & 17.3 "Force Majeure" means an event beyond the control of the Supplier and not involving the Supplier's fault of negligence and not foreseeable. Such events may include but are not restricted to, acts of the Purchaser either in its sovereign or contractual capacity, wars or sovereign or contractual capacity wars or revolutions, fires, floods, epidemics, quarantine restrictions and freight embargoes.

17.3 If a Force Majeure situation arises, the Supplier shall promptly notify the Purchaser in writing of such condition and the cause thereof. Unless otherwise directed by the

Purchaser in writing, the Supplier shall continue to perform its obligations under the Contract as far as is reasonably practicable and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.

18. **TERMINATION FOR INSOLVENCY:**

18.1 The Purchaser may at any time terminate the Contract by giving written notice to the Supplier, without compensation to the Supplier, if the Supplier becomes bankrupt or otherwise insolvent (which events shall of themselves be a breach of the contract on the part of the supplier), provided such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to the Purchaser.

19. **TERMINATION FOR CONVENIENCE:**

19.1 The Purchaser may, by written notice sent to the Supplier, terminate the Contract, in whole or in part, at any time for its convenience. The notice of termination shall specify that termination is for the Purchaser's convenience, the extent to which performance of work under the contract is terminated and the date upon which such termination becomes effective.

19.2 The goods that are complete and ready for shipment within 20 days after the Supplier's receipt of notice of termination shall be purchased by the Purchaser at the Contract terms and prices. For remaining Goods the Purchaser may elect:

- (a) To have any portion completed and delivered at the Contract terms and prices; and/or
- (b) To cancel the remainder and pay to the Supplier an agreed amount for partially completed Goods and for materials and parts previously procured by the Supplier.

20. **RESOLUTION OF DISPUTE**

20.1 The Purchaser and the Supplier shall make every effort to resolve amicably by direct informal negotiation any disagreement or dispute arising between them under or in connection with the Contract.

20.2 If, after thirty (30) days from the commencement of such informal negotiations, the Purchaser and the Supplier have been unable to resolve amicably a Contract dispute either party may require that the dispute be referred for resolution to the Indian Arbitration by Indian Council of Arbitration in accordance with the Arbitration & Reconciliation Act 1996 with latest amendments if any.

20.3 Venue of Arbitration shall be at Delhi.

21. **GOVERNING LANGUAGE:**

21.1 The Contract shall be written in the language of the Bid (English Language) as specified by the Purchaser. All correspondence and other documents pertaining to the Contract, which are exchanged by the parties, shall be written in that same language.

22. **APPLICABLE LAW:**

22.1 The Contract shall be interpreted in accordance with the laws of Union of India.

23. **NOTICES:**

23.1 Any notice given by one party to the other pursuant to the contract shall be sent in writing or by telegram or cable and confirmed in writing to the address specified for that purpose in the Special Conditions of Contract.

23.2 A notice shall be effective when delivered or on the Notice's effective date, whichever is later.

24. **TAXES AND DUTIES:**

24.1 Supplier shall be entirely responsible for all taxes, duties, license fees etc. incurred until delivery of the contracted Goods to the Purchaser.

25. **The Bid Security of successful tenderers will be released after receipt of contract performance security and contract formation under clause of 23.1 of ITB.**

26. **WARRANTY (For Equipment, Accessories, Software & Hardware):**

26.1 The supplier warrants that the Goods supplied under this Contract are new, unused, of the most recent of current models and incorporate all recent improvements in design and materials both in Hardware and Software, unless other wise provided in the Contract. The supplier further warrants that the Goods supplied under this Contract shall have no defect arising from design, materials or workmanship or from any act or omission of the Supplier that may develop under normal use of the supplied Goods in the conditions prevalent in India.

26.2 This warranty shall remain valid (subject to clause 26.4) for 60 months after the Goods have been satisfactorily installed & commissioned as duly certified by the appropriate authority, whichever is earlier.

26.3 The Purchaser shall promptly notify the supplier in writing of any claim arising under this warranty.

26.4 Upon receipt of such notice, the supplier shall, with all reasonable speed, repair or replace the defective Goods or parts thereof, free of cost at the site. The Supplier shall take the replaced parts/goods at the time of their replacement. No claim whatsoever shall lie on the purchaser for the replaced parts thereafter. The warranty period will stand extended accordingly.

26.5 If the Supplier having been notified fails to remedy the defect (s) within a reasonable period, the purchaser may proceed to take such remedial action as may be necessary, at the Supplier's risk and expense and without prejudice to any other rights which the Purchaser may have against the Supplier under the Contract or in Law.

26.6 The Purchaser reserves the right to reject any set of equipment found defective within 30 days after the date of acceptance of equipment. The cost towards replacement will have to be borne by the supplier.

26.7 Nothing in this clause 26 shall affect the Purchaser's other rights under the Contract or in Law.

26 **INSPECTION & TEST PROCEDURES:**

- (i) The Stores will be inspected at HSCC's sole discretion before packing at the manufacturer's premises and on receipt at site by HSCC nominated representatives. The decision of HSCC (I) Ltd. in the matter of acceptability of the stores will be final and binding. In case HSCC desires, the demonstration/inspection and trials/testing will have to be got conducted at site at no extra cost.

27 **SUPPLY, INSTALLATION AND COMMISSIONING AND WARRANTY SERVICING: (IN RESPECT OF EQUIPMENTS)**

The Supply, Installation and Commissioning of the equipment & trial run have to be done at site by the supplier/or his authorised agent. No additional charges for installation and commissioning will be paid. The Supplier and Indian agent shall be liable for this service for goods of import origin.

28 **TRAINING: (If required)**

Free demonstration, operational and maintenance training will have to be provided at the site of installation to the assigned personnel, during trial period.

29 **MANUALS:**

The Supplier has to provide **three sets** of operation manuals and maintenance manuals along-with each equipment to each consignee and one set of Operation & Maintenance Manual is to be provided to Purchaser while claiming 90% payment. The maintenance manual should give details up to component level and the faultfinding procedure with detailed illustrations.

30 **JURISDICTION:**

All disputes arising out of the contract shall (subject to clause 20) be subject to the jurisdiction of the appropriate court at Delhi only.

Special Note: (Forming part of SCC).

- i) HSCC is not bound to accept the lowest tender or any tender or to assign any reasons for non-acceptance.
- ii) HSCC reserves right of selection of equipment without restrictions to price factor alone.
- iii) HSCC (I) Ltd. also reserves its right to split an order on more than one party as it deems fit in respect or order for any item.

Executive Director (Proc. & PG-I)

SECTION-III
SPECIAL CONDITIONS OF CONTRACT

The following Special Conditions of Contract shall supplement the General Conditions of Contract. Whenever, there is a conflict, the provisions herein shall prevail over the General Conditions of Contract.

1. The Performance Security unless deposited under GCC Clause 6.2 will be discharged by the purchaser not later 30 days following the date of completion of the supplier's performance obligations, including the Warranty obligations under the contract.
2. Insurance: For delivery of goods at site, the insurance including transit insurance shall be obtained by the supplier in an amount equal to 110% of the value of the goods from "warehouse to warehouse" (final destination) on "all risks" basis including war, risks, strikes, erection, storage etc. In any event the Goods are at the Supplier's risk until delivery to site.
3. For Import origin goods quoted, the Supplier or the Indian agent shall have to arrange at his own cost for all import/custom clearance handling formalities. Purchaser upon advance notice from supplier shall only provide the CDEC (Custom Duty Exemption Certificate), Octroi Exemption Certificate, etc. wherever required.
4. **A. Minimum Qualification Criteria (For Equipments):**

Qualifying Minimum Requirements:

(To be supported with documentary evidence strictly as per instructions given as foot-note under Proforma for Performance Statement)

- i) Bidder should be a regular manufacturer or an authorised Indian agent for the type of stores offered.
- ii) An authorised Indian agent could be only for an imported origin equipment duly authorized by the foreign principal quoting through the Indian agent.
- iii) Indigenous Manufacturers to quote themselves and not through any agent.
- iv) Bidders should have in the past 5 years, satisfactory executed for the **Schedule** offered, at least one single order of like nature of item and **quantity not less than 100%** of quantity of **Schedule** offered by bidder. The Bidders shall furnish "End User Certificate" indicating contract details i.e. name of person, phone/fax /mobile nos. etc. Bidders shall also certify that they have not supplied equipment with similar specification to any other organisation, at prices lower than the rates offered in response to the present IFB.
- v) Foreign bidder's performance report shall include same Indian agent by which this current bid is quoted.
- vi) Alternatively foreign bidders performance in India could be seen in isolation in the event of quoting through new Indian agent duly authorized by him.

B. Other eligibility requirements:

- i) **The Bidder should submit audited balance sheet and Profit & Loss Account alongwith audited report for the last 3 years to enable the purchaser to assess the financial capability of the bidder or positive networth of the bidder.**

Not withstanding anything stated above, the purchaser reserves the right to assess the capability and capacity of bidder to perform the contract.

- iii) Clause 13 shall apply for the relevant items.

5. Five years Performance Statement: Bidders should give performance statement of orders for similar **Schedule** items satisfactorily executed to sizeable value both in quantity & cost in comparison to **Schedule** offered in the price bid.

6. **Bid Form: To be submitted by all bidders as per format enclosed:**

7. Deleted

8. **Bidders have to purchased one set of bid document for each Schedule participated. The bidders shall deposit the requisite Bid Document fee as per Clause 9[B] of Instructions to Bidders.**

9. **Miscellaneous:**

- a) While quoting for the **Schedules**, all components and quantities specified in the **Schedule** must be quoted. The purchaser will evaluate bid on an individual **Schedule** wise basis. **The bid shall stand rejected if all the components and quantities specified in any Schedule are not quoted.**

- b) **Evaluation will be made on the basis of total all inclusive lump sum price value offered for the Schedule.**

- c) The break up of “all inclusive lump sum price” of the **Schedule**; is also to be furnished in the price offered by bidder.

- d) i) Bidders are requested to quote for the proven and time tested renowned brands of equipment/accessories having countrywide reputation and acceptance. The Purchaser, however, reserves the right to decide on it's own as to which of the brand/makes quoted by the bidders are to be considered or not to be considered as proven/reputed, for the purpose of evaluation.

- ii) No bidder for the purpose of offering lowest price shall quote for local brands/refurbished/ reconditioned stores, which are not time tested, as these would be liable for rejection.

- iii) Although bidder may quote for more than one brand for the same price, the purchaser shall have the right to select the brand amongst alternatives quoted and its decision will be binding on the bidder.
 - iv) **Bidder in their own interest can quote for items and services separately if in the view of bidder, the purchaser unknowingly omitted or expressly not indicated the requirements of items/services without which, the commissioning or acceptance or otherwise of the equipment of the bidder will be a doubtful proposition.**
 - e) Bidders may please note that Form 'D' may be issued by consignee to avail concessional sales tax against inter state sales of stores.
 - f) The Supplier directly or through his Indian agent wherever applicable will be liable for the contractual obligation including delivering the ordered goods and for undertaking satisfactory installation and commissioning etc. including warranty servicing and CMC.
10. While bidding, the Plan Layout Drawing (enclosed with this document) of the space offered should be followed and the bidder may also provide a best Layout Drawing alongwith their offer based on the drawing enclosed. Bidders are to inspect the site premises and the proposed place of installation of equipment and certify their satisfaction that the proposed site is suitable and compatible for the installation of the offered unit. Bidder may take up with consignee for their site visit.
11. Bidders are to ascertain normal power supply fluctuation range and to certify that it is compatible with the offered unit of equipment. A guarantee to such effect should be offered by each bidder along with details of electrical appliances proposed to be deployed for taking care of such fluctuation.
12. Bidder's offer should be on a "Turn Key" basis for inclusion of all costs incidental to the same. However, the breakup of items/Bill of Quantities (BOQ) to be provided in Turnkey is required to be detailed out.
13. For X-Ray and related equipment in any **Schedule** only such of those bidders who have the approval/authorisation of BARC/AERB shall only be considered and this clause to be read in conjunction with qualifying criteria clause.
14. The substantial responsiveness of bidder will be determined as per HSCC'S own qualitative internal assessment in consultation with consignee, and with reference to bidders reasonable level of compliance to various stipulated terms and conditions in the Bid Document, Compliance to submission of various documentary supporting evidence, other related information along with the bid, the degree of performance status, and high order value execution for prestigious good clients etc. weight age given to bidder on qualitative basis by the evaluation committee, besides other merits of the bidder such as proven source market reputation, past experience and feed back gained in respect of bidder etc. Accordingly, in line with the above, the purchaser reserves the right as not liable to bidder on account of this prudent internal assessment and that bidder shall have not claims whatsoever.

15. Besides must take into consideration in its bid, costs to be incurred for any additional work pertaining to civil, Electrical, Plumbing, sanitary, Radiation protection as per Govt. regulation, furniture, servo stabilisers, U.P.S. etc. required for successful installation testing and commissioning of the system and the “All inclusive lump sum price” should include all such costs, each **Schedule** is to be considered a package in itself and suppliers to execute the order package on a “turn key basis”.
16. Every effort has been taken to put forth general specifications in this bid documents. If inadvertently, any of the specification drawn happens to match with the specifications of any one particular firm’s product only, in respect of critical parameters, than it will not automatically mean that this particular firm’s offer is only technically suitable. In general, the specifications offered by other firms will be assessed in their own entirety to ascertain whether or not the board functions in general expected of the equipment are available with reasonable tolerance on the desired requirements of the purchaser and accordingly the offers would be considered based on prudent assessment of the purchaser.
17. Bidders who have paid the Bid Document Fee as per Clause 9[B] of ITB are only eligible to quote.
18. The supplier/manufacturer shall be made responsible for organising timely clearance/delivery of the equipment from the custom authorities by appointing custom agent, if necessary, and shall also arrange to transport the equipment to the destination including installation and commissioning of the same. Necessary insurance shall also be arranged by the supplier/manufacturer covering all these activities including transit insurance from destination to destination.
19. To ensure timely completion of project, in the event of receipt of only one bid or few bids received for any **Schedules** not fully meeting all tendered conditions, then the tender committee constituted could take prudent decision to accept the offer(s) which first comply by legitimately relaxing any one non stringent condition without affecting major functional requirement.
20. **The following clause needs to be read in conjunction with Clause 6 of ITB and Clause 26.2 of GCC & will prevail upon the description given for warranty elsewhere in the tender document/ with Equipment Specifications :**
Warranty for Medical Equipments:
“Supplier/ Manufacturer should provide 5 years full onsite comprehensive warranty with spares Warranty will start only from the date of final acceptance of the machine at the department and price quoted inclusive of these criteria.

CMC (Labour + Spares) rates to be quoted by the bidder separately for the 6th, 7th, 8th, 9th & 10th year of equipment and price kept valid till expiry of 10 years for option to be executed by the Consignee for availing CMC Services.”

Executive Director (Proc & PG-I)

FORMATS

BID FORM

To: (Name and address of Purchaser)

IFB Ref.:

SCHEDULE Ref.:

Having examined the Bidding Documents including if any Addenda Nos. issued _____, the receipt of which is duly acknowledged, we, the undersigned, offer to supply and deliver..... (Description of Goods and Services) in conformity with said bidding documents.

We, undertake, if our bid is accepted, to deliver the goods in accordance with the delivery schedule specified.

If our bid is accepted, we will submit performance security in a sum of equivalent to 5% of the Contract Price for the due performance of the contract.

We agree in consideration of Rs.100/- if demanded to abide by this bid for a period of 180 (one hundred eighty) days after the date fixed for bid opening and it shall remain binding upon us and may be accepted at any time before the expiration of that period.

Until a formal contract is prepared and executed, this bid together with your written acceptance thereof shall constitute a binding contract between us.

We enclose our Comprehensive Maintenance Contract (with spares) for five years, which forms part of our bid.

We confirm that stipulated Bid Security is enclosed herewith as a part of bid.

We understand that you are not bound to accept the lowest or any bid you may receive.

We accept all your terms and conditions stipulated in this tender document without deviations, both technical & techno-commercial.

Dated this..... Day of..... 200.....

(Signature)

(In the capacity of)

Duly authorised to sign Bid for and on behalf of

Signed

CONSIGNEE RECEIPT CERTIFICATE

(To be given by consignee's authorised representatives)

The following Goods (Quantity mentioned against each) has/have been received in good conditions along with a copy of inspection report.

1. Name of items supplied
- Against HSCC P.O. ref. dated.....

Total :

Date:

Place:

(Authorised Representative)/ Consignee

MANUFACTURERS' SELF AUTHORIZATION FORM

No. _____ dated _____.

To

Dear Sir,

IFB NO. _____.

We _____ who are established and reputable manufacturers of _____ (name and description of goods offered) having factories at _____ (address of factory) do hereby submit a bid, and sign the contract with you against the above IFB. No.....

No company or firm or individual other than M/s _____ (name of the manufacturer) are authorised to bid, and conclude the contract in regard to this business, against this specific IFB.

We hereby extend our full guarantee and warranty as per Clause 26 of the General Conditions of Contract for the goods and services offered for supply by us against this IFB.

Yours faithfully,

(Name)

(Name of Manufacturers)

Note:- This letter of authority should be on the letterhead of the manufacturer and should be signed by a person competent and having the power of attorney to bind the manufacturer. It should be included by the Bidder in its bid.

MANUFACTURERS' AUTHORIZATION FORM

No. _____ dated _____.

To

Dear Sir,

IFB.No. _____.

We _____ who are established and reputable manufacturers of _____ (Name and Description of Goods offered) having factories at _____ (Address of Factory) do hereby authorize M/s _____ (Name & Address of the Agent) to submit a bid, and sign the contract with you against the above IFB. No.....

No company or firm or individual other than M/s _____ (Name of the Agent) are authorised to bid, and conclude the contract in regard to this business, against this specific IFB.

We hereby extend our full guarantee and warranty as per Clause 26 of the General Conditions of Contract for the goods and services offered for supply by the above firm against this IFB.

Yours faithfully,

(Name)

(Name of Manufacturers)

Note:- This letter of authority should be on the letterhead of the manufacturer and should be signed by a person competent and having the power of attorney to bind the manufacturer. It should be included by the Bidder in its bid.

Proforma for Performance Statement (for a period of last five years)

(Please read foot-note below)

Name of Item offered _____ Date of Opening _____ Time _____ Hours _____

Name of the Firm _____

Order placed by (full address of Purchaser)	Order No. and date	Description and quantity of Goods ordered	Value of order	Date of completion of delivery as per contract	Remarks indicating reasons for late delivery if any	Has the stores been satis- factorily supplied? (Attach a certificate from the Purchaser\ Consignee)	
1	2	3	4	5	6	7	8

Signature and seal of the Bidder _____

Note: This form will be considered complete only if duly filled and supported with proof of order copies, satisfactory order execution certificates from client and other relevant details enclosed with this form and same shall be applicable for assessing order execution criteria as per SCC clause 4A (iv) of this document.

This information to be filled in as per the following format by all the bidders for each equipment bid by them and duly signed and to be submitted along with the techno-commercial bid:

Schedule Ref. (1)	Name of the Equipment with Tender Specifications (2)	Compliance of parameter/ specification (3)	Non-Compliance of parameter/ specification (4)	Remarks for Sr.No.(4) (5)

The information given above is factual & based on product specification details as per the latest catalogues/ product data sheets and technical literature enclosed.

Signature of the bidder & seal:

SAMPLE PRICE SCHEDULE

**A) PRICE SCHEDULE FOR DOMESTIC GOODS OR GOODS OF FOREIGN ORIGIN LOCATED
WITHIN INDIA**

1 Schedule	2 Brief Description of Goods	3 Country of Origin	4 Quantity (Nos.)	5 Price per unit (Rs.)						6 Total Price (Rs.)	
				Ex - factory/ Ex - warehouse /Ex-showroom /Off - the shelf	Excise Duty (if any) [%age & value]	Sales Tax/CST against Form D/ VAT/ CENVAT (if any) [%age & value]	Packing and Forwarding charges	Inland Transportation, Insurance loading/ unloading and Incidental costs till consignee's site	Incidental Services (including Insurance, Installation & Commissioning, Supervision, Demonstration and Training) at the Consignee's site		Total Unit Price =a+b+c+d+e+f
				5(a)	5(b)	5(c)	5(d)	5(e)	5(f)	5(g)	4 x 5(g)

Total Tender price in Rupees: _____

In words: _____

Note: -

- If there is a discrepancy between the unit price and total price THE UNIT PRICE shall prevail.*
- The Bidder will be fully responsible for the safe arrival of the goods at destination (consignee site) in good condition.*

Signature of Bidder _____

Name _____

Business Address _____

Seal of the Bidder _____

Place: _____

Date: _____

SAMPLE PRICE SCHEDULE
B) PRICE SCHEDULE FOR GOODS TO BE IMPORTED FROM ABROAD

1	2	3	4	5								6
Schedule	Brief Description of Goods	Country of Origin	Quantity (Nos.)	Price per unit (Currency)								Total price
				FOB price at port/airport of Loading	Freight & Insurance	CIF price at port/airport of entry	Custom Duty amount with CDEC & NMIC if applicable (To be reimbursed by the purchaser)	Customs Clearance & Handling **	Loading/Unloading, inland transportation, Insurance and Incidental costs till consignee site **	Incidental Services (including Installation & Commissioning, Supervision, Demonstration and Training) at the Consignee's site **	Unit Price on Consignee's site	
				(a1)	(a2)	(b)	(c)	(d)	(e)	(f)	(g) = b+c+d+e+f	4X 5 (g)

** To be paid in Indian Currency (Rs.)

Total Tender price: _____

In words: _____

Note: -

1. *If there is a discrepancy between the unit price and total price THE UNIT PRICE shall prevail.*
2. *The Bidder will be fully responsible for the safe arrival of the goods at destination (consignee site) in good condition.*

Indian Agency Commission - ___% of FOB (included/excluded above)

Custom Duty with CDEC & NMIC if applicable: ___% of CIF value [Column 5 (c)]

Place: _____

Date: _____

Signature of Bidder _____

Name _____

Business address _____

Seal of the Bidder _____

SAMPLE PRICE SCHEDULE

C) PRICE SCHEDULE FOR COMPREHENSIVE MAINTENANCE CONTRACT AFTER WARRANTY PERIOD

1	2	3	4					5
Schedule No.	BRIEF DESCRIPTION OF GOODS	QUANTITY. (Nos.)	Annual Comprehensive Maintenance Contract Cost for Each Unit year wise after Warranty Period*.					Total Annual Maintenance Contract Cost for 3 Years [3 x (4a+4b+4c+4d+4e)]
			1 st	2 nd	3 rd	4 th	5 th	
			a	b	c	d	e	

* After completion of Warranty period

NOTE: -

1. In case of discrepancy between unit price and total prices, THE UNIT PRICE shall prevail.

Place: _____

Date: _____

Signature of Bidder _____

Name _____

Business address _____

Seal of the Bidder _____

CHEKCLIST

Fill up the Check List For Bidders and enclose with the Bid

1. The Bidder should furnish specific answers to all the questions/issues mentioned in the Checklist. In case a question/issue does not apply to a bidder, the same should be answered with the remark “not applicable”
2. Wherever necessary and applicable, the bidder shall enclose certified copy as documentary proof/ evidence to substantiate the corresponding statement.
3. In case a bidder furnishes a wrong or evasive answer against any of the question/issues mentioned in the Checklist, its bid will be liable to be ignored.

CHECKLIST

Name of Bidder:

Name of Manufacturer:

Sl No.	Activity	Yes/ No/ NA	Page No. in the Bid	Remarks
1. a.	Have you enclosed EMD of required amount for the quoted schedules?			
b.	Have you enclosed Bid document fee of required amount in case the Bid document has been downloaded from websites? In case the Bid document fee has been paid in cash at HSCC office, have you enclosed the receipt?			
2. a.	Have you enclosed duly filled Bid Form as per format?			
b.	Have you enclosed Power of Attorney in favour of the signatory?			
3. a.	Have you enclosed clause-by-clause technical compliance statement for the quoted goods vis-à-vis the Technical specifications?			
b.	In case of Technical deviations in the compliance statement, have you identified and attached the list of deviations?			
4. a.	Have you submitted satisfactory performance certificate as per the Proforma for performance statement in Bid document in respect of all orders?			
b.	Have you submitted copy of the order(s) and end user certificate?			
5.	Have you submitted manufacturer's authorization as per format?			
6.	Have you submitted prices of goods, turnkey (if any), CMC etc. in the Price Schedule?			

Sl No.	Activity	Yes/ No/ NA	Page No. in the Bid	Remarks
7.	Have you kept validity of 180 days from the Techno-Commercial Bid Opening date as per the Bid document?			
8.	Have you fully accepted payment terms as per Bid document?			
9.	Have you fully accepted delivery period as per Bid document?			
10.	Have you submitted the certificate of incorporation?			
11.	Have you accepted the warranty as per Bid document?			
12.	Have you accepted all terms and conditions of Bid document?			
13.	Have you furnished documents establishing your eligibility & qualification criteria as per Bid documents?			
14	Have you furnished Annual Report (Audited Balance Sheet and Profit & Loss Account) for last three years prior to the date of Bid opening?			

N.B.

1. All pages of the Bid should be page numbered and indexed.
2. The Bidder may go through the checklist and ensure that all the documents/confirmations listed above are enclosed in the Bid and no column is left blank. If any column is not applicable, it may be filled up as NA.
2. It is the responsibility of bidder to go through the Bid document to ensure furnishing all required documents in addition to above, if any.

(Signature with date)

(Full name, designation & address of the person duly authorised sign on behalf of the Bidder)
For and on behalf of

(Name, address and stamp of the Biding firm)

Description & Specifications

BID REFERENCE: IFB No. HSCC/PUR/ONGC/GT-MUMBAI/2007 dated 05.11.2007

TECHNICAL SPECIFICATIONS OF STATE OF THE ART SUPERCONDUCTING 1.5 MAGNETIC RESONANCE IMAGING SYSTEM

DESCRIPTION :

- 1.1. Latest Model of 1.5 Tesla Magnetic Resonance Imaging System (MRI)

OPERATIONAL REQUIREMENTS:

- 2.1. Whole Body 1.5 Tesla Magnetic Resonance Imaging system optimized for higher performance in Cardiac and Neuro-radiological examinations with short superconducting magnet, high performance gradients and digital Radio Frequency. All capabilities as detailed below should be integral part of the quotation and none of these essential requirements should be quoted as optional. If a supplier has any additional advanced applications or technique available with them, the same may be quotes as optional.

TECHNICAL SPECIFICATIONS:

3.1. MAGNET SYSTEM:

- a) 1.5 or more Tesla active shielded super conductive magnet.
- b) The magnet length should be short.
- c) It should have at least 60 cm patient bore with flared opening. The magnet should have facilities of better illumination, ventilation and designed to avoid patient claustrophobia.
- d) The magnet should be shielded from the external interferences.
- e) The homogeneity of the magnet should be mentioned in relation to 10,20,30,40 cm D5Y. Give details of the number of the planes plots and number of measurement per plane to measure the homogeneity.
- f) Global and local auto shimming should be available. Automated patient specific on line shimming should be available. 2nd /High Order shimming should be quoted to correct patient induced homogeneity.
- g) Specify the weight of the magnet including the gradient and covers etc.
- h) The front panel display at the magnet should display coil table position and also remote selection of coil elements.

3.2. GRADIENT SYSTEM

1. Actively shielded Gradient system with strength of at least 40 mT / m or more with the slew rate of 150 mT / m/ sec or more. This slew rate of 150 at 40 mT should be available in each axis independent, for overall better duty cycle performance of the gradient.
2. The duty cycle should be 100 percent. Please give details.
3. The Gradient system should have provision for eddy current compensation.
4. The Gradient should be capable of delivering the following clinical performance.
5. Largest Field of View should be at least 40 cm in all three axis. Higher viable FOV will be preferred..
6. Minimum TE in Gradient Echo 2D / 3D should be specified for all sequences.
7. Minimum Slice Thickness in 2D should be specified.
8. Minimum Slice Thickness in 3D should be specified.
9. Maximum Echo Tr' Length in both Spin Echo and Gradient Echo should be at least 256 or more.

- 10 The measurement matrix should be from 128×128 to 1024×1024 in both 2D and 3D imaging as well.

3.3. RF SYSTEM

- 1 RF system should be fully digital with transmit power of at least 15 Kw
- 2 RF system should have at least minimum of 16 independent RF receiving channels with each having bandwidth of 1MHz or more.
- 3 Should have necessary hardware to support Phased array coils.
- 4 Specify frequency stability and amplifier resolution.
- 5 RF system should be compatible with parallel imaging techniques. It should be able to support time reductions with compatible coils in 2D/3D imaging in Body /Neuro imaging upto factor of 4.Higher PAT factors will be preferred.
- 6 RF amplifier should be solid state for overall better performance

3.4. RF COILS

- 1 The main body coil integrated to the magnet must be Quadrature/ CP. In addition to this coil following coils should be quoted.
- 2 Phased Array Head coil with mirror. It should be at least 8 Elements or more. Higher element coil will be preferred.
- 3 Phased Array Neck Coil.
- 4 In case above two coils do not suffice in combination for complete Neuro-vascular study from Aortic arch to Circle of Willis, please quote separate coil in addition to above two coil for this study. Please specify the max parallel imaging time reduction
- 5 Phased Array Spine Coil for thoracic and Lumber spine imaging. Mention the number of coil elements available.
- 6 It should be possible to do Head and Spine imaging together without changing the coil and the patient. It should be possible to do the same either with combination-of coils or a dedicated coil to achieve the same should be quoted
- 7 Phased Array Body coil, capable of doing abdomen, pelvic, MRCP and peripheral imaging. It should have at least 12 elements and 50 cm FOV should be achievable. Please specify the time reduction factor with parallel acquisition techniques.
- 8 Flexible Coil -Large for imaging of large regions such as shoulder, hip and knee etc.
- 9 Flexible Coil -small for imaging of small regions such as shoulders, wrist, elbow and ankle.
- 10 Quadrature Extremity Coil for Knee Imaging
- 11 Endo-rectal coil for higher resolution imaging of prostate, colon, rectum and cervix Imaging.
- 12 Dedicated Shoulder Phased Array coil.
- 13 Coil for Cardiac Imaging with 8 channel or more Please specify the time reduction factor with parallel acquisition techniques.
- 14 Dedicated 8 channel Brain Coil for High resolution Brain Images. Please specify the time reduction factor with parallel acquisition techniques. It should be possible to do thespectroscopy Imaging with this Coil.
- 15 Peripheral Angio. Coil: Specify, type and no. of elements used.
- 16 Eye / Ear Coil
- 17 TMJ Coil - Specify type and channel
- 18 Bilateral Breast Coil, specify type and channel. Please mention coils with reference to the above which are compatible with parallel imaging technique.
- 19 A coil for Neurovascular Application.

3.5. PATIENT HANDLING SYSTEM:

1. Please specify the table type whether it's conventional trolley type or incorporates new design principles.

2. The table should be fully motorized, computer controlled table movements in vertical and horizontal directions. The position accuracy should be at least $+/- 1\text{mm}$ or better for higher reproducibility in advanced applications like ceMRA, pMRA with stepping table.
3. The patient table should be able to withstand patient load of 180Kg
4. The table should have facility for emergency manual traction in case of emergency. The table should have patient auto alarm system.
5. The CCTV system with LCD display to observe the patient.
6. The table should deliver the protocols for automatic bolus chasing in peripheral angio with the automatic table movement.

3.6. HOST COMPUTER /MAIN CONSOLE AND IMAGE PROCESSOR

- 1 Computer system should be latest in the industry, fast and efficient. It should have at least 2GB RAM.
- 2 The system should have image storage capacity of 120 GB for at least 95000 images in 256x256 matrix
- 3 The reconstruction speed should be at least 800 images per sec or more for full FOV 256 matrix and the image processor should have high RAM capacity of at least 6 GB for faster processing for advanced applications.
- 4 The main Host computer should have at least 18inch TFT type Color monitor. The main console should have integrated music system for the patient
- 5 **The system should have** DVD and CD archiving facility on the main console for storage of 50,000 images or more in 256 x 256matrix. Additionally 500 high storage DVD's to be provided.
- 6 One additional workstation with Color monitor to be provided for the applications as listed below.

3.7. APPLICATION SOFTWARE / HARDWARE

- 1 The system should have basic sequences package with Spin Echo, Inversion Recovery, Turbo Spin Echo with high turbo factor of 256 or more, Gradient Echo with echo train length of 256 or more
- 2 The application software for image smoothing and edge sharpness etc for improvement in image resolution should be quoted and it should apply for major imaging applications.
- 3 Single and Multi shot EPI imaging techniques with ETI factor of 256 or more
- 4 MR Angio Imaging: Should have 2D/3D TOF, 2D/3D PC, MTS and TONE, ceMRA to be quoted. MR Spectroscopy, 4 D CEMRA (Real time DSA like) with parallel imaging for dynamic 3D CEMRA.
- 5 Fat and water excitation, please specify the application package
- 6 Diffusion Weighted Imaging, with at least b value of 7000 or more. The system should have facility for ON Line automated calculation of ADC maps.
- 7 Please specify the motion correction algorithm/package for high-resolution motion free Diffusion weighed imaging with multishot/ segmented EPI techniques. It should be also possible to have PSIF diffusion.
- 8 Perfusion Imaging to enable large anatomy coverage of the brain and in line calculation of the resulting hemodynamic data. The perfusion analysis should have capability to calculate color display of relMTT, reI CBV, reICBF. If the perfusion analysis is not possible on the main console the same should be quoted on the workstation.
- 9 BOLD imaging: BOLD technique with automated 3D motion correction, z- score, correlation analysis with color overlay on anatomical images. It should be possible to have Real Time Processing of BOLD imaging data on the main console for the complete reconstruction.

- 10 The perfusion and the BOLD imaging should be possible for the whole brain with motion correction techniques. Please specify the application package and the motion correction technique.
 - 11 Parallel Acquisition Techniques: Please specify the name of the package. It should have applications in abdomen, neuro-imaging including diffusion and perfusion etc., free breathing abdomen imaging and Cardiac imaging. The scan reduction time should be mentioned.
 - 12 Bolus chasing with automatic moving table should be offered and should be available with fluoro triggered MR angiography for manual and fast switchover in less than 1 sec for ceMRA results.
 - 13 The system should facility for quantification of the CSF flow data. The same should be preferably on the main console. In case of this application not available on the main console please provide it on the additional workstation as detailed in item 3.8.8
 - 14 The system should have the Hydrogen, Single Voxel spectroscopy, Multivoxel, multislice 2D, 3D Spectroscopy and also the Chemical shift imaging in 2D/3D. The complete processing/ post-processing software including color metabolite maps should be available.
 - 15 Advanced Cardiac Applications :Morphology/wall motion; perfusion imaging;Myocardial viability imaging; Cardiac function including EF, ED/ES volume, Cardiac output, wall thickening and wall thickness; Cardiac Tagging Techniques; Coronary artery techniques.
 - 16 The system should have prospective ECG triggering and retrospective gating with navigator pulses, interactive or automatic definition of the ventricular and myocardial contours, cine imaging, grid tagging etc. Besides this comprehensive set of all post processing.
 - 17 The system should be supplied with ECG Trigger; respiratory trigger, peripheral pulse trigger and external trigger Electrodes.
 - 18 The system should have facility to do Head to Toe imaging without shifting the patient at one go for metastases study and without any loss of SNR.
 - 19 It should be possible to have the prostate spectroscopy in conjunction with the endorectal coils to be quotes as item 3.4.13. Please include any other interface, or hardware and software required for this application.
 - 20 The system should be available to perform Multi Direction Diffusion weighted imaging /Diffusion Tensor Imaging and the same should be possible on the main console.
 - 21 The system quoted should have image pasting software on the main console for ease of use.
 - 22 The system should be quoted with motion correction software for uncooperative Head patients , It should be possible to have the same routine in T1, T2 and FLAIR imaging.
 - 23 The system quoted should have the software for Whole Body Diffusion weighted imaging
 - 24 **Recent facility of functional MRI must be quoted**
- 3.8.
- 1 The additional workstation with preferably the same user interface as of the main console with the availability of MPR, MIP etc. It should have 18 inch LCD monitor, with hard disk of at least 50 GB for at least 95000 image storage in 256x256 marix, and 2 GB RAM.
 - 2 Image documentation should be possible from the main as well as the workstation.
 - 3 The workstation should have display of Cardiac cine images in movie mode with rapid avi creation.
 - 4 The workstation should have availability of Cardiac post processing capabilities: calculation of ventricular area/volume, stroke volume, ejection fraction, relative

ejection fraction, calculation of myocardial thickness, Time volume diagram generation.

- 5 The perfusion analysis should have capability to calculate color display of relMTT, rel CBV, rel CBF. If the same not possible on main console as mentioned in point 3.7.08, then software to have the same should be quoted.
- 6 Processing of 2D/3D CSI data with color metabolite mapping, if not offered/available on the main console as mentioned in point 3.7.14 should be quoted here.
- 7 Processing of Real Time BOLD imaging data sets for color overlay of functional and anatomic data, if not available on the main console should be quoted here. It should be possible to have Real Time BOLD image processing for the complete brain.
- 8 The system should facility for quantification of the CSF flow data on the main console, if not offered/available on the main console as mentioned in point 3.7.13 should be quoted here.
- 9 The post processing workstation should have software package for analysis of the vessel disease with the possibility of detection of vessel segments and to quantify the changes in vessel size.
- 10 Volume Rendering Techniques software for visualization of complex anatomy.

3.9 **Dry View Imaging Camera with the following specifications:**

- 1 Dry Laser Technology
- 2 Resolution :16 bits/ 600 dpi
- 3 Supports 5 Multiple Film Sizes: one of which must be 17"x14"
- 4 Must have 3 or more online film sizes.
- 5 Throughput of 180 films or more per hour.
- 6 DICOM Compatible Attach conformance statement.

3.10 **State of the art Laser color printer:**

- 1 Color Dry Printer for printing Film Quality Images on plain paper.
- 2 DICOM Compliant
- 3 Laser/Thermal Dye Sublimation Technology for B/W or Color Printing
- 4 Resolution- 1200x1200 dpi.
- 5 More than 20 ppm.

3.11 **MR Compatible Pressure Injector:**

Must have Independent dual Syringe power head and console must have full color touch screen with user-defined protocols with programmable interscan delay.

Powerhead Must have following features;

Non –ferrous, automatic syringe size detection, performs single/dual phase contrast injections, provides saline flush delivery, allows timed contrast delivery. Must be compatible with 10, 15, 20 &30ml prefilled contrast syringes beside 50 ml syringes for both saline & contrast. Must be able to observe progress of injection and view actuarial injection results.

3.12 **MRI Compatible Servo Ventilator will have the following specifications:**

Ventilation operating modes:

Volume Control, Pressure Control

Synchronized Intermittent Mandatory Ventilation (SIMV);

Pressure Support with Apnea Backup ventilation

Ventilator parameter ranges

Tidal volume: 20 to 1500 mL

Minute volume: 0 to 100 L/min

Pressure (insp): 5 to 60 cm H₂O

Pressure(limit): upto 100 cm H₂O

Pressure Support: OFF, 2 to 40 cm H₂O

Rate: 5 to 100 breaths per minute for Volume Control and Pressure Control; 5 to 50 breaths per minute for others.

I:E ratio: 2:1 to 1:8

Inspiratory time: upto 5 seconds

Trigger window: 0 to 80% (for SIMV and pressure support)

Flow trigger: 0.2 to 10 LPM

Positive End Expiratory Pressure (PEEP): Integrated, electronically controlled Range: OFF, 4 to 30 cm H₂O.

Ventilator performance

Inlet Pressure:40 psig to 100 psig

Flow range: 1 to 120 L/min

Ventilator monitoring- of

Expiratory minute volume, Peak pressure, Mean pressure Plateau pressure

Alarm settings for

Tidal volume, Minute volume

Inspired oxygen, Apnea alarm

Mechanical ventilation Low airway pressure: High pressure

Anesthetic agent delivery

Two vaporizers mounting: Tool-free installation manifold

interlocks and isolates vaporizers interface:

Pneumatic specifications

Fittings available for O₂, N₂O and Air, and contain pipeline filter and check valve. Cylinder input: Pin indexed in accordance with CGA-V-1 or DIN (nut and gland); contains input filter and check valve

System Configuration Accessories, spares and consumables

4.1.	DICOM 3.0 Dry View Imaging Camera	- 01
4.2.	MR Compatible Pressure Injector (FDA/CE Certified)	- 01
4.3	Laser Color Printer	- 01
4.4	Paradigm Generator for audiovisual Simulation	- 01
4.5	MRI Compatible Servo Ventilator with Anaesthesia attachments	- 01
4.6	MRI Compatible O ₂ Cylinders	- 02
4.7	MRI Compatible N ₂ O Cylinders	- 02
4.8	MRI Compatible Pulse Oximeter	- 01
4.9	Patient Comfort Kit	- 01
4.10	HIS/RIS Integration Software	
4.11	Hand Held Metal Detectors	- 02
4.12	PC With 17" monitor and Laser Printer for report generation	- 01
4.13	Main Body Coil	- 01
4.14	Phased Array Head Coil	- 01
4.15	Phased Array Neck Coil	- 01
4.16	Phased Array SpineCoil	- 01
4.17	Phased Array combined Head and Spine coil	- 01
4.18	Phased array Body Coil	- 01
4.19	Flexible Large Coil	- 01
4.20	Flexible small coil.	- 01
4.21	Quadrature Extrimity Knee Coil	- 01
4.22	Endorectal Coil.	- 01
4.23	Shoulder Phased Array Coil	- 01
4.24	Cardiac Imaging (minimum 8 channnels) coil	- 01
4.25	Brain Coil (minimum 8 channels)	- 01
4.26	Peripheral Angio Coil	- 01

4.27	Eye / Ear Coil	- 01
4.28	TMJ Coil	- 01
4.29	Bilateral Breast Coil	- 01
4.30	Neurovascular Coil	- 01
4.31	Patient Trolley	- 01
4.32	Main Console	- 01
4.33	Application Software/hardware	
4.34	Additional Console	- 01

The System should contain all the above accessories in integrated or as separate accessories.

Environmental factors

- 5.1 The unit shall be capable of operating continuously in ambient temperature of 30⁰ C and relative humidity of 80%
- 5.2 Chiller System - 01
(Should be imported from the same country as that of MRI manufacturing country).
- 5.3 RF Cabin: The system should be supplied with the imported RF cabin and interiors for the same should be carried out suitably by the supplier.
- 5.4 All the shielding requirements of the room will have to be done by the supplier.
- 5.5 8 Air Conditioners of 2 ton each to be provided.

Power supply

- 6.1 Power input to be 220-240VAC, 50Hz./440 V 3 Phase as appropriate fitted with Indian plug
- 6.2 Resettable overcurrent breaker shall be fitted for protection
- 6.3 Suitable Servo controlled Stabilizer/CVT
- 6.4 UPS of suitable rating shall be supplied for complete system with minimum 30 minutes backup

Standards and safety

- 7.1 Should be FDA or CE approved product
- 7.2 Electrical safety conforms to standards for electrical safety IEC-60601 / IS-13450
- 7.3 User Training abroad for two radiologist and one technician. Radiologists to be trained for clinical whereas the technician to be trained for operation and day to day maintenance of the unit.

Documentation

- 8.1 User manual in English
- 8.2 Service manual in English
- 8.3 List of important spare parts and accessories with their part number and costing.
- 8.4 Certificate of calibration and inspection from factory.
- 8.5 Log book with instruction for daily, weekly, monthly and quarterly maintenance checklist.
The job description of the hospital technician and company service engineer should be clearly spelt out

TECHNICAL SPECIFICATIONS OF MULTI SLICE SPIRAL CT SCANNER(64 SLICE)

Description of function

- 1.1 Latest Model of CT (Computed Tomography) Scan for Scanning.

Operational requirements

- 2.1 Scanner for high resolution whole body scanning including Cardiac, Vascular application. The system should be capable of acquiring 64 slices per rotation. Latest slip ring technology . True isotropic volume acquisition and submillimetric resolution.
- 2.2 DICOM Ready
- 2.3 Integration with PACS
- 2.4 Upgradeability to higher level of slices possible

Technical Specifications:

3.1 **GANTRY :**

- Aperture > 70 cm
- Control Panel: on either side
- Positioning Lights.
- FOV > 50 cms
- Tilt-Remote tilt > +/- 30 deg.

3.2 **X-RAY GENERATOR:**

- 1. High Frequency type
- 2. Power output => 60 KW
- 3. mA Range : 10-500 mA (With incremental steps =< 10 mA)

3.3 **X-RAY TUBE:**

- 1. Tube current : 20-500mA
- 2. Real Time Ma modulation for dose regulation..
- 3. Tube Voltage:80-140 KV or more.
- 4. Anode Heat Storage Capacity- should be negligible
- 5. Anode Temp Monitoring System.
- 6. Heat Dissipation: >= 5MHU/minute
- 7. Filter and beam limiting devices:
- 8. Focal Spot size and number
- 9. **Warranty of tube:** Comprehensive warranty for all parts including x-ray tubes for 5 years irrespective of number of scans.

3.4 **PATIENT TABLE**

- 1. Maximum Load> 200Kg with 1 mm positioning accuracy.
- 2. Table speed Horizontal=>100 mm/sec.
- 3. Vertical Table travel:-50.
- 4. Longitudinal Scan Range: 100-1600 or better.
- 5. Facility of positioning aid for horizontal Iso-centric positioning of the patient.
- 6. Carbon Fiber Table Top.

3.5 **SPIRAL CT**

- 1. Scan Time=< 0.5Sec for full 360 deg rotation..
- 2. Min slice thickness=<0.7mm
Max slice thickness>=10 mm
- 3. Slice increment.-specify scan and selectable slice thickness

4. Pitch Factor (volume pitch): variable between 0.5 sec to 1.5 or more and should be user selectable. Specify all possible pitch selections.
5. Single Continuous spiral on time ≥ 100 sec.
6. Should optimize radiation dose and resolution for each selection.
7. Bolus Triggered Spiral acquisition should be possible.

3.6 **TOPOGRAM:**

1. Length and width::Specify range
2. Scan Time: Specify range.
3. Views: Frontal & lateral views.
4. Should be able to interrupt acquisitions manually once the desired anatomy is obtained.

3.7 **DATA ACQUISITION SYSTEM:**

1. Detector- Capable acquiring 64 slices per 360 deg of rotation.
2. Minimum 32 rows. Specify columns.
3. Channels per row and number of projections.
4. Geometric and absorption efficiency of detectors in %
5. Inbuilt mechanism for adapting the tube current during each scan this should enable radiation dosage reduction where body part thickness is less.
6. Inbuilt pediatric protocols.

3.8 **IMAGE RECONSTRUCTION:**

1. Real Time reconstruction speed: 10 images per sec or more at 512x512 matrix.
2. Display Matrix: $\geq 1024 \times 1024$
3. Scan Time and length.
4. Reconstructed slice thickness : 1mm- 10mm.freely selectable.
5. Scan Field and reconstructed field.

3.9 **MONITORS:**

1. Resolution: 1280x1240
2. Pixel Size < 0.3 mm.
3. Flat screen LCD Type of at least 18" with fast image refresh rate should be fast and preferably instantaneous and flicker free .
4. Should be non interlaced and progressive display type & sturdy.
5. Specify the number of total monitors being supplied.

3.10 **OPERATOR CONSOLE:**

1. Should perform Registration, scheduling, protocol selection , volume rendering, Volume measurements, Multi-planer Reconstruction, and standard evaluation application and all available post processing functions without the help of the satellite workstation as well as film exposure.
2. Raw Data storage with at least 250 GB Hard disc having a minimum of 400,000 image storing capacity in 512x512 format.

3.11 **An independent satellite workstation** with Hard Disc of 250 GB or more , capable of simultaneous viewing of all post processing functions and filming independently without the help of main console. Data transfer between the operator console & the satellite workstation should be instantaneous.

3.12 **Additional fully functional independent workstation** of similar capability as satellite workstation should be installed in Radiology department.

3.13 **CONSOLES COMMON FEATURE:**

1. The two sets of workstation should be interconnected by ISDN Lines (to be provided by the vendor) for two way transfer of images and reports.
2. Spatial alignment and visualization of two different data sets of one patient generated on different modalities or with different acquisition time..
3. Post Processing Software: Perfusion CT, VRT, MIP, SSD, Image Fusion, Vessel segmentation, Virtual Endoscopy software with color segmentation software to be provided on both the workstation.
4. Cine display should be available ,both interactive and automatic,and should have a minimum image refresh rates of 8-10/ sec.
5. Window width and centre should be freely selectable.
6. Patient online Registration, pre registration facility and transfer of information from HIS/RIS via DICOM should be possible.

3.14 **IMAGE EVALUATION TOOLS:**

1. Parallel evaluation of multiple ROI in circle, irregular and polygonal forms.
2. Statistical Evaluation for area/ volume,S.D, Mean/Max and Histograms.
3. Advanced cardiac packages with ECG gating for cardiac and vascular evaluation in trauma patients.
4. Profile cuts: horizontal, vertical and oblique views.
5. Distance & angle measurement, freely selectable positioning of co-ordinate system, grid and image annotation.
6. Dynamic evaluation of contrast enhancement in organs and tissues, calculation of time density curves, peak enhancement images and time-to-peak images.

3.15 **POST PROCESSING TOOLS**

1. 2-D, including image zoom and pan, image manipulations, including averaging, reversal of grey-scale values, and mirroring; image filter functions, including advanced smoothing algorithm and advanced bone correction.
2. Real-time multi-planar reconstruction (MPR) of secondary views, with viewing perspectives in all planes including curved & orthogonal MPR.
3. CT angiography, MIP, MinIP, SSD, VRT and other advanced 3D applications and colour coding for different tissues..
4. Spatial alignment and visualization of two different data sets of one patient generated on different modalities or with different acquisition times.
5. Perfusion CT for study of brain, Liver , kidney, pancreas etc.
6. Volume measurements.
7. Fusion of morphological data obtained on CT, MR or DSA.

3.16 **PATIENT COMMUNICATION SYSTEM:**

An integrated intercom and Automated Patient Instruction System (API) should be provided. Advance cardiac package- including coronary artery imaging, Calcium Scoring, myocardial viability & vessel analysis should be provided on main console & workstation. Introspective & retrospective. ECG gating should be provided. Neuroperfusion & neuro DSA software.

3.17 **IMAGE QUALITY:**

1. Low contrast resolution - specify low contrast resolution with 20cm CATPHAN phantom. Specify surface dose, mAs, slice thickness and HU used.
2. Specify High contrast resolution at 0%and 10% MTF with full FOV.
3. Specify Cross-field homogeneity.

3.18 **IMAGE DOCUMENTATION:**

A. ***Dry View Imaging Camera with the following specifications:***

1. Dry Laser Technology
2. Resolution :16 bits/ 600 dpi
3. Supports 5 Multiple Film Sizes: one of which must be 17"x14"
4. Must have 3 or more online film sizes.
5. Throughput of 180 films or more per hour.
6. DICOM Compatible Attach conformance statement should be 600 or more.

B. ***State of the art Laser color printer:***

1. Color Dry Printer for printing Film Quality Images on plain paper.
2. DICOM Compliant
3. Laser/Thermal Dye Sublimation Technology for B/W or Color Printing
4. Resolution- 1200x1200 dpi.
5. More than 20 ppm.

3.19 **CONNECTIVITY AND ARCHIVAL:**

1. DICOM connectivity should be optimized for networking with other imaging systems.
2. DICOM converters for linking the camera with other imaging systems of the department should be provided, if required separately. It should have sufficient memory to store images from the CT as well as other system connected to it.
3. Filming parallel to other activities, including independent scanning, documentation and post-processing and configurable image text..
4. Archiving: DVD/CD writer should be provided for archival. Specify minimum number of uncompressed and compressed images that it can store per disc. Option of viewing these discs on any PC without DICOM viewer should be available.
5. Provide 2000 CDRW's or 1000 DVDRW's

3.20 **Non Invasive Monitor**

1. Portable and Light weight preferably <10kg
2. Modular with 12 inch multi colour TFT display
3. Monitoring parameters;- ECG, respiration,NIBP,SaO2 and temperature
4. Digital and 6 waves / traces display
5. Trends up to 24 hours
6. 60 minutes or more battery back up
7. Convenient handle for carrying the same
8. Able to fix with bed/trolley.

3.21 **MONITOR CUM DEFIBRILLATOR WITH RECORDER**

1. Biphasic, Latest model, with auto and manual mode. Manual selection upto 360 J.
2. Should be mains and battery operated, with charging indicator.
3. Should be able to deliver 30 shocks with fully charged battery.
4. Should have true 1-2-3 Color-coded operations.
5. Should have inbuilt Internal Thermal Recorder.
6. Should have Automatic lead switching to see patient ECG through paddles or leads. Should measure chest impedence and should be able to compensate.
7. Should be provided with Adult and Pediatric external paddles.
8. Should have both Synchronous and Asynchronous mode.
9. The charging time to highest energy level should be less than 5 seconds.
10. Disposable defibrillator pads – 10 nos. with each machine
11. Should have external pacemaker facility.

3.22 **STATE OF THE ART GENERAL ANAESTHESIA INDUCTION SYSTEM WITH THE FOLLOWING:**

- a) Anaesthesia gas delivery system for delivery of oxygen, nitrous oxide and medical air with pressure gauges
- b) Circle absorber system.
- c) Precision maintenance free vaporizer for halothane, isoflurane/ Sevoflurane
- d) Anaesthesia ventilator: Should be able to set tidal volume, respiratory rate and I:E ratio. Ventilator should have audible alarms for ventilator failure, low oxygen supply pressure, inadequate volume delivery, disconnection alarm, and power supply failure.
- e) Monitoring system to monitor Anaesthetic gases, ECG, EtCO₂, Pulse Oximeter and airway pressure, NIBP, IBP (No as required) , rectal/&skin temperature.

3.23 **IMAGE TRANSFER, ARCHIEVING & NETWORKING(OPTION):**

Option 1. Vendor should provide image and report distribution software with all the necessary hardware to connect I() terminals for image viewing. This system should be able to provide on-line accessibility of processed image data in six OT's, ICU, CCU, and radiology conference room at trauma centre etc. The server hardware should consist of Dual CPU 2.4 GHz or more processor, 512 MB RAM, 80 GB HDD, DVD, CD R/W, 17" or more flat monitor. Each viewing terminal should have a PC with 2.4 GHz processor, 256 MB RAM, 80 GB HDD, CD/DVD, combo drive, 15" or more flat monitor.

Option 2. Image archiving server with facility for long term storage of data base must be provided. Archival Solution of processed images & reports on line & of OT line should be clearly stated. It should be possible to handle & access ONE MONTH image data on line without accessing the accessory storage, presuming 50 cases per day. The archive server should consist of Dual CPU 2.4 GHz processor or more, 1 GB RAM, 100 GB HDD, DVD, CD R/W, 17" or more flat monitor. The archive server should be connected to RAID/Jukebox/ Extended storage device of required capacity.

3.24 **PRESSURE INJECTOR WITH THE FOLLOWING:**

Flow rate -0.1-10 ml/sec, Volume- 1 ml to syringe capacity, programmable pressure limit of 325 psi with 200 ml syringe, syringes 200 ml disposable sterile syringes, with minimum of 30 protocols. Syringe heater range 35 deg C +/- 5 deg C. Should be provided with head mounting device and integral IV pole.

Unit will be provided with display monitor to provide Pressure Monitor graph, Flow Profile, Stop Watch Feature, Scan Display, multiphase capability and protocol locking capabilities.

System Configuration Accessories, spares and consumables

- | | | |
|-----|--|-----|
| 4.1 | Spiral CT Mainframe with Gantry, X-Ray Tube and Generator, Topogram, Image Reconstruction, Image evaluation Tools, post processing tools, as specified | -01 |
| 4.2 | Main Console with monitor | -01 |
| 4.3 | Additional Consoles with monitors | -02 |
| 4.4 | DVD/CD Archieving
(1 each on all the consoles) | -03 |
| 4.5 | Patient Table | -01 |
| 4.6 | Non Invasive Monitor with the following accessories: | -01 |
| 1. | ECG /Resp: 5 lead ECG cable with Clip – 2 set per monitor and 10 lead ECG cable with clip – 1 set per monitor. | |
| 2. | NBP: Adult cuff -2nos per monitor and two sizes of Pediatric Cuffs –one per monitor.
(Complete sets) | |
| 3. | SpO ₂ : Adult SpO ₂ sensor with cable – two nos per monitor and Pediatric SpO ₂ Sensors – one no per monitor. | |

4. IBP: Include four nos per monitor of reusable pressure transducer with bracket, holder and 100nos disposable domes per monitor.
5. Temperature: Central temperature Probe – two per monitor and Skin temperature probe – one no per monitor
- 4.7 Defibrillator Monitor/ Recorder

With the following accessories	- 01
Adult and paediatric paddle	- 1 each
Disposable pads	- 100 each
ECG Cable- 5 lead	- 1each
ECG Electrodes	- 1000 each
- 4.8 Dry view Laser Camera - 01
- 4.9 Laser Color Printer - 01
- 4.10 Anaesthesia Induction System with all accessories -01 set
- 4.11 Pressure Injector -01
(with -1000 syringes)
- 4.12 Collapsible wheel chair with rubberized swivel wheels. -02
- 4.13 Standard Patient positioning acc and restraining devices. -02 sets
- 4.14 Good quality Lead Aprons -10

The system should contains all the above accessories in Integrated or as separate accessories

Environmental factors

- 5.1 The unit shall be capable of operating continuously in ambient temperature of 30⁰ C and relative humidity of 80%. Chiller system & 8 AC of 2 ton each to be given
- 5.2 Pre Requisites should be clearly spelt out in terms of room requirements. An optional quote for Room Preparation with appropriate shielding to avoid radiation leakage should be there.
- 5.3 **Turn key**
 - (a) A complete site preparation plan will be required to be submitted along with its financial components in separate cover as a turnkey project. The vendor will be eligible to inspect the proposed site after obtaining permission. Care must be taken to address placement of the equipment, sitting, viewing and reporting area, patient preparation space, storage area etc.
 - (b) Requirements of power and air conditioning must be clearly specified in a separate section of the offer. The temperature of the gantry room to be maintained at 20 deg C
 - (c) All turnkey work proposed by the selected firm will require approval of competent authorities of the institute before implementation

Power supply

- 6.1 Power input to be 220-240VAC, 50Hz/440 V-3 Phase as appropriate fitted with Indian plug
- 6.2 Resettable overcurrent breaker shall be fitted for protection
- 6.3 Suitable Servo controlled Stabilizer/CVT as applicable
- 6.4 UPS of suitable rating shall be supplied for the complete system including computer system, anaesthesia delivery system, monitor and defibrillators

Standards and safety

- 7.1 Should be FDA or CE approved product
- 7.2 Electrical safety conforms to standards for electrical safety IEC-60601 / IS-13450
- 7.3 Lead Glass window as per room requirement
- 7.4 Safety aspects of Radiation dosage leakage should be spelt out
- 7.5 Should comply with AERB Guidelines for radiation leakage.

- 7.6 User Training abroad for two radiologists and one technician. Radiologists to be trained for clinical whereas the technician to be trained for operation and day to day maintenance of the unit.
- 7.7 Specify the year of launch of the particular model. Models launched 2-3 years back will be preferred.
- 7.8 Fire fighting and Security System with inbuilt alarm, smoke detector system, to be connected to main hospital control system.
- 7.9 Upgradeability- A free comprehensive software upgrading guarantee for the entire scanner should be provided.
- 7.10 One application specialist and service engineer at site for a period necessary to familiarize the medical and technical staffs to the scanner protocols and enable them to achieve fast and efficient service.

Documentation

- 8.1 User manual in English incorporating the newer applications.
- 8.2 Service manual in English
- 8.3 List of important spare parts and accessories with their part number and costing.
- 8.4 Certificate of calibration and inspection from factory.
- 8.5 Log book with instruction for daily, weekly, monthly and quarterly maintenance checklist. The job description of the hospital technician and company service engineer should be clearly spelt out

Plan Layout Drawing

BID REFERENCE: IFB No. HSCC/PUR/ONGC/GT-MUMBAI/2007 dated 05.11.2007

ADMINISTRATIVE BUILDING PLAN AT G. T. HOSPITAL COMPOUND, MUMBAI.



GROUND FLOOR PLAN

Building built up in 1958

Floor to Ceiling Height 4.60m.
Proposed Area for C.I. Slab.
P.I.F.I. Unit

ADMINISTRATIVE BUILDING
GROUND FLOOR PLAN
AT G. T. HOSPITAL COMPOUND,
MUMBAI.

S. J. Phor
Srinivasdas
G. T. Hospital, Mumbai

SCALE - 1/100	DATE - 07/08/06	DWG. NO. - 01/01
OBTAINMENT SERVICES - NO. - 0002 08 01, 0005 20 00, 0007 20 27		