

**Chittaranjan National Cancer Institute
37, S.P. Mukherjee Road , Kolkata -700026.**

(An Autonomous body under the Ministry of Health & Family Welfare , govt. of India)

Bid Reference No. CNCI/ e- NIT24/ 2018-19/ (4th call)

e-TENDER DOCUMENT FOR

Supply, Installation, Commissioning, Operation & Maintenance of Medical Gas Pipeline System (MGPS) and supply of medical gases in CNCI

Chittaranjan National Cancer Institute
37, S.P. Mukherjee Road , Kolkata -700026.

(An Autonomous body under the Ministry of Health & Family Welfare , govt. of India)

NOTICE INVITING BID

Bid Reference No. : **CNCI/ e- NIT24/ 2018-19/(4th call)**

Date: 12.07.2019

Online Bids through e-Tender portal (www.eprocure.gov.in) are invited from eligible bidders for Supply, Installation, Commissioning, Operation & Maintenance of Medical Gas Pipeline System (MGPS) and supply of medical gases in CNCI as per the particulars mentioned below:

Sl. No.	Particulars	Date and time	
1.	Date & time of release of bid	13.07.2019, 11.30AM	
2.	Date & time of Pre-bid meeting	Already done	
3.	Date & time of Online bid submission	Start Date & Time	End Date & Time
		14.07.2019 11AM	22.07.2019, 2 PM
4.	Date & time of online Technical bid opening	23.07.2019, 2PM	
5.	Date of opening of Price Bid	To be informed to the qualified bidders	

The bid document with all information relating to the bidding process including cost of bid document, EMDs, Pre-qualification criteria and terms & conditions are available in the websites: www.cnci.org.in and Govt Portal www.eprocure.gov.in

The Authority reserves the right to accept / reject any part thereof or all the bids without assigning any reason thereof.

Director / CNCI.

TENDERSCHEDULE

3.1. Bid Details

1.	Bid Reference No.			
2.	Cost of Bid Document	NIL		
3.	Earnest Money Deposit	Sl. No.	Name of the Item	EMD (Rs.)
		1	Supply, Installation, Commissioning, Operation & Maintenance of Medical Gas Pipeline System (MGPS) and supply of medical gases in CNCI	1,00,000/-
		<p><i>Note: The bidder may quote for any or all the equipments by submitting the required EMD for that equipment. The EMD may be furnished in the shape of DD . EMD of the Vendors already participated will carry forward , if the vendors want to participate on the Re- Tender process. The bidders who participated in the tender no. CNCI/ e- NIT24/ 2018-19 and submitted EMD need not furnish EMD again if they take part in the 4th call</i></p>		
4.	Validity of bid	Bids should be valid for a minimum period of 180 days from the date of opening of technical bid. As this is rate contract tender, after finalization of the rate contract, the approved rates shall be valid for a period of one year from the date of approval of the rate contract.		
5.	Performance Security	10% of the purchase order price (for successful bidders)		
6.	Validity of Performance Security	Up to 90 days after the date of completion of the contractual obligations including warranty period.		

Important Dates

Sl. No	Particulars	Date & Time
1	Date of uploading of N.I.T. & other Documents (online) (Publishing Date)	13.07.2019 11.30 AM
2	Documents download/sell start date (Online)	14.07.2019 11 AM
3	Documents download/sell end date (Online)	22.07.2019 2PM
4	Bid submission start date (On line)	14.07.2019 11AM
5	Pre bid meeting	ALREADY DONE
6	Last Date of submission of original copies for the Earnest Money Deposit (Off line)	22.07.2019 2PM
7	Bid Submission closing (On line)	22.07.2019 2PM
8	Bid opening date for Technical Proposals (Online)	23.07.2019 3PM
9	Date of uploading list for Technically Qualified Bidder (online)	To be notified later

SCHEDULE OF REQUIREMENT

4.1 Equipment(s) Tendered:

Name of the Project: Supply, Installation, Commissioning, Operation & Maintenance of Medical Gas Pipeline System (MGPS) and supply of medical gases in CNCI (*as per Technical Specification*)

❖ **Comprehensive Warranty and operation period: 5years from date of commissioning and project hand over of each manifold system**

❖ **CMC Period: 5 years after completion of warranty period for each manifold system**

Important Notes:

1. The bidders shall have to quote the **price of CAMC FOR 5 YEARS of MGPS for hospital location** in the price BoQ (attached as excel file) in the e-tender portal unless the bid shall be rejected.

2. Quantity of gas cylinder mentioned in BOQ is for consumption calculation purpose only. However payment of gases will be paid in actuals which may be less or more compare to assumed quantity.

3. Upload e-procurement site for price breakup on commercial documents:

- i) Supply, Installation, Commissioning of MGPS system (with 5 years warranty)**
- ii) 24X7 round the clock operation of MGPS with preventive maintenance and attend minor repair & replacement, if any related to MGPS of entire hospital with manpower (for 5 years)**
- iii) CAMC FROM 6TH TO 10TH YEARS OF MGPS system**

4.2 Technical Specifications:

4.3 Technical Specifications and Standards

The Goods & Services to be provided by the supplier under this contract shall conform to the technical specifications and quality control parameters mentioned in Technical Specification and "Quality Control Requirements" under Sections Technical Specifications and Quality Control Requirements Quality Control Requirements of this document

4.4 Documents establishing Good's Conformity to TE document

The tenderer shall provide in its tender the required as well as the relevant documents like technical data, literature, drawings etc. to establish that the goods and services offered in the tender fully conform to the goods and services specified by the purchaser in the TE documents. For this purpose the tenderer shall also provide a clause-by-clause commentary on the technical specifications and other technical details incorporated by the purchaser in the TE documents to establish technical responsiveness of the goods and services offered in its tender. In case there is any variation and/or deviation between the goods & services prescribed by the purchaser and that offered by the tenderer, the tenderer shall list out the

same in a chart form without ambiguity and provide the same along with its tender. If a tenderer furnishes wrong and/or misleading data, statement(s) etc. about technical acceptability of the goods and services offered by it, its tender will be liable to be ignored and rejected in addition to other remedies available to the purchaser in this regard.

4.5 Technical compliances must be uploaded along with supporting documents

Introduction for Central Medical Gas Pipeline System

The MGPS comprises a source of supply, pipeline distribution system, terminal units (to which the user connects and disconnects medical equipment) and a warning/alarm system. The system has a state of the art medical gas management system.

Systems shall be provided for oxygen (O₂), Nitrous Oxide (N₂O) and Medical Vacuum at a pressure of 400 mm Hg (53 kPa) below atmospheric pressure.

Source Equipment & Manifold Management System

1.0 Oxygen Management System

1.1 Two Sided Cylinder Manifold Indigenous (Oxygen) 10+10

One no of Oxygen Manifold extendable type of size 2 X 10 for bulk oxygen cylinder will be provided. The manifold will be suitable to withstand a working pressure of 140kg/cm². The manifold will also have high pressure copper annealed tail pipe with one end having brass adaptor suitable for oxygen cylinder and other end suitable for manifold non return valves. The manifold will also be provided with twenty no. of non- return valve- one no for each cylinder. The material of construction of non – return valve will be brass. The manifold will also be provided with middle frame. The middle frame will be made with circumferential mild steel flat duly powder coated with black colour. (Only manifold shall be provided)

1.2 Fully Automatic Control Panel (Oxygen) – Indigenous

One no of fully Indigenous automatic oxygen control panel will be provided to control the 2 X 10 Oxygen Gas manifold.

The automatic control panel will have the following features:

The panel will be enclosed in a metal cabinet with a hinged front cover. The panel cover will be fitted with a lock to prevent unauthorised access.

The panel will perform fully automatic changeover operation without any manual action.

The gas changeover system will be electro-pneumatically operated which will ensure that the gas supply is not interrupted in the event of electrical failure.

The flow of the automatic control panel should be at 4 Bar line distribution pressure. Three nos of gauges will be provided within the control panel. These gauges will be connected to the manifold and will indicate the pressure of the right and left bank and the supply pressure from the control panel to the distribution system.

The panel will also have audio alarm indication for changeover of empty cylinder bank to filled cylinder bank and vice versa.

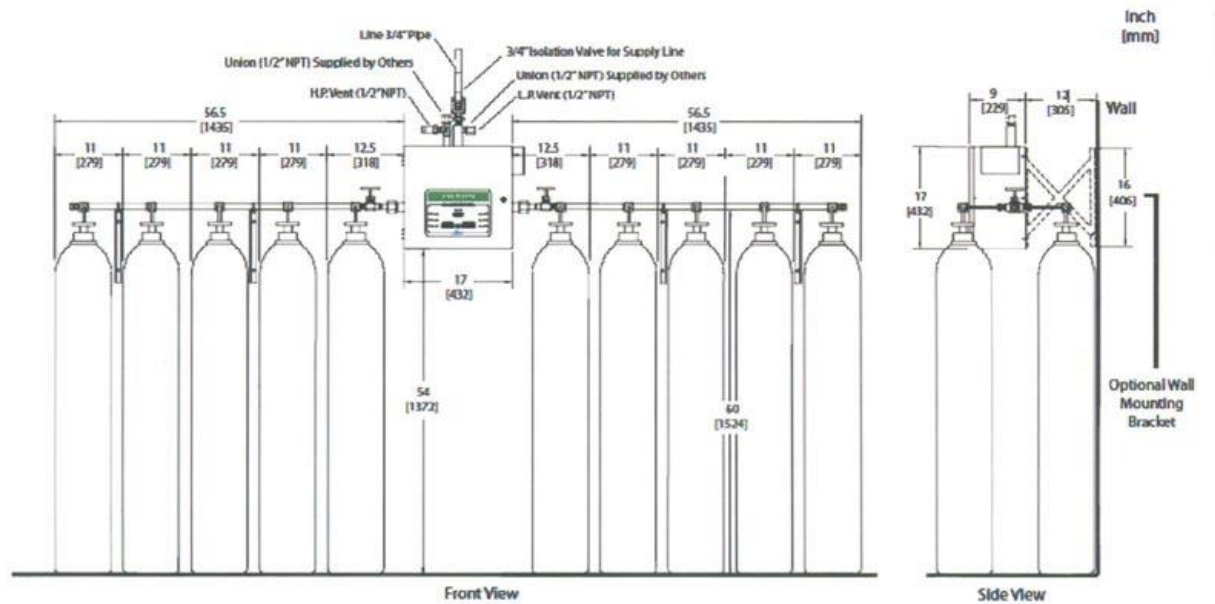
The pressure reduction in primary side within the control panel will be done in two stages.

For maintenance & safety point of view the control panel will be provided with Line pressure regulator with bypass valve. Also one no of line pressure relief valve will be provided.

1.3 Emergency Oxygen Supply System (4 + 4) : Indigenous

The system is same as above for configuration of 4+4 system without any additional automatic control panel. The emergency oxygen supply system will be controlled from the Double-stage Regulator to control the Line Pressure of Oxygen. (Only manifold shall be provided).

System Design: The schematic layout of cylinder manifold



2.0 Nitrous Oxide Management System (4 + 4)

2.1 Two Sided Cylinder Manifold (Nitrous Oxide) 4 +4

One no of Nitrous Oxide Manifold (Indigenous) extendable type of size 2X4 for bulk N₂O will be provided. The manifold will be suitable to withstand a working pressure of 140kg/cm². The manifold will also have high pressure copper annealed tail pipe with one end having brass adaptor suitable for N₂O cylinder and other end suitable for manifold non return valves. The manifold will also be provided with eight nos. of non- return valve; One no for each cylinder. The material of construction of non – return valve will be brass. The manifold will also be provided with middle frame. The middle frame will be made with circumferential mild steel flat duly powder coated with black colour. (Only manifold shall be provided)

2.2 Automatic Control Panel (Nitrous oxide)

One no of Indigenous automatic Nitrous Oxide control panel will be provided to control the 2 X 4 N₂O Gas manifold.

. The automatic control panel have the following features;

The panel will be enclosed in a metal cabinet with a hinged front cover. The panel cover will be fitted with a lock to prevent unauthorised access.

The panel will perform fully automatic changeover operation without any manual action.

The gas changeover system will be electro-pneumatically operated which will ensure that the gas supply is not interrupted in the event of electrical tenderer.

The flow of the automatic control panel should be at 4 Bar line distribution pressure

Three nos. of gauges will be provided within the control panel. Two nos. of gauges are for supply and one for delivery.

The panel will also have audio alarm indication for changeover of empty cylinder bank to filled cylinder bank and vice versa.

The pressure reduction in primary side within the control panel will be done in two stages..

For maintenance & safety point of view the control panel will be provided with Line pressure regulator with bypass valve. Also one no of line pressure relief valve will be provided.

2.3 Emergency Supply System (Nitrous Oxide) – 3 cylinders

The system is same as above for configuration of 3 cylinder system without any additional automatic control panel. The entire system will be controlled from the Double-stage regulator to provide required Line Pressure of Nitrous Oxide. (Only manifold shall be provided)

3.0 Vacuum Management System

3.1 VACUUM SYSTEM –

The major components of Vacuum Management System comprising of two identical pump units, Vacuum filter and drainage traps.

The system has been designed to maintain a vacuum of not less than 400 mm Hg below a standard atmospheric pressure of 760-mm Hg at the furthest terminal unit.

3.2 Vacuum Pump

The central vacuum plant will be provided with two vacuum pumps, air cooled type, (Model 15VX, Ingersoll Rand make or equivalent), each pump having piston displacement of 149.6 CFM, Free Air delivery to suction - Approx. 90% of P.D., maximum working pressure of 29" of Hg or 730mm of Hg, single stage duplex cylinders, fitted with M.S. channel frame Complete with V-Belt drive, belt guard etc.

Vacuum system will have the following features:

- Electric motor of 10 HP TEFC 440 volts, 3 phases- 2no.
- 2" BSP stainless steel ball valve with PTFE seat & quarter turn open able handle for pump isolation -2no
- Silencers at vacuum pump discharge end.
- Vacuum filters size 6" diameter x 12" long with drain valve and housing chrome plated.
- Vacuum receiver made of M.S. material as per IS-226 and code of construction IS- 2825 with drain valve -1no
- Inter connection copper piping of suitable sizes-1 set
- Vacuum gauges.
- 2" BSP vertical non return valve of brass /G.M.

Each pump should be provided with a built-in non-return valve and pressure switch so that inadvertent reversal is not allowed to pressurize the reservoir of the system.

The vacuum pumps should be air cooled, oil-lubricated, reciprocating, with proven reliability.

The pump should be directly driven by a totally enclosed fan-cooled, flange mounted motor with Class F insulation suitable for 415 volt-3 pH-50 Hz supply.

High efficiency filters should be provided for the pump exhaust. The fillers prevent the risk of contamination arising from the discharge from the pumps.

Specification of Vacuum Pumps:

TYPE :	RECIPOCATING AIR COOLED VACUUM PUMP
TYPE DRIVE	VEE BELT DRIVE
ELECTRICAL CONDITIONS	415 V / 10 HP / 50 Hz
TYPE MOTOR	TEFC
TYPE STARTER	DOL

PERFORMANCE

MAX.VACUUM REFERRED TO

723 MM. BAROMETER WITH

CLOSED INTAKE	29.00
PISTON DISPLACEMENT	149.6 CFM (4235 LPM)
SPEED RPM	1440
DRIVER HP	10

The Vacuum Pump System will have 2 **identical pumps**, with on line starter and pump protection filters. Each Vacuum Pump will be complete with Base Plate, Belt Guard, V-Belts, Motor and Starter. The system will be of Automatic Start and Stop Type and operated by Electrical Control Panel .

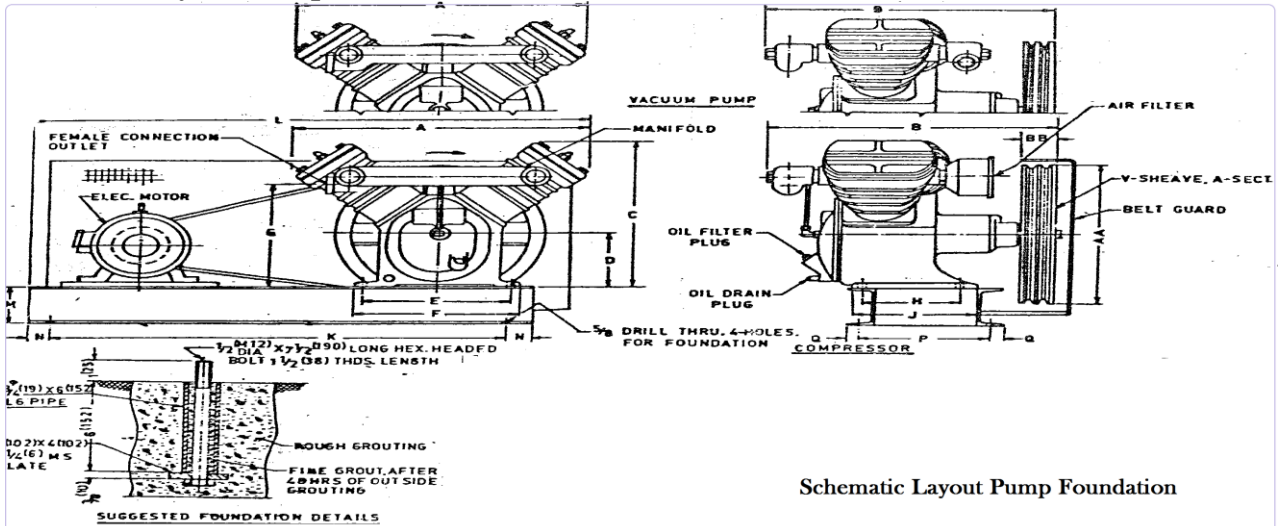
Vacuum Reservoir 3000 ltrs.

Vacuum reservoirs is made of mild steel vertical construction designed to comply with IS standards, the internal lining have epoxy coatings. Accessories will include an inspection door, vacuum gauge and provision for manual draining.

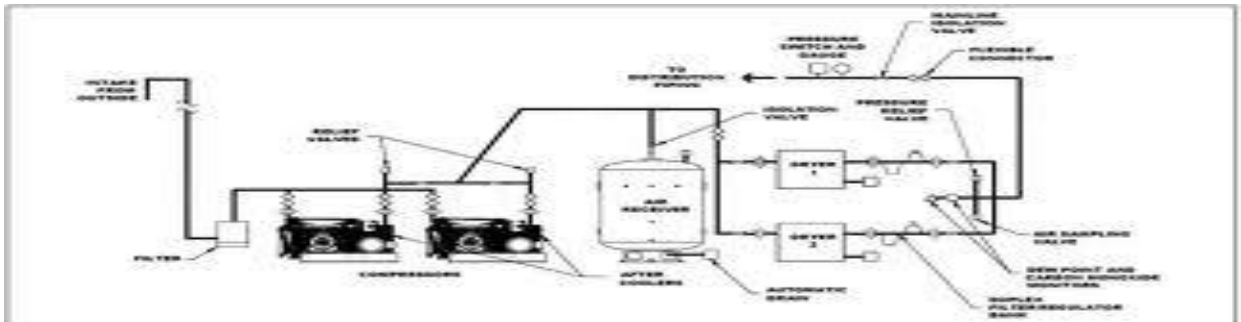
3.1.3. Bacterial Filter

- It should have a filter efficiency of greater than 99.995% at the system design flow.
- It should be tested with a bacterial challenge test and sodium flame test according to BS 3928.
- Should be corrosion-protected.
- Should be internally and externally epoxy coated.
- Should be supplied with easily removable, sterilizable at 134⁰C drain flask.
- Should have DP Monitor.
- Operating Temperature should be in the range of 1.5⁰C to 100⁰C.
- Flow Capacity should be 150 CFM minimum

Schematic layout Pump Foundation:



SCHEMATIC LAYOUT OF VACUUM PUMP SYSTEM



Distribution Management System

1.0 Copper Pipes

The copper pipes for medical gas and vacuum systems should be Lloyd Certified, DHP grade, extruded, solid drawn, tempered, seamless, non-arsenical and degreased round copper pipe, material conforming to BS EN 1057; 1996 on half hard condition. All copper pipes should be free from oil residue and carbon.

The pipe size will be used as per HTM 2022 standards. The pipe sizes are:

- I. 54 mm. OD x 1.2mm. Thickness
- II. 42 mm OD x 1.2mm. Thickness
- III. 28 mm. OD x .90 mm. Thickness
- IV. 22 mm. OD x .90 mm. Thickness
- V. 15 mm OD x 0.90 mm. Thickness

1.1 Piping Outside of Buildings

Generally, all the gas pipes shall be taken overhead. Wherever road crossing is there the pipe shall be taken at a height of 5.5 metres or more. The installation procedure for underground piping, if any, will have necessary protection to save the piping from physical damage while being backfilled. The underground piping should ideally be protected by conduit cover.

INSTALLATION & TESTING

Installation of piping will be carried out with utmost cleanliness. Pipe fixing clamps of non-ferrous or non-deteriorating plastic suitable for the diameter of the pipe will be used.

All pipe joints will be done using flux less brazing method. Inert gas welding technique will be used by passing Nitrogen gas at the flow of 6 LPM (min.) inside the copper pipes during silver brazing to avoid carbon disposition inside the copper pipes. All joints made of copper to copper and brazed by silver brazing filler material will need no flux.

Adequate supports will be provided while laying pipelines to ensure that the pipes do not sag. The spacing of supports will not exceed 1.5 meter for any size of pipe. Suitable sleeves will be provided wherever pipes cross through walls / slabs etc. All pipe clamps will be non-reactive to copper.

After erection, the pipes will be flushed with dry nitrogen gas and then pressure tested with dry nitrogen / Medical Air at a pressure equal to twice the working pressure for a period of not less than 24 hours. All leaks and joints revealed during testing will be rectified and re-tested till the pressure in pipes stands for at least 24 hours.

All the piping system will be tested in the presence of the engineer or authorized representative.

1. PAINTING

All exposed pipes should be painted with two coats of synthetic enamel paint and colour codifications as per IS: 2379 of 1963.

Colour Code For medical Gases

Gas	Ground Colour Band	First colour Band	Second Colour band
Oxygen	Canary Yellow	White	-
Nitrous Oxide	Canary Yellow	French Blue	Signal Red
Vacuum	Sky Blue	Black	-

2. Pipe Routing:

Special provision will be made in the building for holes through, and chases in the walls for Pipe laying.

2.1 Pipe Routes:

Both horizontal and vertical pipe lines shall conform to the following sequence. From top to bottom and from left to right as appropriate. Oxygen, Nitrous Oxide, Vacuum.
 Horizontal pipe lines whenever possible not to be lower than 2100 mm above the floor level, unless the lines go above the False Ceiling level and are suitably protected and accessible for maintenance staff. There is an exception inside the ward area. Due to deletion of partition walls inside the ward, the pipes shall drop from ceiling run main pipeline.

3.0 Zonal Valves

The Zonal valves will be manufactured as per latest international standard (make RB or equivalent). The Zonal valve will be full port type. The seal of the ball valve made up of polytetrafluoroethylene (PTFE) and handle will be quarter turn full grip handle made up of zinc coated steel with PVC cover. The sizes of the Zonal valves match to the respective size of the distribution pipe and the scope of the supply include the appropriate size screwed end connectors. The Zonal Valves sizes may be use as follows:

- I. 54mm.OD
- II. 42mm. OD
- III. 28 mm. OD
- IV. 22 mm. OD
- V. 15 mm OD
- VI. 12 mm OD

4.0 GAS OUTLET POINTS WITH PROBES (BS-type) (CE-Marked)

Outlets shall be manufactured with a 6 - 1/2" [165 mm] length type "K" 1/2" [12.7 mm] outside diameter (3/8" nominal) size copper inlet pipe stub, which is silver brazed to the outlet body. The body shall be of 1-5/16"

[33 mm] diameter, one piece brass construction.

For positive pressure gas services, the outlet shall be equipped with a primary and secondary check valve and the secondary check valve shall be rated at a maximum of 200 psi [1,379 kPa] in the event the primary check valve is removed for maintenance.

Outlet bodies shall be gas specific to a gas specific diameter indexing arrangement on the respective identification module.

A large color coded front plate shall be used for ease of gas identification and aesthetic appeal.

A one piece chromed fascia plate shall frame the outlet. With the back rough-in mounted, the outlet shall adjust from 3/8" [10 mm] to 1" [25 mm] variation in wall thickness.

Quick disconnect compatible and accept only corresponding gas specific adapters.

All outlets shall be cleaned and degreased for medical gas service, factory assembled and tested.



Technical Data		
Gas Services	Operating Pressure	Min.Flow (LPM)
Oxygen, Nitrous Oxide	55 psig or 4 bar	120

Vacuum	54 kPa or 0.533 bar	30
Safety	Geometric indexing	

Terminal outlets with probes

Oxygen

Nitrous Oxide

Vacuum

5.0 ACCESSORIES FOR PIPELINE SYSTEM:

5.1 BPC Flow meters

Back Pressure Compensated Flow meter will be of accurate gas flow measurement with following

features:

- Control within a range of 0 - 15 litres per minute.
- It meets strict precision and durability standards.
- The flow meter body is made of brass chrome-plated materials.
- The flow tube and shroud components are made of clear, impact resistant polycarbonate.
- Flow tube has large and expanded 0-5 LPM range for improved readability at low flows.
- The humidifier bottle is made of unbreakable polycarbonate material and autoclavable at 121°C
- Inlet Filter of Stainless Steel wire mesh to prevent entry of foreign particles.

5.2 Ward Vacuum Units

It should consist one number Vacuum regulator with gauge, both mounted on a collection jar

of capacity 600 ml and with a wall bracket for mounting it on the wall. The collection jar is

made of unbreakable polycarbonate material, which is fully autoclavable at 121°C .

5.3 Theatre Vacuum Units

The unit will be consisting of two reusable 2000 ml shatter resistant bottle, each made up of polycarbonate material and fully autoclavable at 121°C. A vacuum regulator with instant ON / OFF switch and a three way selector switch with an option to operate Left, Right or Both. All the above items will be mounted on a Trolley having free moving castor wheels.

6.0 Area Alarm (Gas & Vacuum)

Area Alarm Panel –

The area alarm panel will have connection for each gas service. The heart of each area control stations will be a state of the art microprocessor controlled clinical emergency alarm management system to monitor the status of the various clinical areas of the medical gas management system.

The system will constantly monitor the distribution line pressure in central medical gas management system. The display should indicate the actual line pressure measured by sensors as per the service under monitoring. The GREEN LED at the centre of the level meter should indicate the actual pressure / vacuum complying with the normal level defined.

YELLOW /RED LEDs indicate deviation of the service under monitoring to for Low or High pressure or only Low for Vacuum respective to normal level by 10% higher or lower respectively.

Gas Alarm Overview:



Medical Supply Units

1.0 Bed Head Panel Systems

The horizontal Bed Head Panel unit with the length of 1200mm. per bed for the patient care will be provided in ICU. High quality extruded aluminium in a surface finish for the front surface in natural light colour ensuring a feel-good atmosphere inside the clinical area for the patient and the care providers.

The unit will have an aesthetic front profile extending hygienic and smooth appeal to the clinical environment of the area.

The supply will be able to accommodate the desired number of medical gas, electrical and data outlet points as mentioned below. The scope of supply will include 4nos electrical sockets with switches and the respective data points fully installed. The terminal outlets as included to the master distribution chart of the respective areas are installed to the system as per the desired configuration. The mention of nurse call system is only for the purpose of reference to the extent that the system should have the space and provision to accommodate a standard nurse call system patient interface component inside the module without any physical damage or changes to the system or to the wall at the clinical area. The supply unit will be able to accommodate the medical gas & vacuum terminal outlets as included to the master distribution chart of the respective areas and installed to the system as per the desired configuration. The medical oxygen & vacuum terminal outlets mounted in the standard front-loading position. The terminal outlets will be harmonized and blended with the basic system.

- Electrical Sockets with Switches - 4 Nos. (2 UPS Power and 2 emergency power)
- Terminal Gas outlet – provision for at least 3 no. outlet

2.0 Fixed Type Ceiling Mounted pendant

Description

One no of fixed type ceiling mounted SS/ Aluminium Pendant will be provided in each OT Room near the head side of the OT Table. The pendant System will be equipped with medical gas outlets, electrical outlets and provisions for low voltage devices. All the Gas Outlets will be provided on the bottom side of the pendant & electrical on the side.

UTILITY SERVICES for Pendant

- Medical Gas Services – O₂-2 no., Vac-2 no., N₂O-1 no..
- Electrical Outlet- 06 no., 6/16 amp.
- IV Pole with 4 no. hook- 1 no

3.0 AREA VALVE SERVICE UNIT (AVSU)

The AVSU should be made of Aluminium accommodates 2/3 no. of Ball Valves having Gas/ Vacuum Gauge on respective service pipeline. All valves are confined in the said aluminium box having transparent cover which can be removed if needed. The purpose of AVSU is to restrict unauthorised access to Zonal/ Isolation Valves.

DISPOSITION OF OUTLETS

FLOOR	AREA	ROOM/ BED Q'NTY	NO. OF OUTLETS			REMARKS
			OXYGEN	N2O	VACUUM	
	GAS MANIFOLD/ PLANT ROOM	0	1	1	1	ON WALL
GROUND	BRACHYCARDIA	1	1	0	1	ON WALL
	CT SCAN / MRI	1	1	0	1	ON WALL
	USG	1	1	0	1	ON WALL
FIRST	OT-I		1	1	1	ON CEILING PENDANT
	OT-II		1	1	1	ON CEILING PENDANT
	OT-III		0	0	0	ON CEILING PENDANT
	PATIENT WAITING	1	1	0	1	ON WALL
SECOND	EMERGENCY RESUSCITATION	6	6	0	6	ON WALL
	FEMALE NORTH WARD (2 X CABIN; 39 X GENERAL)	41	41	0	41	ON WALL
	FEMALE SOUTH WARD (8 BED POSITION ARE CRITICAL)	43	41	0	39	ON WALL
THIRD	ITU	8	8	0	8	ON BED HEAD PANEL
	ITU (PROPOSED)	2	2	0	2	ON BED HEAD PANEL
	GENERAL WARD (15 BED POSITION ARE CRITICAL)	52	49	0	45	ON WALL
	PAEDIATRIC	9	9		9	ON WALL
	CABIN	6	6	0	6	ON WALL
FOURTH	EMERGENCY RESUSCITATION	10	10	0	10	ON WALL
	WARD (5 NO.CABIN; 38 GENERAL)	43	43	0	43	ON WALL
FIFTH	OT-I		2	1	1	ON CEILING PENDANT
	OT-II		2	1	1	ON CEILING PENDANT
	OT-III		2	1	1	ON CEILING PENDANT
	PRE-OP	1	2	0	2	ON WALL
	POST-OP	0	0	0	0	ON WALL
	TOTAL		230	6	221	

Note: No. of Outlet can be changed after actual layout of clinical services.

Section I

A. Instruction to Bidders

1. Bidders are requested to study the tender document, terms & conditions carefully and inspect the sites before submitting their bids. Submission of tender shall be deemed to have been done after careful study and examination of the tender document with full understanding of its implications.
2. Tender documents should be downloaded from the E-tender portal of Govt. of INDIA at www.eprocure.gov.in and the website of CNCI at www.cnci.org.in The submission of bids should only be through online at wbtenders.gov.in
3. Any wrong or misleading information provided by the Bidder during submission of bids may lead to summary cancellation of bid, blacklisting in CNCI for at least 3 years and forfeiture of EMD.
4. The finally selected Bidder will have to apply to the Prescribed Government/ Statutory Authority under existing acts/rules/regulations at the time of award and execution of contract for grant of requisite Licenses for operation of Manifold services or use of foreign exchange, if required, and the purchaser will only render such assistance, as may be considered necessary.
5. All pages of the bid submitted must be signed and sequentially numbered by the Bidder. All information in the offer must be in English. Information in any other language must be translated to English. Failure to comply with this may render the offer liable to be rejected. In the event of any discrepancy between the offer in a language other than English and its English translation, the English translation will prevail.

7. Eligibility of Bidder:

7.1 Who can Bid:

- i. Company Manufacturing Medical Gas.
- ii. Company Manufacturing or dealing in MGPS.
- iii. Agency having experience in supply, installation, commissioning, O&M of MGPS.
- iv. Consortium or Joint Venture of Companies at i, ii, iii above .

7.2 Credentials of the Bidder: The bidder should have following credentials,

7.2.1. Annual Turnover Requirement:

The bidder should submit audited balance sheet for Financial Years 2014-15, 2015-16 & 2016-17. The annual turnover of the last three (3) years will be considered for calculating the eligibility criteria of Rs 25 Crore or above.

A bidder shall demonstrate its solvency by way of Solvency Certificates, showing a solvency of Rs. 5 Crore or above.

7.2.2. Work Experience

Should have executed Minimum one years' experience in running and maintenance works of Gas Pipeline System in Hospital

7.3 Bidder needs to quote for all the jobs in full. Partial or incomplete bids will lead to cancellation.

8. Should have established in public or private health facilities in India and provided necessary service support (necessary proof to be submitted along with the offer).

9. Bidder must submit **an affidavit** that there is no court case under trial or pending against the Company, instituted by any government hospital and also never been penalized by any Govt. investigating agency for any wrong doing anywhere in India. Wrong and false information in this regard will be sufficient for forfeiture of EMD and blacklisting of the firm.

10. The Contractor will attend 24X7 all type of minor or major breakdown call immediately along with operation of MGPS & supply of Medical Gases.

11. Scope of Work:

As per SPECIFICATION :

12. Technical Specifications: As per SPECIFICATION

13. Time for Completion of work:

3(three) months from the date of award of work

14. Performance Security (PS):

20% of the Bid Value (validity should be till the completion of Warranty + 2 months).

15. Payment Terms

15.1 . Execution of Work:

The successful bidder will submit Performance Bank Guarantee within 14 days of Award of Work. The bidder will have to sign a contract after the submission of performance bank guarantee. Any

payment will be made only after signing of contract. The payment to successful bidder/contractor will be made as follows,

1 20% of total material cost/value as per the quotes of the selected bidder in their financial bid as mobilization advance against submission of equivalent amount of Bank guarantee.

2 Remaining 80% after successful installation and commissioning against certification by quality control agency selected by CNCI from amongst the agencies recommended by bidders.

15.2. Warranty & CMC:

1. All the systems will be covered under warranty for 5 years from the date of final installation report and 5 years of CMC should be quoted after warranty.

The decision to enter into CMC or AMC will be determined on the basis of cost and complexity of the Tender inviting Authority or User Institution at its discretion, prior to the expiration of warranty period. CMC is otherwise an extended warranty

B. General

It is CNCI policy to require that Bidders, suppliers, and contractors and their subcontractors under CNCI contracts, observe the highest standard of ethics during the procurement and execution of such contracts. In pursuance of this policy, CNCI:

(a) Defines, for the purposes of this provision, the terms set forth below as follows:

(i) Bribery is the act of unduly offering, giving, receiving or soliciting anything of value to influence the process of procuring goods or services, or executing contracts;

(ii) Extortion or coercion is the act of attempting to influence the process of procuring goods or services, or executing contracts by means of threat of injury to person, property or reputation;

(iii) Fraud is the misrepresentation of information or facts for the purpose of influencing the process of procuring goods or services, or executing the contracts, to the detriment of CNCI or other participants;

(iv) Collusion is the agreement between Bidders designed to result in bids at artificial prices that are not competitive.

(b) Will reject a proposal to award a contract if it determines that a vendor recommended for award has engaged in corrupt practices in competing for the contract in question;

(c) Will declare a vendor ineligible, either indefinitely or for a stated period of time, to become a CNCI registered Vendor if it at any time determines that the vendor has engaged in corrupt practices in competing for or in executing a CNCI contract;

(d) Will cancel or terminate a contract if it determines that a vendor has engaged in corrupt practices in competing for or in executing a CNCI contract;

(e) Will normally require a vendor to allow CNCI, or any person that CNCI may designate, to inspect or carry out audits of the vendor's accounting records and financial statements in connection with the contract.

(f) Any vendor participating in CNCI's procurement activities, shall facilitate to CNCI personnel upon first request, all documents, records and other elements needed by CNCI to investigate the allegations of misconduct by either vendors or any other party to the procurement activities. The absence of such cooperation may be sufficient grounds for the debarment of the vendor from CNCI vendor roster and may lead to suspension following review by CNCI Vendor Review Committee.

(g) It is required that Vendors, their subsidiaries, agents, intermediaries and principals cooperate with CNCI Internal Audit Group as well as with other investigations authorized by CNCI or by the Government of West Bengal or the Central Government as and when required. Such cooperation shall include, but not be limited to, the following: access to all employees, representatives, agents and assignees of the vendor; as well as production of all documents requested, including financial records. Failure to fully cooperate with investigations will be considered sufficient grounds to allow CNCI to repudiate and terminate the contract, and to debar and remove the supplier from CNCI's list of registered vendors.

(h) A Bidder, and all parties constituting the Bidder, may have the nationality of any country.

18 Period of validity of Bids

Bids shall remain valid for a period of **180 days**. A bid valid for a shorter period than specified in previous lines shall be rejected by CNCI as non-responsive.

19 Tender Fees: Exempted

20 Earnest Money Deposit (EMD)

Rs. 1 Lakhs in any one of the following form:

i) Demand Draft

ii) Bank Guarantee (BG) as per format given in Form 3 valid for 180 days

EMD Rs. 100,000.00 are to be paid in the form of Demand Draft drawn in favour of the Director, CNCI, Kolkata, payable at Kolkata. Original EMD is to be submitted to CNCI upto 2PM on Closing date & time for receipt of Tender i.e. upto 14.00 Hours of 22.04.2019 the date of final submission of tender document. No quotation will be considered without EMD. EMD of the Vendors already participated will carry forward, if the vendors want to participate on the Re-Tender process.

EMD is refunded to all bidders as per rule. However, EMD shall be liable to be forfeited if the successful bidder withdraws his tender after opening

Tender documents may be downloaded from the official web site: www.cnci.org.in or <http://eprocure.gov.in>

21 Refund of EMD: The EMD of unsuccessful Bidders shall be returned as promptly as possible upon the successful Bidder's furnishing of the Performance Security pursuant to Instructions to Bidders

C. Contents of Bidding Documents

23. Sections of Bidding Documents

23.1 The Bidding Documents consist of:

- Section I. Instructions to Bidders
- Section II. General Conditions for Goods (GCG)
- Section III. Special Conditions of Contract (SCC)
- Section IV. Schedule of Requirements
- Section V. Bidding Forms
- Section VI. Contract Forms

23.2 The Bidder is expected to examine all instructions, forms, terms, and specifications in the Bidding Documents. Failure to furnish all information or documentation required by the Bidding Documents may result in the rejection of the bid.

23.3 Bidders are cautioned to read the specifications carefully (see Section IV), as there may be special requirements. The technical specifications presented herein are not to be construed as defining a particular manufacturer's product. Bidders are encouraged to advise CNCI, if they disagree.

23.4 The specifications are the minimum requirements for the products. Products offered must meet or exceed requirements mentioned in technical specifications. The products shall conform in strength, quality and workmanship to the accepted standards of the relevant industry, if not specified otherwise in the specifications. Modifications or additions to basic standard products of less size or capability to meet these requirements will not be acceptable.

24. Clarification of Bid Document

24.1 A prospective Bidder requiring any clarification of the Bidding Documents shall contact CNCI in writing at CNCI, Kolkata -700026.

25. Amendment of Bid Document

25.1 At any time prior to the deadline for submission of bids, CNCI may amend the Bid Document by issuing amendment to be uploaded in the e-tender portal & website of CNCI.

25.2 To give prospective Bidders reasonable time in which to take an amendment into account in preparing their bids, CNCI may, at its discretion, extend the deadline for the submission of bids.

D. Preparation of Bids

1. Bidders are to prepare and submit the following:

- i) Non statutory documents to be submitted under ii) BID – A (Should be in multiple page single PDF file)
- iii) BID – B (Should be in multiple page single PDF file)
- iv) BID – C (Financial Bid i.e. 1 BOQ in .xls)

2. Cost of Bidding

The Bidder shall bear all costs associated with the preparation and submission of its bid.

3. Language of Bid

The Bid, as well as all correspondence and documents relating to the bid exchanged by the Bidder and CNCI, shall be written in the English language. Supporting documents and printed literature that are part of the Bid, if submitted in any other language provided they are accompanied by an accurate translation of the relevant passages into English and duly authenticated.

4. Alternative Bids

Alternative Bids will not be accepted.

5. Bid Prices

5.1 The prices in the BOQ shall conform to the requirements as specified in the tender.

5.2 The Incoterms shall be governed by the rules prescribed in the Incoterms 2010, published by The International Chamber of Commerce.

5.3 Prices quoted by the Bidder shall be fixed during the Bidder's performance of the Contract and not subject to variation on any account.

6. Currencies of Bid

The Bidder shall quote in INR only.

7. Documents Establishing the Conformity of the Goods and Related Services

To establish the conformity of the goods and related services to the Bidding Documents, the Bidder shall furnish as part of its Bid the documentary evidence that the Goods conform to the technical specifications and standards specified, Schedule of Requirements.

8. Documents Establishing the Qualifications of the Bidder

As mentioned earlier

9. Period of validity of Bids

9.1 Bids shall remain valid for a period of **180** days from last date of online submission of bid. A bid valid for a shorter period than specified in previous lines shall be rejected by CNCI as non-responsive.

9.2 In exceptional circumstances, prior to the expiration of the bid validity period, CNCI may request Bidder to extend the period of validity of their bids and EMD. In the event of the request for such extension beyond bid validity period, the bidder may or may not accept such request. In case, the bidder refuses to accept the request, the EMD of the bidder shall not be forfeited.

10. Period of validity of the bid price:

The prices quoted by the Bidder and accepted by the Committee duly constituted by CNCI shall hold good and remain valid for a period of **180 days** or completion of work from the date of signing of the contract and no additional claims will be admissible on account of any price variation or fluctuation in market rates.

11. Earnest Money Deposit (EMD):

The tender documents must be accompanied with scanned copy of EMD in the form of Demand Draft (DD) in favour of the Director, CNCI, Kolkata, payable at Kolkata (Refundable as per rule). Original Demand Draft for EMD must be submitted to the Director, CNCI, Kolkata positively, failing which the tender shall be summarily rejected. EMD of the Vendors already participated will carry forward, if the vendors want to participate on the Re-Tender process.

CNCI does not take any responsibility for the delay/ non submission of tender.

11.1 Any bid not accompanied by a substantially responsive EMD in accordance with Instructions to Bidders shall be rejected by CNCI as non-responsive.

11.2 The EMD may be forfeited:

(a) if a Bidder withdraws its bid during the period of bid validity specified by the Bidder on the Bid Submission Form, except as provided in Instructions to Bidders; or (b) if the successful Bidder fails to:

- i) Sign the Contract in accordance with Instructions to Bidders;
- ii) Furnish a Performance Security in accordance with Instructions to Bidders;
- iii) any wrong or misleading information provided by the Bidder during submission of bids

12. Signing of Bid

The bid document should be digitally signed and uploaded on the E-tender portal.

13. Withdrawal, Substitution, and Modification of Bids

14.1 The bid once submitted cannot be withdrawn but prior to the deadline prescribed for submission of bids, a Bidder may substitute, or modify its Bid after it has been submitted.

14.2 The objective of this bid is to ensure supply of best quality equipment and execution of work at the most competitive price. If at any stage of the bidding, including at the stage of financial evaluation, it appears that the tendered rate is artificially hiked or is much lower compared to the prevailing market price and available rates of similar or identical composition with the government, CNCI reserves the right to cancel the bids.

14. Confidentiality

Any effort by a Bidder to influence CNCI in the examination, evaluation, comparison of the bids or contract award decisions may result in the rejection of its Bid.

Notwithstanding Instructions to Bidders from the time of bid opening to the time of Contract Award, if any Bidder wishes to contact CNCI on any matter related to the bidding process, it should do so in writing.

15. Language of Bid document

Bidders should enclose the full details including proposed configuration of offers with full documentation, descriptive literature / leaflets supplementing the description and point out any special feature of their system. All documentation is required to be in English.

E. Submission and Opening of Bids

16. The following non statutory documents are to be submitted:

16.1 The Non statutory documents to be submitted under My Document

16.2 Each sub-category item should be in multiple page single PDF file) Guidelines for uploading documents in My Document:

Sl. No.	Category Name	Sub - Category Name	Document Name
1	CERTIFICATES	CERTIFICATES	a) PAN Card b) GST Registration certificate
2	COMPANY DETAILS	COMPANY DETAILS 1	a) License from Government/ Statutory Authority as applicable / Registration with the Registrar Of Companies.
3	CREDENTIAL	CREDENTIAL 1	Performance Statement
		CREDENTIAL 2	ISO certificate
4	DECLARATION	DECLARATION1	Income Tax returns for last three years
5	EQUIPMENT	MACHINERIES 1	Manufacturer's Authorization if any
		MACHINERIES 2	List of clients where the bidder has installed MGPS/ Running and maintenance works of Gas Pipeline System in Hospital. All the relevant Qualitative certificate required for technical conformity.
6	FINANCIAL INFO	P/L & BALANCE SHEET 2016-2017	P/L & Balance sheet 2016-2017
		P/L & BALANCE SHEET 2017-2018	P/L & Balance sheet 2017-2018

17. The following statutory documents are to be submitted:

17.1 BID – A (Should be in multiple page single PDF file)
EMD (Scanned copy of the instrument through which EMD have been submitted).

17.2 BID – B (Should be in multiple page single PDF file)

BID – B	
1	Brochures of the offered product / model.
2	CE/ BIS OR ANY OTHER CERTIFICATE
3	Pre-requisites of installation [Power (KVA, Phase, Hz), Civil and any other requirement, if any]
4	Legal declaration affirmed before a First Class Magistrate / Notary/ Executive Magistrate on non judicial stamp paper of Rs. 100/-
5	Turnover Certificate
6	Financial Status Certificate
7	Certification of Work Experience

Note: Non-statutory document (document uploaded in My Space), Bid – A & Bid – B constitute the technical bid.

18. BID – C [Price bid]

The Price Bid shall comprise the following documents in one cover (folder):

18.1 Bill of Quantity (BOQ) in .xls - Bill of Quantity (BOQ) in the specified format.

(A) **Warranty and Comprehensive Maintenance Contract (CMC) and operation charges:** The charges should include cost of spares, labour, all duties, service tax and all other charges. The Warranty and CMC should cover the entire MGPS.

STANDARD TERMS & CONDITIONS OF CNCI :

1. **Terms Of Price:** F.O.R. (Delivery free)– CNCI , STORES, 37,S.P. Mukherjee Road, Kolkata - 700026 , at your cost. The price is firm and fixed till the execution of order. However, **price should be INR** is inclusive of packing and forwarding, insurance , demurrage and other clearing and Freight charges except GST.
2. a) **Excise duty:** Excise duty if applicable against this order. E.D Exemption/Concession certificate to be issued by competent authority shall be provided by CNCI . While dispatching each item should be identified with CNCI code number and Firms part number. Packing list should indicate all deliverable items. Each item should be identified with Metallic or Plastic tag indicating both CNCI code number and Firms part number.
3. **Consignee/Delivery Point:** All items along with supporting documents(Tax invoice, Inspection Certificate, guarantee Certificate, Conformity Certificate, packing list) to be delivered to the consignee.
4. **Inspection:** Pre dispatch inspection: As per the SOTR. Receipt Inspection .
5. **Warranty:** The equipment. / Materials are to be guaranteed / warranted for satisfactory performance for the period of 60 months from the date of installation at CNCI Kolkata . During guaranty /warranty period any spares supplied by the Vendor suffers due to defective material and or due to improper design and or drawing or due to faulty workmanship, The Vendor will take full responsibility of rectification of such defective parts thereof direct expenses related to removal and re-positioning of the replacement/ repaired spares or components and subsequent test & trial, incurred thereon without any financial implication to CNCI.
6. **Liquidated Damage :** In case delay in delivery beyond contractual delivery date, CNCI reserves the right to recover LD. @ ½ % per week or part there of subject to maximum 5 % of order value of the undelivered materials.
7. **Force Majeure :** As per existing order of ministry of Law.
8. **Custom duty :** If applicable, C.D. Exemption certificate where applicable will be provided by CNCI on submission of the following documents:-
 - (i) Copy of Order on Overseas Firm.
 - (ii) Copy of Invoice of Overseas Firm and packing list of the B & D spares of the Overseas Firm.
 - (iii) Copy of Bill of Lading/ Airway Bill.
9. **Arbitration:** i) If at any time, before during or after the contract period, any unsettled claim, question, dispute or difference arises between the parties, upon or in relation to or in connection with or in any way touching or concerning this order, the same shall be referred to the Director, CNCI, 37, S.P. Mukherjee Road , Kolkata -700026 for appointment of a sole arbitrator for adjudication of the said disputes or differences, in accordance with the provisions of the Arbitration and Conciliation Act, 1996.
viii) **The language of the proceeding shall be in English.**
10. **Individuality of Contract :** This order shall be treated as an individual contract, shall not allow any general lien to the portions and shall not get any prejudice in execution due to situation arising out of some other contract that Firms may have with CNCI .
11. **Validity of Offer:** The offer has to be kept valid for 180 days from the date of P.O. for main supply.
12. **Payment Terms :** 20% of order value against PBG shall be paid in advance and balance 80% payment against delivery and after installation /successful commissioning of items at CNCI and on submission of Performance Bank Guarantee of equivalent amount, valid up to expiry of guarantee period and on production of the following documents addressed to the Director ,CNCI, Kolkata : (4 copy each along with one original copy e.i. ink signed with stamped)
 - (a) Ink signed original Invoice
 - (b) Receipted copy of challan or receipted LR/CN along with copy of challan/Packing list.
 - (c) Packing list indicating details of spares description.
 - (d) Inspection certificate issued by appropriate Authority
 - (e) Guarantee certificate of Materials .
 - (f) Conformity Certificate.

13. **Order Acknowledgement** : The Vendor , on whom the Order will be placed, will acknowledge the Order within 10 days of its receipt by them. If no contrary advice is received from them within ten days of its receipt, **this will be deemed to have been accepted by them.**

14. **Risk Purchase:** In case of delay in delivery beyond 10 weeks, CNCI shall have also the right to cancel the Order and obtain items from alternative source at firms complete risk and cost.

15. **CNCI reserves the right to accept / reject any tender in full without assigning any reason**

16. **Guarantee /Warranty terms** :The successful tenderer has to warrant that the Goods supplied under this contract are new , unused , of the most recent or current models and incorporate all recent improvements in design and materials unless provided otherwise in the contract .

The successful tenderer further have to warrant that the Goods supplied under this contract have no defect arising from design, materials or workmanship when the design or material is required by the Tender inviting Authority,s specifications or from any act or omission of the successful tenderer , that may develop under normal use of the supplied goods .After sales service in Kolkata or at least South West Bengal should be available and the tenderer shall provide proof of their capability to undertake such maintenance / repair within the stipulated time .

17. Experience on supply and installation of similar Equipments with Govt. Hospitals /Research Institute with Name , Address , contact No , Mail I/d, and P.O. copy of other buyer is essential .

18. **INR/ Multi Currency rate** which is applicable please be mentioned with price bid offer .

19. **Demo / Training** : The successful tender er has to impart on-site training to Doctors/ Technicians/ Para- medical staff on the operation and preventive maintenance of the equipment at the time of installation and anytime during warranty period if demanded by the User Institution to the satisfaction of the tender inviting Authority and User Institution .

20. **Performance Security** : There will be a performance security deposit amounting to the total value excluding taxes, which shall be submitted by the successful tenderer to the Tender inviting Authority within 10 days from the date of issuance of “ **Letter of Intent**”/ **Purchase Order**.

PBG : Performance Bank Guarantee of 10% of PO value is applicable in this tender .

21. **Penalties for non- performance** :

The penalties to be imposed , at any stage , under this tender are :

- i. Imposition of LD.
- ii. forfeiture of EMD/ Performance security/PBG.
- iii. Termination of the Contract.
- iv. Blacklisting / debarring of the tenderer.

22. **Fall Clause** : The price charges for the equipment supplies under the contract by successful tenderer shall in no event exceed the lowest price at which the successful tenderer sells the equipment of identical description to any other persons during the period of contract .

24. All other terms & conditions are as per the CNCI “**STACS**”.

*****END*****

AMPLIFICATION OF COMMERCIAL TERMS

1. Technical Specification :The Technical Specification & scope of supply as mentioned tender enquiry have been fully understood by me/us and our offer is submitted as per SOR(If no, details of deviation is to be furnished in a separate sheet marking Technical deviation).	YES/No.
2. Firm Price : Price will remain fix and firm till execution of order .	YES/No.
3. Preferably withinWk. from receipt of Order / LOI until unless specified in SOTR. If anything specific is considered in SOTR, relevant SOTR clauses to be considered as final.	YES/No.
4. Terms of Price : Rate quoted is on FOR CNCI/Stores/Kol-26	YES/No.
5. Terms of Duties: Please indicate (i). SGST (ii). CGST (iii).IGST (iv) Any other Taxes (v). Any Other Duties (vi) Quoted rates is all inclusive	-----% Extra -----% Extra -----% Extra -----% Extra -----% Extra -----% Extra YES/No.
6. Payment Terms : 20% payment on advance after receipt of LOI and accepted by the Firm and against the submission PBG on equivalent amount .Balance 80 % after satisfactory performance and running as per certification of User Dept.	YES/No.
7. Liquidated damage : For delay in delivery L.D. @ ½% per week or part thereof on undelivered portion of the order subject to a maximum of 5% of total value of the order will be levied .	YES/No.
8. Risk Purchase : For failure to delivery material within the contractual delivery from alternative source art supplier's risk and cost .	YES/No.
9. Validity of offer is upto 180 days from opening of tender .	YES/No.
10. Guarantee / Warranty : Supplied materials be guaranteed / warranted for satisfactory performance for a period of 60 months from the date of supply of material. A guarantee /Warranty certificate is to be forwarded with the supply.	YES/No.
11. Firm is registered with the Units	SSI/NSIC
12. Inspection : Receipt Inspection by CNCI User Dept.	YES/No.
13. Arbitration Clause :CNCI std. Arbitration including jurisdiction clauses are accepted .	YES/No.
14. Deviation List on Technical/ Commercial Point, if any , attached .	YES/No.
15. All points of STAC accepted by the Firm excepting clause No.....of STAC & vendor's stand on these STAC points is mentioned in Deviation List of Commercial terms as attached	YES/No.
16. GSTN Number	
17. Performance Bank Guarantee	YES/NO.

Date.....

Seal.....

Signature & Office