

All Bidders**Amendment -I**

Subject: Supply, Installation, Testing and Commissioning of Medical Gas Manifold System at AIIA, Sarita Vihar, New Delhi.

IFB No. : HSCC/SES/AIIA/MGMS/2013

Dear Sir,

This has reference to above IFB No. for the Subject works.

The following Amendment may be noted which shall be treated as part of the contract to be submitted duly signed & stamp along with tender.

	Bidder's Query	Amendment/Clarification
1.	<p>Fully Automatic Oxygen Control Panel (Imported) The Oxygen Control Panel shall be of microprocessor based and preferably Digital Display Type. Pressure reduction shall be in two stages. Panel shall be integrated with pressure gauges inside panel on downstream of pressure regulator. Panel shall be fitted with standby line regulator. Line regulators shall have pressure relief mechanism for testing and servicing purpose.</p> <p>Amend it as Digital/Analogue display type because mentioned standards does not demand only digital.</p>	<p>Oxygen Control Panel shall be microprocessor based and preferably Digital Display type. But if specific standards mentioned in technical specification require Analog, then specific standard supersede.</p>
2.	<p>The Control Panel should be made to provide Heavy Duty with a Delivery Flow Capacity of over 2000 lpm at 55-60 psig.</p> <p>Please change pressure as 50 to 60 psi because NFPA require 50 psi pressure output where as HTM system requires 60 psi output.</p>	<p>Specific Standard as mentioned in technical specification shall supersede.</p>
3	<p>Fully Automatic Nitrous Oxide Control Panel (Imported) The Nitrous Oxide Control Panel shall be of microprocessor based and preferably Digital Display type. Pressure reduction shall be in two stages. Panel shall be integrated with pressure gauges inside panel on downstream of pressure regulator. Panel shall be fitted with standby line regulator. Line regulators shall have pressure relief mechanism for testing and servicing purpose.</p>	<p>Nitrous Oxide Control Panel shall be microprocessor based and preferably Digital Display type. But if specific standards mentioned in technical specification require Analog, then specific standard supersede.</p>

	Amend it as Digital/Analogue display type because mentioned standards does not demand only digital.	
4	<p>Fully Automatic Nitrous Oxide Control Panel should be made to provide Heavy Duty with a Flow Capacity of over 500 lpm at 55-60 psig.</p> <p>Please change pressure as 50 to 60 psi because NFPA require 50 psi pressure output where as HTM system requires 60 psi output.</p>	Specific standard as mentioned in technical specification shall supersede.
5	<p>Vacuum (Suction) System (Imported) Vacuum system shall be Duplex (One working & One Standby) stack mounted 220 cfm capacity (<i>i.e Two pumps together produce vacuum of 220 cfm capacity.</i>)</p> <p>It is suggested that in case of duplex one should meet 100% requirement and other one should act as stand by, therefore kindly change the total capacity from 220 cfm to 110 cfm, because at no points both the pumps will run together. Since HTM standard plant comes in lpm and NFPA standard plants comes in cfm therefore kindly mention 3000lpm or 110 cfm.</p>	Specific standard as mentioned in technical specification shall supersede.
6	<p>Vacuum (Suction) System (Imported)</p> <p>The system shall include the following accessories for each pump: inlet check valve, inlet isolation valve, vacuum control switch, oil temperature gauge, thermal malfunction switch and vacuum control switch. Provide flexible connectors on inlet and exhaust of each pump, exhaust tee with union, cock valve as well as copper tubing with shut-off cock for gauge and vacuum switches. The system shall include vacuum storage tank of suitable capacity. The inside of the tank shall be coated for rust protection with a two component coating which provides a hard, durable lining.</p> <ul style="list-style-type: none"> • Provide vibration mounting as per NFPA 99/HTM2022/EN737. • The system shall have UL listed/CE marked control panel • Provide the panel with a programmable controller with removable terminals to allow quick and easy replacement in the field. The system should be designed to function even if the programmable controller fails. The system shall be equipped with a flashing light pump failure alarm/shutdown at 	Specific standard as mentioned in technical specification shall supersede.

	<p>any of the following conditions: motor overload tripped, main disconnect is off, blown fuse, control transformer failure, starter coil failure, Selector Switch is off. The central control unit shall incorporate a colour display with LED indicators and have easy access to system operational information.</p> <ul style="list-style-type: none"> • Provide audible and visual local alarm (complete with indicating lights and individual sets of auxiliary contacts wired to the terminal strip for remote alarm indication) for the following: vacuum pump thermal malfunction and reserve vacuum pump in use. Provide manual reset for thermal malfunction shut-down. All control and alarm functions shall remain energized while any vacuum pump in the system remains electrically on-line. • The bacteria filtration system shall incorporate high efficiency filter elements. A differential vacuum indicator shall be installed across the filter to indicate blockage. Each filter shall be designed and sized to carry the full plant design flow capacity with minimum drop. Bacteria filter elements shall have penetration levels not exceeding 0.005% when tested and utilizing particles 0.02 to 2 micron size range. <p>Since Standard details are asked, these paras may please be removed because it may vary from manufacturer to manufacturer.</p>	
7	<p>Air Compressors_(Imported)</p> <p>The package shall include one set i.e Duplex (One working and one standby) capacity of approx. 100 scfm at 8.5bar air compressors, allied equipment, suitable tank and control panel.</p> <p>It is suggested in case of duplex one should meet 100% requirement and other one should act as stand by, therefore kindly change the total capacity from 100 cfm to 50 cfm, because at no point both the pumps will run together.</p> <p>Since HTM standard plants comes in lpm and NFPA standard plants comes in cfm therefore kindly mention 1400 lpm at 10 bar or 50 cfm at 100 psi pressure.</p>	Specific standard as mentioned in technical specification shall supersede.
8	<p>The medical air compressors shall be of the totally oil-less reciprocating air-cooled design/ Screw/Scroll. Each compressor shall be belt driven by a suitable HP, 3 phase,</p>	Specific standard as mentioned in technical specification shall supersede.

	<p>50 cycle, 415volt, motor.</p> <p>Kindly amend it as in case NFPA plants compressors should be oil-less reciprocating/scroll and in case of HTM plants it should be oil flooded screw compressors.</p>	
9	<p>Each air compressor shall have a capacity of 50 scfm at 8.5bar.</p> <p>Since HTM standard plants comes in lpm and NFPA standard plant comes in cfm therefore kindly mention 1400 lpm at 10 bar or 50cfm at 100 psi pressure.</p>	<p>Specific standard as mentioned in technical specification shall supersede.</p>
10.	<p>The system shall be equipped with filters.</p> <p>The system shall have UL listed/CE marked control panel.</p> <p>Dual air dryers, dual 0.5 micron pre-filters, dual 0.5 micron after-filters, line pressure regulating valves, dew point monitor, CO monitor and other accessories required to meet and exceed the current code requirements shall be mounted on the compressor system base.</p> <p>All components shall be completely single-point service connections as per latest international standards.</p> <p>There shall be two identical banks of air treatment equipment, piped in parallel and provided with valves to by-pass either filter set for element replacement, maintenance and repair work on one of the sets while still treating medical compressed air through the other set without any sacrifice in air quality. Each bank should consist of three stages of treatment.</p> <p>The first stage shall be a prime efficiency come together with particles removal down to 0.5 micron with 99.9999% retention. This filter removes aerosols and solid particles.</p> <p>The second stage shall be desiccant heatless air dryer equipped with purge control. Built-in purge saver control shall automatically minimize and adjust the amount of purge air to match the variable airflow. The dry compressed air is discharged from the on-line tower into the third stage.</p> <p>The third stage shall be a prime efficiency particulate after filter with particle removal down to 0.5 micron. The after</p>	<p>Specific standard as mentioned in technical specification shall supersede.</p>

	<p>filter element shall be provided high particles retention, low pressure drop and long element life.</p> <p>Downstream pressure regulators shall maintain constant discharge pressure of 55 to 60 PSIG (field adjustable).</p> <p>Digital dew point and CO monitors with alarm set points at +39 °F and 10 PPM are provided with dry contacts for connection to remote alarm panels. A “demand check” for maintenance should as per current code requirements of latest international standards.</p> <p>Besides meeting the requirements of the relevant standard, filtration of medical compressed air shall conform to ISO 8573.1 Class 1.3.1 of medical breathing air.</p> <p>Since Standard details have been asked, these paras may please be removed because it may vary from manufacturer to manufacturer.</p>	
11	<p>Alarm shall be microprocessor based with individual microprocessors on each area display and sensor board. The sensors shall be capable of local or remote mounting. Each area display module/sensor unit shall be gas specific. With an error message display for an incorrect connection.</p> <p>It is suggested that Since HTM standard do not uses digital displays, which requires pressure sensors and kindly amend it as pressure switches/pressure sensors.</p>	Specific standard as mentioned in technical specification shall supersede.
12	<p>The alarms shall be field expandable with the addition of extra modules. Upto six services can be accommodated per standard box.</p> <p>NFPA standard alarm boxes can accommodate maximum 4 and HTM standard alarm boxes can accommodate 6, hence amend it as 4 to 6 services.</p>	Specific standard as mentioned in technical specification shall supersede.
13	<p>Each specific service shall be provided with an LED digital read out comprising of 0-250 psi for positive pressure and 0-30 inch Hg for vaccuum. The digital readout shall provide a constant indication of each service being measured. A bar graph trend indicator shall be provided for each service indicating a green “NORMAL”, yellow “CAUTION” and a red “HIGH” or “LOW” alarm condition. Under normal operation the bar graph display shall move up and down in the green range depending on service usage. If an alarm occurs, the “RED” alarm light will flash and the audible alarm will sound. Pushing the “ALARM SILENCE” button will cancel the audible alarm but the unit will remain in the alarm condition until the</p>	Specific standard as mentioned in technical specification shall supersede.

	<p>problem is rectified.</p> <p>e. The default set points shall be +/- 20% variation from normal condition.</p> <p>f. In the calibration mode the following parameters shall be field adjustable:</p> <ul style="list-style-type: none"> i) High/Low set points ii) Imperial/Metric Units iii) Repeat alarm enable/disable <p>g. Set points shall be adjustable by two on board push buttons.</p> <p>h. In addition “PUSH TO TEST” & “ALARM SILENCE” buttons shall be easily accessible to operate and test the unit.</p> <p>i. Combination master/area alarms shall have no moving parts and shall require no maintenance after initial installation.</p> <p>It is suggested since standard details are asked, these paras may please be removed because it may vary from manufacture to manufacture.</p>	
14	<p>Alternatively</p> <p>Alarm System (Imported)</p> <p>Alarm system should fully comply and meet with the requirement of HTM 02-01. It should be CE marked with notified body number specified. It should have microbial coating labels for touch control and capability of monitoring of installed gas services by means of sensors that detect deviations from the normal operating limits. The medical gas area alarm shall fully comply with requirements of BSEN 60601-1 and BS EN 60601-1-2 and BS EN ISO 7396-1. The cover, back box and bezel (if required) shall be polyester powder. A single tamper proof fastener shall be used to gain access to the hinged door. The hinge shall operate through a minimum of 120° to provide adequate access. It should have each gas service shall be displayed by cored LED to show Normal (green), Low and High pressure (red) conditions. Medical vacuum systems shall be displayed in the Normal (green) and Low vacuum (red) conditions. Failure indicators shall be displayed by flashing lights and normal indications shall be steady. Each LED block indicator shall be a plug-in component with individual long life LED connected in parallel in two banks to provide duplex circuits. An audible warning shall sound simultaneously with any failure indication and a mute facility shall be provided. Following a mute selection the audible will resound after 15 minutes (approx.) or shall operate simultaneously should a further alarm condition occur. A Mute switch shall be provided inside the panel for use during any</p>	<p>Specific standard as mentioned in technical specification shall supersede.</p>

	<p>maintenance resulting in prolonged pipeline or plant shutdown. This facility shall automatically reset when the gas service returns to normal. The alarm panel shall have a Test facility to prove the integrity of the internal circuits, LED and audible warning. The alarm panel shall incorporate a volt free normally closed relay to allow for interconnection to either a medical gas central alarm system or an event recording circuit of a building management system. Each Alarm shall provide a green LED to indicate that electrical power is available at the panel and a red LED to indicate 'System Alarm'. In the event of an electrical power supply failure the 'System Alarm' LED shall illuminate (flashing) and the audible warning shall be delayed for 30 seconds to enable standby generator tests. Line continuity monitoring circuits shall be provided to constantly monitor the integrity of the input sensors and interconnecting wiring . In the event of any fault the line continuity monitoring circuits shall initiate the specific gas service failure indication, a System alarm indication and an audible warning. Further aids to fault diagnosis shall be provided to allow connection of up to 5 repeater panels, enabling the visual and audible alarm signals to be repeated at other locations within department.</p> <p>It should be connected through Pressure and Vacuum Switches. Pressure and Vacuum switches shall be manufactured with brass wetted parts and house a PCBA with line continuity monitoring resistors. Electrical connectors shall be designed for frequent disassembly (Spade connectors are not acceptable). Pressure switches shall include both high and low pressure settings in the same switch, using only a single 1/4" BSP threaded pipeline connection to minimize number of sealed joints. The body and housing of the Pressure switch shall be manufactured from impact resistance, rigid and inherently corrosion proof materials. (Coating or plating of Mild Steel is not acceptable). Pressure Switches shall connect directly to the Area Alarm Panel. (It is not acceptable to fit a separate connection Box to convert switch signals to data signal.)</p> <p>Please remove the word microbial because this is neither required as per standard nor all International HTM products manufacturer does this. Also, Since you have asked for standard details, these paras may please be removed because it may vary from manufacturer to manufacturer.</p>	
15	<p>Horizontal Bed Head Panels (HBHP) 1800mm long (Imported) 6/15 Amp Modular Electrical Sockets with switches =</p>	<p>Electrical Sockets should be Indian. (For rest of the queries</p>

	<p>6 sets Since you are asking for imported as per NFPA/HTM, please mention as provision for Indian electrical sockets. IV Pole = 2nos Kindly amend it as infusion pump pole with IV hooks. Nurse Call Module = 1 No. Kindly amend this as cut out provision for nurse call module. Infusion Pump Mounts = 1 No. Kindly amend it as Infusion pump pole with IV hooks. Monitor Tray with Slider = 1 No. Please remove this because this can not be accommodated on horizontal bed head panel. Normally where ever horizontal bed panels are installed monitors are installed on the wall above bed head panel.</p>	<p>Tender Terms and Conditions Prevails.)</p>
<p>16</p>	<p>Valve Boxes (Imported) The valve box shall be constructed of 18 gauge steel complete with a baked enamel finish. In case of imported by NFPA, they use aluminium instead of steel, so please mention steel/aluminium.</p>	<p>Steel/Aluminum as required.</p>
<p>17</p>	<p>Valve Boxes (Imported) The doorframe assembly shall be constructed of anodised aluminium and shall be mounted to the back box assembly by screws as provided. The removable front shall consist of a clear window with a pullout ring pre-mounted to the centre of the window. Access to the zone shut-off valves shall be by merely pulling the ring assembly to remove the window from the doorframe. The window can be reinstalled without the use of tools only after the valve handles have been returned to the open position. The window shall be marked with the following :- "CAUTION: MEDICAL GAS CONTROL VALVE CLOSE ONLY IN EMERGENCY" Valves shall be a 4-bolt design, bronze body, double seal, union ball-type, with Teflon (TFE) seats and Viton seals, "O" ring packing, and ball which seals in both directions, blow-out proof stem, with a pressure rating of 2760 kPa (400 psig). Valves shall be operated by a lever-type handle requiring only a quarter turn from a fully open position to a fully closed position. All valves shall be equipped with type "K" washed and degreased copper pipe</p>	<p>Specific standard as mentioned in technical specification shall supersede.</p>

	<p>stub extensions of sufficient length to protrude beyond the sides of the box.</p> <p>The entire valve body and pipe stubs shall be plated to a minimum of 25 mm (1") beyond the sides of the back box, but in no instance shall the plating be extended to the ends of the pipe stubs. All pipe stub extensions shall be supplied with suitable plugs or caps to prevent contamination of the assembly prior to installation.</p> <p>Each valve shall be supplied with an identification bracket bolted directly onto the valve body for the purpose of applying an approved medical gas identification label. A package of labels shall be supplied with each valve box assembly for application by the installer.</p> <p>Valves shall be available with line pressure gauges, as required. Gauges shall be 51 mm (2") diameter, with metal case and ring.</p> <p>Pressure gauges shall read 0-700 kPa (0-100 psig) for all gases except nitrogen, which shall read 0-2000 kPa (0-300 psig), and vacuum, which shall read -100-0 kPa (0-30" Hg).</p> <p>Since you have asked for standard details, these paras may please be removed because it may vary from manufacturer to manufacturer.</p>	
18	<p>Anesthesia Gas Scavenging System (Imported) :-</p> <p>Vacuum Pump :</p> <p>Each pump should be completely air cooled and have absolutely no water requirements</p> <p>Each pump should have a 5 micron inlet filter and should be equipped with a vacuum relief valve, check valve to prevent back-flow through off-cycle units, flexible connector, isolation valve and vibration isolators at each mounting location</p> <p>Since you have asked for standard details, these paras may please be removed because it may vary from manufacturer to manufacturer.</p> <p>The receiver should be rated for a minimum 150 psig design pressure and have a three valve bypass system to allow for draining of the receiver without interrupting the vacuum service.</p> <p>Please remove this as none of AGSS plants as per NFPA has receiver.</p> <p>Control System :</p>	<p>Specific standard as mentioned in technical specification shall supersede.</p>

	<p>The duplex control system should be U.L. labelled/CE marked</p> <p>The control system should provide automatic lead/lag sequencing with circuit breaker disconnects for each vacuum pump with external operators, full voltage motor starters with overload protection, control circuit transformers, visual and audible reserve unit alarm with isolated contacts for remote alarm, hand-off-auto lighted selector switches and runtime hour meters.</p> <p>A programmable logic controller (PLC) should control the automatic alteration of both vacuum pumps with provision for simultaneous operation if required, and automatic activation of reserve unit if required.</p> <p>Since you have asked for standard details, these paras may please be removed because it may vary from manufacturer to manufacturer.</p>	
19	<p>Flow meter with Humidifier (Imported)</p> <p>The Flow meter body should be made of brass chrome plated materials.</p> <p>Please amend it as brass/plastic and remove the word chrome plated.</p> <p>Ward Vacuum Units (Imported)</p> <p>The unit will be consisting of reusable 600 to 1800 ml shatter resistant bottle, each made up of polycarbonate material and fully autoclavable at 121 degree centigrade.</p> <p>Please amend it as polycarbonate/polysulphone</p>	<p>Ward Vacuum Units (Imported)</p> <p>Material of bottle – Polycarbonate/Polysulphone.</p> <p>(For rest of the queries Tender Terms and Conditions Prevails.)</p>
20	<p>Theatre Vacuum Units (Imported)</p> <p>The unit will be consisting of two reusable 1800 to 2000 ml shatter resistant bottle, each made up of Polycarbonate material and fully autoclavable at 121 degree centigrade.</p> <p>Please amend it as polycarbonate/polysulphone.</p> <p>A 3-way valve will select the collection jars : Left, Right or Both.</p> <p>Please remove this because every manufacturer has its own design.</p>	<p>Material of bottle – Polycarbonate/Polysulphone.</p> <p>A 3-way valve will select the collection jars: Left, Right or Both – Deleted.</p>
21	<p>Alternately</p> <p>Gas Outlet (Imported)</p> <p>a) Shall have gas indexing geometry to BS 5682:1998. Terminal unit front fascia should be metal and it should be hundred percent metal. Gas specific components comprising the terminal unit second fix shall be manufactured from die cast Zinc alloy or similar hard wearing metal. Plastic Components should not be acceptable. Terminal</p>	<p>Specific standard as mentioned in technical specification shall supersede.</p>

	<p>units socket shall be permanently coated with a low friction fluoropolymer for maximum reliability and service life.</p> <p>b) The terminal unit socket die-casting shall incorporate a gas indexing pin to overcome the risk of loosening due to rough handling/mishandling. The second fix socket shall incorporate a sheer plane to safeguard the first fix and pipeline in the event of accidental damage or bed jacking. Gas specific components shall incorporate the gas identity marking permanently stamped or cast into the component surface. The first fix shall all metal construction with a brass base block and copper stub pipe. The first fix shall incorporate an integral check valve to enable servicing of the second fix and valve seals without isolation of the gas supply. Probe roller pins shall be manufactured from stainless steel. Wall mounted terminal unit s shall be Provided with white ABS mounting Box with matching fascia. The mounting box shall have smooth rounded corners to avoid the possibility of injury. A bezel shall be available to cover the plaster edge, provide a neat and easily to clean finish.</p> <p>Pl remove the line ‘hundred percent metal’ because it is not required as per HTM and all international manufacturer do not make it. Since you have asked for standards details, these paras may please be removed because it may vary from manufacturer to manufacturer.</p>	
22	<p>IN ADDITION TO THE ABOVE, FOLLOWING <u>TURNKEY WORKS</u> FOR INSTALLATION AND COMMISSIONING OF MEDICAL GAS MANIFOLD SYSTEM FOR ALL INDIA INSTITUTE OF AYURVEDA, NEWDELHI ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR:</p> <ul style="list-style-type: none"> • Additional work pertaining to Civil, Electrical, Furniture of Office, Plumbing, Overhead Water Tank, Sanitary, Servo stabilizers/U.P.S etc. and any other protections relevant as per State/Central Govt. regulation/local authority/NDMC, required for successful installation testing and commissioning of 	Tender Terms and Conditions Prevails.

	<p>the system and the offered price should include all such costs, each Schedule is to be considered a package in itself and contractor to execute the order in package on a “turnkey basis”.</p> <p>Electric distribution panel (EDP) for the above MG switchgears, wiring and controls etc complete as per specifications of L&T/ Siemens/ ABB/GE or Schneider make)</p> <p>Electrical cabling of IS: 1554 standard and wiring as per capacity to bear total electrical load required for MDB/Substation in the hospital to the Electric Distribution and from the EDP to the corresponding load points.</p> <p>Providing fixing of Electrical Gadgets like ELCB, MCB, Cool air Fans, Exhaust fan etc in the MGMS room. bulbs/tube light. Apart from these supplies to the individual MCB in the MGMS room. Installation of MCB Havell/Siemens/L&T/Schneider etc for Control Panel for</p> <p>Ventilation of Plant Room and Manifold Room of the MGMS and exhaustion of suctioned gases/air from the Vacuum unit.</p> <p>Arrangement for requisite Fire Fighting for the entire effective zones in the MGMS Room.</p> <p>In addition to the above mentioned equipment/appliances, if the contractor thinks it necessary to include any other equipment/appliances, accessories etc. for the MGMS then that may be provided after approval from Engineer in-charge. The sizes are approximate. Minor variations in sizes shall be acceptable subject to prior approval of the Engineer.</p> <p>This is not part of Medical gases manifold and distribution system and also does not fall under the expertise of MGPS contractors, therefore these paras may please be removed.</p>	
23	<p>Clause 2.2 (ii), PQ</p> <p>Experience of having successfully completed similar work during last 7 years ending last day of month previous to the one in which tenders are invited should be either of the following :</p> <p>Three similar* completed works costing not less than the amount equal to 40% of the estimated cost. or Two similar* completed works costing not less than the amount equal to 50% of the estimated cost. or</p>	Tender Terms & Conditions Prevails.

	<p>One similar* completed work costing not less than the amount equal to 80% of the estimated cost.</p> <p>One completed work of any nature (either part of 2.2,(ii) or separate one costing not less than the amount equal to 40% to the estimated cost with some Central/State Government organisation/Central Autonomous body/Central Public Sector Undertaking.</p> <p>*Similar nature of works means successful completion of Supply, Installation of Medical Gas Manifold System.</p> <p>A Certificate from client for completion of work(s) must be submitted along with application. Own works/ Certification of agencies shall not be considered for prequalification.</p> <p>It is suggested that The TDS certificate should be asked to be submitted to justify the order value against experience of similar nature of work in case of the project executed in private sector. Because without submission of TDS certificate the value of work done in private sector can not be verified.</p>	
24	<p>Vol-III, Clause No. 1(b) & 2 (b)</p> <p>The Oxygen Control Panel shall be microprocessor base and preferably Digital Display type. It should be changed to Digital/Analog</p>	<p>Specific standard as mentioned in technical specification shall supersede.</p>
25	<p>Vol.-III, Clause No. 5.0</p> <p>The Supply of pipes shall accompany with manufacturers test certificate for physical properties and chemical composition. The supply of pipes shall be further substantiated with inspection certificates from third party inspectors like LLOYDS. It is suggested that the latest version of KITE has come so certification by KITE should be mentioned.</p>	<p>Tender Terms and Conditions Prevails.</p>
26	<p>Vol-III, Clause No. 7</p> <p>Horizontal Bed Head Panels 1800 mm long. It is suggested that</p> <p>a)The Length 1800 mm is too long, all the accessories can be accommodated in 1500 length, hence should be changed 1500mm which is a standard length for Bed Head Panels. b)All the accessories should have provision not facility per unit so that the most required accessories be procured. c)In BOQ only 7 BHHP has been shown. Whereas the BHHP should be taken in all the area of the Hospital for asthetic look. d) We as per our expertise recommended Vertical Ceiling Pendants in ICU, ICCU, HDU, Pre & Post Operation &</p>	<p>Horizontal Bed Head Panels</p> <p>a)The Length of the Bed Head Panel may be read as 1500-1800mm. b)Tender Terms & Conditions Prevails. c)Tender Terms & Conditions Prevails. d)Tender Terms and Conditions Prevails.</p>

	<p>other critical areas for a better space management & aesthetic look. The supply unit will meet high standards for a safe and reliable operation in ICU.</p> <p>The supply unit will have upgrading capability of new functions for adaptation to future requirements.</p> <p>All surface will be resistant against corrosion and disinfectants.</p> <p>Colour of painted surfaces: RAL 9002</p> <p>The functional units of the supply unit will be completely assembled and tested by the manufacturer.</p> <p>We hereby submit the specifications of ICU Pendants.</p> <p>Ergonomics optimized supply unit consisting of the following functional units.</p> <p>Ceiling fixture set for installation to concrete ceiling structure. Ceiling interface for connection of supply unit with electrics and gases delivered from site.</p> <p>Media columns of 800 mm with provision for terminal units for medical gas supply/gas evacuation (5 nos.), high and low voltage power supply (10 Nos)</p> <p>Workstation components such as shelves (nos), drawers (1 Nos.) & one IV rod of 800mm for mounting Syringe pumps.</p> <p>The above shelf could be adequate enough to mount 15” screen Multipara monitor of 15 Kg. The below shelf could be adequate enough to mount ventilator. The drawer will be equivalent to shelf size. Will have central rotation facility (Swivel range) at least 3300. Complete unit including intermediate ceiling construction and installation. The previously mentioned functional units will be coordinated mechanically, functionally and ergonomically, thus presenting a complete medical supply unit. Finished floor to bottom edge of suspended will be 800mm.</p>	
27	<p>Volume –III, Clause No. 11.1,11.2 & 11.3</p> <p>i)Flow meter with Humidifier (Imported)</p> <p>ii) Ward Vacuum Unit (Imported)</p> <p>iii) Theatre Vacuum Units (Imported)</p> <p>It is suggested All these accessories are available in India with proven record of great success & long lasting.</p> <p>These are manufactured in India by many companies with CE No. -1023. Hence these should be Indigeneous to save Govt. Exchequer & the same amount may be utilized for asthetic look of the hospital by increasing the quantity of Bed Head Panels.</p>	Tender Terms and Conditions Prevails.
28	<p>The Tender specifications of few items of medical gas pipeline system like fully automatic control panel for oxygen, fully automatic control panel for nitrous oxide, vacuum system, compressed air system, AGS system, valve box etc. are only meeting NFPA-99C standards of USA and suitable for USA standard supplier companies.</p> <p>Hence we would request to please add HTM 0201,C11</p>	<p><u>As per following Tender spec clause.</u></p> <p><u>Standards</u></p> <p>The design & selection of all</p>

	<p>product specifications also for few items of medical gas pipeline system like fully automatic control panel for oxygen ,fully automatic control panel for nitrous oxide, vacuum system, compressed air system, AGSS system, valve box etc.</p>	<p>imported items should be of international standard like NFPA 99(latest version) standard and UL listed or EN737(latest version) standard and CE marked or HTM 02 01 (latest version) standard and CE marked. CE Certificate should be individual 4 digit CE number for all imported equipment. The imported products should be of one standard only. All indigenous items should be of high quality to meet the international standard and compatible to the main system. <u>This supersedes single/multiple standards mentioned at any other places in the tender specification involving item/system/capacity etc.</u></p>
29	<p>Vol-III: Technical Specification A.Standards: You have asked for EN737 (Latest Version), but this is old version & it has been replaced by DIN EN ISO 7396 -1 (Latest version), Pl. amend the same.</p>	<p>Updated version is accepted.</p>

Bidder should follow the tender terms & condition for the unanswered queries.

All other terms & conditions remain unchanged.

CGM (D&E & Projects)