HSCC/SES/MGMS/PGI/SANGRUR/2020 Date :09.03.2020

All Bidders

Amendment -II

Project : Supply, Installation, Testing & Commissioning of Medical Gas ManifoldSystem at PGI Satellite Centre for PGIMER at Village Ghabdan, Sangrur.

Tender No : HSCC/SES/MGMS/PGI/SANGRUR/2020 Date :14.02.2020
This has reference to above IFB.

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

Sr. No.	Bidders' Queries	Reply
1.	Vol 4 - Technical Specifications, Page 2, Para 1a The oxygen manifold shall be of size 16+16 bulk cylinders. In Technical Specification the manifold size is mentioned 16+16, where as in the BOQ Item 1a it is mentioned as 20+20. Both are contradictory. Please confirm the right size.	The oxygen manifold shall be of size 16+16 bulk cylinders.
2.	Vol 4 - Technical Specifications, Page 3, Para 1 b Fully Automatic Oxygen Control Panel (Imported) This is a limiting clause and is tilted towards NFPA Standard. It is not possible to meet word by word requirement in toto of Technical Specs, as this is make specific. We request you to permit us to offer as per should fully meet and complies with ISO 7396-1 standards and as per manufacturers own design.	The word "Imported" deleted. NFPA-99c/HTM-02-01/ ISO-7396-1/DIN/EN(Latest version) supersedes single/multiple standards mentioned at any other places in the tender specification involving item/system/capacity etc
3.	Vol 4 - Technical Specifications, Page 8, Para e Interconnection to LMO We request you to provide drawings of the site to identify the location of proposed LMO system and the location of Manifold Room, to enable ascertain the distance and routing to be estimated.	Tender terms & conditions prevail.
4.	Vol 4 - Technical Specifications, Page 9, Para 2 b Fully Automatic Nitrous Oxide Panel (Imported)	The word "Imported" deleted. NFPA-99c/HTM-02-01/ ISO-7396-1/DIN/EN(Latest

	This is a limiting clause and is tilited towards NFPA Standard. It is not possible to meet word by word requirement in toto of Technical Specs, as this is make specific. We request you to permit us to offer as per should fully meet and complies with ISO 7396-1 standards and as per manufacturers own design.	version) supersedes single/multiple standards mentioned at any other places in the tender specification involving item/system/capacity etc
5.	Vol 4 - Technical Specifications, Page 10, Para 3.0 Vacuum system shall be having system capacity of 220 cfm (±5)/6228 LPM at 19" Hg to be delivered to the hospital with necessary standby arrangement as per the requirement of the relevant International Standard. Vacuum system should conform to NFPA-99c/HTM-02-01/ISO-7396-1/DIN/EN. We request to amend the tolerance as (±10%) of plant capacity. Our Vacuum system generates 6666 lpm. To avoid ambiguity, we requset you to confirm the standby & Reserve plant capacity which is required. Note: Standby capacity for NFPA & HTM/ISO Standards are totally different. In that case, how will the comparsion and technical evaluation be made then?	Tolerance shall be ±10% of plant capacity. Vacuum system should conform to NFPA-99c/HTM-02-01/ISO-7396-1/DIN/EN.
6.	Vol 4 - Technical Specifications, Page 10, Para 3.0 The system shall be consisting of lubricated rotary vane vacuum pumps with Control Panel equipment and one tank. We request to amend the number of tanks to 1/2/3 to facilitate ease of shipment. It is to be noted that as per HTM & ISO the tank capacity required shall be equal to plant capacity, which is approx 6000 Ltrs. We further request you to clarify on the size of tank required for bidders who wish to offer as per NFPA, as this is not clearly mentioned / recommended in the standard.. Our concern is that comparsion and evalaution has to be done apple to apple while seeking for products from different standards.	NFPA-99c/HTM-02-01/ ISO-7396-1/DIN/EN(Latest version) supersedes single/multiple standards mentioned at any other places in the tender specification involving item/system/capacity etc
7.	Vol 4 - Technical Specifications, Page 11, Para 4.0 The Compressed air system shall be to provide minimum system capacity 150(±5) Scfm/4250 LPM at 8.5bar to be delivered to the hospital with necessary standby	Tolerance shall be ±10% of plant capacity. Compressed air system should conform to NFPA-99c/HTM-02-01/ISO-7396-1/DIN/EN.

	arrangement as per the requirement of the relevant standard with We request to amend the tolerance as (±10%) of plant capacity. To avoid ambiguity, we request you to confirm the standby & Reserve plant capacity which is required.	
8.	Vol 4 - Technical Specifications, Page 14, Para 6.0 Alarm System (Imported) This is a limiting clause and as tilited towards NFPA Standard. It is not possible to meet word by word requirement in toto of Technical Specs, as this is make specific. We request you to permit us to offer as per should fully meet and complies with ISO 7396-1 standards and as per manufacturers own design.	The word "Imported" deleted. NFPA-99c/HTM-02-01/ ISO-7396-1/DIN/EN(Latest version) supersedes single/multiple standards mentioned at any other places in the tender specification involving item/system/capacity etc
9.	Vol 4 - Technical Specifications, Page 17, Para All Down drops shall be installed at one end preferably & Vertical drop installed at one end should be covered with Aluminium boxing with matching color. As per BOQ file, the BHP's are individual units totalling 57 Nos. Please clarify if the droplines are required to be covered for all individual BHP's. If yes, please specify the length qty of matching aluminium covering required, to have parity with all bidders.	Aluminium boxing to cover vertical drop is deleted.
10.	Vol 4 - Technical Specifications, Page 17, Para Entire pipe line shall run in continuous horizontal panels with no break for each unit & length as per area where it has to be installed As per BOQ file, the BHP's are individual units totalling 57 Nos. The Technical Specs and BOQ are contradictory. Please clarify	Deleted "Entire pipe line shall run in continuous horizontal panels with no break for each unit & length as per area where it has to be installed."
11.	Vol 4 - Technical Specifications, Page 17, Para Following accessories should be provided locally with HBHP; i) 5/15 Amp Modular Electrical Sockets with switches = 6 sets ii) IV Pole = 2nos iii) Vacuum slide = 1no.	Following accessories should be provided locally with HBHP; i) 5/15 Amp Modular Electrical Sockets with switches = 6 sets ii) IV Pole = 2nos iii) Vacuum slide = 1no.

	iv) Sliding blocks = 2nos. v) Nurse call system module = 1No. vi)) Infusion Pump Mounts = 1 No vii) Monitor Tray with Slider = 1 No. viii) Utility Basket = 1 No. We have observed in other tenders that the accessories are often arranged and provided from local market. Please confirm if this is acceptable, or is it explicitly required to be completely imported. Please provide detailed technical specs of all the required accessories. It is recommended that instead of supplying Nurse Call module, a cut out provision to be arranged by bidder, thereby allowing the customer to install a Nurse call unit as per their choice.	iv) Sliding blocks = 2nos. v) Nurse call system module = 1No. vi)) Infusion Pump Mounts = 1 No vii) Monitor Tray with Slider = 1 No. viii) Utility Basket = 1 No.
12.	Vol 4 - Technical Specifications, Page 17, Para 8.0 Valve Boxes Please confirm if this is Imported or Indigenous make. As per BOQ file, it is mentioned as imported. Please confirm the Valve Size and gas configuration required for each type of Valve Box.	NFPA-99c/HTM-02-01/ ISO-7396-1/DIN/EN(Latest version) supersedes single/multiple standards mentioned at any other places in the tender specification involving item/system/capacity etc
13.	Vol 4 - Technical Specifications, Page 17, Para 8.0 The window shall be marked with the following :- "CAUTION: MEDICAL GAS CONTROL VALVE CLOSE ONLY IN EMERGENCY" This is a limiting clause and as tilited towards NFPA Standard. It is not possible to meet word by word requirement in toto of Technical Specs, as this is make specific. We request you to permit us to offer as per should fully meet and complies with ISO 7396-1 standards and as per manufacturers own design.	NFPA-99c/HTM-02-01/ ISO-7396-1/DIN/EN(Latest version) supersedes single/multiple standards mentioned at any other places in the tender specification involving item/system/capacity etc
14.	Vol 4 - Technical Specifications, Page 18, Para 9.0 Anaesthesia Gas Scavenging System (Imported) Please specify the Primary and Standby capacity of AGSS Plant.	1000 LPM working + 1000 LPM as standby
15.	Vol 4 - Technical Specifications, Page 20, Para 11.2 Ward vacuum Units:	Collection bottle 1no of 500 ml to 2000 mlpolysulfone /polycarbonate collection jarwith mounting

	Collection bottle 500 and 2000ml with mounting arrangement. The standard size available is 600ml or 2000 ml. Please clarify which is the exact type required.	arrangement.
16.	Vol 4 - Technical Specifications, Page 21, Last Para Gas Outlets: Terminal units socket shall be permanently coated with a low friction fluoropolymer for maximum reliability and service life. This is a limiting clause and is make specific. We request you to permit us to offer as per should fully meet and complies with ISO 7396-1 standards and as per manufacturers own design.	Gas Outlet should conform toNFPA 99/HTM02-01/ISO 7396-1/EN/DIN
17.	Vol 4 - Technical Specifications, Page 22, Para 13b Fully Automatic Carbon di Oxide Control Panel (Imported) This is a limiting clause and is tilited towards NFPA Standard. It is not possible to meet word by word requirement in toto of Technical Specs, as this is make specific. We request you to permit us to offer as per should fully meet and complies with ISO 7396-1 standards and as per manufacturers own design.	The word "Imported" deleted. NFPA-99c/HTM-02-01/ ISO-7396-1/DIN/EN(Latest version) supersedes single/multiple standards mentioned at any other places in the tender specification involving item/system/capacity etc
18.	Vol 4 - Technical Specifications, Page 23, Para 14 Low Pressure flexible Silicon tubing Please provide Technical Specification for this.	Tender terms & conditions prevail.
19.	Vol 4 - Technical Specifications, Page 24, Para 15 Line Isolation Valves The Lockable line valves must European CE mark/UL listed and complies with HTM 02-01/ NFPA99 C/EN/DIN/ISO 7396-1 standard. Please confirm if this is Imported or Indigenous make. Can we offer indigenous make?	The Lockable line valves must be BIS/European CE mark/UL listed and complies with HTM 02-01/ NFPA99 C/EN/DIN/ISO 7396-1 standard.
20.	Vol 4 - Technical Specifications, Page 24, Para 16 Bidder must take into consideration in its bid, costs to be incurred for any additional work pertaining to Civil, Electrical, Mechanical and any other	Civil works required for LMO Plant to be done by the Civil contractor.

	protections Please clarify if the Civil works required for LMO Plant will be done by the customer or needs to be arranged by bidder.	
21.	Vol 4 - Technical Specifications, Page 24, Para 16 Installation of all electrical cabling must be of IS: 1554 We presume the Electrical Cabling termination to the Bed Head Units supplied by bidder will be done by customer. Please confirm	Electrical Cabling termination to the Bed Head Units to be supplied by the Civil Contractor.
22.	Vol 4 - Technical Specifications, Page 24, Para 16 Ventilation of Plant Room and Manifold Room of the MGMS and exhaustion of suctioned gases/air from the Vacuum unit exhaust blowers. Please confirm if Plant & Manifold Room are already available at site, or does this have to be constructed by bidder. We request you to provide complete drawings of the project site with locations clearly earmarked.	Plant & Manifold Room shall be available at site. Drawings shall be available with Notification of Award.
23.	Vol 4 - Technical Specifications, Page 24, Para 16 Arrangement for requisite Fire Extinguishing for the entire effective zones in the Manifold and Plant Room Please specify the quantities and specifications of the fire extinguishers required.	9 Kg ABC dry powder fire extinguisher-6 Nos
24.	Vol 4 - Technical Specifications, Page 24, APPROVED MAKES FOR MEDICAL GAS MANIFOLD SYSTEM : Automatic Oxygen Control Panel We request you to include the make of M/s Delta P SRL- Italy & M/s Senamed - Turkey in the list of Approved makes. Please refer attached Credentials of the makes.	All makes if mentioned in the tendered specification are deleted.
25.	Vol 4 - Technical Specifications, Page 24, APPROVED MAKES FOR MEDICAL GAS MANIFOLD SYSTEM : Automatic Nitrous Oxide Control Panel We request you to include the make of M/s Delta P SRL- Italy & M/s Senamed - Turkey in the list of	All makes if mentioned in the tendered specification are deleted.

	Approved makes. Please refer attached Credentials of the makes.	
26.	Vol 4 - Technical Specifications, Page 25, APPROVED MAKES FOR MEDICAL GAS MANIFOLD SYSTEM : Automatic Carbon Di Oxide Control Panel We request you to include the make of M/s Delta P SRL- Italy & M/s Senamed - Turkey in the list of Approved makes. Please refer attached Credentials of the makes.	All makes if mentioned in the tendered specification are deleted.
27.	Vol 4 - Technical Specifications, Page 25, APPROVED MAKES FOR MEDICAL GAS MANIFOLD SYSTEM : Air Compressor We request you to include the make of M/s Ultra Controlo - Portugal && M/s Delta P SRL - Italy in the list of Approved makes. Please refer attached Credentials of the makes.	All makes if mentioned in the tendered specification are deleted.
28.	Vol 4 - Technical Specifications, Page 25, APPROVED MAKES FOR MEDICAL GAS MANIFOLD SYSTEM : Vacuum Unit We request you to include the make of M/s Ultra Controlo - Portugal && M/s Delta P SRL - Italy in the list of Approved makes. Please refer attached Credentials of the makes.	All makes if mentioned in the tendered specification are deleted.
29.	Vol 4 - Technical Specifications, Page 25, APPROVED MAKES FOR MEDICAL GAS MANIFOLD SYSTEM : AGSS We request you to include the make of M/s Ultra Controlo - Portugal && M/s Delta P SRL - Italy in the list of Approved makes. Please refer attached Credentials of the makes.	All makes if mentioned in the tendered specification are deleted.
30.	Vol 4 - Technical Specifications, Page 25, APPROVED MAKES FOR MEDICAL GAS MANIFOLD SYSTEM : Copper Pipe We request you to also include the make of M/s Metal Alloy Corporation - India, in the list of	All makes if mentioned in the tendered specification are deleted.

	Approved makes. Please refer attached Credentials of the makes.	
31.	Vol 4 - Technical Specifications, Page 25, APPROVED MAKES FOR MEDICAL GAS MANIFOLD SYSTEM : Valve Box We request you to include the make of M/s Delta P SRL- Italy & M/s Senamed - Turkey in the list of Approved makes. Please refer attached Credentials of the makes.	All makes if mentioned in the tendered specification are deleted.
32.	Vol 4 - Technical Specifications, Page 25, APPROVED MAKES FOR MEDICAL GAS MANIFOLD SYSTEM : Alarm We request you to include the make of M/s Delta P SRL- Italy & M/s Senamed - Turkey in the list of Approved makes. Please refer attached Credentials of the makes.	All makes if mentioned in the tendered specification are deleted.
33.	Vol 4 - Technical Specifications, Page 25, APPROVED MAKES FOR MEDICAL GAS MANIFOLD SYSTEM : Isolation Valves We request you to include the make of M/s Delta P SRL- Italy & M/s Senamed - Turkey in the list of Approved makes. Please refer attached Credentials of the makes.	All makes if mentioned in the tendered specification are deleted.
34.	Vol 4 - Technical Specifications, Page 25, APPROVED MAKES FOR MEDICAL GAS MANIFOLD SYSTEM : Bed Head Panel We request you to include the make of M/s Senamed - Turkey & M/s Berman- Italy & in the list of Approved makes. Please refer attached Credentials of the makes	All makes if mentioned in the tendered specification are deleted.
35.	Vol 4 - Technical Specifications, Page 25, APPROVED MAKES FOR MEDICAL GAS MANIFOLD SYSTEM : Gas Outlets We request you to include the make of M/s Delta P SRL- Italy & M/s Senamed - Turkey in the list of	All makes if mentioned in the tendered specification are deleted.

	Approved makes. Please refer attached Credentials of the makes.	
36.	Vol 4 - Technical Specifications, Page 25, APPROVED MAKES FOR MEDICAL GAS MANIFOLD SYSTEM : Oxygen Flowmeter We request you to include the make of M/s Delta P SRL- Italy & M/s Senamed - Turkey in the list of Approved makes. Please refer attached Credentials of the makes.	All makes if mentioned in the tendered specification are deleted.
37.	Vol 4 - Technical Specifications, Page 25, APPROVED MAKES FOR MEDICAL GAS MANIFOLD SYSTEM : Electrical Control Panel Please confirm if the entire panel incl components has to be manufactured by these vendors, or is it Ok if the Electrical Panel Components are provided of these makes and the Panel structure manufactured by other certified panel manufacturers.	All makes if mentioned in the tendered specification are deleted.
38.	Vol 4 - Technical Specifications, Page 25, Bidder should quote Cost of CMC which shall be considered for ranking purpose in tender evaluation. Please confirm if the Purchase Order when placed shall be inclusive of CMC.	Purchase order shall not include cost of CMC since Order for CMC shall be placed by the End User after completion of DLP/Warranty.
39.	Vol 4 - Technical Specifications, Page 25, The contractor should provide Operation during Defect Liability Period. Please clarify the meaning of Operation. Will the bidder have to provide manpower at site? If Yes, how many in ecah shift etc? The BOQ file doesnot have relevant areas to provide the Operation Cost. Please amend the BOQ file, if this scope of work is required to be provided.	Operation during Defect Liability Period by the contractor is deleted.
40.	Vol 4 - Technical Specifications, Page 26, Third party Validation (Optional) should be quoted by the contractor. Third party validation works should be done by the authenticated/eligible party. The offered cost will be considered for ranking	Third party Validation (Optional) should be quoted by the contractor. The offered cost will be considered for ranking purpose.

	purpose. Please confirm if the Purchase Order when placed shall be inclusive of work for Third Party Validation.	
41.	Vol 1- Page 3 Last date of Bid Submission – 07.02.2019 We request you to kindly extend the date of bid submission by atleast 3 weeks from date of release of Pre Bid Query replies.	Last date of bid submission is extended to 13.03.2020.
42.	Vol 1- Page 3 Period of work completion – 5 Months Considering the quantum of work and imported equipment to be arranged, We request you to kindly amend the work completion time to minimum 8 Months	Tender terms & conditions prevail.
43.	Vol-III, Special Conditions of Contract , Page No. SCC- , Clause 39.2.4, Page 25 Water Supply & Power Supply The Contractor shall make his own arrangement for water supply at Site for drinking as well as construction purposes from the source provided by the client. Thecontractor will provide water & electricity to the Consultant's office free of cost for the required quantity by the Consultant's site office. We request the Owner to provide construction water and electric power on chargeable basis.	Tender terms & conditions prevail.
44.	Vol-II, General Conditions of Contract, Clause 47.1 & Annexure-B (Appendix To Tender), Page 38 & 71 Liquidated Damages for Delay: Amount of Liquidated damages : 1% (one percent) of contract price per calender week of delay Limit of liquidated damages : 10% (Ten percent) of contract price Please consider the aggregate maximum of liquidated damages payable under clause No. 47.1 shall not exceed 0.05% of contract value per week of delay and shall be subjected to maximum amount of 5% on overall contract price.	Tender terms & conditions prevail.
45.	Vol-III, Additional Specific Conditions of	1) 70% of the BOQ contract

	Contract, Page No. SCC-, Clause 21.0 Terms of Payment: For purposes of estimating the contract value of works executed for certificate of payment, the following norms shall be followed: 1) 65% of the BOQ contract rates on delivery of equipments at site after inspection and passing on pro-data basis 2) 25% of BOQ contract rates on satisfactory take over certificate by client after erection and installaltion, testing and commissioning of equipments on pro-data basis 3) 10% of BOQ contract rates after successful completion of trial run of 30 days from the date of handover to client on pro-data basis. We would request to consider following payment terms: 1) 70% of the BOQ contract rates on delivery of equipments at site after inspection and passing on pro-data basis 2) 20% of BOQ contract rates on satisfactory take over certificate by client after erection and installaltion, testing and commissioning of equipments on pro-data basis 3) 10% of BOQ contract rates after successful completion of trial run of 30 days from the date of handover to teh client on pro-data basis. Moreover after mechanical completion if the commisioning of the MGMS system is got delayed for more than 3 months due to reasosns not attributable to Contractor then payment linked to this activities shall be released against submission of B.G. of equivalent amount.	rates on delivery of equipment at site after inspection and passing on pro-data basis 2) 20% of BOQ contract rates on satisfactory take over certificate by client after erection and installation, testing and commissioning of MGPS at site. 3) 10% of BOQ contract rates after successful completion of trial run of 30 days from the date of take-over by client.
46.	General Point DLP Period Start Date After completion of installation works, if the commisioning of the MGMS system is delayed for more than 3 months due to reasosns not attributable to Contractor, then DLP period start date would be considered from that date. Please confirm.	Tender terms & conditions prevail.
47.	General Point BOCW (Building & Other Construction Workers Act)	Tender terms & conditions prevail.

	Please confirm if BOCW cess will be applicable to this job.	
48.	General Point Customs Duty Please confirm customs duty is under customer or bidders scope. Also confirm the applicable rate of customs duty for the job.	Tender terms & conditions prevail.
49.	Volume-I, Page no. 3, Period of Completion: 5 Months We request the period of completion should be 6 months after approval of drawings. You would appreciate that quantum of this Project is large and arranging quantity of material takes time and resources. This is not mere supply of equipments items like Medical Air, Medical Vacuum, AGSS/WAGD, Control Panel O2, N2O, CO2, Outlets etc are imported items for which procurement only starts after approval of final drawing which is a time consuming process. We hereby request to kindly increase the completion schedule to 5 months.	Tender terms & conditions prevail.
50.	Volume-I, Pre-Qualification Criteria; Page no. 5 & 6, Clause no. 2.2 (ii) 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 : 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 One similar* completed work costing not less than the amount equal to 80% of the estimated cost. *Similar nature of works means successful completion of supply, Installation, testing and commissioning of Medical Gas Manifold System in India.	Tender terms & conditions prevail.

	We request the clause of the tender should be further clarified as following : "In case, the qualifying experience certificate is from Private sector/ Charitable Hospital, the vendor should submit the TDS certificate as a proof of having executed the said work." We are enclosing herewith the snippets for your kind reference & duly marked at Page no. 1 to 5 from Government Agencies NBCC (India) Ltd. and Project Implementation Unit, Gujarat about the TDS Certificate, which is clearly defined. Please refer to M/s HSCC Shimla Tender clarification papers taking the cognigenze of this and had issued Amendment. The TDS certificate should be of same value as supporting document which will prove the authenticity of Private work completed. There should not be any room that any bidder plays with the private works, therefore the TDS Certificate should be made mandatory for the justification of the order value against the experience of similar nature of work. Kindly refer to HSCC AIIMS Rajkot Tender Page 3 Sr. 3, Minimum Eligibility Criteria "iii) The past experience in similar nature of work should be supported by certificates issued by the client's organisation. In case the work experience is of Private sector the completion certificate shall be supported with copies of Letter of Award and copies of Corresponding TDS Certificates. Value of work will be considered equivalent to the amount of TDS Certificates." We therefore request to kindly clarify regarding private works.	
51.	Common Performance of the Company We request, to kindly ensure that the bidder who has executed the similar nature of work in Government Hospital through Government Agencies such as M/s HSCC (India) Ltd., M/s HLL Lifecare Ltd, UPRNN, NBCC etc., the	Tender terms & conditions prevail.

	performance of the company should be satisfactory.	
52.	Volume-III, SCC, Page no. 12, 12.4 Bid Security, Document Fee and EMD are exempted for NSIC registered Firm. As you are aware, to promote Micro Small & Medium Enterprise, Government of India had given the facility of NSIC Certification to the manufacturing firm. This may please be noted that this clause is only applicable for manufacturing of goods in India and not for procurement of Imported goods. If we go through the tender Specifications, there are imported items like Medical Air, Medical Vacuum, AGSS/WAGD, Control Panel O2, N2O, CO2, Outlets etc. We request this clause should be suitably amended so that NO Bidder could take undue advantage of NSIC Certification and all the bidders should be treated on single platform. This has been done in earlier HSCC Sangrur, Shimla &Raebareli Tenders.	This clause is only applicable for manufacturing of goods in India and not in the case of procurement of Imported goods
53.	Volume-III, Page no. 38 & 39 SCC Clause no. 21.0 Terms of Payment For purposes of estimating the contract value of works executed for certificate of payment, the following norms shall be followed: 1) 70% of the BOQ contract rates on delivery of equipments at site after inspection and passing on pro-data basis. 2) 20% of BOQ contract rates on satisfactory take over certificate by client after erection and installation, testing and commissioning of equipments. 3) 10 % of BOQ contract rates after successful completion of trial run of 30 days from the date of handover to the client. We request, the payment terms should be amended as: 1) 75% of the BOQ contract rates on delivery of equipments at site after inspection and passing on	1) 70% of the BOQ contract rates on delivery of equipment at site after inspection and passing on pro-data basis 2) 20% of BOQ contract rates on satisfactory take over certificate by client after erection and installation, testing and commissioning of MGPS at site. 3) 10% of BOQ contract rates after successful completion of trial run of 30 days from the date of take-over by client.

	pro-data basis. 2) 20% of BOQ contract rates on satisfactory take over certificate by M/s HSCC after Installation. 3) 5% of BOQ contract rates after successful completion of trial run of 30 days from the date of handover to the client on pro-data basis. Please appreciate, as soon as the work order is received , the contractor has to initiate necessary actions for successful execution of the work order. Among the very important, Contractor need to place order to the respective suppliers along with 100% payment because supplier will not wait till the completion of the project. Here it is worthwhile to say that contractor do not get 75% payment as 5% amount gets hold for Security from Running Bill; 1% towards Labour Cess; 10% towards Performance Bank Guarantee, 12% towards GST & in case of delay in supply liquidated damages. After going through all this in the netshell a contractor gets approximately 50% amount at the initial stage. It is just a eye wash that 70% payment will be released on pro-rata basis. Initial payment is the lifeline to the contractors, which gives relief up to some extent. With regard to 20% payment, please be noted that commissioning and handing over has no difference. After commissioning by our experience, most of the sites are not ready for handover such as civil work is not complete, hospital staff is not available etc etc. Without any fault of contractor, he need to wait for the payment till the handing over takes place. Therefore this payment should be at the time of erection, installation. You will appreciate GST tax regime has been implemented since 1st July 2017 by Govt. of India. With the implementation of this system vis-a-vis in current payment structure, most of the projects gets delayed or handing over not taken by the Hospital/Institute/Department; because of this the balance payment gets stuck for longer duration. This way the liquidity get blocked and input credit is lost.	
54.	Volume-II, Page 18, GCC Clause 21.0 Insurance of Works and Contractor's Equipment & elsewhere in the tender	Tender terms & conditions prevail.

	The Contractor shall, without limiting his or the Employer's obligations and responsibilities under Clause 20.1 to 20.4, insure: We request, the insurance of works and contractor's equipment should be upto Final Acceptance Certificate (FAC) only. Please appreciate once all the BOQ Items are received, installed, commissioned & tested before you/end user, the insurance should end here. After FAC, the Defect Liability Period/warranty period starts which is guaranteed by bidder for its performance and against any manufacturing defect. During DLP/ warranty period the bidder shall rectify/replace the equipment without any cost for smooth functioning. In other words, Erection All Risks (EAR) Insurance can be provided upto FAC. So, we request the insurance should be upto Final Acceptance Certificate only and not beyond it.	
55.	Common Performance of the Company We request, to kindly ensure that the bidder who has executed the similar nature of work who has worked in Government Hospital through Government Agencies such as M/s HSCC (India) Ltd., M/s HLL Lifecare Ltd, UPRNN, NBCC etc., the performance of the company should be satisfactory.	Tender terms & conditions prevail.
56.	Common Imported We understand, Imported means the place from where the goods are mined, cultivated, grown, manufactured, produced or processed and Outside India. Accordingly the certification of the product applies i.e. if it is UL Listed certification same shall be applicable to American Manufacturer only and European CE Certification same shall be applicable to European Manufacturer only. We reqeust this criteria should be strictly applied and maintained. It is further requested that the European CE	Word “Imported” wherever mentioned in the tendered specification is deleted. Quality Certification shall be BIS/European CE/US FDA/UL

	Certified/UL listed Criteria for NFPA-99 STANDARD SHOULD BE "CERTIFICATION, WHEREVER APPLICABLE FOR ALL THE ITEMS of MEDICAL GAS".	
57.	Page no. 2 Standard Guidelines The imported products should be of one standard. As mentioned the products should of one standard only; kindly note rest of the medical gas items are Engineering Products. Items such as Ward Vaccum Unit, Theatre Vaccum Unit, Flow meter with Humidifier bottle are Accessories and are not part of Medical Gas Pipeline System. The Standard applies from Pipe Distribution to Gas Outlets Worldwide and all the Companies works on this methodology.	As mentioned the one standard like NFPA-99c/HTM-02-01/ ISO-7396-1/DIN/EN(Latest version) shall not be applicable for accessories.
58.	Page no. 11 3. VACUUM SYSTEMS (Package unit – imported) "Bacteria filtration system shall incorporate high efficiency filter elements" Bacteria Filters does not come in NFPA-99 Standard. The Bacteria Filter is in built in the vacuum system. Bacteria Filters comes in HTM Standard. We therefore request to kindly take a note of it and issue necessary amendment.	NFPA-99c/HTM-02-01/ ISO-7396-1/DIN/EN(Latest version) supersedes single/multiple standards mentioned at any other places in the tender specification involving item/system/capacity etc
59.	Page no. 13 & 14 5. DISTRIBUTION PIPING We request the Medical Grade Copper Pipe should be Kite Mark. Here, Lloyd is 3rd party Inspection Agency whereas Kite Mark product and service quality certification mark which is owned and operated by the British Standards (BSI Group). It is a voluntary mark of manufacturers and service industries use to demonstrate safety and reliability. The product has been proven to meet the agreed high standard. We therefore request Copper Pipe should be kite marked.	Tender terms & conditions prevail.
60.	Page no. 14- 17 6. Alarm System (Touch/Digital Type) We request the Alarm System should be Touch Type Alarm Technology instead of Touch/Digital	Tender terms & conditions prevail.

	Type. Please refer to the Tender no. HITES/PCD/AIIMS-IV/14/MGPS/18-19 dated 14.02.2019 for New AIIMS Gorakhpur and Bhatinda under PMSSY Phase-IV & V and Tender no. HITES/PCD/ PMSSY-IV/02/MGPS/18-19 dated 14.02.2019 for 7 Medical Colleges /Institutions getting upgraded under PMSSY Phase-IV; where in it is clearly defined DIGITAL. Kindly also refer AIIMS Guntur, Nagpur, Kalyani. We request Touch Type Alarm Technology should be adopted which is the latest one.	
61.	Page no. 17 17. Horizontal/ Vertical Bed Head Panel Kindly clarify the no. of Horizontal and no. of Vertical Bed Head Panel required as there is costing involved in it.	Vertical Bed Head Panel is deleted.
62.	Page no. 20 11.1 Oxygen Flow meter with Humidifier Bottle The Oxygen Flow Meter with Humidifier Bottle is BIS/European CE with 4 digit notified no. /USFDA Certified. We request please do not change any certification.	Tender terms & conditions prevail.
63.	Tech. Spec.-Page 20-21 11.2 Ward Vacuum Units The vacuum regulator will be step-less adjustable and have large vacuum gauge providing digital/analogue indication of the suction supplied by the regulator. We request the ward vacuum unit regulators should be digital instead of digital/analogue. The digital regulators are more accurate and precise in comparison to analogue system. Digital regulators are being used now a days for accurate results.	Ward Vacuum unit shall be equipped with Digital regulator.
64.	Tech. Spec.-Page 21 11.3 Theatre Vacuum Units The vacuum regulator will be step-less adjustable and have large vacuum gauge providing Digital/Analogue indication of the suction supplied by the regulator. We request the theatre vacuum unit regulators should be digital as mentioned. We request please	Theatre vacuum unit shall be equipped with Digital regulator.

	do not change it to digital/analogue.	
65.	Page No.19- SCC **Performance Security** – The successful bidder shall furnish to the consultant a security in the form of a bank Guarantee from Nationalized / Scheduled bank for an amount of 10 percent of the contract sum. To be amended as **Performance Security** – The successful bidder shall furnish to the consultant a security in the form of a bank Guarantee from Nationalized / Scheduled bank for an amount of 5 percent of the contract sum. You are requested you to kindly reduce the performance Security from 10% to 5%, since you are going to deduct retention money @ 10% from Contractor RA Bills as mentioned in clause 60.5 of Volume-II, GCC of Tender documents.	The successful bidder shall furnish performance security in the form of a bank Guarantee from Nationalized / Scheduled bank for an amount of 5%(Five percent) of the contract sum.
66.	**Page No.2, item -1a** **Oxygen Manifold -** The cylinder should be placed with the help of cylinder brackets and fixing chains which should be zinc plated. To be deleted NFPA standard does not mandate to place the cylinders with the help of cylinder brackets and fixing chains due to its style of configuration offered. Hence, we recommend deleting the same.	Should be as per standard.
67.	**Page No.9, item -2a** **Nitrous Oxide Manifold -** The cylinder should be placed with the help of cylinder brackets and fixing chains which should be zinc plated. To be deleted NFPA standard does not mandate to place the cylinders with the help of cylinder brackets and fixing chains due to its style of configuration offered. Hence, we recommend deleting the same.	Should be as per standard.
68.	**Page-11, Item No.3** **Vacuum (Suction) System**	Should be as per standard.

	It should be BIS / UL Listed / European CE marked with 4 digit notified body number. To be amended as It should be BIS / European CE marked with 4 digit notified body number. In case of NFPA Standard, Control Panel of Vacuum System should be UL Listed and undertaking for the same shall be submitted from Manufacturer) Please note, in NFPA Standard, Control Panels of Plant is only UL Listed and not the complete package unit. You are therefore requested to kindly amend and mention the same.	
69.	**Page-11, Item No.3** **Vacuum (Suction) System** Vacuum (Suction) System should be factory fitted, factory tested, packed, prewired and pre piped. To be amended as Vacuum (Suction) System should be factory fitted, factory tested, packed. Please note that wiring and piping is done at site, hence we request you to kindly delete the words "prewired and pre piped" from the specifications.	Vacuum (Suction) System should be factory fitted, factory tested, packed.
70.	**Page-11, Item No.3** **Vacuum (Suction) System** 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. To be amended as The system shall include the following accessories for each pump: inlet isolation valve, vacuum control switch, thermal malfunction switch and vacuum control switch. Provide flexible connectors	Should be as per standard.

	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. Please note that in NFPA Standard, inlet check valves are not recommended, since it causes backpressure, hence we request you to kindly delete the same. Please note that in NFPA Standard, Oil Temperature Guage is not recommended / required, hence it should be deleted from tender technical specifications.	
71.	**Page-11, Item No.3** **Vacuum (Suction) System** Vacuum system shall be having system capacity of 220cfm (±10%)/6228 LPM at 19" Hg to be delivered to the hospital with necessary standby arrangement as per the requirement of the relevant International Standard. To be amended as Vacuum System shall be having system capacity of 5000-5500 LPM working with 5000-5500 LPM as standby. Total Plant Capacity should be minimum 10,000 LPM with a vacuum tank of minimum 4000 litres or above. The Plant capacities mentioned are fixed type. Further standby arrangement are not clearly mentioned. You are requested to kindly amend and mention the same to minimum 5000-5500 LPM working with 5000-5500 LPMas standby or Total Plant Capacity should be minimum 10,000 LPM	Tolerance shall be ±10% of plant capacity. Tender terms and conditions prevails for the system capacity of the Vacuum plant.
72.	**Item No.4, Page-12** **Air Compressors** The Compressed air system shall be to provide minimum system capacity 150(±10%)Scfm/4250 LPM at 8.5 - 10 bar to be delivered to the hospital with necessary standby arrangement as per the requirement of the relevant standard To be amended as	Tolerance shall be ±10% of plant capacity. Tender terms and conditions prevails for the system capacity of the Compressed air plant.

	Air Compressor shall be having system capacity of minimum 4000 LPM working with 1000 LPMas standby or Total Plant Capacity should be minimum 5,000 LPM with a Air Receiver tank of minimum 1500 litres or above. The Plant capacities mentioned are fixed type. Further standby arrangement are not clearly mentioned. You are requested to kindly amend and mention the same to minimum 4000 LPM working with 1000 LPMas standby or Total Plant Capacity should be minimum 5,000 LPM	
73.	**Item No.4, Page-12** **Air Compressors** It should be BIS / UL Listed / European CE marked with 4 digit notified body number. To be amended as It should be BIS / European CE marked with 4 digit notified body number. In case of NFPA Standard, Control Panel of Air System should be UL Listed and undertaking for the same shall be submitted from Manufacturer) Please note, in NFPA Standard, Control Panels of Plant is only UL Listed and not the complete package unit. You are therefore requested to kindly amend and mention the same.	Should be as per standard.
74.	**Item No.4, Page-12** **Air Compressors** Air Compressor System should be factory fitted, factory tested, packed, prewired and pre piped. To be amended as Air Compressor System should be factory fitted, factory tested, packed. Please note that wiring and piping is done at site, hence we request you to kindly delete the words “prewired and pre piped” from the specifications.	Air Compressor System should be factory fitted, factory tested, packed.
75.	**Page.12, Item No.4**	Should be as per standard.

	Dual air dryers, dual 0.5 micron or as per standard pre-filters, dual 0.5 micron or as per standard 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. To be amended as Dual air dryers, Pre-filters are 0.01 micron and After Filters are 1 micron, 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. In NFPA Standard, the Pre-filters are 0.01 micron and After Filters are 1 micron. You are requested to kindly correct the same.	
76.	**Page.12, Item No.4** 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. To be amended as The first stage shall be a prime efficiency come together with particles removal down to 0.01 micron. This filter removes aerosols and solid particles. In NFPA Standard, the Pre-filters are 0.01 micron instead of 0.5. You are requested to kindly correct the same.	Should be as per standard mentioned in technical specification.
77.	**Page.12, Item No.4** The third stage shall be a prime efficiency particulate after filter with particle removal down to 0.5 micron. The after filter element shall be provided high particles retention, low pressure drop and long element life. To be amended as The third stage shall be a prime efficiency particulate after filter with particle removal down to 1 micron. The after filter element shall be	Should be as per standard mentioned in technical specification.

	provided high particles retention, low pressure drop and long element life. In NFPA Standard, the After Filters are 1 micron instead of 0.5 micron. You are requested to kindly correct the same.	
78.	**Item Sr. No.6, Page No.14** **Alarm System (Touch / Digital)** Each specific service shall be provided with an LED digital read out comprising of 0-250 psi or as per standard for positive pressure and 0-30 inch Hg for vacuum. To be amended as Each specific service shall be provided with an LED digital read out comprising of **0-249 psi** or as per standard for positive pressure and 0-30 inch Hg for vacuum. In NFPA standard, LED digital read out comprising of 0-249 psi for positive pressure and 0-30 inch Hg for Vacuum is recommended. You are requested to kindly amend the same.	Should meet the standard mentioned in technical specification.
79.	**Item Sr. No.6, Page No.14** **Alarm System (Touch / Digital)** 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. To be amended as A bar graph trend indicator shall be provided for each service indicating a green "NORMAL" and a red for "HIGH" or "LOW" alarm condition. In NFPA Standard, Bar graph trend indicator for alarm have Green for NORMAL and Red for HIGH or LOW. You are requested to kindly amend the same.	Should meet the standard mentioned in technical specification.
80.	**Point-F, Page No.15** In the calibration mode the following parameters shall be field adjustable: i) High/Low set points	Imperical/Metric Units is deleted

	ii) Imperical/Metric Units iii) Repeat alarm enable/disable To be amended as In the calibration mode the following parameters shall be field adjustable: i) High/Low set points ii) Repeat alarm enable/disable Imperical / Metric Units are company specific and not available with all the manufacturers. You are requested to kindly delete company specific specifications.	
81.	**Item No.7, Page No.17** **Horizontal / Vertical Bed Head Panel** Kindly add: Horizontal Bed Head Panel should come with 2 channel / 3 channel arrangement. In the technical specifications, you have not asked whether you require 2 Channel or 3 Channel Bed Head Panel. Kindly mention the same to enable us to quote accordingly.	Vertical Bed Head Panel is deleted
82.	**Item No.7, Page No.17** **Horizontal / Vertical Bed Head Panel** All down drops shall be installed at one end preferably & Vertical drop installed at one end should be covered with Aluminum boxing with matching color. To be amended as All down drops shall be installed at one end preferably & Vertical drop installed at one end. Copper Pipes should be exposed instead of covered with Aluminum boxing for easy access / identification incase of leakage.	Aluminium Boxing to cover vertical drop is deleted
83.	**Item No.9, Page No.19** **Anesthesia Gas Scavenging System** It should be BIS / UL Listed / European CE marked with 4 digit notified body number.	As per standard mentioned in the technical specification

	To be amended as It should be BIS / European CE marked with 4 digit notified body number. In case of NFPA Standard, Control Panel of Air System should be UL Listed and undertaking for the same shall be submitted from Manufacturer) Please note, in NFPA Standard, Control Panels of Plant is only UL Listed and not the complete package unit. You are therefore requested to kindly amend and mention the same.	
84.	**Item No.9, Page No.19** **Anesthesia Gas Scavenging System** AGSS System should be factory fitted, factory tested, packed, prewired and pre piped. To be amended as AGSS System should be factory fitted, factory tested, packed. Please note that wiring and piping is done at site, hence we request you to kindly delete the words "prewired and pre piped" from the specifications.	AGSS System should be factory fitted, factory tested, packed.
85.	**Item No.9, Page No.19** **Anesthesia Gas Scavenging System** Anaesthetic Gas scavenging for 9 nos. Operation Theatres, CT scan Room & MRI Room, One pump shall be standby with the other in operation. Capacity of AGSS shall be Minimum 1000 LPM as Primary and 1000 LPM as Standby. **Kindly delete this point** - Anaesthetic Gas scavenging for 9 nos. Operation Theatres, CT scan Room & MRI Room, One pump shall be standby with the other in operation. Since you have mentioned the capacities (1000 LPM working + 1000 LPM as standby) of AGSS in the specifications, we recommend amending the	1000 LPM working + 1000 LPM as standby

	same in BOQ of tender. Further capacities are already mentioned, hence below point stands invalid and needs to be deleted from the technical specification of tender – Anaesthetic Gas scavenging for 9 nos. Operation Theatres, CT scan Room & MRI Room, One pump shall be standby with the other in operation.	
86.	**Item No.9, Page No.19** **Anesthesia Gas Scavenging System** The receiver should be rated for a minimum 150 psig design pressure and have a three valve bypass system. To be amended as The receiver should be rated for a minimum 150 psig design pressure and have **three valve bypass system / isolation valves**. Three valve bypass system is company specific. You are requested to kindly amend the same to three valve bypass system / isolation valves.	The receiver should be rated for a minimum 150 psig design pressure and have three valve bypass system / isolation valves.
87.	**Page.20, Item No.11.1** **Flow meter with Humidifier** – The humidifier bottle is made of unbreakable & Reusable of polycarbonate material and autoclavable at 121 degree centigrade. To be amended as **Flow meter with Humidifier** – The humidifier bottle is made of unbreakable & Reusable of Polycarbonate / Polypropylene / Polysulfone material and autoclavable at 121/ 134 degree centigrade. You have mentioned Humidifier Bottle is made of Polycarbonate material. We request you to kindly add Humidifier Bottle made of Polypropylene / Polysulfone material autoclavable at 134 Deg C, as the same is highly recommended for Hospital use due to long lasting feature.	The humidifier bottle is made of unbreakable & Reusable of Polycarbonate / Polypropylene / Polysulfone material and autoclavable at 121/ 134 degree centigrade.
88.	**Page.20, Item No.11.1**	The Flow tube and shroud

	D) - The Flow tube and shroud components should be made of clear, impact resistant polycarbonate. To be amended as The Flow tube and shroud components should be made of clear, impact resistant polycarbonate / Polyamide. Flow tube are made of Poylcarbonate / polyamide material. We request you to kindly amend the same,	components should be made of clear, impact resistant polycarbonate / Polyamide.
89.	**Item No.11.2, Page.20** **Ward Vacuum Unit** To be amended as **Ward Vacuum Unit –** Vacuum Regulators should be Digital. Suction Regulators should be digital only instead of digital / analogue type. You are requested to kindly mention the same.	Vacuum Regulators should be Digital.
90.	**Item No.11.2, Page.20** **Also Add –** Regulators should be BIS / European CE Marked with 4 digit notified body number / USFDA Certified. Only quality products must be considered for the said project. We therefore request you to kindly add the following "Regulators should be BIS / European CE Marked with 4 digit notified body number / USFDA Certified".	Regulators should be BIS / European CE Marked with 4 digit notified body number /UL/ USFDA Certified.
91.	**Item No.11.2, Page.20** Safety trap shall be provided inside the jar to safeguard the regulator from overflowing. Different color options should be available. Safety trap shall be provided inside the jar to safeguard the regulator from overflowing. Safety trap is available in one color only and different color option is not available. This seems to be company specific. Request you to kindly	Safety trap shall be provided inside the jar to safeguard the regulator from overflowing. One colour shall be applicable instead of different colour.

	delete the same.	
92.	**Item No.11.3, Page.21** **Theatre Vacuum Unit** To be amended as **Theatre Vacuum Unit -** Vacuum Regulators should be Digital. Suction Regulators should be digital only instead of digital / analogue type. You are requested to kindly mention the same.	Suction Regulators should be digital
93.	**Item No.11.3, Page.21** **Also Add –** Regulators should be BIS / European CE Marked with 4 digit notified body number / USFDA Certified. Only quality products must be considered for the said project. We therefore request you to kindly add the following "Regulators should be BIS / European CE Marked with 4 digit notified body number / USFDA Certified".	Regulators should be BIS / European CE Marked with 4 digit notified body number /UL/ USFDA Certified.
94.	**Item No.11.3, Page.21** Safety trap shall be provided inside the jar to safeguard the regulator from overflowing. Different color options should be available. To be amended as Safety trap shall be provided inside the jar to safeguard the regulator from overflowing. Safety trap is available in one color only and different color option is not available. This seems to be company specific. Request you to kindly delete the same.	Safety trap shall be provided inside the jar to safeguard the regulator from overflowing. One colour shall be applicable instead of different colour.
95.	**Item No.13, Page-23** **Carbon di Oxide System** - The cylinder should be placed with the help of cylinder brackets and fixing chains which should be zinc plated. To be deleted	Shall be as per standard mentioned in the technical specification.

	NFPA standard does not mandate to place the cylinders with the help of cylinder brackets and fixing chains due to its style of configuration offered. Hence, we recommend deleting the same.	
96.	**Item Sr. No.15, Page No.24** **Line Isolation Valves** The Lockable line valves must BIS/European CE mark/UL listed and complies with HTM 02-01/ NFPA99 C / EN / DIN / ISO 7396-1 standard. To be amended as **Line Isolation Valves** The Lockable line valves must BIS/European CE mark/UL listed as per HTM 02-01/ EN / DIN / ISO 7396-1 standard. For those who are quoting as per NFPA 99 standard, Line Isolation Valves should comply NFPA 99 Standard. (Undertaking in this regard must be submitted from manufacturer) In NFPA Standard,Isolation valves are manufactured in compliance with NFPA-99c standard and are not European CE Mark / UL Listed. You are therefore requested to kindly delete the UL Listing / European CE Marking for those who are quoting as per NFPA Standard.	Shall be as per standard mentioned in the technical specification.
97.	**To be added in the tender** **Please refer to the tenders recently published by HSCC for AIIMS Nagpur, AIIMS, Kalyani and AIIMS Guntur, AIIMS, Raebarelli etc. wherein below mentioned clause is given in the tender, however the same is not mentioned in this tender. You are requested to kindly add the below mentioned clause in this tender also.** **The following systems/items must be from the same principal Company / Manufacturer:** a. Control Panels & Manifold for O2, N2O & CO2 b. Medical air plant c. Medical Vacuum Plant d. AGSS Plant	**8. The following systems/items must be from the same principal company/Manufacturer:** a. Control Panels & Manifold for O2, N2O & CO2 b. Medical air plant c. Medical Vacuum Plant d. AGSS Plant e. Area & Master Alarm f. All types Outlets g. Valve Box h. Line Isolation valves i. High Pressure tubes

	e. Area & Master Alarm f. All types Outlets g. AVSU h. Line Isolation valves i. High Pressure tubes	
98.	**Page 24** **Turnkey Work-** Bidder must take into consideration in its bid, costs to be incurred for any additional work pertaining to Civil, Electrical, Mechanical and any other protections relevant as per State/Central Govt. regulation/local authority, Servo stabilisers, U.P.S. etc. Office furniture (Table and Chair) required for successful installation testing and commissioning of 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 package on a "turnkey basis". Demolishing, re-constructing, water roofing, plumbing, repainting and replacement. Any demolition, reconstruction, water proofing, necessary plumbing, anti-microbial painting, replacement of any door or windows to provide structured design for MGMS. • Providing fixing of **Electrical Gadgets** like ELCB, MCB, Light Points, Power points, etc in the Medical Gas Pipeline System. • Installation of MCB, ACB, ELCB & OCB of Havell/Siemens/L&T/Schneider etc for **Control Panel** for Medical Gas Pipeline System. • Installation of all **electrical cabling** must be of IS: 1554 (As per latest amendment) standard and wiring as per IS: 732 standard and proper earthing of all Medical Gas Pipeline System and other electrical instrument and accessories in the Medical Gas Pipeline System as per standard guidelines of BIS. • Ventilation of Plant Room and Manifold Room of the MGMS and exhaustion of suctioned gases/air from the Vacuum unit exhaust blowers. • Arrangement for requisite **Fire Extinguishing** for the entire effective zones in the Manifold and Plant Room.	Tender terms & conditions prevail.

	To be amended as Bidder must take into consideration in its bid, costs to be incurred for any additional work pertaining to Civil, Electrical, Mechanical and any other protections relevant as per State/Central Govt. regulation/local authority required for successful installation testing and commissioning of 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 package on a "turnkey basis". Demolishing, re-constructing, water roofing, plumbing, repainting and replacement. Any demolition, reconstruction, water proofing, necessary plumbing, anti-microbial painting, replacement of any door or windows to provide structured design for MGMS. The turnkey work mentioned is contradictory at various places. You have mentioned equipments in turnkey work like Servo stabilisers, U.P.S. etc. Office furniture (Table and Chair), which can't be a part of turnkey work. If the same is required at site, it should be considered in tender BOQ or stands deleted. • Ventilation of Plant Room and Manifold Room of the MGMS and exhaustion of suctioned gases/air from the Vacuum unit exhaust blowers – As mentioned you required Air Conditioning for Ventilation in the Plant and Manifold Room isrequired. Being AC a costly item, you are requested to kindly consider the same in tender BOQ instead of Turnkey work. • Arrangement for requisite **Fire Extinguishing** for the entire effective zones in the Manifold and Plant Room. – Providing of Fire Extinguishers is not our scope of work, hence needs to be deleted from turnkey work of tender. Request you to re-verify the turnkey work and provide breakup of works to be done by MGPS bidder under turnkey works, since the description of Turnkey works to be done by bidder given under Sr. No.16 of Technical specifications is very confusing.	

99.	**Bill of Quantities** **Item No. 3a** Vacuum system shall be having system capacity of 220 cfm (±10%)/6228 LPM at 19" Hg to be delivered to the hospital with necessary standby arrangement as per the requirement of the relevant International Standard. Complete as required with all accessories as per technical specification. To be amended as Vacuum System shall be having system capacity of 5000-5500 LPM working with 5000-5500 LPM as standby or Total Plant Capacity should be minimum 10,000 LPM with a vacuum tank of minimum 4000 litres or above. Complete as required with all accessories as per technical specification.	Tolerance shall be ±10% of plant capacity. Tender terms and conditions prevails for the system capacity of the Vacuum Plant.
100	**Bill of Quantities** **Item No.4a** The Compressed air system shall be to provide minimum system capacity 150(±10%) Scfm/4250 LPM at 8.5 -10 bar to be delivered to the hospital with necessary standby arrangement as per the requirement of the relevant standard with Scroll air compressors, allied equipment, suitable tank and control panel. Complete as required with all accessories as per technical specification. To be amended as The Compressed air system shall be to provide minimum system capacity 4000 LPM working with 1000 LPMas standby or Total Plant Capacity should be minimum 5,000 LPM with a Air Receiver tank of minimum 1500 litres or above. Complete as required with all accessories as per technical specification.	Tolerance shall be ±10% of plant capacity. Tender terms and conditions prevails for the system capacity of the Compressed air plant.
101	**Bill of Quantities** **Item No. 9** **AGSS - Duplex Medical Vacuum System** - The system shall comprise of two oil less rotary vane vacuum pumps, a control panel and a receiver all	Duplex Medical Vacuum System. (1000 LPM working + 1000 LPM as standby)

	mounted on a common base frame. One pump shall be a standby The system shall be complete with all accessories as required and as per specifications. Duplex Medical Vacuum System. (1000 LPM working + 1000 LPM as standby). The system shall comprise of two oil less rotary vane vacuum pumps, a control panel and a receiver all mounted on a common base frame along with a suitable receiver tank. One pump shall be a standby The system shall be complete with all accessories as required and as per specifications.	
102	1. b Fully Automatic Oxygen Control Panel: g) The Control Panel should be made to provide Heavy Duty with a Delivery Flow Capacity of over 2000 lpm at 55-60 psig. Request you to please put mention variation from 1500-2000LPM. 2000 LPM is belong to specific manufacturer.	The Control Panel should be made to provide Heavy Duty with a Delivery Flow Capacity of over 1500-2000 lpm at 55-60 psig
103	3.0 Vacuum (Suction) System - Should be BIS/UL Listed/European CE marked with 4 digit notified body number. - The system shall be consisting of lubricated rotary vane vacuum pumps with Control Panel equipment and one tank. For NFPA99 compliance system, only system controllers are "UL/ETL/ATL" Listed. Whole system is not UL listed. So, please amend the same. And please ask decalration from principal manufacturer that complete system is 100% compliance as per NFPA99/HTM. There are other technologies are available for Vacuum Pumps which is proven and accepted by AIIMS, HLL and other state/central govt. organisations. Please add "oil Lubricated rotarty screw" technology as well.	Tender terms & conditions prevail.
104	4.0 Air Compressors Nowhere separate capacity is mentioned for medical air and surgical air system which is mandatory as per NFPA99 guidelines. The specification demands that medical air and surgical air shall be delivered from the combined/same system which is an absolute violation of NFPA 99 guidelines.	Tender terms & conditions prevail.

	For Instrument Air- Any type of compressor technology is acceptable as per NFPA99 clause no. 5.13.8.4 Thus, we urge you to amend the specifications and clearly state that under NFPA99 guidelines, Medical Air and Surgical Air System should be offered separately. For NFPA99 compliance system, only system controllers are "UL/ETL/ATL" Listed. Whole system is not UL listed. So, please amend the same. And please ask decalration from principal manufacturer that complete system is 100% compliance as per NFPA99/HTM0201. Under NFPA99 edition 2005 on Page no. 27 ''3.3.174 Support Gas. Nitrogen or instrument air that is used to supportmedical procedures by operatingmedical–surgical tools, equipment booms, pendants, and similar devices, and are not respired as part of any treatment. (PIP)''. 5.1.3.8.4 Instrument Air Compressors. Instrument air compressors shall be permitted to be of any type capable of not less than a gauge pressure of 1380kPa (200psi) output pressure and of providing air meeting the definition of Instrument Air. Under NFPA99 edition 2005 on Page no. 57 ''5.1.3.8.2.3 in NFPA99 edition 2005.Instrument air systems shall be prohibited from the following: (a) Interconnection with medical air systems. (b) Usage for any purpose where the air will be intentionally respired by patients or staff''. According to NFPA99 edition 2005 para no. 3.3.80 states that: 3.3.80 Instrument Air. For the purposes of this standard, instrument air is air intended for the powering of medical devices unrelated to human respiration (e.g. surgical tools, ceiling arms). Medical Air and instrument air are distinct systems for mutually exclusive applications. Instrument air is a medical support gas that falls under the general requirements for medical gases. (PIP)	
105	4.0 Air Compressors	The medical air compressors shall be of the totally oil-less

	The medical air compressors shall be of the totally oil-less Scroll There are other technologies are available for Air Compressors which is proven and accepted by AIIMS, HLL and other state/central govt. organisations. Please add "Oil Free Screw/Tooth" technology.	Scroll/Screw.
106	6.0 Alarm System (Touch/Digital Type) Since "touch screen" is the latest and advanced technology and available with most of the manufacturers. Request you to please consider only Touch Screen Alarms System. Moreover, there is a huge price difference between Touch/Digital Alarms Panel. Digital propose bidder definitely having price advantage instead of Touch Screen.	Tender terms & conditions prevail.
107	7.0 Horizontal Bed Head Panels (HBHP) 1800mm long. Bed Head Panel should be BIS/European CE Marked/UL Listed. Bed head panel never be UL Listed. So, please remove UL listed from Bed head panel category. European CE certified bed panel states that: 1. Bed Head panel should be pre piped & pre wired. 2. It should come with factory fitted gas outlets and electrical sockets. 3. It should be factory tested. Whereas tender says- "provision of Outlets & electrical sockets" which is an absolute violation of HTM/NFPA99 guidelines. So, either remove European CE certified else Indigenous bed head panel also accepatable. As per HTM/NFPA99, following parameters needs to be confirm: Bed Head Panel shall be pre-tested by the manufacturer prior to arrival at the installation site as follows: (1) Initial blowdown test (2) Initial pressure test (3) Piping purge test (4) Standing pressure test. Manufacturer has to submit the test reports with related to above mentioned paramaters.	Tender terms & conditions prevail.

108	9.0 Anesthesia Gas Scavenging System: The Duplex Medical Vacuum NIT says only about i.e. Vacuum Plant. Please add specific technology which is acceptable as per HTM/NFPA99 standards. Following are the technologies: 1. Blower (Oil free) 2. Dry Vane 3. Oil free Claw As per NFPA99 clause no. 5.1.3.7.2 blower technology is acceptable. 5.1.3.7.2 WAGD Produces. 5.1.3.7.2.1 Vacuum pumps used for WAGD service shall be as follows: 1. Compliant with 5.1.3.6.2 2. Designed of materials and using lubricants and sealants that are inert in the presence of oxygen, nitrous oxide and halogenated anaesthetics 5.1.3.7.2.2 Vacuum producers (e.g. fans or blowers) designed for operation at vacuum below 130 mm (5in) HgV shall be as follows:	Tender terms & conditions prevail.
109	11.2 Ward Vacuum Units: Suction Controller/ Regulator (Digital type- easy view) As per NIT, only digital regulator is mentioned. This is company specific. Please allow "ANALOUGE" technology as well.	Tender terms & conditions prevail.
110	11.3 Theatre Vacuum Units: The vacuum regulator will be step-less adjustable and have large vacuum gauge providing Digital indication of the suction supplied by the regulator As per NIT, only digital regulator is mentioned. This is company specific. Please allow "ANALOUGE" technology as well.	Tender terms & conditions prevail.
111	15. Line Isolation Valves NIT specifications are not as per standard i.e. HTM0201/NFPA99 1. Line Isolation valves should be medical grade and degreased from Oxygen. 2. Valves should be come with factory brazed copper stud pipes. Because Copper to Blaze brazing is not acceptable as per standards. i.e. HTM0201/NFPA99	Shall be as per standard mentioned in the technical specification.

	3. Isolaiton valves should be equipped with Pressure gaues. a) All Medical Gas Valves shall be specially prepared for oxygen service and shall conform to NFPA 99 standard. Valves shall be ball-type, with Teflon seats and adjusting stem packing gland with Teflon stem seal. b) Ball valves shall be rated 600 WOG, actuate from full "ON" to full "OFF" by 90 degree turn of vinyl gripped valve handle. c) Furnish and install only valves with factory installed type K copper tubing extensions. d) Valves not in valve boxes shall be provided with locking handles. e) All valves shall be cleaned for oxygen, capped and sealed in a polyethylene bag for shipping and storage. f) Apply labels to each valve in the assembly for gas service identification according to manufactures recommendations. g) Zone valves shall include a 1 1/2 inch pressure gauge reading 0 to 100 psig for oxygen, air, nitrous oxide; 0 to 300 psig for nitrogen; and 0 to 30 HG for vacuum and WAGD. The gauge port shall be equipped with removable plug for pressure testing before final assembly of gauge. h) All zone valve boxes assemblies shall read pressure downstream and vacuum upstream of the valve as per NFPA 99. Valves shall be piped left to right with right being on patient	

The bid submission date is extended from 11.03.2020 to 13.03.2020 and bid security should be valid for 180 days from the date of original bid submission ie. from 04.03.2020.

All other terms & conditions remain unchanged.

Sr. Chief General Manager -I, HSCC (I) Ltd.
For and behalf of Director, PGIMER, Chandigarh