HSCC/SES/MGPS/LHMC/2021 Date: 04.02.2022

All Bidders

Amendment-III

Subject: Supply, Installation, Testing & Commissioning of MedicalGas Pipeline System for Lady Hardinge Medical College,New Delhi.

Tender No: HSCC/SES/MGPS/LHMC/2021 Date: 22.12.2021

This has reference to above tender No.

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

Sr. No.	Bidders' Queries	Reply
1.	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 Oxygen, Nitrous, Carbon Dioxide Panel, Medical Air, Medical Vacuum, AGSS/WAGD, Gas Outlets, Alarm System etc are from foreign soil for which procurement only starts after due approval of final drawing which is a time consuming process. We hereby request to kindly increase the completion schedule to 6 months.	Tender terms & conditions prevail.
2.	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	In case, the qualifying experience certificate is from Private sector/ Charitable Hospital, the vendor should also submit the TDS certificate as a proof of having executed the said work. Rest shall remain same.

	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. We request the clause of the tender should be further clarified as following was added in Tender no. HSCC/SES/MOT & MGMS/PGI/ Sangrur/2018 dated 30.08.2018. "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. 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.	
3.	Volume-I, Page no. 6, 2.2 (iii) Solvency Certificate Considering the estimated cost of the tender, we request M/s HSCC to be liberal & relaxed in terms of value of Solvency Certificate. We request 1 more option should be allowed i.e. Net Worth Certificate from Chartered Accountant. Sir, this qualification criteria is in practice by M/s HLL Infra Tech Services Ltd. Tenders. A copy is enclosed herewith for your ready reference at	Tender terms & conditions prevail.

	Page 6 to 7. The criteria should be: Average Net Worth: Eligible bidders should have an Average Net Worth (i.e. Assets minus Liabilities) for the last five years (i.e. from 2013-14 to 2017-18) of not less than 10% of the cumulative estimated value of work to qualify in tender. Please appreciate in this way the bidder has the option to either submit Solvency Certificate or Net Worth Certificate by Chartered Accountant. Considering the estimated cost of the tender the bidder should be allowed with an option of Net Worth Certificate from Chartered Accountant or Solvency Certificate of 40% estimated cost.	
4.	Volume-II, Page no. GCC-18, Clause no. 21.2 Scope of Cover 21.2 Scope of Cover (b) the Contractor for his liability: (i) during the Defects Liability Period for loss or damage arisingfrom a cause occurring prior to the commencement of the DefectsLiability Period, and We request the Insurance Cover should be applicable upto handing over of goods and not up to DLP period as the insurance is meant for safe delivery of goods at the door step. We request for necessary amendment in this respect.	Tender terms and conditions prevail.
5.	Volume-II, Page no. GCC-37, Clause no. 44.1 & 44.3 44.1 Extension of Time for Completion 44.3 Interim Determination of Extension As we are aware that Extension of Time for Completion is applicable to the contractor due to various reasons as mentioned in the respective clauses. Some times the civil work/infrastructure is not ready to perform MGPS activities, sometimes clearance is not granted by HSCC/Client or sometimes drawing is not approved etc . Under these conditions extension of time for completion should be granted by HSCC/Client as it is not attributable to the	Tender terms & conditions prevail.

	contractor. Secondly, it is in the practice that 10% of project value is deducted, we request it should be 10% of RA Bill. We keep writing letters, reminders, telephonically but EOT is always becomes daunting task. We request EOT matter should be sorted so that the contractor should not suffer.	
6.	Volume-III, Page no. SCC-22, Clause no. 33.0 (f) Certificates and Payments 33.0 Certificates and Payments f) Retention Money at the rate of 10% shall be deducted from each Interim Payment Certificate subject to the maximum of 5% of the contract price. We request Bank Guarantee should be taken instead of 10% amount deduction from each interim payment certificate as it is very heavy amount earned by the contractor after lot of efforts.	Tender terms & conditions prevail.
7.	Volume-III, Page no. SCC-29, Clause no. 41.0 Terms of Payment 41.0 Compliance of Statutory Obligations The Contractor shall comply all the statutory obligations and obtain all requiredclearances to implement the project without any financial repercussions toHSCC/Client and ensure all follow up actions with the local authorities in this respect for smooth completion of the project. As we are aware that without disptach clearance from HSCC/Client the contractor cannot disptach the material. In the past executed/under execution projects of HSCC/Client, this becomes big challenge for contractor to get Dispatch Clearance. We keep writing letter, reminders, telephonically but dispatch clearance always becomes daunting task. We request this task should be sorted and should be made easy so that the tender delivery schedule should not hampered.	Tender terms & conditions prevail.
8.	Volume-III, Page no. SCC-37, 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 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 the client on pro-data basis. 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 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.	Tender terms and conditions prevail.

	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.	
9.	Common Goods and Service Tax Applicability (GST) Kindly clarify what percentage of GST will be applicable in present tender i.e. 12% or 18% as the same will have major impact on pricing.	GST shall be as per Govt. Rules and guidelines. Quoted price should be inclusive of all charges.
10.	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, CPWD, PWD etc., the performance of the company should be satisfactory.	Tender terms and conditions prevail.
11.	Page no. 2 & 3 Vol04_TechSpecs 1.1 Fully Automatic Oxygen Control Panel (Imported): The heavy duty control panel should be provided with a flow capacity of 2500 or more LPM at 50 to 60 psi. We request the heavy duty control panel should be 2000 LPM or more at 50 to 60 psi instead of 2500 LPM. In all the earlier HSCC Tenders AIIMS Guntur, AIIMS Kalyani, AIIMS Nagpur 2000 LPM Capacity was mentioned.	Page no. 2 & 3 Vol04_TechSpecs Fully Automatic Oxygen Control Panel Heavy duty control panel should be 2000 LPM or more at 50 to 60 psi.

12.	Page no. 3 Vol04_TechSpecs 1.2 Oxygen Manifold Supply System (without Cylinder): Sir, Oxygen Manifold or Emergency Manifold Supply System is part of Central Gas Pipeline Distribution System. Since Fully Automatic Oxygen Control Panel is with BIS/US FDA/European CE Certified with 4 digit notified body number or American ETL/ UL listed certifications, similarly Oxygen Manifold and Emergency Manifold System should also be with BIS/US FDA/European CE Certified with 4 digit notified body number or American ETL/ UL listed certifications.	Tender terms and conditions prevail.
13.	Page no. 4 Vol04_TechSpecs 1.3 Emergency Manifold Supply System (without Cylinder): Sir, Oxygen Manifold or Emergency Manifold Supply System is part of Central Gas Pipeline Distribution System. Since Fully Automatic Oxygen Control Panel is with BIS/US FDA/European CE Certified with 4 digit notified body number or American ETL/ UL listed certifications, similarly Oxygen Manifold and Emergency Manifold System should also be with BIS/US FDA/European CE Certified with 4 digit notified body number or American ETL/ UL listed certifications.	Tender terms and conditions prevail.
14.	Page no. 4 Vol04_TechSpecs 1.4 Oxygen Flow meter with Humidifier Bottle We request, Oxygen Flow Meter with Humidifier Bottle should be European CE with 4 digit notified no. /UL Listed/USFDA for better quality product.	Oxygen Flow Meter with Humidifier Bottle should be European CE with 4 digit notified no. /UL Listed/USFDA for better quality product.
15.	Page no. 11 Vol04_TechSpecs 2.2 Nitrous Oxide Manifold (without Cylinder)	Tender terms and conditions prevail.

	Sir, Nitrous Oxide Manifold or Emergency Manifold Supply System is part of Central Gas Pipeline Distribution System. Since Fully Automatic Oxygen Control Panel is with BIS/US FDA/European CE Certified with 4 digit notified body number or American ETL/ UL listed certifications, similarly Nitrous Oxide Manifold and Emergency Manifold System should also be with BIS/US FDA/European CE Certified with 4 digit notified body number or American ETL/ UL listed certifications.	
16.	Page no. 11 Vol04_TechSpecs 2.3 Emergency Nitrous Oxide Supply System (without Cylinder) Sir, Nitrous Oxide Manifold or Emergency Manifold Supply System is part of Central Gas Pipeline Distribution System. Since Fully Automatic Oxygen Control Panel is with BIS/US FDA/European CE Certified with 4 digit notified body number or American ETL/ UL listed certifications, similarly Nitrous Oxide Manifold and Emergency Manifold System should also be with BIS/US FDA/European CE Certified with 4 digit notified body number or American ETL/ UL listed certifications.	Tender terms and conditions prevail.
17.	Page no. 11-13 Vol04_TechSpecs 3. Medical and Surgical Air System - Variation of + 10% is missing Please appreciate throughout the worldwide , the Models and the Capacity (LPM) of Air System are Pre-Defined by Manufacturers. Air System is not manufactured as per the requirement. Based on the Pre-Defined Air System, the Models are selected as per the requirement. Like in M/s HSCC (India) Ltd. Tender no. HSCC/SES/MGMS/2018 (IIT Kharagpur) Amendment no. IV dated 02.02.2018; Tender no. HSCC/SES/MGMS/PGI/SANGRUR/2019 Dated 09.01.2019 (PGI Sangrur); Tender no. HSCC/SES/MGMS /SSB/Shimla/2019 Dated : 31.01.2019; Tender no. HSCC/SES/MGMS	Variation of +/- 5% is allowed.

	/AIIMS/Raebareli/2019 Dated : 29.03.2019 variation of +/- 10% is given & like wise and M/s HLL Tenders such as SIX AIIMS for MGPS etc, + 10% variation is given. This +/- 5% / 10% variation is mentioned for ease in procurement. We therefore request, the Air Compressor plant capacity should be defined with variation of +/- 10% and same should be as per Standard.	
18.	Page no. 11-13 Vol04_TechSpecs 3. Medical & Surgical Air System We request the Air Compressor should be factory fitted, factory tested, packed, pre-wired & pre-piped and tank mounted. As the plants are expensive items and that too imported, the genuiness& authenticity of the product should be utmost priority.	Tender terms and conditions prevail.
19.	Sr.No. 3.1 Vol05_BOQ Medical Air Plant (Package Unit) including electrical control panel for A & E : Supply, Installation, testing and commissioning medical air plant having minimum capacity of 12000 LPM as primary and 3000 LPM as standby or total plant capacity of 14000 LPM and complete with all accessories as per technical specification. Vendor shall meet the flow capacity. The primary plant capacity of Medical Air Plant in BOQ is 12000 LPM and Standby is 3000 LPM total makes 15000 LPM. Kindly confirm the total plant capacity is 14000 LPM or 15000 LPM as it seems some misprint.	May be read as Sr.No. 3.1 Vol05_BOQ Medical Air Plant (Package Unit) including electrical control panel for A & E: Supply, Installation, testing and commissioning medical air plant having minimum capacity of 8000-9000 LPM as primary and 5000-6000 LPM as Standby(backup) with total plant capacity of **14000 LPM** and complete with all accessories as per technical specification. Vendor shall meet the flow capacity. +/-5% variation is allowed for Medical Air Plant capacity.
20.	Page no. 14, 15 Vol04_TechSpecs 4. 4. VACUUM SYSTEMS - Variation of + 10% is missing	Variation of +/- 5% is allowed.

	Please appreciate throughout the worldwide, the Models and the Capacity (LPM) of Vacuum System are Pre-Defined by Manufacturers. Vacuum System is not manufactured as per the requirement. Based on the Pre-Defined Vacuum System, the Models are selected as per the requirement. Like in M/s HSCC (India) Ltd. Tender no. HSCC/SES/MGMS/2018 Amendment no. IV dated 02.02.2018 (IIT Kharagpur); Tender no. HSCC/SES/MGMS /SSB/Shimla/2019 Dated : 31.01.2019; Tender no. HSCC/SES/MGMS /AIIMS/Raebareli/ 2019 Dated : 29.03.2019 variation of +/- 10% is given and M/s HLL such as SIX AIIMS Tender no. HLL/PCD/ PMSSY/AIIMS-II/14-RT-01/15-16 dated 31.12.2015 for MGPS etc, +/- 10% variation is given. This +/- 10% variation is mentioned for ease in procurement. We therefore request, the Vacuum plant capacity should be defined with variation of + 10% and same should be as per Standard.	
21.	Page no. 14, 15 Vol04_TechSpecs 4. VACUUM SYSTEMS 4.4 Bacterial Filters 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.	Tender terms & conditions prevail.
22.	Page no. 14, 15 Vol04_TechSpecs 4. VACUUM SYSTEMS Standby Plant Capacity We request the standby plant capacity should be as per Standard instead of equivalent to primary plant capacity as done in Tender no. HSCC/SES/MGMS /AIIMS/Raebareli/ 2019 Dated : 29.03.2019; Tender Enquiry No. TC-1404/GT/Manifold/19-20/FSC [AIIMS Jai Prakash Narayan Apex Trauma Centre, New Delhi] Copy Enclosed at Page no. 12 to 13.	Tender terms & conditions prevail.

23.	Page no. 14, 15 Vol04_TechSpecs 4. VACUUM SYSTEMS We request the Vacuum System, should be factory fitted, factory tested, packed, pre-wired & pre-piped and tank mounted. As the plants are expensive items and that too imported, the genuiness& authenticity of the product should be utmost priority.	Tender terms and conditions prevail.
24.	Page no. 15 Vol04_TechSpecs 5. Ward Vacuum Units The Ward Vacuum Unit and Theatre Vacuum Unit 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. Secondly, Digital & Analogue system has no price comparison with each. Costing wise Digital Vs Analogue has atleast 25% difference in pricing. Also as per the guidelines of Ministry the Ward Vacuum Unit and Theatre Vacuum Unit should be digital. Moreover, in HSCC Tender no. HSCC/SES/MGMS/SSB/Shimla/2019 Date : 31.01.2019; SITC if MGMS at IGMC Shimla; HITES 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; 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 and all thereafter all the medical gas tenders, ward vacuum unit is DIGITAL. Tender Papers enclosed for your ready reference. We therefore request to kindly amend the Ward Vacuum & Theatre Vacuum Units as DIGITAL. Kindly refer page 8-10.	Tender terms and conditions prevail.
25.	Page no. 16 Vol04_TechSpecs 6. Theatre Vacuum Unit	Tender terms and conditions prevail.

	The Ward Vacuum Unit and Theatre Vacuum Unit 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. Secondly, Digital & Analogue system has no price comparison with each. Costing wise Digital Vs Analogue has atleast 25% difference in pricing. Also as per the guidelines of Ministry the Ward Vacuum Unit and Theatre Vacuum Unit should be digital. Moreover, in HSCC Tender no. HSCC/SES/MGMS/SSB/Shimla/2019 Date : 31.01.2019; SITC if MGMS at IGMC Shimla; HITES 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; 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 and all thereafter all the medical gas tenders, ward vacuum unit is DIGITAL. Tender Papers enclosed for your ready reference. We therefore request to kindly amend the Ward Vacuum & Theatre Vacuum Units as DIGITAL. Kindly refer page 8-10.	
26.	Page no. 17 Vol04_TechSpecs 9. DISTRIBUTION PIPING 8.1 Piping specifications 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.	Copper Pipe should be BSI kite marked. BSI kite mark must be submitted.
27.	Page no. 18 Vol04_TechSpecs 11. AREA VALVE SERVICE UNIT	Tender terms & conditions prevail.

	We request the Area Valve Service Unit should be Imported BIS/US FDA/European CE Certified with 4 digit notified body number or American ETL/ UL listed certified for quality product.	
28.	Page no. 19 Vol04_TechSpecs 12.1 Master Alarm System The emissions from alarms should conform with EMC standard We work on the principals of NFPA-99 standard where EMC Standard is not applicable. This standard may be applicable to HTM Standard. Therefore we request you to please delete.	Tender terms & conditions prevail.
29.	Page no. 19 Vol04_TechSpecs 12. Alarm System 12.2 Medical Gas Area Alarm We request the Alarm System should be Touch Type Alarm Technology – 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. [Tender Papers enclosed at Page 11 for your ready reference].	Alarm System should be Touch Type Alarm Technology (7 inch or more)On screen key pads allow for simple editing of text fields. Including main keyboard, alternative keyboard and number pad. Pressure sensor scale shall include negative and positive pressure scale, allowing one sensor to cover all gas and vacuum supply monitoring. Electrical connectors shall be designed for frequent disassembly. Spade connectors are not acceptable. Pressure switches shall include a BSPP threaded pipeline connection.
30.	Page no. 18, 19 Vol04_TechSpecs 11. Area Valve Service Unit 12. Alarm System We request the Alarm System and Area Valve Box should be combined/Integrated. Every critical care patient area in a hospital is controlled by a zone valve box and monitored by an area alarm. Alarm Valve Box Combination Unit is built to offer users, years of proficient service.	Tender terms & conditions prevail.

	Save wall space and installation time by using the area alarm zone valve box combination unit. It has ability to install sensors directly inside the Valve Box eliminates the need for prolonged, complex maintenance, as well as the search for absent sensors. Previous concerns regarding convenience, space, maintenance and accessibility become uncertainties of the past, with the ground-breaking Alarm Valve Combo Unit. 9- Ideal 2 in 1 design, combines the Area Alarm and Zone Valve Box, to allow for space restrictions 2- True digital, illuminated LED display readable even in poor lighting conditions 3- High/low alarm set-points are field adjustable for each gas service Repeat alarm, adjustable 1 to 60 minutes or off 4- Gas specific sensor with DISS nut and nipple 5- Alarm buzzer in excess of 90 decibels 6- Each module marked with an approved medical gas identification label 7- Pre-mounted pull-out ring allows for ease of maintenance 8- Individual microprocessor for each display and sensor module; digital sensor is mounted locally 9- Dry contacts for remote monitoring of the high and low alarm. It should be European CE/ETL/UL Listed. We therefore request to Area Valve Service Unit and Alarm System should be Combined/Integrated.	
31.	As per Page No. 02, Point No. 1, sub point no. 1.1 of Technical Specification **Fully Automatic Oxygen Control Panel :** ….It should be BIS/US FDA/European CE Certified with 4 digit notified body number or American ETL/ UL listed. To be Deleted As per Government of India, Notification Ministry of Health & Family Welfare vide Dated:	Tender terms and condition prevail.

	05.11.2019 CE Mark/ UL Listed Products is restrictive and discriminatory for Indian manufacturer's. (Copy Attached) Therefore you are requested to dilute the specification and also delete the word "BIS/US FDA/ European CE Certified with 4 digit notified body number or American ETL/ UL listed" in the specification.	
32.	As per Page No. 10, Point No. 2, sub point no. 2.1 of Technical Specification **Fully Automatic Nitrous Oxide Control Panel** **….** It should be BIS/US FDA/European CE Certified with 4 digit notified body number or American ETL/ UL listed. To be Deleted As per Government of India, Notification Ministry of Health & Family Welfare vide Dated: 05.11.2019 CE Mark/ UL Listed Products is restrictive and discriminatory for Indian manufacturer's. (Copy Attached) Therefore you are requested to dilute the specification and also delete the word "BIS/US FDA/ European CE Certified with 4 digit notified body number or American ETL/ UL listed" in the specification.	Tender terms and conditions prevail.
33.	As per Page No. 11, Point No. 3, of Technical Specification **Medical and Surgical Air System** ….It should be BIS/US FDA/European CE Certified with 4 digit notified body number or American ETL/ UL listed. To be Deleted As per Government of India, Notification Ministry of Health & Family Welfare vide Dated: 05.11.2019 CE Mark/ UL Listed Products is restrictive and discriminatory for Indian manufacturer's. (Copy Attached) Therefore you are requested to dilute the specification and also delete the word "BIS/US	Tender terms & conditions prevail.

	FDA/ European CE Certified with 4 digit notified body number or American ETL/ UL listed" in the specification.	
34.	As per Page No. 14, Point No. 4, of Technical Specification **Vacuum Systems** It should be BIS/US FDA/European CE Certified with 4 digit notified body number or American ETL/ UL listed. To be Deleted As per Government of India, Notification Ministry of Health & Family Welfare vide Dated: 05.11.2019 CE Mark/ UL Listed Products is restrictive and discriminatory for Indian manufacturer's. (Copy Attached) Therefore you are requested to dilute the specification and also delete the word "BIS/US FDA/ European CE Certified with 4 digit notified body number or American ETL/ UL listed" in the specification.	Tender terms & conditions prevail.
35.	As per Page No. 16, Point No. 8, of Technical Specification **AGSS (Anesthetic Gas Scavenging System) Plant** **…** It should be BIS/US FDA/European CE Certified with 4 digit notified body number or American ETL/ UL listed. To be Deleted As per Government of India, Notification Ministry of Health & Family Welfare vide Dated: 05.11.2019 CE Mark/ UL Listed Products is restrictive and discriminatory for Indian manufacturer's. (Copy Attached) Therefore you are requested to dilute the specification and also delete the word "BIS/US FDA/ European CE Certified with 4 digit notified body number or American ETL/ UL listed" in the specification.	Tender terms and conditions prevail.
36.	As per Page No. 18, Point No. 10, of Technical Specification	Tender terms & conditions prevail.

	Gas Outlets Outlets should be BIS/US FDA/European CE Certified with 4 digit notified body number or American ETL/ UL listed. To be Deleted As per Government of India, Notification Ministry of Health & Family Welfare vide Dated: 05.11.2019 CE Mark/ UL Listed Products is restrictive and discriminatory for Indian manufacturer's. (Copy Attached) Therefore you are requested to dilute the specification and also delete the word "BIS/US FDA/ European CE Certified with 4 digit notified body number or American ETL/ UL listed" in the specification.	
37.	As per Page No. 19, Point No. 12, Sub Point 12.1 of Technical Specification **Master Alarm** Should be BIS/US FDA/European CE Certified with 4 digit notified body number or American ETL/ UL listed To be Deleted As per Government of India, Notification Ministry of Health & Family Welfare vide Dated: 05.11.2019 CE Mark/ UL Listed Products is restrictive and discriminatory for Indian manufacturer's. (Copy Attached) Therefore, you are requested to dilute the specification and also delete the word "BIS/US FDA/ European CE Certified with 4 digit notified body number or American ETL/ UL listed" in the specification.	Tender terms & conditions prevail. (Point 29).
38.	As per Page No. 19, Point No. 12, Sub Point 12.2 of Technical Specification **Medical Gas Area Alarm** The medical gas area alarm should fully satisfy the HTM 02-01/ NFPA 99 C/EN/DIN/ISO 7396-	Tender terms & conditions prevail.

	1 requirements and should be BIS/US FDA/European CE Certified with 4 digit notified body number or American ETL/ UL listed. To be Deleted As per Government of India, Notification Ministry of Health & Family Welfare vide Dated: 05.11.2019 CE Mark/ UL Listed Products is restrictive and discriminatory for Indian manufacturer's. (Copy Attached) Therefore you are requested to dilute the specification and also delete the word "BIS/US FDA/ European CE Certified with 4 digit notified body number or American ETL/ UL listed" in the specification.	
39.	As per Page No. 21, Point No. 18 of Technical Specification **High pressure tubes for O2, N2O, Compressed Air,& Vacuum** It should be BIS/US FDA/European CE Certified with 4 digit notified body number or American ETL/ UL listed. To be Deleted As per Government of India, Notification Ministry of Health & Family Welfare vide Dated: 05.11.2019 CE Mark/ UL Listed Products is restrictive and discriminatory for Indian manufacturer's. (Copy Attached) Therefore you are requested to dilute the specification and also delete the word "BIS/US FDA/ European CE Certified with 4 digit notified body number or American ETL/ UL listed" in the specification.	Tender terms & conditions prevail.
40.	As per Page No. 21, Point No. 19 of Technical Specification **Fully Automatic Control panel for CO2 System** ….. It should be BIS/US FDA/European CE	Tender terms & conditions prevail.

	Certified with 4 digit notified body number or American ETL/ UL listed. To be Deleted As per Government of India, Notification Ministry of Health & Family Welfare vide Dated: 05.11.2019 CE Mark/ UL Listed Products is restrictive and discriminatory for Indian manufacturer's. (Copy Attached) Therefore you are requested to dilute the specification and also delete the word "BIS/US FDA/ European CE Certified with 4 digit notified body number or American ETL/ UL listed" in the specification.	
41.	As per Page No. 03, Point No. 1, Subpoint No. 1.1 of Technical Specification The heavy duty control panel should be provided with a flow capacity of **2500 or more LPM** at 50 to 60 psi. **<u>To be read as</u>** The heavy duty control panel should be provided with a flow capacity of **2100 or more LPM** at 50 to 60 psi. We request you to kindly dilute the specification forwider participation as every company has its own technology, models & Specifications.	The heavy-duty control panel should be provided with a flow capacity of **2000 or more LPM** at 50 to 60 psi.
42.	**Vol4, Technical Specs** **Clause 1.1 Fully Automatic O2 Control Panel** Standards asked are BIS/USFDA/European CE/American ETL/UL Listed Since these products are available indigenously, hence as per Govt notification for preference for 'Make in India'products,& you have to shown your interest also. request to delete USFDA/European CE/American ETL/UL Listed (All Imported) and Also Delete BIS ,because this is not available & relevant to any of the product. We request you to kindly add ISO9001:2015/ISO13485:2016/ISO14644-1:2015/CE Certified	Tender terms & conditions prevail.
43.	**Vol4, Technical Specs**	

	Clause 2.1 Fully Automatic N2O Control Panel Standards asked are BIS/USFDA/European CE/American ETL/UL Listed Since these products are available indigenously, hence as per Govt notification for preference for 'Make in India'products,& you have to shown your interest also. request to delete USFDA/European CE/American ETL/UL Listed (All Imported) and Also Delete BIS ,because this is not available & relevant to any of the product. We request you to kindly add ISO9001:2015/ISO13485:2016/ISO14644-1:2015/CE Certified	Tender terms & conditions prevail.
44.	**Vol4, Technical Specs** **Clause 3 Medical & Surgical Air** Standards asked BIS/USFDA/European CE/American ETL/UL Listed Since these products are available indigenously, hence as per Govt notification for preference for 'Make in India'products,& you have to shown your interest also. request to delete USFDA/European CE/American ETL/UL Listed (All Imported) and Also Delete BIS ,because this is not available & relevant to any of the product. We request you to kindly add ISO9001:2015/ISO13485:2016/ISO14644-1:2015/CE Certified	Tender terms & conditions prevail.
45.	**Vol4, Technical Specs** **Clause 4 Vacuum System** Standards asked BIS/USFDA/European CE/American ETL/UL Listed Since these products are available indigenously, hence as per Govt notification for preference for 'Make in India'products,& you have to shown your interest also. request to delete USFDA/European CE/American ETL/UL Listed (All Imported) and Also Delete BIS ,because this is not available & relevant to any of the product.	Tender terms & conditions prevail.

	We request you to kindly add ISO9001:2015/ISO13485:2016/ISO14644-1:2015/CE Certified	
46.	**Vol4, Technical Specs** **Clause 8 AGSS** Standards asked BIS/USFDA/European CE/American ETL/UL Listed Since these products are available indigenously, hence as per Govt notification for preference for 'Make in India'products,& you have to shown your interest also. request to delete USFDA/European CE/American ETL/UL Listed (All Imported) and Also Delete BIS ,because this is not available & relevant to any of the product. We request you to kindly add ISO9001:2015/ISO13485:2016/ISO14644-1:2015/CE Certified	Tender terms & conditions prevail.
47.	**Vol4, Technical Specs** **Clause 12.1 Alarm System** Standards asked BIS/USFDA/European CE/American ETL/UL Listed Since these products are available indigenously, hence as per Govt notification for preference for 'Make in India'products,& you have to shown your interest also. request to delete USFDA/European CE/American ETL/UL Listed (All Imported) and Also Delete BIS ,because this is not available & relevant to any of the product. We request you to kindly add ISO9001:2015/ISO13485:2016/ISO14644-1:2015/CE Certified	Tender terms & conditions prevail.
48.	**Vol4, Technical Specs** **Clause 12.2 Medical Gas Alarm** Standards asked BIS/USFDA/European CE/American ETL/UL Listed Since these products are available indigenously, hence as per Govt notification for preference for 'Make in India'products,& you have to shown your interest also. request to delete	Tender terms & conditions prevail.

	USFDA/European CE/American ETL/UL Listed (All Imported) and Also Delete BIS ,because this is not available & relevant to any of the product. We request you to kindly add ISO9001:2015/ISO13485:2016/ISO14644-1:2015/CE Certified	
49.	**Vol4, Technical Specs** **Clause 19 Fully Automatic Co2 Control Panel** Standards asked BIS/USFDA/European CE/American ETL/UL Listed Since these products are available indigenously, hence as per Govt notification for preference for 'Make in India'products,& you have to shown your interest also. request to delete USFDA/European CE/American ETL/UL Listed (All Imported) and Also Delete BIS,because this is not available & relevant to any of the product. We request you to kindly add ISO9001:2015/ISO13485:2016/ISO14644-1:2015/CE Certified	Tender terms & conditions prevail.
50.	**Vol4, Technical Specs** **Vol5, BoQ(cl 3.1,3.2)Medical Air Plant** The Medical Air Plant capacity is on the higher end Request to 30 – 40 % Lower	Tender terms and conditions prevail.
51.	**Vol4, Technical Specs** **Vol5, BoQ(cl 4.1,4.2)Medical Vacuum Plant** The Medical Vacuum Plant capacity is on the higher end Request to 30 – 40 % Lower	Tender terms and conditionsprevail.
52.	**Fully Automatic Oxygen Control Panel:** The Automatic Control Panel should be installed in such a way to meet the peak flow requirement of the Hospital/Institute (If the requirement is more than flow capacity requirement automatic control panel the bidders has to supply 02	Deleted.

	numbers of Automatic Control Panel and design the system in such a way to meet the flow requirement of respective institute). To be deleted from tender specification This paragraph is contradicting with tender BOQ and Flow rate mentioned in the tender. Incase you require additional Control panel, same should be added in tender BOQ as it is invalid to ask for additional Control Panel in the cost of 1 no. Control Panel. Kindly delete this paragraph from technical specifications of tender documents.	
53.	**Fully Automatic Oxygen Control Panel:** The Control Panel shall include two pressure relief valves, one high pressure approx. 350 psi and one low pressure approx.75 psi. To be amended as The Control Panel shall include two pressure relief valves, one high pressure approx.200/350 psi and one low pressure approx.75 psi. Please be informed that the High Pressure relief Valve is set between 200 – 350 psi and it depends upon the manufacturer. We therefore request you to kindly correct the high pressure relief valve to 200 /350 psi.	The Control Panel shall include two pressure relief valves, one high pressure approx. 200/350psi and one low pressure approx.75 psi.
54.	**Fully Automatic Oxygen Control Panel:** The heavy-duty control panel should be provided with a flow capacity of **2500 or more LPM** at 50 to 60 psi. To be amended as The heavy duty control panel should be provided with a flow capacity of **2000 or more LPM** at 50 to 60 psi. Please be informed in all your past tenders for project like AIIMS, you have aksked for Flow capacity of 2000 LPM at 50 to 60 psi, however for this tender, flow capacity of Fully Control Panel is increased to 2500 LPM, which seems to	The heavy duty control panel should be provided with a flow capacity of 2000 or more LPM at 50 to 60 psi. It must be CE marked with 4 digit CE notified body number or UL Listed or ETL Listed or US FDA or ISI Marked. Control panels must be digital with colourful display (3.0 inch or more). Alarm connection from control panels to Building management system output. Digital display should be backed up by mechanical gauges .All

	be company specific in nature. We request you to kindly delete company specific flow rates from the tender to enable us to quote accordingly.	alarms should be duplicated on a display and embedded membrane panel with LEDs. Colour indications for Power On, High Line Pressure, Low Line Pressure, Reserve Low, Left Bank Running, Left Bank Low, Left Bank Empty, Right Bank Running, Right Bank Low, Right Bank Empty. Control panel shall have a flow indication to inform the user of demand over the last hour period.
55.	**LIQUID MEDICAL OXYGEN STORAGE TANK - 20KL CAPACITY** Inspection : By 3rd party (SGS/LLOYDS/TUV) To be amended as Inspection : By 3rd party (SGS / LLOYDS / TUV / BVIS) Kindly add one more reputed name for third inspection, i.e BVIS.	Inspection shall be by 3rd party (SGS / LLOYDS / TUV / BVIS).
56.	**LIQUID MEDICAL OXYGEN STORAGE TANK - 20KL CAPACITY** Vaporiser Coil Duty cycle: Continuous duty To be amended as Duty Cycle: 6-8 hours The Duty Cycle of vaporizer coil is 6-8 hours only. You are requested to amend the same.	Tender terms & conditions prevail.
57.	**LIQUID MEDICAL OXYGEN STORAGE TANK - 20KL CAPACITY** Bidder should include all installation, material (Copper pipes fittings etc) trenches and labour etc charges as per site condition for interconnection in their quoted rate.	Layout of location for Manifold room, Plant room and LMO area is attached for workout of the length.

	To be amended as Trench work, if required needs to be added in the BOQ. In the LMO, you have asked to consider the cost of trenches. Please note, trench work is an expensive job and if required to be done at site, we request you to kindly consider the same in the BOQ of tender.	
58.	**Fully Automatic Nitrous Oxide Control Panel** The Automatic Control Panel should be installed in such a way to meet the peak flow requirement of the Hospital/Institute (If the requirement is more than flow capacity requirement automatic control panel the bidders has to supply 02 numbers of Automatic Control Panel and design the system in such a way to meet the flow requirement of respective institute) To be deleted from tender specification This paragraph is contradicting with tender BOQ and Flow rate mentioned in the tender. Incase you require additional Control panel, same should be added in tender BOQ as it is invalid to ask for additional Control Panel in the cost of 1 no. Control Panel as mentioned in tender BOQ. Kindly delete this paragraph from technical specifications of tender documents.	Deleted.
59.	**Fully Automatic Nitrous Oxide Control Panel** The Control Panel shall include two pressure relief valves, one high pressure approx. 350 psi and one low pressure approx.75 psi. To be amended as The Control Panel shall include two pressure relief valves, one high pressure approx.200/350 psi and one low pressure approx.75 psi. Please be informed that the High Pressure relief Valve is set between 200 – 350 psi and it depends upon the manufacturer. We therefore request you to kindly correct the high pressure relief valve to	The Control Panel shall include two pressure relief valves, one high pressure approx. 200/350psi and one low pressure approx.75 psi It must be CE marked with 4 digit CE notified body number or UL Listed or ETL Listed or US FDA or ISI Marked. Control panels must be digital with colourful display (3.0 inch or more). Alarm connection from control panels to Building management system output. Digital display should be backed

	200 /350 psi.	up by mechanical gauges.All alarms should be duplicated on a display and embedded membrane panel with LEDs. Colour indications for Power On, High Line Pressure, Low Line Pressure, Reserve Low, Left Bank Running, Left Bank Low, Left Bank Empty, Right Bank Running, Right Bank Low, Right Bank Empty. Control panel shall have a flow indication to inform the user of demand over the last hour period.
60.	**Master Alarm System** The box material should be of gauge steel of requisite thickness and equipped with mounting brackets. To be amended as The box material should be of gauge steel of requisite thickness and equipped with mounting brackets **or as per manufacturer recommendation**. The material of Box may vary from one manufacturer to another. It depends upon the manufacturer recommendation / standard followed. We request you to kindly amend the same accordingly.	Tender terms & conditions prevail.
61.	**Master Alarm System** The master alarm must be able to monitor the following source alarm conditions: Vacuum Reservoir To be amended as To be deleted from the technical specification of tender. Due to constant supply of vacuum gas and loading / unloading of reservoir, it is not feasible to display the pressure of tank on the master	Deleted.

	alarm. This seems to be a company specific point and not product specific and we request you to kindly delete one company specific feature from tender.	
62.	**Turnkey Works** **Site Modification** Bidder should be responsible for all civil modifications and repair for successful completion of MGPS Plant, Manifold, and Pipeline installation and commissioning throughout the proposed blocks / buildings Please clarify what all works under civil modification works are required to be done. Please specify areas / item description with quantities in the BOQ to enable us to quote. Please clarify what all works are civil modification works are required to be done under site modification. Please specify areas / item description with quantities in the BOQ to enable us to quote.	Tender terms & conditions prevail.
63.	**Electrical Wiring with Electrical Panels –** All wiring inside the Manifold Room and Plant room required for MGPS equipment and General electrification All wiring inside the Manifold Room and Plant room required for MGPS equipment. We request you to kindly delete the word "General Electrification" from the technical specifications and get this work done through Civil / Electrical Contractor as this word is very contradictory and with one this one word, one can't identify what all works are required to be done. Incase the same is required to be done through MGPS bidder, same has to be quantified in the BOQ of tender.	Electrical wiring for MGPS plant room equipment and Alarm system shall be done by the MGPS contractor and electrical wiring for light, fan, exhaust fan and peripheral lighting will be done by the civil contractor.
64.	Bidder shall be responsible for complete design, supply, installation, testing and commissioning including turnkey works, demolition and construction as applicable. The bidders are required to survey the site before furnishing the	Tender terms & conditions prevail.

	quotations. Bidder shall be responsible for complete design, supply, installation, testing and commissioning of Medical Gas Pipeline System. Please be informed that we are not a specialized agency for "demolition and construction" work. We therefore request you to kindly delete the same from our scope of work. Further, if it is still required to be done by MGPS Bidder, we request you to kindly quantify the same in the BOQ of tender.	
65.	Bidder shall execute all required civil, electrical, plumbing, lighting, fire safety, exhaust systems and other works as maybe required for complete installation and trouble-free functioning as a part of the 'turnkey work'. To be deleted from the tender. Please be informed that our scope of work is confined to SITC of MGPS only, however we are not specialized in various other services like civil, electrical, plumbing, lighting, fire safety, exhaust systems and other works as required. We therefore request you to kindly delete this line from MGPS Bidder scope of work. Further, if it is still required to be done by MGPS Bidder, we request you to kindly quantify the same in the BOQ of tender.	Civil modifications and repair works for installation testing and commissioning of MGPS in the hospital shall be done by the MGPS contractor. Installation of Electric Distributional panel including Electrical wiring for MGPS plant & manifold room equipment and Alarm system shall be done by the MGPS contractor and electrical wiring for light, fan exhaust fan of the MGPS Plant & Manifold room and peripheral lighting will be done by the civil contractor.
66.	Air-conditioning (Ductable with exhaust) if required to run 24x7 inside the Plant room and Manifold room. Air-conditioning (Ductable with exhaust) if required to run 24x7 inside the Plant room. As per BOQ of tender, 25 TR AC is required to be provided in the Plant room only, however as per specifications, you have mentioned AC for Manifold Room also. Incase, AC is required for manifold room also, kindly mention the same in the BOQ	Tender terms and conditions prevail.
67.	Hospital will provide one point electrical supply	

	with isolator in the plant. The wiring, peripheral lighting, fans, exhaust etc have to be done by the bidder. Hospital will provide one point electrical supply with isolator in the plant. At tendering stage, it is not possible to identify the cost of "wiring, peripheral lighting, fans, exhaust etc", hence we request you to either delete the same from MGPS bidder scope of work or get it done through civil contractor or mention the same in the BOQ with quantities required to enable us to quote.	Tender terms and conditions prevail.
68.	Bidder shall be responsible for free maintenance of all component of Gas pipeline system during warranty period including all filters & consumables. Bidder shall be responsible for free maintenance of all component of Gas pipeline system during warranty period. Please be informed that usage of consumables completely depends upon the hospital requirement and it can't be included in the warranty. We therefore request you to kindly delete the work "Filters and Consumables" from the technical specification.	Tender terms & conditions prevail.
69.	Third party quality certification of the MGMS equipment from SGS / TUV / Lloyds/Bureau Veritas should be submitted as "Certifies that the MGMS equipment meets the technical specification and BOQ of the tender document". To be mentioned in the BOQ of tender. You have asked for Third party quality certification of the MGMS equipment, however you have missed out to mention the same in the BOQ of tender. We request you to kindly consider the same in the BOQ to enable us to quote.	Tender terms & conditions prevail.
70.	Bidder should be responsible for suitable arrangement of heat dissipation, Ventilation/ Airconditioning as per offered MGPS plant	Tender terms and conditions prevail.

	requirement / recommendation from the Manufacturer and as per local site condition for 24 x 7 as per requirement. To be deleted from the technical specification of tender. Please be informed that we have quoted tender considering the requirement given in the BOQ as well as the technical specification of tender. Incase backup arrangement of AC and Exhaust are required by the purchaser, same has to be considered in the BOQ of tender.	
71.	Bidder should also take care of backup arrangement for AC(If required) and Exhausts as the MGPS Plant may run 24x7 as per the requirement. In the case of AC, suitable TR of AC (ductable with exhausts) shall be considered for ranking purpose and price to be included in Turnkey works. To be deleted from the technical specification of tender. Please be informed that we have quoted tender considering the requirement given in the BOQ as well as the technical specification of tender. Incase backup arrangement of AC and Exhaust are required by the purchaser, same has to be considered in the BOQ of tender.	Tender terms and conditions prevail.
72.	Zoning of MGPS should be done to meet the peak flow requirement with suitable back up arrangements for all services, if required. To be deleted from the Tender Please be informed that we have quoted tender considering the requirement given in the BOQ as well as the technical specification of tender. Hence asking for suitable back up arrangements is irrelevant and needs to be deleted from the tender to avoid any contradiction at a later date.	Tender terms & conditions prevail.
73.	**Bill of Quantities** Medical Air Plant (Package Unit) including electrical control panel for A & E : Supply, Installation, testing and commissioning medical air plant having minimum capacity of 12000 LPM as primary and 3000 LPM as standby or	Medical Air Plant (Package Unit) including electrical control panel for A & E: Supply, Installation, testing and commissioning medical air plant having minimum

	total plant capacity of 14000 LPM and complete with all accessories as per technical specification. Vendor shall meet the flow capacity. To be amended as Medical Air Plant (Package Unit) including electrical control panel for A & E : Supply, Installation, testing and commissioning medical air plant having minimum capacity of 12000 LPM as primary and 3000 LPM as standby or total plant capacity of **15000 LPM(+/-10%)** and complete with all accessories as per technical specification. Vendor shall meet the flow capacity. We have noted that the Total plant capacity mentioned is 14000 LPM only, instead of 15000 LPM considering (12000 LPM as working and 3000 LPM as standby). Further like previous tenders of AIIMS, you have missed out to mention (+/-10%) for Medical Air plant capacity. We request you to kindly consider the same and issue amendment as considered for Hospital project like AIIMS, having nearby bed strength.	capacity of 8000-9000 LPM as primary and5000-6000 LPM as Standby (backup) with total plant capacity of 14000 LPM and complete with all accessories as per technical specification. Vendor shall meet the flow capacity. +/-5% variation is allowed for Medical Air Plant capacity.
74.	**Bill of Quantities** Medical Vacuum Plant (Package unit) for A &E : Supply, Installation, testing and commissioning of Rotary Vane type medical vacuum plant having a minimum system capacity of 14000 LPM as primary and 14000 LPM as standby and complete with all accessories complete with all accessories as per technical specification. Vendor shall meet the flow capacity. To be amended as Medical Vacuum Plant (Package unit) for A &E : Supply, Installation, testing and commissioning of Rotary Vane type medical vacuum plant having a minimum system capacity of 14000 LPM **(+/-10%)** as primary and 14000 LPM **(+/-10%)** as standby and complete with all accessories complete with all accessories as per technical specification. Vendor shall meet the flow capacity. We have noted that you have missed out to mention (+/-10%) for Medical Vacuum Plant	+/-5% variation is allowed for Vacuum plant capacity.

	capacity. We request you to kindly consider the same and issue amendment as considered for Hospital project like AIIMS, having nearby bed strength.	
75.	**Bill of Quantities** Kindly add: The below mentioned following items shall be of same make and same manufacturer and same country of origin: 1) Manifold and Fully Automatic Control Panel for O2, N2O and CO2 2) Medical Air Supply System Complete 3) Medical Vacuum System Complete 4) Area Valve Service Unit 5) AGSS System 6) Alarm System (Master and Area) 7) Gas Outlets 8) Line Isolation Valves 9) High pressure Tubes 10) Oxygen Flowmeter with Humidifier Bottle 11) Ward Vacuum Unit 12) Low Flow Ward Vacuum Unit Theatre Vacuum Unit For compatibility and better synchronization between the complete Medical Gas Pipeline System, we request you to kindly consider the items stated from same make and same manufacturer and same country of origin	The following systems/items shall be from the same principal company/Manufacturer: a. Fully Automatic Control Panels for O2, N2O & CO2 b. Medical Air plant (Complete) c. Medical Vacuum Plant (Complete) d. Area & Master Alarm e. All types of Outlets f. AGSS
76.	Volume 1- Prequalification document Estimated cost excl. CMC: 10.8 Crore **Please clarify if this is inclusive of or excluding GST**	This is inclusive of all the charges.
77.	Volume 3- SPECIAL CONDITIONS OF CONTRACT Page 46 Manufacturer ‘s authorization form, paragraph 2 ***No company or firm or individual other than*** M/s _____ are authorized tobid and conclude the contract for goods manufactured by us against this specific tender. **Manufacturer ‘s authorization form is exclusive in nature. For Items like copper pipe, LMO tanks, manufacturers in India caters to all bidders and cannot be restricted**	Bidder who is not able to provide Manufacturer’s authorisation for LMO tank and Copper pipe, has to submit undertaking along with bidthat “*We also hereby confirm that we would be responsible for the satisfactory execution of contract and maintenance works for the contract periodon behalf of manufacturer with theiroriginal spares of LMO & Copper pipes.”*

	to one bidder. Please waive of manufacturer's authorization for such items or allow for a non- exclusive authorization form.	
78.	Tech Spec1.2 Oxygen Manifold Supply System (without Cylinders) BOQ mentions only one. Considering the number of outlets, we suggest that there must be 2 sets for each zone	Tender terms & conditions prevail.
79.	Tech Spec1.3 Emergency Oxygen Manifold (without Cylinders) BOQ mentions only one. Considering the number of outlets, we suggest that there must be 2 sets for each zone	Tender terms & conditions prevail.
80.	Medical and Surgical Air System BOQ 3.1 Medical Air Plant (Package Unit) including electrical control panel for A & E : Supply, Installation, testing and commissioning medical air plant having minimum capacity of 12000 LPM as primary and 3000 LPM as standby or total plant capacity of 14000 LPM and complete with all accessories as per technical specification. Vendor shall meet the flow capacity. **12000+3000= 15000 LPM- typo error to be corrected** **Vol. 04, Technical Specification Page 13, under** **3. (iii) Air Treatment Module** We request you to add following point for air drier which is vital for patient safety. **It must include quality gas analyzers equipped with CO, CO2, temperature, VOC, and NOX sensors.** **The drier must be from same manufacturer as medical air system and must have a third-party validation for breathing air supply and certificates must be submitted in support along with the bid.**	Medical Air Plant (Package Unit) including electrical control panel for A & E: Supply, Installation, testing and commissioning medical air plant having minimum capacity of 8000-9000 LPM as primary and 5000-6000 LPM as Standby (backup) with total plant capacity of 14000 LPM and complete with all accessories as per technical specification. Vendor shall meet the flow capacity. +/-5% variation is allowed for Medical Air Plant capacity. 3.(iii) The dryer must be from same manufacturer as medical air system and must have a third-party validation for breathing air supply and certificates must be submitted in support along with the bid.
81.	Vacuum Systems Vol.4 technical specification, page 15, 4. (iv) Bacterial Filters	Deleted.

	Sentence 2. The dryer should be particulate filter dryer with ability to remove particles as small as 1 micron. **Above sentence must be deleted as it is not relevant to vacuum system**	
82.	AGSS (Anesthetic Gas Scavenging System) Plant BOQ qty. is 0(zero) **Please clarify if rate for this item must be filled in price bid.**	AGSS plant with standby shall have **one number** quantity (Revised BOQ attached).
83.	Gas outlets with probe ii Nitrous Oxide with probe v Surgical Air 7 with probe vi AGSS outlet with probe vii Carbon di oxide with probe BOQ qty. is 0(zero) **Please clarify if rate for these item must be filled in price bid.**	Tender terms & conditionsprevail. MOT outlets are in MOT package.
84.	For better synchronization and maintenance,we request that the following clause be added to the specification. Please note this clause was in previous tenders of AIIMS Gorakhpur, AIIMS Bathinda, AIIMS Kalyani, AIIMS Guntur, AIIMS Nagpur **The following systems/items must be from the same principal company/Manufacturer:** **a. Control Panels for O2, N2O & CO2** **b. Medical Air plant** **c. Medical Vacuum Plant** **d. Area & Master Alarm** **e. All types of Outlets** **Medical Gas Pipeline System except copper pipes and accessories like Ward Vacuum Unit, Theatre Vacuum Unit, Flow meter with Humidifier bottle must follow single standard any one fromBIS/NFPA 99/HTM 02-01/ISO 7396-I/DIN**	The following systems/items shall be from the same principal company/Manufacturer: a. Fully Automatic Control Panels for O2, N2O & CO2 b. Medical Air plant c. Medical Vacuum Plant d. Area & Master Alarm e. All types of Outlets f. AGSS No change for Accessories
85.	Trench work is not possible since RCC road works are already completed. Plant room location is available at site but without civil structure False ceiling works are already completed. **We suggest that following works must be carried out by concerned Civil agency/ HSCC.**	a. Tender terms & conditions prevail. b. Tender terms and conditions prevail.

	a. Removing and reinstating false ceiling for copper pipe installation **b. Civil works for trench and plant room** **Alternatively, these works must be added to the BOQ.** **Please note that the estimated cost of the tender is too low to accommodate such works.**	
86.	Instructions to Applicants (Point No. 2 iii) A solvency certificate from Applicant's bank (Nationalized/Scheduled) that Applicant is solvent for the sum of 40% of the estimated cost. The certificate should not be more than one year old. Request It should be Instructions to Applicants (Point No. 2 iii) A solvency certificate from Applicant's bank (Nationalized/Scheduled) that Applicant is solvent for the sum of 30% of the estimated cost. The certificate should not be more than one year old. This will allow wider participation.	Tender terms & conditions prevail.
87.	Oxygen Supply System (Point No. 1.1) The heavy duty control panel should be provided with a flow capacity of 2500 or more LPM at 50 to 60 psi. Request It should be Oxygen Supply System (Point No. 1.1) The heavy duty control panel should be provided with a flow capacity of 2000 or more LPM at 50 to 60 psi. This will allow wider participation.	The heavy-duty control panel should be provided with a flow capacity of 2000 or more LPM at 50 to 60 psi.
88.	Nitrous Oxide System (Point No. 2.1) The Control Panel should be made to provide Heavy Duty and have a flow capacity of 1000 LPM or more at 50 to 60 psi. Request It should be Nitrous Oxide System (Point No. 2.1) The Control Panel should be made to provide Heavy Duty and have a flow capacity of 900 LPM or more at 50 to 60 psi.	Heavy duty control panel should be provided with flow capacity of 1700-2000 lpm or more at 50-60 psi.
89.	We request for the tender due date extension by	Tender is extended till 08.02.2022.

	one week.	
90.	Standard: Medical gas pipeline system (MGPS) and all products should meet latest HTM 02-01 standards or NFPA-99 standard.	Medical gas pipeline system (MGPS) and all products should meet latest HTM 02-01 standards or NFPA-99 standard.
91.	All the items mentioned below must be EMC Certified and EMC Certificate in this regard must be submitted along with the technical bid of the Tender. ➢ Fully Automatic Oxygen Control Panel ➢ Fully Automatic N2O Control Panel ➢ Fully Automatic CO2 Control Panel ➢ Medical Air Plant complete ➢ Medical Vacuum Plant complete ➢ AGSS Plant complete ➢ Medical gas alarms	The following systems/items shall be from the same principal company/Manufacturer and EMC certified: a. Fully Automatic Control Panels for O2, N2O & CO2 b. Medical Air plant c. Medical Vacuum Plant d. Area & Master Alarm e. AGSS
92.	All the items mentioned below must be CE marked with 4 digit CE notified body number or UL Listed or ETL Listed or US FDA or ISI Marked. Mandatory certificate must be submitted along with the technical bid of tender. ➢ Fully Automatic Oxygen Control Panel ➢ Fully Automatic N2O Control Panel ➢ Fully Automatic CO2 Control Panel ➢ Gas outlet points ➢ Line lockable valves ➢ Medical Air Plant complete ➢ Medical Vacuum Plant complete ➢ AGSS Plant complete ➢ Medical gas alarms	The items mentioned below must be CE marked with 4 digit CE notified body number or UL Listed or ETL Listed or US FDA or ISI Marked. Mandatory certificate must be submitted along with the technical bid of tender. • Fully Automatic Oxygen Control Panel • Fully Automatic N2O Control Panel • Fully Automatic CO2 Control Panel • Gas outlet points • Medical Air Plant complete • Medical Vacuum Plant complete • AGSS Plant complete • Medical gas alarms
93.	Free Sale certificate notarized by the chamber of commerce must be submitted.	Free Sale certificate notarized by the chamber of commerce must be submitted for • Fully Automatic Oxygen Control Panel • Fully Automatic N2O Control Panel • Fully Automatic CO2

		Control Panel • Gas outlet points • Medical Air Plant complete • Medical Vacuum Plant complete • AGSS Plant complete • Medical gas alarms
94.	Fully Automatic Oxygen Control Panel flow rate should be amended to 2000lpm or more at 50 to 60 psig.	Fully Automatic control panel should be 2000 LPM or more at 50 to 60 psi.
95.	Fully Automatic Control Panel for Oxygen / N2O/ CO2 should have Digital 3.5' colorful display. It should have integrated & protected test point. Pre-wired for alarm connection to BMS outputs. Digital display should be backed up by mechanical gauges in case of power failure. • All alarms should be duplicated on a display and embedded membrane panel with LEDs. A manifold status panel shall be provided with colour coded LED indication lights for the following operating and fault indications: Power On (Green), High Line Pressure (Red), Low Line Pressure (Red), Reserve Low (Amber), Left Bank Running (Green), Left Bank Low (Amber), Left Bank Empty (Amber), Right Bank Running (Green), Right Bank Low (Amber), Right Bank Empty (Amber. Control panel shall have a flow indication to inform the user of demand over the last hour period to verify hospital usage at any one time.	Control panels must be digital with colourful display (3.0 inch or more). Alarm connection from control panels toBuilding management system output. Digital display should be backed up by mechanical gauges.All alarms should be duplicated on a display and embedded membrane panel with LEDs. **Clour indications for** Power On, High Line Pressure, Low Line Pressure, Reserve Low, Left Bank Running, Left Bank Low, Left Bank Empty, Right Bank Running, Right Bank Low, Right Bank Empty. Control panel shall have a flow indication to inform the user of demand over the last hour period.
96.	Manifold, Header Bars, Tail Pipes: Oxygen Manifold Supply System (Cylinder Manifold Unit. All header racks and cylinder tailpipes should be 230 bar rated. Cylinder header racks for oxygen service shall be provided with connections for bull nose cylinder connections. Cylinder racks shall be manufactured from powder coated steel and shall be designed to securely support cylinders of varying diameters. Tailpipes shall have gas specific connections to the manifold header with threaded connections.	Tender terms and conditions prevail.
97.	Medical and Surgical Air System - Air Compressor should be Medical Grade and Medical version only and not industrial. Air Compressor Oil free Scroll or Oil free screw. Complete Medical plant should be CE marked with 4 digit CE notified body number or UL	Medical and Surgical Air System - Air Compressor should be Medical Grade and Medical version only and not industrial. Air Compressor Oil free Scroll or Oil free screw.

	Listed or ETL Listed or US FDA or ISI Marked. Mandatory certificate must be submitted. The complete system means complete system. Compressors shall be directly driven by EFC IP55 energy saving CEMEP Class EFF1 high efficiency electric motor. Medical Air Plants are intended to provide a continuous supply of medical quality air conforming to the European Pharmacopoeia medicinal air monograph (ref. 1238), for respiratory use in healthcare facilities. EFF1 (CEMEP) rated TEFC, IP55 class F electric motors shall be used and incorporate maintenance-free greased for life bearings. Motors with lower efficiency ratings are not acceptable.	Complete Medical plant should be CE marked with 4 digit CE notified body number or UL Listed or ETL Listed or US FDA or ISI Marked. Mandatory certificate must be submitted. The complete system means complete system. Compressor should be supplied with intercooler and aftercooler with a dedicated radial quiet running fan to maximise cooling and efficiency. Minimum IE3/NEMA premium electric motors shall be used. Motors with lower efficiency ratings are not acceptable. Compressors should be supplied with a HD color display controller. Sound level should not be more than 72 dB.
98.	Medical Vacuum Plant - Vacuum pumps should be medical grade and medial version not to be industrial. Complete Medical Vacuum plant should be CE marked with 4 digit CE notified body number or UL Listed or ETL Listed or US FDA or ISI Marked. Mandatory certificate must be submitted.The complete system means complete system.	Medical Vacuum Plant - Vacuum pumps should be medical grade and medial version not to be industrial. Complete Medical Vacuum plant should be CE marked with 4 digit CE notified body number or UL Listed or ETL Listed or US FDA or ISI Marked. Mandatory certificate must be submitted. The complete system means complete system.
99.	AGSS Plant Package unit 50Hz - 2 set of Duplex 2800lpm as working and 2800 as standby. Complete AGSS plant should be CE marked with 4 digit CE notified body number or UL Listed or ETL Listed or US FDA or ISI Marked. Mandatory certificate must be submitted. The complete system means complete system.	AGSS Plant Package unit 50Hz - 2 set of Duplex 2500lpm or more as working and 2500lpm or more as standby. Complete AGSS plant should be CE marked with 4digit CE notified body number or UL Listed or ETL Listed or US FDA or ISI Marked. Mandatory certificate must be submitted. The complete system means complete system. AGSS Plant Package unit 50Hz - 2 set of Duplex 2500lpm or more as working and 2500lpm or more as standby. Complete AGSS plant should be CE marked with 4 digit CE notified body number or UL Listed or ETL Listed or US

		FDA or ISI Marked. Mandatory certificate must be submitted. The complete system means complete system. Two equally sized regenerative blowers shall be provided. Blowers shall be oil-less, air cooled side channel regenerative type, suitable for continuous operation and frequent start/ stop. The motor shall be directly coupled to a fully enclosed impeller with contact free operation. Remote start switches shall be connected in parallel such that the plant can be operated from any switch and the plant will continuously operate until all switches are turned off. AGSS Plant must serve upto 20 outlets or more.
100.	Medical Liquid Oxygen Control Panel : mandatory item to be supplied with LMO Tank - It should be CE marked with 4 digit CE notified body number or UL Listed or ETL Listed or US FDA or ISI Marked. Mandatory certificate must be submitted. It should be duplex configuration, with one standby and one duty regulator set. The Control panel is designed to accept a supply of gaseous oxygen from the VIE at 1050 kPa (10.5) bar or from the standby manifold at 850 kPa (8.5 bar) and to reduce the pressure to a nominal 420 kPa (4.2 bar) pipeline distribution system pressure. VIE Control panels are designed to regulate line pressure 28mm, sized pipe line. Mounted on a light weight mild steel zinc plated and passivated back plate assembly. It should be light weight less the 70Kg. All components degreased for oxygen use. Mild steel powder coated enclosure with inlet and outlet pressure gauges. Pressure Sensors : Pressure switches monitor inlet pressure. Dual line pressure switch monitor (high and low pressure). Pressure Reduction Capacity: Maximum inlet pressure: 2,800 kPa (28 bar). Outlet pressure reduced to: 420 kPa (4.2 bar). Flow Rate: 28mm system 3,000 L/min. Relief Valve Settings :	Vacuum insulated evaporator control panel (Medical Liquid Oxygen Control Panel) to .be supplied with LMO Tank. It should be duplex configuration, with one standby and one duty regulator set.Control panel is designed to accept a supply of gaseous oxygen from the VIE at 1050 kPa (10.5) bar or from the standby manifold at 850 kPa (8.5 bar) and to reduce the pressure to a nominal 420 kPa (4.2 bar) pipeline distribution system pressure.It should be light weight less the 70Kg.Pressure Sensors : Pressure switches monitor inlet pressure. Dual line pressure switch monitor (high and low pressure). Pressure Reduction Capacity: Maximum inlet pressure: 2,800 kPa (28 bar). Outlet pressure reduced to: 420 kPa (4.2 bar). Flow Rate: 28mm system 3,000 L/min. Relief Valve Settings : Nominal 4 bar manifold

	Nominal 4 bar manifold 550kPa (5.5 bar).	550kPa (5.5 bar).
101.	Vacuum Regulator should be either analogue or digital - It should be CE marked with 4 digit CE notified body number or UL Listed or ETL Listed or US FDA or ISI Marked. Mandatory certificate must be submitted.	Vacuum Regulator should be either analogue or digital. It should be CE marked with 4 digit CE notified body number or UL Listed or ETL Listed or US FDA or ISI Marked. Mandatory certificate must be submitted.
102.	Oxygen Flow Meter 0-70lpm - It should be CE marked with 4 digit CE notified body number or UL Listed or ETL Listed or US FDA or ISI Marked. Mandatory certificate must be submitted.	Oxygen Flow Meter 0-70lpm - It should be CE marked with 4 digit CE notified body number or UL Listed or ETL Listed or US FDA or ISI Marked.Mandatory certificate must be submitted.
103.	Humidifier Bottle - It should be Polysulphone or Polypropleyene Humidifier Bottle.	It should be Polysulphone or Polypropleyene Humidifier Bottle to withstand temperatures upto 134ºC.
104.	Vacuum Collection Jar - It should be Polysulphone or Polypropleyene Vacuum Collection Jar.	It should be Polysulphone or Polypropleyene VacuumCollection Jar to withstand temperatures upto 134ºC.
105.	Bed Head Panel must have 3 channel / 3 duct and with the below features: ➢ one separate for gas outlet ➢ one separate for electrical sockets ➢ one separate for electrical low voltage like data and nurse call ➢ one reading light ➢ Pre Piped and pre wired bed head unit	Bed Head Panel must have 3 channel / 3 duct and with the below features: • one separate for gas outlet • one separate for electrical sockets • one separate for electrical low voltage like data and nurse call • one reading light • Pre Piped and pre wired bed head unit
106.	Page no. 20 Vol04_TechSpecs 17. Horizontal Bed Head Panel Hospital bed-head panels are specially fabricated units for hospital use, designed to converge all	Bed Head Panel are known as medical supply units and it is important item of Medical Gas System, Bed Head Panel should be CE marked with 4 digit CE notified body number or UL Listed or ETL

	the essential utilities around the patient's bed. These bed-head panels are configured to carry user terminals for electrical power, illumination, communications, bio signals, data, medical gas and carry a medical rail with a range of mountable accessories like examination lamps, BP instrument holder, case sheet holders, IV and infusion pump stands, bowl holders and the like. As Bed Head Panel is important item of Medical Gas System, we request Horizontal Bed Head Panel should be with BIS/US FDA/European CE Certified with 4 digit notified body number or American ETL/ UL listed certified for quality product.	Listed or US FDA or ISI Marked. Mandatory valid certificate must be submitted.
107.	VOLUME – V: Bill of Quantity BOQ OF MEDICAL GAS PIPELINE SYSTEM Sr. No. 4.1 refers: Medical Vacuum Plant (Package unit) for A & E: Supply, Installation, testing and commissioning of Rotary Vane type medical vacuum plant having a minimum system capacity of 14000 LPM as primary and 14000 LPM as standby and complete with all accessories complete with all accessories as per technical specification. Vendor shall meet the flow capacity. Refer Sr. No. 3.1 of Volume -V: bill of Quantity which mentions: Medical Air Plant (Package Unit) including electrical control panel for OPD: Supply, Installation, testing and commissioning medical air plant having minimum capacity of 3000 LPM as primary and 500 LPM as standby or total plant capacity of 3500 LPM and complete with all accessories as per technical specification. Vendor shall meet the flow capacity. We requests that Total Plant Capacity for Medical Air Plant as well as medical vacuum Plant for A7 & E are mentioned as 14000 LPM which is surprising and clearly identifies oversizing. Request to please re-consider the sizing.	Medical Air Plant (Package Unit) including electrical control panel for A & E: Supply, Installation, testing and commissioning medical air plant having minimum capacity of 8000-9000 LPM as primary and 5000-6000 LPM as Standby (backup) with total plant capacity of 14000 LPM and complete with all accessories as per technical specification. Vendor shall meet the flow capacity. +/-5% variation is allowed for Medical Air Plant capacity. Medical Air Plant (Package Unit) including electrical control panel for OPD & IPD: Supply, Installation, testing and commissioning medical air plant having minimum capacity of 3000 LPM as primary and 3000 LPM as standby or total plant capacity of 6000 LPM and complete with all accessories as per technical specification. +/-5% variation is allowed for Medical Air Plant capacity Vendor shall meet the flow capacity.
108.	VOLUME – V: Bill of Quantity BOQ OF MEDICAL GAS PIPELINE SYSTEM	Minimum system capacity of 7000 LPM as primary and 7000

	Sr. No. 4.2 refers: Medical Vacuum Plant (Package unit) for OPD & IPD: Supply, Installation, testing and commissioning of Rotary Vane type medical vacuum plant having a minimum system capacity of 3500 LPM as primary and 3500 LPM as standby and complete with all accessories complete with all accessories as per technical specification. Vendor shall meet the flow capacity. Refer Sr. No. 3.2 of Volume -V: bill of Quantity which mentions: Medical Air Plant (Package Unit) including electrical control panel for A & E: Supply, Installation, testing and commissioning medical air plant having minimum capacity of 12000 LPM as primary and 3000 LPM as standby or total plant capacity of 14000 LPM and complete with all accessories as per technical specification. Vendor shall meet the flow capacity. We requests that the same pattern should be followed as in Air Plant (Refer 4.2) and Vacuum Plant Note : We checked with our foreign manufacturers who have confirmed that your mentioned capacity is too high and even they have neither manufactured nor supplied to any where in the world for any hospital application, according to their calculations based on list of air outlets provided in your tender document and based on HTM-02-01 recomendations requirement is it should not be more than as Medical Vacuum - 8765 l/m Total Design Flow which may please be amended accordingly to make us enable to supply.	LPM as standby and complete with all accessories complete with all accessories as per technical specification for OPD IPD.
109.	VOLUME – V: Bill of Quantity BOQ OF MEDICAL GAS PIPELINE SYSTEM Sr. No. 9 refers: Copper Pipes Complete with all accessories as per technical specification v. 28mm OD X 1 mm thick vi. 22mm OD X 1 mm thick vii. 15mm OD X 1 mm thick Viii.12mm OD X 1 mm thick Thickness of copper pipes being specified is	Tender terms and conditions prevail.

	incorrect and misaligned as per market prevalent manufacturing practices/ standards pipes less than 28mm outer diameter, should be 1mm as mentioned in respective BOQ. This is wrong and unjustified requirement as per BSEN 13348 / HTM requirement and equivalent in inches as per ASTM for medical application . Manufacturers don't follow such nonstandard requirements for manufacturing . We request that the specification /description for copper pipes of following various pipe sizes need to replace the existing description /specification in tender as follows : v. 28mm OD X 0.9 mm thick vi. 22mm OD X 0.9 mm thick vii. 15mm OD X 0.7 mm thick Viii.12mm OD X 0.6 mm thick	
110.	VOLUME – IV: Technical Specifications 1.1 Fully Automatic Oxygen Control Panel refers The heavy-duty control panel should be provided with a flow capacity of 2500 or more LPM at 50 to 60 psi. None of Indian Manufacturer is manufacturing as per the provided specifications Manufacturers give only 1700 LPM and list of outlets provided doesn't requires more capacity than this too. We request that the specification /description for Fully Automatic Oxygen Control Panel need to replace the existing description /specification in tender as follows: The heavy-duty control panel should be provided with a flow capacity of 1700 or more LPM at 50 to 60 psi.	Fully Automatic control panel should be 2000 LPM or more at 50 to 60 psi.
111.	VOLUME – IV: Technical Specifications 2.1 Fully Automatic Nitrous Oxide Control Panel refers The Control Panel should be made to provide Heavy Duty and have a flow capacity of 1000 LPM or more at 50 to 60 psi. Nitrous Oxide Change over Automatic Control Panel of capacity minimum 1000 LPM has been requested while a maximum of 500 LPM usually suffices because it's a liquifiable gas and its requirements is very low and limited to OT's only irrespective of the size of hospital or any number	The Control Panel should be made to provide Heavy Duty and have a flow capacity of 1700 - 2000 LPM or more at 50 to 60 psi.

	of operation theatres . Also, no imported supplier manufactures such capacities due to such properties of this gas. Hence it is requested for changing the capacity for Nitrous Oxide Change over Automatic Control Panel to 500 LPM We request that the specification /description for Fully Automatic Oxygen Control Panel need to replace the existing description /specification in tender as follows : The Control Panel should be made to provide Heavy Duty and have a flow capacity of maximum 500LPM at 50 to 60 psi.	
112.	VOLUME – IV: Technical Specifications 20. Turnkey Works, sub clause 20. (3). (13) . Mentions The Medical Gas Pipe Line System must follow Single Standard any one only from: NFPA 99c/HTM02-01/ ISO7396-1/DIN/EN except Copper pipe a. Why Copper pipe is an exception here? This is a big engineering blunder due to difference in Inches and mm standards being used in two standards namely HTM or NFPA. In case people are quoting as per NFPA, system they should quote as per ASTM standards or in case HTM standards are followed then BSEN standards need to be followed b. Additionally AGSS plant should be excluded from single standards since the price difference between the European standards and other standards is huge . We request that the AGSS should be removed from purview of single standard This should be applicable only wherever you are looking for one of the recommendations / standards only	a) & b)Tender terms and conditions prevail.
113.	VOLUME – IV: Technical Specifications 3. MEDICAL AND SURGICAL AIR SYSTEM mentions Air-cooled Oil-Less compressors for continuous duty application with highest output of compressed air, low power consumption and very low vibration resulting in low noise level.	Tender terms and conditions prevail.

	The medical air plant shall fully comply with the requirements of the HTM 02- 01/ NFPA 99C/EN/DIN/ISO 7396-1. 3. (i) Air Compressor Modules mentions It should be Oil-Less Screw Compressors /Scroll Compressors to produce the plant output as mentioned in BOQ as primary and same as standby or standby as per standards. Medical quality air shall be delivered at a nominal pressure of 400 kPa (4 bar) and 700kPa(7bar) gauge for supply of the hospital medical air and surgical air. You are contradicting by calling oil less compressors - Air Plant by demanding requirements which comply other than NFPA standards only because other than NFPA standards mentioned in your tenders is oil flooded screw compressors for both medical air and surgical air Please note that as per NFPA , they make two independent plants One with medical air for 4bar pressure and other for 7 bar pressure . In case bidder is quoting for NFPA then two plants shall be required and accordingly flow rates for both the plants for medical and surgical air need to be provided accordingly .WE request authorities to consider the applicability of requirements and amend the requirements accordingly. Also note that for surgical air, 8 bar pressure is more than sufficient requirement as 7 bar is required at the user end and that too for pneumatic drills which is not in practice now a days because most of the surgeons are using electric drill machines nowadays. Hence We request that you can remove the requirement of 7 bar pressure lines also Note : We checked with our foreign manufacturers who have confirmed that your mentioned capacity is too high and even they have neither manufactured nor supplied to any where in the world for any hospital application, according to their calculations based on list of air outlets provided in your tender document and based on HTM-02-01 recomendations requirement is it should not be more than Medical Air 4 Bar - 4953 l/m	

	Total Design Flow and similarly Surgical Air 7 Bar - 4025 l/m Total Design Flow, which may please be amended accordingly to make us enable to supply. Also please remove the requirement of oil-less in case of screw compressors as no one in UK uses oil-less screw compressors however if the compressors are scroll can be oil-less as well.	
114.	VOLUME – IV: Technical Specifications 3. (ii) Vertical Air Receiver mentions Total air receiver capacity shall be at least 50% (± 5%) of the primary plant capacity mentioned in the BOQ) We requests that Please don't specify as 50% of the total capacity. Instead you need to mention that as per NFPA, requirement to be met with manufacturers own design for receiver. This requirement doesn't meet with NFPA requirement at all.	As per tender conditions.
115.	VOLUME–IV: **Technical Specifications** 4. (ii) Vacuum Receiver mentions Vacuum reservoir shall have total volume of at least 100% of Primary Plant output (± 5%) (capacity as mentioned in the BOQ) We requests that Please don't specify as 100% of the Primary Output. You need to mention that as per NFPA requirement to be met with manufacturers own design for receiver. This requirement doesn't meet with NFPA requirement at all.	As per tender conditions.
116.	VOLUME – IV: Technical Specifications 7. Theatre Vacuum unit for OT mentions It must consist of the following: - Digital/Analogue Suction Regulator and 2nos. 1500 ml or more polysulfone/ polycarbonate collection jar and both to be mounted on a trolley We needs clarification if 1500 ml for each jar is being sought or a total of two jars should meet 1500 ml requirement. Request Authorities to respond to the same through this request or	Theatre Vacuum unit for OT mentions It must consist of the following: - Digital/Analogue Suction Regulator and 2nos. 1500 ml each or more polysulfone/ Polyproplyene collection jar and both to be mounted on a trolley.

	through notes of Pre-Bid Meeting. We would also request to hold on the Pre-Bid Meeting Virtually and issuing the link to join the same per return of this mail considering the current scenario of spread of Omicron	
117.	VOLUME–IV: **Technical Specifications** **AGSS (Anesthetic Gas Scavenging System) Plant** **We requests that Single standard exclusion needs to be introduced for AGSS as being explained in S.No. 8 above**	Tender terms and conditions prevail.
118.	VOLUME – IV: Technical Specifications 9.1 Piping specifications Copper pipe must have reputed third party inspection certificate (E.g., Lloyd's or TUV or SGS) We requests that UL Listing or BS Kite Mark should be incorporated as 3rd party inspection agencies / certifications especially if the supply is as per NFPA. It should be UL Listed and for any other standards	Copper Pipes must be BSI Kite Mark and valid BSI Kite mark certificate must be submitted.
119.	VOLUME – IV: Technical Specifications 9.1 Piping specifications The minimum thickness of copper pipes of 35mm and above outer diameter, should be 1.2mmand the thickness of copper pipes less than 28mm outer diameter, should be 1mm as mentioned in respective BOQ This is wrong and unjustified requirement as per BSEN 13348 / HTM requirement and equivalent in inches as per ASTM for medical application. Manufacturers don't follow such nonstandard requirements for manufacturing. We request that the amendment to the descriptions of various pipe specified in tender as follows must be incorporated: v. 28mm OD X 0.9 mm thick vi. 22mm OD X 0.9 mm thick vii. 15mm OD X 0.7 mm thick Viii.12mm OD X 0.6 mm thick	Tender terms and conditions prevail.

120.	VOLUME – IV: Technical Specifications 11. AREA VALVE SERVICE UNIT mentions It should be reliable and easy to operate and must have NIST connectors Most of your specifications are particular against one of the recommendations / standards mentioned in your tender and also make specific. Under the circumstances , We requests you must need to mention following line somewhere in the tender that " The above mentioned Technical Specifications are generic to best of our knowledge, however mentioned approved makes manufacturer's own design based on HTM or NFPA will be acceptable". Similarly stand by plants capacities / flow rates / arrangements of number of compressors / vacuum pumps required for above mentioned air , vacuum and AGSS plants will also be followed as per manufacturers' own design and standard practices being followed to comply with HTM / NFPA requirements" failing which no one will be able to prove line by line word by word of your individual items specifications while supplying Own Manufacturer Design.	Tender terms and conditions prevail.
121.	VOLUME – IV: Technical Specifications 17. Horizontal Bed Head Panel mentions It shall confirm to HTM 02- 01/ NFPA 99 C/EN/DIN/ISO 7396-1. It shall confirm to HTM 02-01/ NFPA 99 C/EN/DIN/ISO 7396-1. T We request that this needs to be removed. There is no applicability of standards on Bed Head panels .However only the gas outlets used in bed head panels only can conform to standards . Kindly clarify the same . Also, Length of 1500 mm is not sufficient to accommodate the requirements specified in the BHP's . The same can be counter checked with all other suppliers too in order to accommodate the	Tender terms and conditions prevail.

	requirements of 10 Nos Electrical Switches, 5 gas outlets and additional spaces for Nurse Call System and RJ45/Ethernet Switch . Accordingly We requests that the 1500mm must be changed to 2000 mm as the length required for BHP	
122.	VOLUME – IV: Technical Specifications 18. High pressure tubes for O2, N2O, Compressed Air, & Vacuum mentions The 200m Hose- Gas wise requirement should be taken from respective institute before supply total lengths should be 200m inclusive of all type BOQ is not specifying any line item for supplying additional 200m Hose- Gas BESNON request that 200m of quantity must get included in the BOQ so that the unit rate can be quoted and in case the quantity exceeds the 200m quantity that the specified unit rate can be applied by institute for buying from the bidder In case the same is to be provided , the particular service type must be clarified otherwise it is vague and you should cover all the hoses along with its quantities based on its total 200 metre length Unless a specific service is being specified, expectation of supply of the same just like that would be unjustifiable	The Hose- Gas wise requirement should be taken from respective institute before supply of 500m hose inclusive of all types. If institute requires more than payment will be made on actual basis as per finalized BOQ rate.
123.	VOLUME – IV: Technical Specifications 20. Turnkey Works: Note 2 mentions Adequate training of personnel and non-locked open software and standard interface interoperability conditions for networked equipment in hospital management information system (HMIS)The successful tenderer will be required to undertake to provide at his cost technical training for personnel involved in the use and handling of the equipment on site at the institute immediately after its installation. The company shall be required to train the institute personnel onsite for a minimum period of 1 month All software updates should be provided free of cost during warranty period and CMC period	Tender terms and conditions prevail.

	We requests that this is not applicable to MGPS and associated ancillaries' requirement	
124.	VOLUME – IV: Technical Specifications 20. Turnkey Works sub clause 2. After Sales Service: Mentions Complaints should be attended properly, maximum within 8 hrs WE requests that time span must be increased to 72 Hours as Clause 23 pf SCC : : Downtime Penalty mentions The maintenance services during the period of the defect liability, the contractor shall attend to any problem/ fault arising in the MGPS System is put *back to satisfactory operation within 72 Hours*. In case of failure by the contractor in restoring proper functioning of the MGPS within 72 Hours, a downtime penalty shall be paid by the contractor @ Rs 10,000(Rs Ten Thousand) per day, for a period of 4 days; and @ Rs 20,000(Rs Twenty Thousand) per day thereafter.	Tender terms and conditions prevail.
125.	VOLUME – IV: Technical Specifications 20. Turnkey Works sub clause 2. After Sales Service: Mentions Undertaking by the principals that the spares for the equipment will be available for at least 10 years from the date of supply WE request that it should be changed with adding a prefix of foreign principal instead of principals being mentioned in tender.	Tender terms and conditions prevail.
126.	VOLUME – IV: Technical Specifications 20. Turnkey Works mentions Site Modification Bidder should be responsible for all civil modifications and repair for successful completion of MGPS Plant, Manifold, and Pipeline installation and commissioning throughout the proposed blocks/buildings Please confirm that there is an existing plant room which needs to be renovated or demolished or reconstructed. In case it is to be renovated then the applicable	Construction works of MGPS Plant & Manifold room including electrical wiring for light, fan exhaust fan and peripheral lighting will be done by the civil contractor. Civil modifications and repair works for installation testing and commissioning of MGPS in the hospital shall be done by the MGPS contractor.

	plant room layout drawings and associated specifications and BOQ are to be shared so as to derive the exact costs for the works. IN case ethe vacated land is available then what are the facilities that need to be constructed in Plan Room scope needs to be shared. We would request to share the contact details and availability schedule of the authorised representative with whom the contact can be established so as to coordinate the site visit prior to bidding of the tender	

Encl: Revised BOQ & Layout Drawing.

All other terms & conditions remain unchanged.

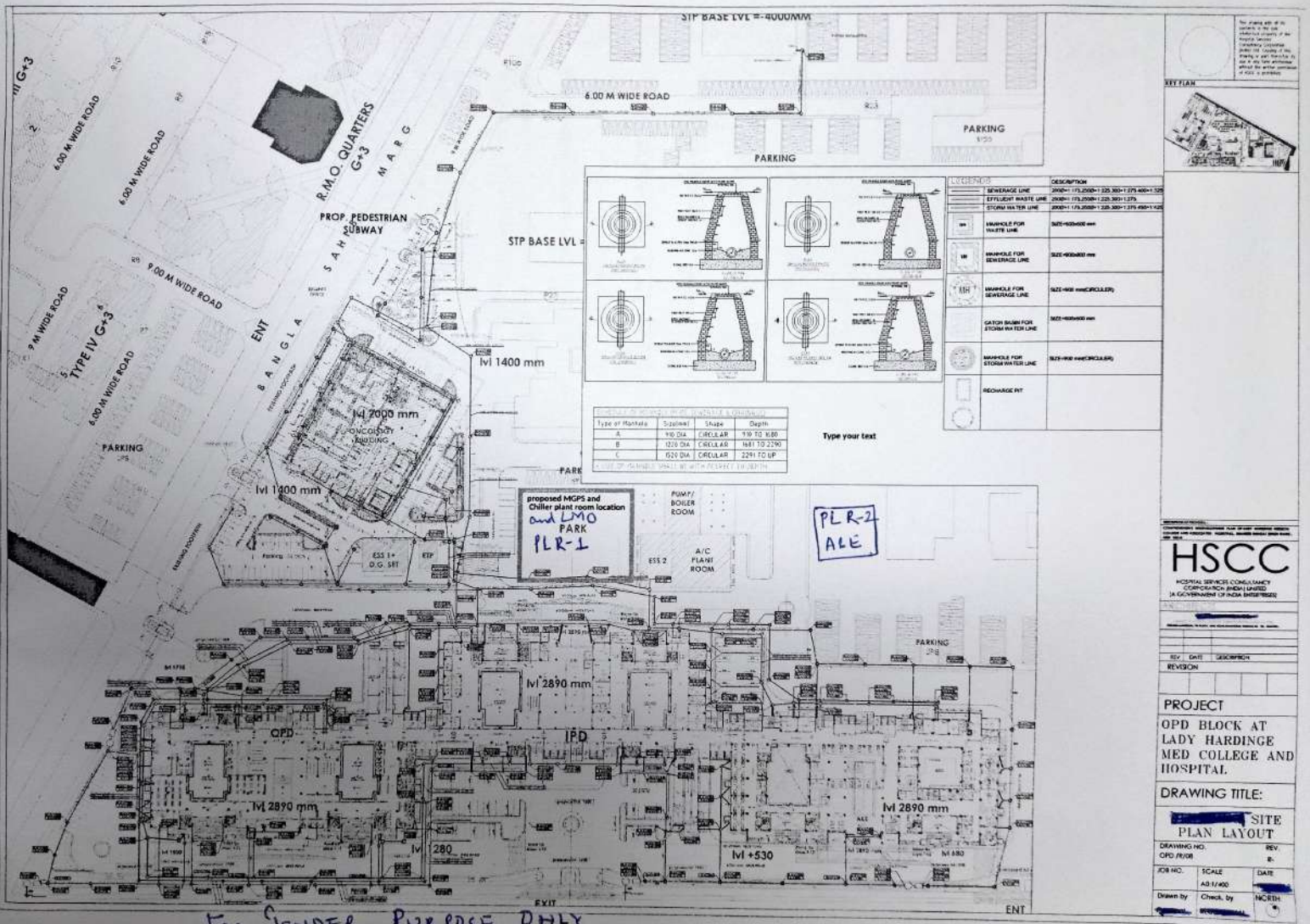
Director, LHMC, New Delhi

BOQ OF MEDICAL GAS PIPELINE SYSTEM						
Part-I : Plan, Design, Supply, Installation, Testing and Commissioning of MGPS on Turnkey Basis						
Name of Bidder M/s.						
Sr. No.	**Desciption of Items**	**QTY**	**Unit**	**Rate in Rs.**	**Rate in Rupees in Words**	**Amount in Rs.**
1	**OXYGEN SYSTEM**					
1.1	Fully Automatic Oxygen Control System : Supply, Installation testing and commissioning of Fully Automatic Oxygen Control System complete with all accessories as per technical specification	1	Nos			0.00
1.2	Oxygen Manifold (2x20) : Supply, Installation, testing and commissioning of (2x20 size) class D cylinder Oxygen Supply System complete with all accessories as per technical specification.	1	Nos			0.00
1.3	Emergency Oxygen Supply System : Supply, Installation, testing and commissioning of (2x5 or 1x10 size) class D cylinder Emergency Oxygen Supply System complete with all accessories as per technical specification.	1	Nos			0.00
1.4	Oxygen Flow meter with Humidifier Bottle: Supply, installation, testing and commissioning of oxygen flow meter (0-70 lpm) with humidifier bottle 0-15Litres complete with all accessories as per technical specification	1130	Nos			0.00
1.5	LMO Tank 20KL & 10 KLwith Vaporisers and Pressure Reducing Stn:Supply, installation,testing and commissioning complete with all accessories complete with all accessories as per technical specification	1	Nos			0.00
2	**NITROUS SYSTEM**					
2.1	Fully Automatic Manifold Control Panel for Nitrous Oxide: Supply, installation testing and commission of fully automatic control panel for Nitrous Oxide complete with all accessories as per technical specification	1	Nos			0.00
2.2	Nitrous Oxide Manifold System, (2x8 size): Supply, installation, testing and commissioning of Nitrous Oxide Manifold system complete with all accessories as per technical specification	1	Nos			0.00
2.3	Emergency Nitrous Oxide Manifold System, 2x3 or 1x6 size: Supply,installation, testing and commissioning of cylinderEmergency Nitrous Oxide supply System complete with all accessories as per technical specification	1	Nos			0.00
3.1	Medical Air Plant (Package Unit) including electrical control panel for **A & E** : Supply, Installation, testing and commissioning medical air plant having minimum capacity of 8000-9000 LPM as primary and 5000-6000 LPM as Standby (backup) with total plant capacity of 14000 LPM and complete with all accessories as per technical specification. Vendor shall meet the flow capacity..	1	Set			0.00

Sr. No.	Desciption of Items	QTY	Unit	Rate in Rs.	Rate in Rupees in Words	Amount in Rs.
3.2	Medical Air Plant (Package Unit) including electrical control panel for **OPD** : Supply, Installation, testing and commissioning medical air plant having minimum capacity of 3000 LPM as primary and 3000 LPM as standby or total plant capacity of 6000 LPM and complete with all accessories as per technical specification. Vendor shall meet the flow capacity.	1	Set			0.00
4.1	Medical Vacuum Plant (Package unit) for **A & E** : Supply, Installation, testing and commissioning of Rotary Vane type medical vacuum plant having a minimum system capacity of 14000 LPM as primary and 14000 LPM as standby and complete with all accessories complete with all accessories as per technical specification. Vendor shall meet the flow capacity.	1	Set			0.00
4.2	Medical Vacuum Plant (Package unit)for **OPD & IPD** : Supply, Installation, testing and commissioning of Rotary Vane type medical vacuum plant having a minimum system capacity of 7000 LPM as primary and 7000 LPM as standby and complete with all accessories complete with all accessories as per technical specification. Vendor shall meet the flow capacity.	1	Set			0.00
5	Ward Vacuum Unit: Supply, installation, testing and commissiong of Ward Vacuum Unit complete with all accessories as per technical specification.	985	Nos			0.00
6	Low flow ward vacuum unit SITC complete with all accessories as per technical specification	30	Nos			0.00
7	Theater Vaccum Unit for Operation Theaters: Supply, installation, testing and commissiong of Theater Vacuum Unit complete with all accessories as per technical specification (Digital/Analogue Suction Regulator and 2nos. 1500 ml each or more)	46	Nos			0.00
8	AGSS System: Supply installation and commissioning of AGSS Plant Package unit 50Hz - 2 set of Duplex 2500 lpm or more as working and 2500 lpm or more as standby and complete with all accessories as per technical specification	1	Nos			0.00
9	Copper Pipes					
	Complete with all accessories as per technical specification					
i	108mm OD x 1.5mm thick	500	mtr			0.00
ii	76mm OD X 1.5mm thick	500	mtr			0.00
iii	54mm OD X 1.2mm thick	400	mtr			0.00
iv	42mm OD X 1.2mm thick	1925	mtr			0.00
v	28mm OD X 1 mm thick	3371	mtr			0.00
vi	22mm OD X 1 mm thick	6510	mtr			0.00
vii	15mm OD X 1 mm thick	6613	mtr			0.00
viii	12mm OD X 1 mm thick	5408	mtr			0.00

Sr. No.	Desciption of Items	QTY	Unit	Rate in Rs.	Rate in Rupees in Words	Amount in Rs.
10	Gas Outlet Points/ Terminal Units with probe: Supply,Installation, testing and commissioning of Gas outlet points for Oxygen, Nitrous Oxide, Medical Air 4 Bar , Surgical Air 7 Bar, Vacuum, CO2 and AGSS complete with all accessories as per technical specification .					
i	Oxygen outlet with probe (MOT outlets are in the MOT Package)	958	Nos			0.00
ii	Nitrous Oxide outlet with probe (MOT outlets are in the MOT Package)	0	Nos			0.00
iii	Medical Air 4 outlet with probe (MOT outlets are in the MOT Package)	263	Nos			0.00
iv	Vacuum outlet with probe (MOT outlets are in the MOT Package)	992	Nos			0.00
v	Surgical Air 7 outlet with probe (MOT outlets are in the MOT Package)	0	Nos			0.00
vi	AGSS outlet with probe (MOT outlets are in the MOT Package)	0	Nos			0.00
vii	Carbon di Oxide outlet with probe (MOT outlets are in the MOT Package)	0	Nos			0.00
11	AREA VALVE BOX : Supply,Installation, testing and commissioning of Area Valve Boxes complete with all accessories as per technical specification .					
i	Valve Box - 2 Gas Service	45	Nos			0.00
ii	Valve Box - 3 Gas Service	25	Nos			0.00
iii	Valve Box - 6 Gas Service	25	Nos			0.00
12	MEDICAL GAS ALARM PANEL : Supply, Installation, testing and commissioning of Medical Gas Alarm Panel complete with all accessories as per technical specification .					
i	Medical Gas Area Alarm for 2 services (Oxygen and Vacuum)	45	Nos			0.00
ii	Medical Gas Area Alarm for 3 services (Oxygen, MA4 bar and Vacuum)	25	Nos			0.00
iii	Medical Gas Area Alarm 6 services	25	Nos			0.00
iv	Master Alarm Panel	1	No			0.00
13	LINE ISOLATION VALVES Supply, Installation, testing and commissioning of Medical Gas Alarm Panel complete with all accessories as per technical specification .					
i	15 mm ball valve	195	Nos			0.00
ii	22 mm ball valve	198	Nos			0.00
iii	28 mm ball valve	25	Nos			0.00
iv	42 mm ball valve	20	Nos			0.00
v	54 mm ball valve	4	Nos			0.00
vi	76 mm ball valve	4	Nos			0.00
vii	108 mm ball valve	4	Nos			0.00
14	Supply of O2 cylinders-Class D cylinders	60	Nos			0.00
15	Supply of N2O cylinders-Class D cylinders	30	Nos			0.00
16	Supply of CO2 cylinders-Class D cylinders	15	Nos			0.00
17	Bed Head Horizontal/ vertical Wall Panel (Without outlets) as per specification	244	Nos			0.00

Sr. No.	Desciption of Items	QTY	Unit	Rate in Rs.	Rate in Rupees in Words	Amount in Rs.
18	Supply installation testing and commissioning of Medical gas hose assemblies as per standard followed	500	mtr			0.00
19	CO2 Manifold 4 + 4 Primary & 2+2 Standby Cylinders with Automatic control panelas per specs	1	set			0.00
20	**Turnkey works**					
i	Turnkey works including Site modification as per Specification and also as following	1	Lum Sum			0.00
ii	Providing and fixing of Aircondioners (Ductable with Exhausts) of capacity 25TR including ducting for MGPS Plant room	1	No			0.00
iii	SITC of Electrical Distribution Panel for Plant & Manifold rooms	1	No			0.00
iv	Providing and fixing earthing of the Plant Room	1	No			0.00
					TOTAL Rs.	**0.00**



FOR TENDER PURPOSE ONLY