## HSCC/SES/MGMS/AIIMS/Kalyani/2019

All Bidders

## Amendment -III

Date:23.07.2019

Project: Supply, Installation, Testing & Commissioning of Medical Gas Manifold System for Hospital Block at All India Institute of Medical Sciences (AIIMS), Kalyani, West Bengal

IFB No. HSCC/SES/MGMS/AIIMS/Kalyani/2019 Date:13.06.2019

This has reference to above IFB.

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

Sr. No.	Bidders' Queries	Reply
1	Oxygen Manifold Supply System (without Cylinders): Oxygen Manifold should consist of 2 row/s of respective numbers of class D-type bulk oxygen cylinders.  The Standard configuration of Manifolds available with most of the leading manufacturers are of Single (1) Row. Therefore we request you to amend the sentence as; Oxygen Manifold should consist of 2/1 row/s of respective numbers of class D-type bulk oxygen cylinders. In addition to this, and for enhancing safety of the manifold system, we suggest that you should demand that the manifold system should not contain any Halogenated Polymer materials.	Oxygen Manifold should consist of 2/1 row/s of respective numbers of class D-type bulk oxygen cylinders.  Manifold system should not contain any Halogenated Polymer materials
2	Oxygen Manifold Supply System (without Cylinders): Header bar/s assembly shall be provided with a high pressure shut off valve.  It may be noted that HTM or ISO Standards does not permit the use of Shut Off Valves on the Headers. Moreover, if any Shut Off Valve are provided on Manifold Header, then the same will not be compliant / satisfying the requirement of HTM / ISO Standards. Hence, we request you to delete the sentence:	Header bar/s assembly shall be as per standards mentioned in the technical specification of tender.

	Header bar/s assembly shall be provided with a	
3	high pressure shut off valve.  Vol 4 - Technical Specifications, Page 2, Para 1.2	Manifolds are designed and tested
	Oxygen Manifold Supply System (without	with at least inlet pressure of 3000
	Cylinders): The manifold should be hydroulically tested to	psig or as per standards mentioned
	The manifold should be hydraulically tested to 3500 psig or as per guideline of standard to be	in the technical specification of tender.
	followed.	tender.
	In India, the general practise is that the medical	
	gas manifolds are tested at a minimum pressure	
	of 3500 psig. This is inherent and can be verified	
	in many of the earlier tenders floated by HSCC as well.	
	Accepting of any manifold which are tested	
	below 3500 psig is actually diluting the safety	
	standards and requirement, and thereby	
	increasing the risk of untoward incidents	
	happening.	
	We therefore request you to maintain the requirement of manifold hydraulically tested to	
	minimum 3500 psig, and delete the wordings or	
	as per guideline of standard to be followed.	
4	Vol 4 - Technical Specifications,	Header bar/s assembly shall be as
	Page 3, Para 1.3	per standards mentioned in the
	Emergency Oxygen Manifold (without	technical specification of tender.
	Cylinders):	
	Header bar/s assembly shall be provided with a	
	high pressure shut off valve.	
	It may be noted that HTM or ISO Standards does	
	not permit the use of Shut Off Valves on the	
	Headers.	
	Moreover, if any Shut Off Valve are provided on	
	Manifold Header, then the same will not be compliant / satisfying the requirement of HTM /	
	ISO Standards.	
	Hence, we request you to delete the sentence:	
	Header bar/s assembly shall be provided with a	
	high pressure shut off valve.	26 (6.11
5	Vol 4 - Technical Specifications, Page 3, Para 1.3	Manifolds are designed and tested with at least inlet pressure of 3000
	1 age 3, 1 ata 1.3	psig or as per standards mentioned
	Emergency Oxygen Manifold (without	in the technical specification of
	Cylinders):	tender.
	The manifold should be hydraulically tested to	
	3500 psig or as per standard to be followed.	
	In India, the general practise is that the medical	
	gas manifolds are tested at a minimum pressure	
	500 maintoras are resteu ar a minimum pressure	1

	of 3500 psig. This is inherent and can be	
	Verified in many of the earlier tenders floated by	
	HSCC as well.	
	Accepting of any manifold which are tested	
	below 3500 psig is	
	actually diluting the safety standards and	
	requirement, and thereby	
	increasing the risk of untoward incidents	
	happening.	
	We therefore request you to maintain the	
	requirement of manifold hydraulically tested to	
	minimum 3500 psig, and delete the wordings or	
	as per guideline of standard to be followed.	
6	Vol 4 - Technical Specifications,	Pressure Reducer arrangement
0	Page 3, Para 1.3	shall be as per Standards
	1 age 3, 1 ata 1.3	mentioned in the technical
	Emarganov Ovygon Manifold (without	
	Emergency Oxygen Manifold (without	specification of tender
	Cylinders):	
	DI C' 'C D D 1 C'	
	Please confirm if any Pr Regulating arrangement	
	is required to be offered along with the	
	Emergency Oxygen Manifold?	
	If YES, what is the flow capacity & other	
	technical requirement?	
7	Vol 4 - Technical Specifications,	BIS/US FDA/European CE
7	Vol 4 - Technical Specifications, Page 3, Para 1.5	Certified with 4 digit notified
7	Page 3, Para 1.5	Certified with 4 digit notified body number or American ETL/
7	Page 3, Para 1.5  Oxygen Flow meter with Humidifier Bottle:	Certified with 4 digit notified
7	Page 3, Para 1.5	Certified with 4 digit notified body number or American ETL/
7	Page 3, Para 1.5  Oxygen Flow meter with Humidifier Bottle:	Certified with 4 digit notified body number or American ETL/
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7	Page 3, Para 1.5  Oxygen Flow meter with Humidifier Bottle:  I) should be BIS/CE certified/ UL Listed	Certified with 4 digit notified body number or American ETL/
7	Page 3, Para 1.5  Oxygen Flow meter with Humidifier Bottle:  I) should be BIS/CE certified/ UL Listed  It is observed that elsewhere in the tender	Certified with 4 digit notified body number or American ETL/
7	Page 3, Para 1.5  Oxygen Flow meter with Humidifier Bottle:  I) should be BIS/CE certified/ UL Listed  It is observed that elsewhere in the tender technical specs, it is mentioned as: It should be	Certified with 4 digit notified body number or American ETL/
7	Page 3, Para 1.5  Oxygen Flow meter with Humidifier Bottle:  I) should be BIS/CE certified/ UL Listed  It is observed that elsewhere in the tender technical specs, it is mentioned as: It should be US FDA/European CE Certified with 4 digit	Certified with 4 digit notified body number or American ETL/
7	Page 3, Para 1.5  Oxygen Flow meter with Humidifier Bottle:  I) should be BIS/CE certified/ UL Listed  It is observed that elsewhere in the tender technical specs, it is mentioned as: It should be US FDA/European CE Certified with 4 digit notified body number or American ETL/ UL listed.	Certified with 4 digit notified body number or American ETL/
7	Page 3, Para 1.5  Oxygen Flow meter with Humidifier Bottle:  I) should be BIS/CE certified/ UL Listed  It is observed that elsewhere in the tender technical specs, it is mentioned as: It should be US FDA/European CE Certified with 4 digit notified body number or American ETL/ UL listed.  In this case the 4 Digit notified body number is	Certified with 4 digit notified body number or American ETL/
7	Page 3, Para 1.5  Oxygen Flow meter with Humidifier Bottle:  I) should be BIS/CE certified/ UL Listed  It is observed that elsewhere in the tender technical specs, it is mentioned as: It should be US FDA/European CE Certified with 4 digit notified body number or American ETL/ UL listed.	Certified with 4 digit notified body number or American ETL/
7	Page 3, Para 1.5  Oxygen Flow meter with Humidifier Bottle:  I) should be BIS/CE certified/ UL Listed  It is observed that elsewhere in the tender technical specs, it is mentioned as: It should be US FDA/European CE Certified with 4 digit notified body number or American ETL/ UL listed.  In this case the 4 Digit notified body number is missing?  Even for a less critical item like Ward Vacuum	Certified with 4 digit notified body number or American ETL/
7	Page 3, Para 1.5  Oxygen Flow meter with Humidifier Bottle:  I) should be BIS/CE certified/ UL Listed  It is observed that elsewhere in the tender technical specs, it is mentioned as: It should be US FDA/European CE Certified with 4 digit notified body number or American ETL/ UL listed.  In this case the 4 Digit notified body number is missing?  Even for a less critical item like Ward Vacuum Unit, you have asked for	Certified with 4 digit notified body number or American ETL/
7	Page 3, Para 1.5  Oxygen Flow meter with Humidifier Bottle:  I) should be BIS/CE certified/ UL Listed  It is observed that elsewhere in the tender technical specs, it is mentioned as: It should be US FDA/European CE Certified with 4 digit notified body number or American ETL/ UL listed.  In this case the 4 Digit notified body number is missing?  Even for a less critical item like Ward Vacuum Unit, you have asked for European CE with 4 Digit notified body number.	Certified with 4 digit notified body number or American ETL/
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7	Page 3, Para 1.5  Oxygen Flow meter with Humidifier Bottle:  I) should be BIS/CE certified/ UL Listed  It is observed that elsewhere in the tender technical specs, it is mentioned as: It should be US FDA/European CE Certified with 4 digit notified body number or American ETL/ UL listed.  In this case the 4 Digit notified body number is missing?  Even for a less critical item like Ward Vacuum Unit, you have asked for European CE with 4 Digit notified body number. Considering that the Oxygen Flowmeter is a critical item and working under positive pressure,	Certified with 4 digit notified body number or American ETL/
7	Page 3, Para 1.5  Oxygen Flow meter with Humidifier Bottle:  I) should be BIS/CE certified/ UL Listed  It is observed that elsewhere in the tender technical specs, it is mentioned as: It should be US FDA/European CE Certified with 4 digit notified body number or American ETL/ UL listed.  In this case the 4 Digit notified body number is missing?  Even for a less critical item like Ward Vacuum Unit, you have asked for European CE with 4 Digit notified body number. Considering that the Oxygen Flowmeter is a critical item and working under positive pressure, we request that this also be classified as: It	Certified with 4 digit notified body number or American ETL/
7	Page 3, Para 1.5  Oxygen Flow meter with Humidifier Bottle:  I) should be BIS/CE certified/ UL Listed  It is observed that elsewhere in the tender technical specs, it is mentioned as: It should be US FDA/European CE Certified with 4 digit notified body number or American ETL/ UL listed.  In this case the 4 Digit notified body number is missing?  Even for a less critical item like Ward Vacuum Unit, you have asked for European CE with 4 Digit notified body number. Considering that the Oxygen Flowmeter is a critical item and working under positive pressure, we request that this also be classified as: It should be US FDA/European CE Certified with 4	Certified with 4 digit notified body number or American ETL/
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7	Page 3, Para 1.5  Oxygen Flow meter with Humidifier Bottle:  I) should be BIS/CE certified/ UL Listed  It is observed that elsewhere in the tender technical specs, it is mentioned as: It should be US FDA/European CE Certified with 4 digit notified body number or American ETL/ UL listed.  In this case the 4 Digit notified body number is missing?  Even for a less critical item like Ward Vacuum Unit, you have asked for European CE with 4 Digit notified body number. Considering that the Oxygen Flowmeter is a critical item and working under positive pressure, we request that this also be classified as: It should be US FDA/European CE Certified with 4 digit notified body number or American ETL/ UL listed.  Out of all the items sought in tender, only for this	Certified with 4 digit notified body number or American ETL/
7	Page 3, Para 1.5  Oxygen Flow meter with Humidifier Bottle:  I) should be BIS/CE certified/ UL Listed  It is observed that elsewhere in the tender technical specs, it is mentioned as: It should be US FDA/European CE Certified with 4 digit notified body number or American ETL/ UL listed.  In this case the 4 Digit notified body number is missing?  Even for a less critical item like Ward Vacuum Unit, you have asked for European CE with 4 Digit notified body number. Considering that the Oxygen Flowmeter is a critical item and working under positive pressure, we request that this also be classified as: It should be US FDA/European CE Certified with 4 digit notified body number or American ETL/ UL listed.	Certified with 4 digit notified body number or American ETL/

	request you to delete BIS criteria, as this will	
	result in substandard local product being offered.	
8	Vol 4 - Technical Specifications, Page 1, Para 1.1	Specification of Fully Automatic Oxygen Control Panel should be as per standards mentioned in the
	Fully Automatic Oxygen Control Panel	technical specification.
	This specification is tilted towards NFPA Standard.	
	It is not possible to meet word by word requirement in toto of Technical Specs, as this is make and standard specific. We request you to permit us to offer as per should fully meet and complies with ISO 7396-1/ HTM0201 / NFPA99C standards, and as per manufacturers own design for a capacity of 2000 LPM at 50 / 60 PSI.	
9	Vol 4 - Technical Specifications, Page 9, Para 2.1 Fully Automatic Nitrous Oxide Control Panel This specification is tilted towards NFPA Standard. It is not possible to meet word by word requirement in toto of Technical Specs, as this is make and standard specific. We request you to permit us to offer as per should fully meet and complies with ISO7396-1/ HTM0201 /	Specification of Fully Automatic Nitrous Oxide Control Panel should be as per standards mentioned in the technical specification.
	NFPA99C standards, and as per manufacturers own design for a capacity of 2000 LPM at 50 / 60 PSI.	
10	Vol 4 - Technical Specifications, Page 10, Para 2.2 Nitrous Oxide Manifold (Without Cylinders) Header bar/s assembly shall be provided with a high pressure shut off valve. It may be noted that HTM or ISO Standards does	Header bar/s assembly shall be as per standards mentioned in the technical specification of tender.
	not permit the use of Shut Off Valves on the Headers.	
	Moreover, if any Shut Off Valve are provided on Manifold Header, then the same will not be compliant / satisfying the requirement of HTM /ISO Standards. Hence, we request you to delete	
	the sentence: Header bar/s assembly shall be provided with a high pressure shut off valve.	
11	Vol 4 - Technical Specifications, Page 10, Para 2.2 Nitrous Oxide Manifold (Without Cylinders) The manifold should be hydraulically tested to 3500 psig or as per guideline of standard. In India, the general practise is that the medical	Manifolds are designed and tested with at least inlet pressure of 3000 psig or as per standards mentioned in the technical specification of tender.

	gas manifolds are tested at a minimum pressure of 3500 psig. This is inherent and can be verified in many of the earlier tenders floated by HSCC as	
	well. Accepting of any manifold which are tested below 3500 psig is actually diluting the safety standards and requirement, and thereby	
	increasing the risk of untoward incidents	
	happening.	
	We therefore request you to maintain the requirement of manifold hydraulically tested to minimum 3500 psig, and delete the wordings or	
12	as per guideline of standard to be followed.  Vol 4 - Technical Specifications,	It shall be as per standards
12	Page 10, Para 2.2	mentioned in the technical
	Emergency N2O Manifold (Without Cylinders)	specification of tender.
	Each header bar assembly shall be provided with	
	a high pressure shut off valve. It may be noted	
	that HTM or ISO Standards does not permit the use of Shut Off Valves on the Headers.	
	Moreover, if any Shut Off Valve are provided on	
	Manifold Header, then the same will not be	
	compliant / satisfying the requirement of HTM /	
	ISO Standards.	
	Hence, we request you to delete the sentence:	
	Header bar/s assembly shall be provided with a	
10	high pressure shut off valve.	TD 1
13	Vol 4 - Technical Specifications, Page 10, Para 3	Tender terms & conditions prevail.
	MEDICAL AND SURGICAL AIR SYSTEM:	
	The medical air plant shall fully comply with the	
	requirements of the HTM 02-01/ NFPA	
	99C/EN/DIN/ISO 7396-1. It should be US	
	FDA/European CE certified with 4 digit notified	
1.4	body number or American ETL/ UL listed	
14	It may be noted that NFPA99C does not permit for use of a Combined Medical & Surgical Air	Combination or de-combination of Medical Air & Surgical Air system
	System.	should be followed as per
	Medical Air and Surgical Air Plants are required	standards mentioned in the
	to be separate as per NFPA99C.	technical specification of tender.
	If any bidder is offering a combined Medical &	
	Surgical Air plant and confirming that it is as per	
	NFPA 00C standards. This may be kindly noted	
	NFPA99C standards. This may be kindly noted and taken into consideration.	
15		Tender terms & conditions prevail
15	Vol 4 - Technical Specifications,	Tender terms & conditions prevail.
15		Tender terms & conditions prevail.
15	Vol 4 - Technical Specifications, Page 11, Para 3.1	Tender terms & conditions prevail.

	Compressors to produce the plant output as mentioned in BOQ as primary and same as standby.  HTM & ISO Standards permit use of Oil injected Air Screw Compressors for Medical & Surgical Air.  It may be noted that Lubricated Screw Compressors are very economical in terms of initial investment and also maintenance and lifetime cost compared to oilless scroll / screw. This type of Air Compressors are installed all over the world in major hospitals.  Also, it is to be noted that a Scroll technology is not a very good choice for 10 Bar plant	
	requirement.	
	Hence, we request you to include oil injected	
	screw compressors in the specifications.	
16	Vol 4 - Technical Specifications, Page 11, Para 3.1	Padlocks available to allow locking of the valves in both open
	Pressure Reducing Station: Padlocks available to allow locking of the valves in both open and closed positions and must have easy to read pressure gauges or as per guideline of standard to be followed.	and closed positions and must have easy to read pressure gauges or as per guideline of standard to be followed.  Base plate mounted and supplied with copper stub pipes for ease of
	We fail to understand why padlocks are required to be provided in the Pressure reducing Station? Please note that this appears to be a particular make specific. Hence, we request you to delete the requirement of padlocks for the valves.	with copper stub pipes for ease of installation using inert joining procedures
17	Vol 4 - Technical Specifications, Page 12, Para 3.2	The air receiver / vacuum reservoir capacity should be as per standard mentioned in the technical
	Vertical Air Receiver: Total air receiver capacity shall be at least 50% (± 5%) of the primary plant capacity mentioned in the BOQ) in 1 minute in terms of free air delivered at normal working pressure or as per guideline of standard to be followed.	specification of tender.
	Our submission is that, for fair evaluation and comparison of bidders of various standards and for parity purposes, the minimum capacity of the Air Receiver should be specified, which should be complied by bidders for all standards. If an open ended statement like as per guideline of standard to be followed is mentioned, then this would be a huge disadvantage for HTM	

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	/ ISO eqpt suppliers.	
	Contrarily, it may be noted that, NFPA does not	
	have any guideline on sizing the capacity of Air	
	Receivers. It has been left to the discretion of	
	manufacturers.	
	It has been observed that Medical Air Systems of	
	NFPA Standards are usually supplied with a	
	small capacity Air Receivers.	
	Hence, to avoid this ambiguity, we suggest that	
	minimum capacity of Air Receiver is clearly	
	specified in the amended tender specs, and which	
	should be followed by all bidders.	
18	Vol 4 - Technical Specifications,	System controls be offered as per
	Page 12, Para 3.4	the requirement of the standard.
	System Controls:	
	The cabinet shall have status display to include	
	system pressure, dew point pump operation,	
	accumulated time, maintenance interval, fault	
	conditions, and silence button, lighted Hand-Off-	
	Automatic selector switches	
	It appears that the specification is of a particular	
	make and standard.	
	We request you to delete the words silence	
	button, lighted Hand-Off-Automatic selector	
	switches.	
	Further, it is suggested that this be amended as:	
	System controls be offered as per the requirement	
	of the standard.	
19	Vol 4 - Technical Specifications,	The air receiver / vacuum reservoir
	Page 13, Para 4.2	capacity should be as per standard
		mentioned in the technical
	Vacuum Receiver:	specification of tender.
	Vacuum reservoir shall have total volume of at	
	least 100 % of Primary plant output(± 5%)	
	(Capacity as mentioned in the BOQ)	
	Our submission is that, for fair evaluation and	
	comparison of bidders of various standards and	
	for parity purposes, the minimum capacity of the	
	Vacuum Receiver should be specified, which	
	should be complied by bidders for all standards.	
	If an open ended statement like as per guideline	
	of standard to be followed is mentioned, then this	
	would be a huge disadvantage for HTM/ISO eqpt	
	suppliers. Contrarily, it may be noted that, NFPA	
	does not have any guideline on sizing the	
	capacity of Vacuum Receivers. It has been left to	
	the discretion of manufacturers. It has been	
	observed that Medical Vacuum Systems of NFPA	
1	Standards are usually supplied with a small	

	T	
	capacity Vacuum Receivers.	
	Hence, to avoid this ambiguity, we suggest that	
	minimum capacity of Vacuum Receiver is clearly	
	specified in the amended tender specs, and which	
	should be followed by all bidders.	
20	Vol 4 - Technical Specifications, Page 14, Para 4.3	System controls be offered as per the requirement of the standard.
	System Controls:	
	The cabinet shall have status display to include	
	system pressure, dew point pump operation,	
	accumulated time, maintenance interval, fault	
	conditions, and silence button, lighted Hand-Off- Automatic selector switches	
	It appears that the specification is of a particular	
	make and standard.	
	We request you to delete the words silence	
	button, lighted Hand-Off-Automatic selector	
	switches.	
	Further, it is suggested that this be amended as:	
	System controls be offered as per the requirement of the standard.	
	of the standard.	
21	Vol 4 - Technical Specifications,	Tender terms and conditions
	Page 14, Para 4.4	prevail
	Bacterial Filters:	
	The dryer should be particulate filter dryer with	
	ability to remove particles as small as 1 micron.	
	This appears to be a typo error.	
	Please clarify and issue necessary amendments.	
22	Vol 4 - Technical Specifications,	The package should consist of two
	Page 14, Para 8	dry rotary
	ACCC (Anosthatia Cas Sagyanging System)	vane/Claw type vacuum pumps
	AGSS (Anesthetic Gas Scavenging System) Plant:	(Dry/Oiless) or Blower pump as per guideline of standard
	The package should consist of two dry rotary	per guidenne or standard
	vane/Claw type vacuum pumps (Dry/Oiless) or as	
	per guideline of standard to be followed,	
	per guideline of standard to be followed,	
	As per HTM & ISO Standards, the Blower type	
	Pumps are normally used in the AGSS System.	
	Please confirm if this is acceptable.	
23	Vol 4 - Technical Specifications,	Quantity mentioned in the attached
	Page 14, Para 8	revised BOQ
	AGSS (Anaesthetic Gas Scavenging System)	
	Plant:	

24	Connecting hose suitable to fit with anaesthesia Work station should be provided. Please provide the Qtys of Connecting Hoses required for the Anaesthesia Workstations and their Technical Specs. Ideally, the connecting hoses are supplied by the respective Anaesthesia Workstation Suppliers, and therefore can be deleted from the tender specs. Vol 4 - Technical Specifications,	The Area Valve Service Unit
	Page 17, Para 11  AREA VALVE SERVICE UNIT:	should incorporate pre-fitted ball valve in a box with emergency access.
	The Area Valve Service Unit should incorporate a ball valve with NIST/else connectors either side	
	mounted in a lockable box with emergency access or as per guideline of standard to be followed. Please confirm if the AVSU is required to be supplied along with ball Valves? If yes, specify the valve sizes configuration required in each of the AVSU models 2 gas - 6 gas services.	Valve sizes and quantities are mentioned in the BOQ.
25	Vol 4 - Technical Specifications, Page 17, Para 11	Shall be as per standards mentioned in the technical specification of tender
	AREA VALVE SERVICE UNIT: The Area Valve Service Unit should incorporate a ball valve with NIST/else connectors either side mounted in a lockable box with emergency access or as per guideline of standard to be followed.  Our submission is that, for fair evaluation and comparison of bidders of various standards and for parity purposes, and also for the Safety and backup arrangement and continuity of gas supplies of the MGPS, the NIST is a very critical requirement for AVSU, which should be complied by bidders for all standards. If an open ended statement like as per guideline of standard to be followed is mentioned, then this would be a huge disadvantage for HTM/ ISO eqpt suppliers.  Contrarily, it may be noted that, NFPA does not categorically mention about the requirement of NIST. However, the Isolation Valves as per NFPA Mandates to have provisions for inlet ports on the pipe extensions, wherein the NIST connectors can be fixed. Hence, to avoid this ambiguity, we suggest that NIST Connectors are mandatory is clearly specified in the amended tender specs, and which should be followed by all	

	bidders.	
26	Vol 4 - Technical Specifications, Page 17, Para 11	Extruded Aluminium/MS powder coated
	AREA VALVE SERVICE UNIT:	
	The box shall be made from extruded aluminium	
	to prevent corrosion or as per guideline of	
	standard to be followed.	
	It may be noted that the AVSU Box manufactured by all major suppliers is made of	
	Steel and powder coated etc to prevent corrosion.	
	Hence, we request you to kindly delete the	
	wordings extruded aluminium from the tender	
	specs.	
27	Vol 4 - Technical Specifications,	Bidder shall be responsible for all
	Page 18, Para 12.1	cabling from local alarm panels
	Master Alarm :	(OTs, ICUs) to Master alarm panel.
	The master alarms should be capable to monitor	The Master alarm should be
	minimum 30-40 Point.	capable to monitor minimum 30-40
	Bidder shall be responsible for all cabling from	points
	local alarm panels to master alarm panel.	
	Please confirm if all the Area Alarms are	
	required to be connected with the Master Alarm	
	Panel by providing cabling? If Yes, then the Size	
	of	
	Master Alarm Panel is not sufficient, as it has	
	provision to connect only 30-40 points. Whereas, the total number of AVSU is 93 Nos.	
28	Vol 4 - Technical Specifications,	The medical gas central alarms
	Page 19, Para 12.2	should be capable of monitoring up
		to 6 medical gas services (As
	Medical Gas Area Alarm:	specified in BOQ)
	The medical gas central alarms should be	
	capable of monitoring up to 5 medical gas services (As specified in BOQ)	
	It appears the central mentioned in the tender	
	specs is a typo error.	
	Please clarify.	
	Also, the 5 medical gas services mentioned in	
	the specs is not correct, as the BOQ mentions	
20	upto 6 medical gas services. Please clarify.	Tondon tompo and sondiffication 2
29	Vol 4 - Technical Specifications, Page 22, Para 13b	Tender terms and conditions prevail
	Manufacturer Authorization:	
	This is a limiting clause and appears to be	
	favouring few companies only and which may	
	restrict competition to a few bidders only. You	
	are requested to delete the requirement of	

	Manufacturers Authorisation Certificates. By getting committed to a particular manufacturer while quoting, the bidders lose their ability to negotiate better prices and terms at the time of supply and also quite often are restricted to the products of the particular manufacturer despite better products becoming available from other manufacturers while the tender is still under consideration of the tenderer. This requirement is inviting cartelisation because local / Indian representatives of particular foreign manufacturers have got their specification incorporated in the major tender and the leading bidder will have their supporting bidders.  Moreover, it may be noted that the requirement of Manufacturers	
	Authorisation Certificate is against the CCI Act	
30	Vol 4 - Technical Specifications, Page 24,	Tender terms and conditions prevail
	Responsibility of bidder: 5. Rota meters for measurement of consumption of Oxygen and Compressed air To enable fair evaluation and parity among all bidders, Please provide Technical Specs for the Rotameters. Also, request you to include this in the line item of the BOQ, as this is a major item.	
31	Vol 4 - Technical Specifications, Page 24, Para 15	Tender terms and conditions prevail
	The following systems/items must be from the same principal company/Manufacturer: a. Control Panels & Manifold for O2, N2O & CO2 b. Medical air plant c. Medical Vacuum Plant d. AGSS Plant e. Area & Master Alarm f. All types Outlets g. AVSU h. Line Isolation valves i. High Pressure tubes	
	We request you to kindly delete the sentence The following systems/items must be from the same principal company/Manufacturer: , and allow the bidders to select the best possible supplier option, as long as all the MGPS	

	Products are from the same single MGPS Standard selected for which the bid is being submitted.	
	It may be kindly noted that there are only a few and limited suppliers worldwide who manufacture (or outsource) all the MGPS	
	products. On the other hand, there are certain	
	manufacturers who are having exceptionally good experience and reputation in their respective domain like supplying MGPS Plant Source Equipments (Medical Air	
	Plant, Vacuum & AGSS Plants), and there are other's who can offer exceptionally good quality MGPS Distribution System Equipment and similarly for Architectural Systems (Bed Head panels etc.), SOT	
	Products (Oxygen Flowmeter, Ward Vacuum Units, Theatre Vacuum Units etc).	
	Linde shall take the single point responsibilty for all the equipment	
	supplied by the respective OEM Suppliers, and shall be fully	
	responsible for the complete installation and during warranty and CMC Periods.	
32	Vol 4 - Technical Specifications, Page 26, Para 23	Tender terms and conditions prevail
	Inter connection to Manifolds with LMO tank with necessary automatic switchover panels between LMO & Manifold will be up to responsibility of bidder up to 100m distance.	
	We request you to provide drawings of the site to identify the location of proposed LMO system and the location of Manifold Room, to enable	
	ascertain the distance, routing and cost estimation.	
33	Vol 3 - SCC, Page 35,	The word 'Operation' is deleted.
	After provisional taking over, the contractor shall	
	provide operation and maintenance services for the complete MEDICAL GAS MANIFOLD SYSTEM EQUIPMENT till the successful	
	completion of Defect Liability Period.  Please clarify the meaning of Operation. Will the bidder have to provide manpower at site? If	
	Yes, how many in each shift etc?	

	The BOQ file does not have relevant areas to provide the Operation Cost. Please amend the BOQ file, if this scope of work is required to be provided.	
34	Vol 3 - SCC, Page 49,  MANUFACTURER'S AUTHORIZATION FORM: Dear Sir, Tender No We who are established and reputed manufacturer of (name & description of goods	Tender terms and conditions prevail
	Offered) having factories at (address of factory) do hereby authorize M/s (Name & address of agent) which has been our dealer/distributor since, to submit a bid, and sign the contract with you for the goods manufactured by us against the above tender.  No company or firm or individual other than M/s are authorized to bid and conclude the contract for goods manufactured by us against	
	contract for goods manufactured by us against this specific tender.  We hereby extend our full guarantee and defect Liability period as per the clause of Condition of Contract and Additional Specific Conditions of Contract of above tender for goods and services offered for supply by our authorized firm.	
	To enable a Principal Supplier to follow, we request you to amend the format as:  MANUFACTURER'S / PRINCIPAL SUPPLIER'S AUTHORIZATION FORM: Dear Sir, Tender No	
	We who are established and reputed manufacturer / Supplier of (name & description of goods offered) having factories at (address of factory) do hereby authorize M/s (Name & address of agent) which has been our dealer/distributor since, to submit a bid, and sign the contract with you for the goods manufactured / supplied by us against the above	
	tender.  No company or firm or individual other than M/s are authorized to bid and conclude the contract for goods manufactured /supplied by us against this specific tender.  We hereby extend our full guarantee and defect liability period as per the clause of Condition of	

	Contract and Additional Specific Conditions of	
	Contract of above tender for goods and services	
	offered for supply by our authorized firm.	
35	Vol 1- Page 3	Daried of work completion 7
33		Period of work completion – 7
	Period of work completion – 6 Months	Months from the date of letter of
	Considering the huge quantum of work and	commencement
	imported equipment which needs to be arranged,	
	we request you to kindly amend the work	
	completion time to minimum 9 Months	
36	Vol-III, Special Conditions of	Tender terms and conditions prevail
	Contract, Page No. SCC-, Clause	
	39.2.4, Page 25	
	Water Supply & Power Supply:	
	The contractor will provide water & electricity	
	to the Consultant's office free of cost for the	
	required quantity by the Consultant's site office.	
	MGPS Works require very less electrical power	
	and water for construction purposes.	
	We request to delete the sentence: The	
	contractor will provide water & electricity to the	
	Consultant's office free of cost for the required	
	quantity by the Consultant's site office.	
37	Vol-II, General Conditions of	Tender terms and conditions prevail
	Contract, Clause 47.1 & Annexure-	1
	B (Appendix To Tender), Page 38	
	& 71	
	Liquidated Damages for Delay:	
	Amount of Liquidated damages: 1% (one	
	percent) of contract price per calendar week of	
	delay Limit of liquidated damages: 10% (Ten	
	percent) of contract price.	
	Please consider the aggregate maximum of	
	liquidated damages payable under clause No.	
	47.1 shall not exceed 0.5% of contract value per	
	week of delay and shall be subjected to	
	maximum amount of 5% on overall contract	
20	price. General Point	Pologo of final 100/ naverage of
38		Release of final 10% payment of
	Release of Final 10% Payment	BOQ contract rates after final
	After completion of installation works, if the	acceptance of system by the client
	Commissioning / Trial Run of the MGMS	
	system is delayed for more than 3 months due to	
	reasons not attributable to Contractor, then the	
	final 10% payment should be released without	
	any further delay against submission of Bank	
	Guarantee. Please confirm acceptance of this.	
39	General Point	Tender terms and conditions prevail
	DLP Period Start Date	
	·	· · · · · · · · · · · · · · · · · · ·

	After completion of installation works, if the Commissioning/ Trial run of the MGMS system is delayed for more than 3 months due to reasons not attributable to Contractor, then DLP period start date would be considered from that date. Please confirm acceptance of this.	
40	General Point	Tender terms and conditions prevail
	Customs Duty Please confirm customs duty is under customer or bidders scope. Also confirm the applicable rate of customs duty for the job. Also confirm if CDEC (Customs Duty Exemption Certificate) would be issued by customer. If Yes, what would be the rate of Customs Duty exemption?	
41	General Point Statutory Duties	Tender terms and conditions prevail
	In case of any statutory variation in duties like GST, Customs Duty, IGST etc within the contractual delivery date shall be borne by client.  Kindly confirm this.	
42	For safety of personnel & patients at hospital premises, it is highly recommended that all cylinders are fitted with Valve Guards to prevent incidents during cylinder handling / tripping. Hence, we request you to include the following in the Technical Specs for Cylinders:	Valve Guard should be fitted on all cylinders for the protection of Cylinder Valve
	14. Supply of O2 Cylinders – Class D Type Should be as per BIS/IS/ASME Standard. Valve Guard should be fitted on all cylinders for the protection of Cylinder Valve, to prevent incidents happening during cylinder handling / tripping.	
	15. Supply of N2O Cylinders – Class D Type Should be as per BIS/IS/ASME Standard Valve Guard should be fitted on all cylinders for the protection of Cylinder Valve, to prevent incidents happening during cylinder handling / tripping.	
	16. Supply of CO2 Cylinders – Class D Type Should be as per BIS/IS/ASME Standard Valve Guard should be fitted on all cylinders for the protection of Cylinder Valve, to prevent incidents happening during cylinder handling /	

	tripping.	
43	Oxygen Flow meter with Humidifier Bottle We understand that you missed out to mention USFDA/European CE Certified with 4 digit notified body no or American UL / ETL Listed as you have mentioned the same for Ward Vacuum Unit and Theatre Vacuum unit. You are requested to kindly amend and mention European CE Marked with 4 Digit Notified Body No / USFDA Certified /UL Listed /ETL Listed.	
	Humidifier Bottle asked in the tender is of polycarbonate / polysulfone material. We recommend adding polypropylene material for humidifier bottle, which is better quality material autoclavable at 134°C	
44	Medical and Surgical Air System  You missed out to mention the Variation of +1- 10% for Vacuum System as mentioned in past tenders published by HSCC. You are requested to kindly amend the same and also mention the same in BOQ of tender.	+/-10 % to flow capacity of plant is permitted
	• In the BOQ, it is mentioned that vendor may offer two plants. Since the total Flow requirement for is 15000 LPM, may we offer 7500 LPM working and 7500 LPM as standby or 9000 LPM as working or 6000 LPM as standby. Please clarify and confirm the same	Tender terms and conditions prevail
45	Vacuum System – You missed out to mention the Variation of +1-10% for Vacuum System as mentioned in past tenders published by HSCC. You are requested to kindly amend the same and also mention the same in BOQ of tender	+/-10 % to flow capacity of plant is permitted
46	<ul> <li>Master Alarm / Medical Gas Area Alarm</li> <li>In HTM Standard, the Area / Master Alarms are LED Type and not Digital / Touch Screen type. Kindly amend the same accordingly.</li> <li>In Bill of Quantity, for Medical Gas Area Alarm for 2 Services, there is a typographical error in mentioning the gases for 2 Service Alarm, It should be Oxygen and Vacuum instead of MA4Bar. You are requested to kindly correct the same.</li> </ul>	<ul> <li>Digital or as per standard mentioned in the technical specification of tender</li> <li>Read as Oxygen and Vacuum instead of MA4 bar.</li> <li>Tender terms and conditions</li> </ul>

47	• Further the specifications mentioned in the tender are more of NFPA Standard, you are requested to kindly add technical specifications as per HTM 02-01 standard for the following items as published by HSCC in their past tenders of MGPS, For your reference, copy of technical specifications enclosed: Master Alarm and Area Alarm Gas Outlet  Horizontal / Vertical Bed Head Panel- You are requested to kindly amend the same to 3 Channel instead of 2 tier / 2 Channel, because electrical and Gas Outlets are not possible to mount of 2 channel Bed Head Panel.	prevail  3 Channel / 2 tier / 2 Channel/3 Partition rows
48	Responsibility of bidder - Being an accessory item, High Pressure tubing must not be a part of this clause. You are therefore requested to kindly delete the same from clause 15 of responsibility of bidders.	Tender terms and conditions prevail
49	<b>Point to be Clarified -</b> Please confirm who will supply 200 KW DGSet and when?	Tender terms and conditions prevail
50	1.2 of INSTRUCTION TO APPLICANTS  5 of Volume – I COMPLETION PERIOD: 6 months from the date of order of commencement. We request you to kindly change the COMPLETION PERIOD to 12 months instead of 6 months from the date of order of commencement.	Period of work completion – 7 Months from the date of letter of commencement
51	2.2 (ii) of INSTRUCTION TO APPLICANTS  5 of Volume – I The Applicant should meet the following minimum criteria for Pre-Qualification: Experience of having successfully completed similar work during last 7 years ending last day of month previous to the one in which tenders are invited should be either of the following: Three similar* completed works costing not less than the amount equal to 40% of the estimated cost. or Two similar* completed works costing not less than the amount equal to 50% of the estimated cost. or One similar* completed work costing not less	Tender terms and conditions prevail

than the amount equal to 80% of the estimated cost. We wish to inform you that, we fulfill all your eligibility criteria to great extent. However, we have observed that the Pre- Qualification Criteria is restricted & biased to favour some proven cartel companies to participate. In view of this, we request you to kindly amend the Pre-Oualification Criteria in line with 2 Options requested below. This will ensure wider participation from various bidders including us and there will be a price advantage to HSCC in view of huge participation, price comparison, and no encouragement to cartelization. OPTION 1: Please go through attached HITES Tender Eligibility criteria for this size of MGPS work and same may be amended accordingly. We are surprised to note that HSCC and HITES both are under Ministry of Health & Family Welfare but asking different Eligibility Criteria. PQ Criteria - Request for Amendment: "Minimum work of similar Nature: Eligible bidders should have successfully executed globally in last Seven years from the date of tender opening, similar turnkey project of value, equivalent to or exceeding 50% of the estimated schedule / tender value. Out of total 50% value. at least one single order for similar work of minimum 10% of the estimated schedule / tender value should have been executed globally". Please refer to Annexure - II for similar condition in one of the tenders of HITES issued on 14.02.2019. **OPTION 2:** (i) As can be seen we are very eager to participate in this tender and in this regard, we request you to kindly allow the bidders to submit "Experience the of having successfully completed similar work during last 10 years ending last day of month previous to the one in which tenders are invited instead of 7 years: 52 Standards/ following Design one International standards mentioned Guideline in the technical specification of tender will be accepted. 1 of Volume – IV Standards/Guideline

The design & selection of all imported items should be of international standard like NFPA 99(latest version) standard and UL listed or ISO-7396-1/DIN/EN (latest version) and UL listed/European CE or HTM 02 01 (latest version) guideline and European CE. This supersedes single/multiple standards mentioned at any other places in the tender specification involving item/system/capacity etc. The imported products should be of one standard only. All indigenous items should be of high quality and to be compatible to the main system. We have observed that most of the technical specifications are written around one standard only i.e. NFPA. This may please be amended to Generic specifications in nature and OEM's should allowed to use their own design and follow any of the international standards. In case you do not want to change the present technical specifications, you may need to mention somewhere in the tender that "The tender technical specification are general in nature. However, manufacturer own design following one of the given international standard in the tender will be accepted, without compromising the flow rate". 53 10.1 The Performance security shall be 5% of the estimated cost. GCC - 10 of VOLUME – II Performance Security: The Contractor shall provide security for his proper performance of the Contract to the Employer within 15 days after the receipt of the Letter of Acceptance. The performance security shall be in the form of bank guarantee. The amount of the bank guarantee shall be 10 percent of the Contract Price. It shall be issued by a Nationalised bank of India. When providing such security to the Employer, the Contractor shall notify the Engineer of so doing. Performance BG should not be more than 5% of order value and submission must be minimum 30 days from the date of your firm order. In place of Nationalised Bank you should mention Scheduled banks. 12.1 & 12.2 54 Tender terms and conditions prevail SCC-12 of Volume – III

Bid Security: The Bidder shall furnish, as part of his Bid, a Bid

Security of the amount of Rs. 25,00,00/-(Rupees Twenty Five

Lakhs Only) for Medical Gas Manifold System, Hospital Block, AIIMS,

No deviation shall be permitted from this.

The Bid Security shall be in the form of a Demand Draft/Pay

Order/Bank Guarantee in favour of HSCC (India) Ltd. Payable at New

Delhi/NOIDA from any Nationalised/Scheduled bank.

Bid Security may please be reduced to 1% of estimated value only which means Rs. 15 lac in place of Rs. 25 lac,

you can understand that this blocks bidders finances as you know government takes long time in deciding the

tender and then returning the EMD and with this huge amount bidders cannot bid other on going and upcoming

tenders even in your case you have floated three big tenders on almost on same dates. This is unfair and there is

no such CVC guidelines for this huge EMD amount which some of you were referring in pre-bid meeting.

21.0 & 21.1

SCC-38 of Volume – III

Terms of Payment: For purposes of estimating the contract value

of works executed for certificate of payment, the following norms

shall be followed:

- 70 % of the BOQ contract rates on delivery of equipment at site

after inspection ,passing and issue of dispatch clearance on pro-data basis.

1) 75% of the BOQ contract rates on delivery of equipment at site after Inspection and Despatch Clearance Report on pro-data basis. 2) 15% of BOQ contract rates on Installation (Installation certificate to be provided with bill) of MGPS.

3) 10% of BOQ contract rates after final acceptance of system by the client

55

	<ul> <li>- 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.</li> <li>- 10 % of BOQ contract rates after successful completion of trial run of 30 days from the date of handover to the client</li> </ul>	
	(1) Please amend the payment terms as: 85% against delivery of material on or before 30 days from the date of supply the material. 10% against installation on pro-rata basis within 30 days of submission of bills and balance 5% against testing and commissioning within 30 days of submission of bills, in case site is not ready or electrical supply, gas supplies are not provided, contractor payment will be released within 30 days of testing and commissioning against undertaking that as and when electricity and gases will be provided contractor will do the needful without any extra charges.	
	(2) Since, your technical specifications asking for International standards which can only be met with foreign manufacturer in totality which clearly means that you are looking for imported components. In such case you should give an option for quoting in foreign currency and you need to pay these foreign suppliers by means of letter of credit, with this you will be 100% assured that you are getting 100% imported material directly from manufacturers. This will avoid foreign makes stamping on local products, which is happening very commonly.	
56	Standards/Guideline  1 of Volume – IV Standards/Guideline The design & selection of all imported items should be of international standard like NFPA 99(latest version) standard	Tender terms and conditions prevail

and UL listed or ISO-7396-1/DIN/ EN (latest version) and UL listed/European CE or HTM 02 01 (latest version) guideline and European CE. This supersedes single/multiple standards mentioned at any other places in the tender specification involving item/system/capacity etc. The imported products should be of one standard only. All indigenous items should be of high quality and to be compatible to the main system.

We have observed that most of the technical specifications are written around one standard only i.e. NFPA and

make specific for example Item 1.1, Page No. 1 & 2, Item 2.1, Page No. 9 & 10, Item 3, Page No. 10, 11, 12 & 13,

Item 4, Page No. 13 & 14, Item 10, Page No. 17, Item 12, Page No. 18 & 19, Item 17 on Page No. 19 and Item 20.

Page No. 21. This may please be amended to Generic specifications in nature and OEM's should be allowed to use their own design as per any of the international standards. In case you do not want to change the present technical specifications, you may need to mention somewhere in the tender that "The tender technical specification are general in nature. However, manufacturer own design following one of the given international standard in the tender will be accepted, without compromising the flow rate". For Example: In case of Air Plant please remove the word oil-less compressors because as per HTM which is mentioned in your tender does not require oil-less compressors because all the UK manufacturers who are producing Air plants as

per HTM are using oil-floaded screw compressors (because their efficiencies are many times higher than oil-less

compressors ) and all UK hospitals and even in Europe as per ISO:7396 and Middle east hospitals are using oil flooded

air compressors. Once you are demanding HTM standard / recommendations then it is the responsibility

of manufacturer to design and manufacture the air plants with medical air quality by using any types of air

compressors but by using this oil-less word you are only inviting NFPA standard /

	recommendations and mentioning of HTM is an eye. We strongly	
	object this approach to favour only proven cartel companies.	
57	1.5	Tender terms and conditions prevail
	3 of Volume – IV	, , , , , , , , , , , , , , , , , , ,
	LIQUID MEDICAL OXYGEN STORAGE TANK	
	The double walled Vacuum Insulated Evaporator shall be constructed of stainless steel inner vessel contained within a carbon steel outer vessel. The annular space between the vessels shall be filled with non-inflammable perlite insulation material to insulate under	
	vacuum. The VIE should be self-pressurizing type by partial evaporation of liquid oxygen through a pressure building coil by a non-ferrous imported pressure regulator. The vessel shall be supplied as a functional whole with all materials	
	of construction & the cleaning regime suitable for medical grade liquid oxygen.	
	Please remove this item "LIQUID TANK" because 99% of the government and private hospitals go for this directly through oxygen manufacturers on rental basis, It is consumables hence hospital is supposed to buy on regular	
	basis, we do not understand why this item is being purchased and that through by MGPS installation companies, who will have no control on what kind of gas will be supplied, when someone else is liquid tank and someone else is	
	oxygen gas with this hospital will have to deal with two parties one for maintenance and one for gas and tank supplier will say problem occurred due to gas supply decantation etc and	
	gas supplier will say gas pressure holding is an issue to due tank and over and above MGPS bidder will be depending upon third party like	
	INOXCVA who is tank manufacturer. By removing this you will not only come out of these problems but save lot of money but also avoid re-occurrence of Gorakhpur incident. It is our duty to make you aware well in advance.	
	The another advantage is that Estimated value will come down and more and more bidders will be able to participate with lower eligibility criteria which is dependent on Estimated Value.	

58	14, 15 & 16	Tender terms and conditions prevail
	19 of Volume -IV Supply of Oxygen, N2O and CO2 Cylinders.	
	Please remove this items "Oxygen, N2O and CO2 Cylinders" because 99% of the government and private hospitals go for this directly through these gases manufacturers on rental basis, It is consumables hence hospital is supposed to buy on regular basis, we do not understand why this item is being purchased and that through by MGPS installation companies, who will have no control on what kind of gas will be supplied, when someone else is liquid tank and someone else is oxygen gas with this hospital will have to deal with two parties one for maintenance and one for gas and tank supplier will say problem occurred due to gas supply decantation etc and gas supplier will say gas pressure holding is an issue to due tank and over and above MGPS bidder will be depending upon third party like Rama or Everest Kanto etc. Cylinders who are Cylinders manufacturers. By removing this you will not only come out of these problems but save lot of money but also avoid re-occurrence of Gorakhpur incident. It is our duty to make you aware well in advance. The another advantage is that Estimated value will come down and more and more bidders will be able to participate with lower eligibility criteria which is dependent on Estimated Value.	
59	22 of Volume -IV	Tender terms and conditions prevail
	Manufacturer Authorization: Eligible bidders should submit a mandatory letter of authority from the Foreign Principal /Manufacturer, mentioning country of origin with name of manufacturing company for major products quoted by them.  For the following major items, Manufacturer's Authorization as per format Volume-II SCC of tender document should be submitted:  1. Fully Automatic Oxygen Control Panel 2. Oxygen Flow meter 3. Fully Automatic Nitrous Oxide Control Panel 4. Fully Automatic Control panel for CO2 System 5. VACUUM SYSTEMS 6. MEDICAL AND SURGICAL AIR SYSTEM	

- 7. ALARM SYSTEM
- 8. AREA VALVE SERVICE UNIT
- 9. BED HEAD PANELS
- 10. GAS OUTLETS
- 11. AGSS (Anesthetic Gas Scavenging System)

This is purely a favourable clause to favour companies who have done exclusive tie-ups for Indian market with three to four American companies, who are also not manufacturing these Air Plants, Vacuum **Plants** AGSS/WAGD plants themselves but most of them buy from Powerex USA only and they simply print their catalogues with powerex plants specifications and certifications, which has unfortunately never asked or checked by HSCC ever. Ideally there should be an enquiry on this subject. This is an another example of restricted conditions to buy only NFPA standard products recommendations and other international standards mentioned in the tender are just eye wash. Under the circumstances this highly objectionable clause may please be removed from this tender and we expect justice at this stage from your end only. We are surprised you being Engineering organization and consultants is not having this information and you did not bother to check online as well before publishing such tenders. Worldwide plants manufacturers are different as they manufacture not only for Medical Industry but for many other industrial requirements too and **MGPS** manufacturers worldwide do not manufacturer these plants except one who are also dealing with Medical and Industrial. You should also not ask single standard for all the items because it has no relevance, we expect you the explain to us for our knowledge what advantage you get with this and what disadvantage you have without this when the aim of all the standards manufacture products for medical applications and full fill your flow rate, pressure and quality requirements. These are nothing but to favour companies of your choice probably or due to lack of knowledge which both the cases are not expected from government consultants like you.

In view of the facts presented above, we request you to remove this requirement of submission of Manufacturer Authorization Letter from Foreign Principal / Manufacturer, so that bidders should have freedom to buy from any of the international manufacturer and make them to compete with each other which will ultimately benefit you in

the price which is ultimate aim of Govt. of India by means of inviting open tender and for your information most of the Govt. organizations like PWD, CPWD do not ask for such manufacturer authorization letter (If you want we can submit the copy of PWD tender documents in this regards). Under the circumstance we should come out of foreign manufacturers' slavery.

15 25 of Val

25 of Volume -IV

The following systems/items must be from the same principal

company/Manufacturer:

- a. Control Panels & Manifold for O2, N2O & CO2
- b. Medical air plant
- c. Medical Vacuum Plant
- d. AGSS Plant
- e. Area & Master Alarm
- f. All types Outlets
- g. AVSU
- h. Line Isolation valves
- i. High Pressure tubes

This is purely a favourable clause to favour companies who have done exclusive tie-ups for Indian market with three to four American companies, who are also not manufacturing these Plants, Vacuum Plants Air AGSS/WAGD plants themselves but most of them buy from Powerex USA only and they simply print their catalogues with powerex plants specifications and certifications, which has unfortunately never asked or checked by HSCC ever. Ideally there should be an enquiry on this subject. This is an another example of restricted conditions to buy only NFPA standard products recommendations and other international standards mentioned in the tender are just eye wash. Under the circumstances this highly objectionable clause may please be removed from this tender and we expect justice at this stage from your end only. We are surprised you being Engineering organization

Tender terms and conditions prevail

and consultants is not having this information and you did not bother to check online as well before publishing such tenders. Worldwide plants manufacturers are different as they manufacture not only for Medical Industry but for many other industrial requirements too and MGPS manufacturers worldwide do manufacturer these plants except one who are also dealing with Medical and Industrial. You should also not ask single standard for all the items because it has no relevance, we expect you the explain to us for our knowledge what advantage you get with this and what disadvantage you have without this when the aim of all the standards manufacture products for medical applications and full fill your flow rate, pressure and quality requirements. These are nothing but to favour companies of your choice probably or due to lack of knowledge which both the cases are not expected from government consultants like you.

## Page No.24 of Volume - IV 60

Point No.6

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'.

Please elaborate all required civil, electrical, plumbing, lighting, fire safety, exhaust systems and other works as maybe required for complete installation. Please specify the areas where these work has to be executed. Please mention quantity of all additional work required to be carried out by MGPS Vendor in tender BOQ.

Bidder shall execute following turnkey works in addition to the works mentioned in the technical specification of tender:

- Providing and fixing of Exhaust fan with IS marked Motor and louver for ventilation of MGPS Plant room and Manifold room Only Electrical Power supply will be provided at one location inside the Plant room by client.
- Air-conditioning (Ductable with exhaust) to run 24x7 inside the Plant room and Manifold room.
- Providing and fixing of cable from local alram panels (OTs & ICUs)
- Construction of Overhead/Under Ground trench size approx 1.5mx1m as standard for interconnection between buildings/plant/manifold/etc block.
- SITC of 3.5 core 185 sq.mm as per IS: 7098 XLPE Cable inside the gas manifold and plant including Electrical room Distribution Panel for plant &

		Manifold roomsSITC of Electrical Distribution Panel for Plant & Manifold rooms Providing of dedicated chemical earthing for MGPS Plant room as per IS: 3043 Wiring for light point/fan point/exhaust fan point/call bell point with 1.5 sqmm FRLS PVC insulated copper conductor single core cable in surface/recessed medium plate, suitable GI box and earthing the point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable etc as required- Group-A - Point = 30, Group-B- Point = 2 and Group-C- Point = 15 Revised BOQ attached
61	Point No.6  Bidder will be responsible for trenching or other associated work related to installation and commissioning of complete MGPS system.  Since this work is costly, you are requested to kindly mention the same in tender BOQ as extra works.	Tender terms and conditions prevail
62	Point No.19  Bidder should be responsible for dedicated earthing (Chemical type) for MGPS Plant (if required)  In the responsibility of bidder, you have mentioned that dedicated chemical earthing for MGPS Plant room is to be provided by MGPS bidder, while the same is not considered in tender BOQ. Since this item includes cost also, we therefore request you to kindly add the same in tender BOQ.	Tender terms and conditions prevail
63	Point No.24  Bidder should submit the MGPS plant and Manifold equipment loading design with footprint of all components as per their offered plant along with bid within the area of 200 sq.m bidder may keep tanks inside. Bidder has to consider proper sitting space for technicians,	Tender terms and conditions prevail

	T	
	cylinder storage space for filled and empty including Plant room equipment.	
	Any drawings related to MGPS work will be designed only after issuance of NOA against the Autocad Drawing / Floor Plan of Hospital provided by HSCC / Consignee. Hence it is not possible to submit the same at the time of submission of bid. You are requested to kindly delete the lines stating "Bidder should submit	
	the MGPS Plant and Manifold equipment loading design with foot print of all component as per their offered plant along with bid within the area of 200 sq m. bidder may keep the tanks inside, only when their offered plant and manifold are coming within the 200 sq m area along with proper sitting space for technicians, cylinder storage space for filled and empty	
64	including Plant Room Equipment".  Bidder should be responsible for Antistatic Rubber/Ironite flooring with minimum thickness 5mm flooring in the manifold room and thickness of flooring not less than 1inch.	Flooring will be provided by HSCC/client at site
65	Bidder should provide a raised Loading/Unloading Platform of suitable sized adjacent to manifold room, so that cylinder can be loaded & unloaded easily form the lorry/vehicle.	Loading/Unloading Platform of suitable sized adjacent to manifold room will be provided by HSCC/client at site
66	Bidder should be responsible for foundation of Plant Room (If required) for Medical Air Plant, Vacuum Pant & AGSS Plant.	Manifold and Plant Room will be provided by HSCC/client at site
67	Bidder should co-ordinate with respective Institute/Authorities for the availability of Office Room for & Toilet for MGPS Operator into Manifold/Plant Room.	Office Room for & Toilet for MGPS Operator into Manifold/Plant Room will be provided by HSCC/client at site
68	Item No.1.1	Fully Automatic Oxygen Control
	Fully Automatic Oxygen Control Panel	Panel should have digital display
	The Manifold Control Panel should be Digital / Analogue	
	Since Analogue is outdated technology and have no comparison with Digital Technology, we recommend amending it to "The Manifold control panel should have 10" LCD Digital Display". Kindly amend the same accordingly.	
	Digital is only specified in all other AIIMS & PMSSY tenders published by Hites & NBCC	

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	India Ltd AIIMS tenders.	
	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.	
	Since the Primary Source for Oxygen is Liquid Medical Oxygen and Secondary source is Automatic Control Panel. Can you please confirm, why there is a requirement of an additional Automatic control panel.	
	You are requested to kindly delete invalid line from tender specifications.	
69	Item No.1.4	BIS/US FDA/European CE
	OXYGEN FLOW METER WITH HUMIDIFIER BOTTLE	Certified with 4 digit notified body number or American ETL/ UL listed.
	Point No. I) – Should be BIS / CE Certified / UL Listed	
	Kindly amend it By mistakenly you have missed to add European CE Marked with 4 Digit Notified Body No / USFDA Certified / UL Listed / ETL Listed	
	Please note same is specified in all other AIIMS & PMSSY tenders published by HITES & NBCC India Ltd AIIMS tenders.	
70	Item No.1.5	
	Max. Working pressure: 17 Bar G Max. Working Pressure is 17.6 Bar G instead of 17 Bar G. Please amend the same.	Max. working Pressure is 17-17.6 Bar G
	Hydraulic test pressure: 26 bar G Hydraulic test pressure should be as per EN 13458 code instead of 26 bar G. please amend the same.	Hydraulic test pressure should be 26 bar G or as per EN 13458  Joint Efficiency 100% or as per
	Joint Efficiency: 100% Joint Efficiency: As per code EN 13458	code EN 13458  Tender terms and conditions prevail
	Inspection: By 3rd party (SGS/LLOYDS/TUV)	

	Kindly also add 3 <sup>rd</sup> party BVIS	
	Page 8, Requirement of the Cryogenic Vessel should be: Inner vessel maximum allowable working pressure: 17 kg/cm2	Maximum allowable working pressure: 17-17.6 Bar G
	Max. Working Pressure is 17.6 Bar G instead of 17 Bar G. Please amend the same.	Inner Vessel hydrostatic test pressure: greater than 26 kg/cm2 or as per EN13458
	Inner Vessel hydrostatic test pressure: greater than 26 kg/cm2 Hydraulic test pressure should be as per EN 13458 code instead of 26 bar G. please amend the same.	Tender terms and conditions prevail
	Vaporiser Coil	
	Duty Cycle: Continuous duty	
	Duty Cycle: 6-8 hrs. Kindly amend the same.	
	Safety Fitting Vessel Low Liquid level alarm	Liquid level alarm/low pressure
	In Safety Fitting, Vessel Low Liquid level alarm is not required since low pressure alarm will be provided. Kindly delete Vessel Low Liquid Level Alarm from tender technical specifications.	alarm shall be provided.
71	Item No.2.3	Manifolds are designed and tested
	EMERGENCY N2O MANIFOLD	with a atleast inlet pressure of 3000 psig or as per standards mentioned
	The Manifold should be hydraulically tested at 3500 psig.	in the technical specification of tender.
	Please note as per NFPA standard, Manifolds are designed with a maximum inlet pressure of 3000 psig instead 3500 psig. You are requested to kindly amend the same and mention "The Manifold should be hydraulically tested at <b>3000</b> psig".	
72	Item No.3	Shall be as per standard mentioned
	MEDICAL AND SURGICAL AIR SYSTEM	in the technical specification of tender
	System Control – The control include	

	individual self-protected combination motor	
	controls with short circuit protection, single	
	phase and thermal overload protection,	
	individual control circuit transformers with	
	<b>fuseless</b> primary and secondary protection.	
	As per NFPA Standard, transformers used are	
	fused instead of fuseless. You are therefore	
	requested to kindly amend the same accordingly.	
73	Item No.3	Tender terms and conditions prevail
		1
	MEDICAL AND SURGICAL AIR SYSTEM	
	Tender Required Total Capacity of Medical &	
	Surgical Air System (combined medical air	
	plant) is 15000 LPM	
	plant) is 13000 Li W	
	Please allow options:	
	riease anow options.	
	1 complete medical air plant = Total Capacity	
	of 15000 LPM	
	Or	
	01	
	2 medical air plant = Total Capacity of 15000	
	LPM	
	Or	
	3 medical air plant = Total Capacity of 15000	
	LPM	
	The total output of 1 or 2 or 3 medical Air plant	
	should meet with tender specifications & Total	
	Capacity requirement.	
74	Item No.4	Shall be as per standards mentioned
		in the technical specification of
	VACUUM SYSTEM	tender
	System Control – The control include	
	individual self-protected combination motor	
	controls with short circuit protection, single	
	phase and thermal overload protection,	
	individual control circuit transformers with	
	<b>fuseless</b> primary and secondary protection.	
	As per NFPA Standard, transformers used are	
	fused instead of fuseless. You are therefore	
	requested to kindly amend the same accordingly.	
	-	

75	Item No.4	Tender terms and conditions prevail
	VACUUM SYSTEM	
	Tender Required Total Capacity of 28000 LPM	
	Please allow options 1 complete medical vacuum plant = Total Capacity of 28000 LPM Or 2 medical vacuum plant = Total Capacity of 28000 LPM Or 3 medical vacuum plant = Total Capacity of 28000 LPM The total output of 1 or 2 or 3 medical vacuum plant should meet with tender specifications& Total Capacity requirement.	
76	Item No.6  LOW FLOW WARD VACUUM UNIT	
	Technical Specifications of Low Flow Unit is given in tender, while the same is not considered in BOQ for pricing. You are requested to kindly add Low flow ward vacuum unit in BOQ of tender.	Mentioned in the BOQ attached herewith.
	Please amend the capacity 0-250m/bar for low flow vacuum regulator	Tender terms and conditions prevail  Tender terms and conditions prevail
	Please amend the capacity of suction jar 600-1000ml (1000cc)	Tender terms and conditions prevail
	The complete low flow vacuum unit with regulator and jar should be European CE Marked with 4 Digit Notified Body No / USFDA Certified / UL Listed / ETL Listed	
	Please note same is specified in all other AIIMS & PMSSY tenders published by HITES & NBCC India Ltd AIIMS tenders.	
77	Item No.	
	WARD VACUUM UNIT	

	Please amend the capacity 0-1000m/bar for low	Tender terms and conditions prevail
	flow vacuum regulator	Tender terms and conditions prevail
	Please amend the capacity of suction jar 600-1000ml (1000cc)	Tender terms and conditions prevail
	The complete ward vacuum unit with regulator and jar should be European CE Marked with 4 Digit Notified Body No / USFDA Certified / UL Listed / ETL Listed Please note same is specified in all other AIIMS & PMSSY tenders published by HITES & NBCC India Ltd AIIMS tenders.	
78	Item No.12.2	Amended as Oxygen and Vacuum
	MEDICAL GAS AREA ALARM	
	In Bill of Quantity, for Medical Gas Area Alarm for 2 Services, there is a typographical error in mentioning the gases for 2 Service Alarm, It should be Oxygen and Vacuum instead of MA4 Bar. You are requested to kindly correct the same.	
79	Item No.13	Tender terms and conditions prevail
	LINE ISOLATION VALVES	
	Kindly add Lines stating:	
	• "Line Isolation Valves should be 3" Piece ball type with Bronze body Lockable with Stuffed Pipes. Each Valve should be separately packed as per the standard.	
	• Valves should be Single Port for 12mm to 76 mm and for 108mm, it should be dual port.	
	This is safety feature and must be added for quality assurance.	
80	Regarding Manufacturer Authorization	3 Channel / 2 tier / 2 Channel/3 Partition rows
	Ref. Bed Head Panel, you had asked for specific authorization for this item, you are requested to kindly clarify whether you need BHP of indigenous or imported make.	1 artifuli 10ws
	Bed Head Panels should be 3 channel/3 partition rows	

	1 channel /1 partition row for gas outlets (pre piped) 1 channel /1 partition row for electricals sockets (pre wired) 1 channel /1 partition row for Data sockets, nurse call, telephone (not pre wired) This is mandatory feature as per the standards.  Please note same is specified in all other AIIMS & PMSSY tenders published by Hites & NBCC India Ltd AIIMS tenders.	
81	Volume-I, Page no. 3,  Period of Completion: 6 Months  We request the period of completion should be 9 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 Touch Screen Control Panel, Surgeon & Anaesthesia Pendant, OT Light with Camera & Monitor etc are imported items for which procurement only starts after approval of final drawing which is a time consuming process.	Period of work completion – 7 Months from the date of letter of commencement
	We hereby request to kindly increase the completion schedule to 9 months.	
82	Volume-I, Pre-Qualification Criteria; Page no. 5 & 6, Clause no. 2.2 (ii)  (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:  We request the successfully completed experience certificate of similar work should from the last date of receipt of application for tender instead of last day of the month previous to the one in which tenders are invited. The reason is this is a prestigious and high value tender. The Experience should be relaxed enough, enabling bidders to arrange & place experience certificate of this magnitude.  Therefore it is requested to kindly amend it to	The experience Certificate for completed similar works during last 7 years should be ending last date previous to the date of submission of tender.

	"Experience of having successfully completed	
	similar work during last 7 years ending last day	
	of receipt of tender".	
83	Volume-I, Page no. 6,	Tender terms and conditions prevail
	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 in M/s HLL Infra Tech Services Ltd. Tenders. A copy is enclosed herewith for your ready reference at Page 1 to 3. 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. Needless to emphasise by this criteria more and more bidders will participate in the tender.	
84	Volume-III, SCC, Page no. 12, 12.4 Bid	Tender terms and conditions prevail
	Security,	provini
	Document Fee and EMD are exempted for NSIC registered Firm.	
	As you are aware, to promote Micro Small & Medium Enterprise, Government of India had given the facility of NSIC Certification to the manufacturing firm. This may please be noted that this clause is only applicable for manufacturing of goods in India and not for procurement of Imported goods. If we go through the tender Specifications, there are imported items such OT Light, Pendant etc	

	We request this clause should be suitably amended so that NO Bidder could take undue advantage of NSIC Certification and all the bidders should be treated on single platform. This has been done in earlier HSCC Sangrur, Shimla & Raebareli Tenders.	
85	Volume-III, Page no. SCC-38, 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:	<ol> <li>75% of the BOQ contract rates on delivery of equipment at site after Inspection and Despatch Clearance Report on pro-data basis.</li> <li>15% of BOQ contract rates on Installation of MGPS.</li> <li>10% of BOQ contract rates after</li> </ol>
	1) 70% of the BOQ contract rates on delivery of equipments at site after inspection and passing on pro-data basis.	final acceptance of system by the client
	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:	
	<ol> <li>75% of the BOQ contract rates on delivery of equipment at site after inspection and passing on pro-data basis.</li> <li>20% of BOQ contract rates on satisfactory take over certificate by M/s HSCC after</li> </ol>	
	Installation.  3) 5% of BOQ contract rates after successful completion of trial run of 30 days from the date of handover to the client on pro-data basis.	
	Please appreciate, as soon as the work order is received, the contractor has to initiate necessary actions for successful execution of the work order. Among the very important, Contractor need to place order to the respective suppliers along with 100% payment because supplier will not wait till the completion of the project. Here it is worthwhile to say that contractor do not get 75% payment as 5% amount gets hold for	

	Security from Running Bill; 1% towards Labour Cess; 10% towards Performance Bank Guarantee, 12% towards GST & in case of delay in supply liquidated damages. After going through all this in the netshell a contractor gets approximately 50% amount at the initial stage. It is just a eye wash that 70% payment will be released on pro-rata basis. Initial payment is the lifeline to the contractors, which gives relief up to some extent.	
	With regard to 20% payment, please be noted that commissioning and handing over has no difference. After commissioning by our experience, most of the sites are not ready for handover such as civil work is not complete, hospital staff is not available etc etc. Without any fault of contractor, he need to wait for the payment till the handing over takes place. Therefore this payment should be at the time of erection, installation.	
	You will appreciate GST tax regime has been implemented since 1st July 2017 by Govt. of India. With the implementation of this system vis-a-vis in current payment structure, most of the projects gets delayed or handing over not taken by the Hospital/Institute/Department; because of this the balance payment gets stuck for longer duration. This way the liquidity get blocked and input credit is lost.	
86	No Deduction from Running Bills  We understand, a common ideology & practice has been adopted as that of M/s HLL Lifecare Ltd. in the present tender. While implementing all rules, we request there should not be any deductions with regard to retention of security amount etc.	Tender terms and conditions prevail
87	Part Completion Certificate  We request Part Completion Certification should be accepted for Bidder's Evaluation in Tender. As it is project and sometimes due to unavailability of manpower or handover not taken by user it results in delay in commissioning for executed project. For	Tender terms and conditions prevail

	instance, in one of the M/s HLL's Project of J&K Modular Operation Theatre, the complete Installation is done but commissioning is not done from last Four years as the Site is not Clear for Commissioning. Because of this the project remains incomplete.  We therefore request Part Completion	
00	Certificate should be Accepted in Evaluation.	T 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
88	Performance of the Company  We request, to kindly ensure that the bidder who has executed the similar nature of work who has worked in Government Hospital through Government Agencies such as M/s HSCC (India) Ltd., M/s HLL Lifecare Ltd, UPRNN, NBCC etc., the performance of the company should be satisfactory.	Tender terms and conditions prevail
89	We understand, Imported means the place from where the goods are mined, cultivated, grown, manufactured, produced or processed and Outside India.  Accordingly the certification of the product applies i.e. if it is UL Listed certification same shall be applicable to American Manufacturer only and European CE Certification same shall be applicable to European Manufacturer only. We request this criteria should be strictly applied and maintained.	Tender terms and conditions prevail
	It is further requested that the European CE Certified/UL listed Criteria for NFPA-99 STANDARD SHOULD BE "CERTIFICATION, WHEREVER APPLICABLE FOR ALL THE ITEMS of MEDICAL GAS".	
90	Page no. 1 & 2  1.1 Fully Automatic Oxygen Control Panel (Imported): Control panel should have Alarm reset switch/Mute /acknowledgement switch to control and monitor the alarm indications by the operator.	Control panel should have Alarm reset/Mute /acknowledgement switches to control and monitor the alarm indications by the operator" is deleted.
	Fully Automatic Oxygen Control Panel is defined as Automatic whereas at the bottom para it is mentioned "reset switch". Both the statements are contradicting to each other. Once	

	the system is Automatic the reset word does not apply. The system will be automatic. All the features are available in Master Alarm this is duplicacy.	
	We request, "Control panel should have Alarm reset/Mute /acknowledgement switch to control and monitor the alarm indications by the operator" should be deleted.	
91	Page no. 2  1.2 Oxygen Manifold Supply System (without Cylinder) The Manifold should be hydraulically tested at 3500 psig.	Manifolds are designed and tested with at least inlet pressure of 3000 psig or as per standards mentioned in the technical specification of tender.
	Please note as per NFPA standard, Manifolds are designed with a maximum inlet pressure of 3000 psig instead 3500 psig. You are requested to kindly amend the same and mention "The Manifold should be hydraulically tested at 3000 psig". The working pressure is 2000 LPM, we are giving 1.1/2 time more pressure.	
92	Page no. 3  1.3 Emergency Manifold Supply System (without Cylinder) The Manifold should be hydraulically tested at 3500 psig.	Manifolds are designed and tested with at least inlet pressure of 3000 psig or as per standards mentioned in the technical specification of tender.
	Please note as per NFPA standard, Manifolds are designed with a maximum inlet pressure of 3000 psig instead 3500 psig. You are requested to kindly amend the same and mention "The Manifold should be hydraulically tested at 3000 psig". The working pressure is 2000 LPM, we are giving 1.1/2 time more pressure.	
93	Page no. 3	BIS/US FDA/European CE Certified with 4 digit notified body number or American ETL/ UL
	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.	listed
94	Page no. 9 & 10  2.1 Fully Automatic Nitrous Oxide Control	Control panel should have Alarm reset/Mute /acknowledgement switches to control and monitor the

	Panel (Imported): Control panel should have Alarm reset switch/Mute /acknowledgement switch to control and monitor the alarm indications by the	alarm indications by the operator" is deleted.
	Fully Automatic Oxygen Control Panel is defined as Automatic whereas at the bottom para it is mentioned "reset switch". Both the statements are contradicting to each other. Once the system is Automatic the reset word does not apply. The system will be automatic. All the features are available in Master Alarm this is duplicacy.	
	We request, "Control panel should have Alarm reset/Mute /acknowledgement switch to control and monitor the alarm indications by the operator" should be deleted.	
95	Page no. 10  2.2 Nitrous Oxide Manifold (without Cylinder) The Manifold should be hydraulically tested at 3500 psig.	Manifolds are designed and tested with at least inlet pressure of 3000 psig or as per standards mentioned in the technical specification of tender.
	Please note as per NFPA standard, Manifolds are designed with a maximum inlet pressure of 3000 psig instead 3500 psig. You are requested to kindly amend the same and mention "The Manifold should be hydraulically tested at 3000 psig".	
96	Page no. 10  2.3 Emergency Nitrous Oxide Supply System (without Cylinder) The Manifold should be hydraulically tested at 3500 psig.	Manifolds are designed and tested with at least inlet pressure of 3000 psig or as per standards mentioned in the technical specification of tender.
	Please note as per NFPA standard, Manifolds are designed with a maximum inlet pressure of 3000 psig instead 3500 psig. You are requested to kindly amend the same and mention "The Manifold should be hydraulically tested at 3000 psig".	
97	Page no. 10 & 11  3. Medical and Surgical Air System (Package Unit - Imported)	+/-10 % to flow capacity of plant is permitted
	- Variation of + 10% is missing	

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	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 /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.	
98	Page no. 11  Stage 3: Bacteria filter for removing particles down to 0.01 micron. Purity should be tested as per the American Pharmacopeia / European Pharmacopeia standard	Testing should be American Pharmacopeia/ European Pharmacopeia/Third Party like SGS/Lloyd/TUV/Bureau Veritas
	We request the testing should be American Pharmacopeia/ European Pharmacopeia/Third Party such as TUV etc, which will be more appropriate for bidders.	
99	Page no. 11, 12  3. Medical & Surgical Air System (Package Unit - Imported)	The air receiver / vacuum reservoir capacity should be as per standard mentioned in the technical specification of tender.
	Total air receiver capacity shall be atleast 50% (+/- 5%).  You have asked 50% standby capacity of air	
	receiver. This should be as per standard. Please amend it to corresponding standards quoted by the bidder'- The capacity should be as per NFPA 99/HTM 02 01 standards 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. 4 to 5	
100	Page no. 11, 12  3. Medical & Surgical Air System (Package Unit - Imported)	Air Compressor should be factory fitted, factory tested, packed, prewired & pre-piped.
	We request the Air Compressor (Imported) 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.	
101	Page no. 13, 14  4. 4. VACUUM SYSTEMS (Package unit – imported)	+/-10 % to flow capacity of plant is permitted
	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	
102	same should be as per Standard.  Page no. 13, 14  4. VACUUM SYSTEMS (Package unit – imported) 4.4 Bacterial Filters	Shall be as per standard mentioned in the technical specification of tender.

	Destrois Ellers 1	
	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.	
103	Page no. 13, 14	The air receiver / vacuum reservoir
		capacity should be as per standard
	4. VACUUM SYSTEMS (Package unit –	mentioned in the technical
	imported)	specification of tender.
	1 2	specification of tender.
	Vacuum reservoir shall have total volume of at	
	least 100% of Primary plant output (+/- 5%).	
	You have asked 100% (+/-5%) standby capacity	
	of air receiver. This should be as per standard.	
	Please amend it to corresponding standards	
	quoted by the bidder'- The capacity should be as	
	per NFPA 99/HTM 02 01/ DIN standards 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. 4 to 5.	
104	Page no. 13, 14	Vacuum System should be factory
104	1 age no. 13, 14	fitted, factory tested, packed, pre-
	4. VACUUM SYSTEMS (Package unit –	wired & pre-piped
	` •	whed & pre-piped
	imported)	
	Standby Plant Capacity	
	We request the Vacuum (Suction) System	
	_ ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` `	
	(Imported), 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.	
105	Page no. 15	Anaesthesia Gas Scavenging
		System should be factory fitted,
	8.0 AGSS Anesthesia Gas Scavenging System	factory tested, packed, pre-wired &
	(Imported) :-	pre-piped.
	We request the Anesthesia Gas Scavenging	
	System (Imported), 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.	I .
100	† • • • • • • • • • • • • • • • • • • •	T1
106	Page no. 16	Tender terms and conditions prevail

	9. DISTRIBUTION PIPING	
	8.1 Piping specifications	
	W. A. M. P. L. C. L. C. B.	
	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.	
107	Page no. 17	Shall be as per standard mentioned
		in the technical specification of
	11. AREA VALVE SERVICE UNIT :	tender.
	The Area Valve Service Unit should incorporate	
	a ball valve with NIST/else connectors either	
	side mounted in a lockable box with emergency	
	access.	
	The NIST Connection as mention is as per HTM	
	Standard. We work on the Principals of NFPA-	
	99 Standard, where no NIST connection is	
	applicable. We therefore request NIST	
	Connection should be deleted.	
108	Page no. 18, 19	Shall be as per standard mentioned
		in the technical specification of
	12.1 Master Alarm System	tender.
	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.	
109	Page no. 19 & 20	All Bed Head Panels shall be
		Horizontal
	17. Horizontal/ Vertical Bed Head Panel	
	Kindly clarify the no. of Horizontal and no. of	
	Vertical Bed Head Panel required as there is	
	costing involved in it.	
110	Page no. 18, 19	Alarms shall be digital or as per
		standards mentioned in the
	12. Alarm System	technical specification of tender
	12.2 Medical Gas Area Alarm	
I		

The Medical Gas Pipe Line System except accessories like Ward Vacuum Unit, Theatre Vacuum Unit, Flow meter with Humidifier bottle must follow Single Standard any one from: NFPA 99c/HTM02-01/ ISO 7396-1/DIN/EN including
Copper pipe.
Bidder shall execute following turnkey works in addition to the works mentioned in the technical specification of tender: - Providing and fixing of Exhaust fan with IS marked Motor and louver for ventilation of MGPS Plant room and Manifold room Only Electrical Power supply will be provided at one location inside
the Plant room by client.  - Air-conditioning (Ductable with exhaust) to run 24x7 inside the Plant room and Manifold room.  - Providing and fixing of cable from local alram panels (OTs & ICUs)  - Construction of Overhead/Under Ground trench size approx 1.5mx1m as standard for interconnection between buildings/plant/manifold/etc block.

113	In volume V of your tender document (BOQ), We request that the stand –by asked for the Air plant in the BOQ should be as per International standards(like nfpa99,htm0201,din) followed by the Bidder/Company because different international standards have different protocals when it comes to the standby for the Air Plants.  Similarly in Air Receivers the capacity should also be as per the standard followed by the as different standards have different protocols when it comes to the Air receiver capacity for Air plants.  Also a range of +/- of 10%, instead of +/- 5% be given for plant capacities as different companies may have different plant capacities.	XLPE Cable as per IS: 7098 inside the gas manifold and plant room including Electrical Distribution Panel for plant & Manifold rooms.  -SITC of Electrical Distribution Panel for Plant & Manifold rooms.  - Providing of dedicated chemical earthing for MGPS Plant room as per IS: 3043  - Wiring for light point/fan point/exhaust fan point/call bell point with 1.5 sq mm FRLS PVC insulated copper conductor single core cable in surface/recessed medium plate, suitable GI box and earthing the point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable etc as required- Group-A - Point = 30, Group-B- Point = 2 and Group-C-Point = 15  Revised BOQ attached  Standby in Air Plant should be as per the standards mentioned in the technical specification of tender.  The air receiver / vacuum reservoir capacity should be as per standard mentioned in the technical specification of tender.  +/-10 % to flow capacity of plant is permitted
114	Similarly in Volume V (BOQ) of your tender document, the standby asked for the Vacuum plant is 100% whereas different International standards have different protocols for back	Standby in Vacuum plants should be as per the standards mentioned in the technical specification of tender.

	up, so our submission is that the standby asked in Vacuum plants should be as per the standards followed by the bidder/Company in case of Vacuum Plants.  Similarly in Vacuum Receivers the Volume should be as per the standard followed by the company as different standards have protocols for the volume of Vacuum receivers.  Also kindly give the range of +/- of 10% instead of +/-5% for the plant capacities as different companies have different plant capacities and to reach the capacity asked in the tender documents.	The air receiver / vacuum reservoir capacity should be as per standards mentioned in the technical specification of tender.  +/-10 % to flow capacity of plant is permitted
115	On page no17 of TS, point no 11, please clarify whether the AVSU are with Valves or Without Valves, otherwise it will have effect in the Quantities of the Valves as in the BOQ.	AVSU are with valves
116	On page no 22, you have asked Manufacturer Authorisation Form certificate for only 11, items  Our Submission is that kindly include Ward Vacuum Unit, Low flow ward Vacuum unit and Theatre Vacuum unit should also be included in the list so that you get quality products of a good standard and there are no compatibility issues among different products.	Tender terms and conditions prevail
117	On page 25 of TS( Technical Specification), point no 15, where it is written that The following systems/items must be from the same principal company/Manufacturer  Our submission is that Ward Vacuum Unit, Theatre suction Unit, Low flow Ward Vacuum unit should also be included in the list and they should be from the same manufacture so that there is no compromise on the Quality of the product and also there is no issue with the compatibility among the products.	Tender terms and conditions prevail

118	In Pre Qualification Criteria on page no 5, point no (ii), you have asked that Experience of having successfully completed similar work during last 7 years ending last day of month and  Three similar* completed works costing not less than the amount equal to  40% of the estimated cost.  Or	Tender terms and conditions prevail
	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	
	Our submission is that keeping the above criteria only one company will be fulfilling the above Qualification criteria, so to have more companies that will be eligible to bid the tender, the Pre Qualification criteria should be amended to	
	Experience of having successfully completed similar work during last 10 years ending last day of month and	
	Three similar* completed works costing not less than the amount equal to 30% of the estimated cost.	
	Two similar* completed works costing not less than the amount equal to 40% of the estimated cost. or One similar* completed work costing not less than the amount equal to 50% of the estimated cost.	
119	The time period to complete the Entire work given in the tender documents is 6 months  Our submission is that it should be amended to 8-10 months as it is a big work and cannot be completed in 6 months timeline.	Period of work completion – 7 Months from the date of letter of commencement

120	In vol II, clause no 10.1 where in of your tender document, you have asked for 10% of the contract price as Performance Security	The Performance security shall be 5% of the estimated cost.
	Our submission is that kindly amend it to 5% of the contract Price as 10% of contract price is a very big amount keeping in view of the Budget for the tenders.	
121	We also request to kindly amend the payment terms clause 21.0 of volume III of your tender document where it is written that the payment will be released as per 70/20/10 ratio  Our submission is to kindly amend the payment terms and it should be released in the ratio of 80/10/10 (80% on supply( pro rata basis),10 % on installation and remaining	1) 75% of the BOQ contract rates on delivery of equipment at site after Inspection and Despatch Clearance Report on pro-data basis. 2) 15% of BOQ contract rates on Installation (Installation certificate to be provided with bill) of MGPS. 3) 10% of BOQ contract rates after final acceptance of system by the
	10% on handover/Trial run).  Also request to extend the dates of the tender atleast by 15-20 days days from the day of uploading of the amendments.	client
	Hope our request will be taken into account and the amendments will be uploaded so that every company has a chance to bid/Participate in the tender process of your prestigious Institute.	
122	Technical specification : Page No. 15 Point no. 8 in Volume IV	Tender terms and conditions prevail
	Anesthesia Gas Scavenging System (Imported)	
	There is 2 different technologies i.e. Rotary Vane / Claw type mentioned in NIT specs which meets only NFPA99 guidelnes. Where as HTM/ISO 7396 standard allows "Blower" technology which is Oil Free produce better output with less energy consumption. Request you to please add "Oil Free Blower Technology" as per ISO 7396 standard. ISO 7396 standard is adopted by latest Indian Medical Gas Pipeline Standard	

123	Technical specification: Page No. 3 Point no. 1.4 in Volume IV  Flow meter with Humidifier C. The flow	Tender terms and conditions prevail
	meter body should be made of brass chrome plated materials.  Request you to please add "Brass Nickle	
	Chrome plated" along with "Brass Chrome plated.	
124	Technical specification: Page No. 19 Point no. 12.2 in Volume IV	Area Alarm should have digital display or as per standards mentioned in the technical specification
	The area alarm should have a digital display of pressures	
	LED display of pressure is allowed under HTM / ISO standard. The main purpose of the alarms is to have a audio visual display in case pressure goes out of the prescribed limits So, LED display can be visualized from distance and helpful for the nursing staff. So, kindly allow it.	
125	Technical specification: Page No. 11 Point no. 3.1 in Volume IV	Tender terms and conditions prevail
	It should be Oil-Less Screw Compressors / Scroll Compressors	
	Oil less screw compressors are high in capacity which is not suitable & design for the the hospital application. Oil less screw compressors are meant for the industrial application. The Medical Air Plant with oil injected screw compressors are permitted as per ISO 7396 / HTM guidelines and are suitable & design for the hospital application. ISO 7396 standard is adopted in the latest Indian Medical Gas Pipeline standard. So, kindly oil injected screw compressors as per	
	ISO 7396 / Indian Medical Gas Pipeline Standard.	
126		Tender terms and conditions prevail

	Pre-Qualification Criteria: Page 5, Point 2.2 (ii)	
	Three similar* completed works costing not less than the amount equal to 40% of the estimated cost. or Two similar* completed works costing not less than the amount equal to 50% of the estimated cost. or One similar* completed work costing not less than the amount equal to 80% of the estimated cost.	
	The estimated cost of the project is very high and therefore, the present PQ condition will restrict bidder to qualify for this tender. The financial capability of the bidder can be checked thru other parameter like average turnover clause, a solvency certificate and networth of the company and these parameters are alreday listed in the tender. Many prestigious hospital like AIIMS, Delhi & tendering authorities like HITES has relaxed PQ condition for the other new AIIMS tenders to attract bidders So, we request you to relax it to 10% single order of estimated value and total cumulative 50% of the estimated value project work to be completed during last 7 years	
127	5  1.2 COMPLETION PERIOD	Period of work completion – 7 Months from the date of letter of commencement
	6 months from the date of order of commencement	
	Going by the outlets disposition chart of MGPS tender, the OT's are in three different floorsground floor (02 nos), first floor (23 nos) and third floor (02 nos). Since AIIMS projects are done in phases, we request more clarity on readiness of the site to carry out the works within the stipulated time period and accordingly accept PBG to commence work.	
128	Pg. no. SCC 14,	Tender terms and conditions prevail
	Clause 15 (c)	

3. MEICAL AND SURGICAL SYSTEM  Kindly provide tolerance 10 +/-10 % to flow capacity.  Pg. 11  Combination or de-combination of Medical Air & Surgical Air system			
quoted in Euro/US dollar and payment through Letter of Credit be allowed. This will greatly reduce our financial stress.  Pg. No. GCC Page No. 10  Performance security should be 5% of the estimated cost  10.1 Performance Security  The amount of the bank guarantee shall be 10 percent of the Contract Price  Request that the performance guarantee be lowered to 5 percent of the contract price since the estimated cost is higher.  Vol. IV Technical Specification Pg. No. 10  3. MEICAL AND SURGICAL SYSTEM  Kindly provide tolerance 10 +/-10 % to flow capacity.  131  Pg. 11  S.1  It should be Oil Less Screw Compressors/Scroll Compressors to produce the plant output of {minimum Liters Per Minutes (LPM)} as mentioned in BOQ of respective institute as primary and same capacity as standby.  Kindly include oil free screw compressor /oil free tooth compressor.  According to NFPA99 guidelines, medical air and surgical air must be from two independent sources. Hence please add "If the bidder is quoting as per NFPA 99 then surgical air system		Rupees against each item of BOQ (Volume V) online both in words and figures in the blanks	
Pg. No. GCC Page No. 10  10.1 Performance Security  The amount of the bank guarantee shall be 10 percent of the Contract Price  Request that the performance guarantee be lowered to 5 percent of the contract price since the estimated cost is higher.  130 Vol. IV Technical Specification Pg. No. 10  3. MEICAL AND SURGICAL SYSTEM  Kindly provide tolerance 10 +/-10 % to flow capacity.  131 Pg. 11  3.1  It should be Oil Less Screw Compressors/Scroll Compressors to produce the plant output of {minimum Liters Per Minutes (LPM)} as mentioned in BOQ of respective institute as primary and same capacity as standby.  Kindly include oil free screw compressor /oil free tooth compressor.  According to NFPA99 guidelines, medical air and surgical air must be from two independent sources. Hence please add "If the bidder is quoting as per NFPA 99 then surgical air system		quoted in Euro/US dollar and payment through Letter of Credit be allowed. This will greatly	
10.1 Performance Security  The amount of the bank guarantee shall be 10 percent of the Contract Price  Request that the performance guarantee be lowered to 5 percent of the contract price since the estimated cost is higher.  130 Vol. IV Technical Specification Pg. No. 10  3. MEICAL AND SURGICAL SYSTEM  Kindly provide tolerance 10 +/-10 % to flow capacity.  131 Pg. 11  Combination or de-combination of Medical Air & Surgical Air system should be followed as per standards mentioned in the technical specification of tender.  Compressors to produce the plant output of minimum Liters Per Minutes (LPM) as mentioned in BOQ of respective institute as primary and same capacity as standby.  Kindly include oil free screw compressor /oil free tooth compressor.  According to NFPA99 guidelines, medical air and surgical air must be from two independent sources. Hence please add "If the bidder is quoting as per NFPA 99 then surgical air system	120		Df
The amount of the bank guarantee shall be 10 percent of the Contract Price  Request that the performance guarantee be lowered to 5 percent of the contract price since the estimated cost is higher.  130 Vol. IV Technical Specification Pg. No. 10  3. MEICAL AND SURGICAL SYSTEM  Kindly provide tolerance 10 +/-10 % to flow capacity.  131 Pg. 11  Combination or de-combination of Medical Air & Surgical Air system should be followed as per standards mentioned in the technical specification of tender.  Compressors to produce the plant output of (minimum Liters Per Minutes (LPM)) as mentioned in BOQ of respective institute as primary and same capacity as standby.  Kindly include oil free screw compressor /oil free tooth compressor.  According to NFPA99 guidelines, medical air and surgical air must be from two independent sources. Hence please add "If the bidder is quoting as per NFPA 99 then surgical air system	129	Pg. No. GCC Page No. 10	<u> </u>
percent of the Contract Price  Request that the performance guarantee be lowered to 5 percent of the contract price since the estimated cost is higher.  130 Vol. IV Technical Specification Pg. No. 10  3. MEICAL AND SURGICAL SYSTEM  Kindly provide tolerance 10 +/-10 % to flow capacity.  131 Pg. 11  Combination or de-combination of Medical Air & Surgical Air system should be followed as per standards mentioned in the technical specification of tender.  It should be Oil Less Screw Compressors/Scroll Compressors to produce the plant output of {minimum Liters Per Minutes (LPM)} as mentioned in BOQ of respective institute as primary and same capacity as standby.  Kindly include oil free screw compressor /oil free tooth compressor.  According to NFPA99 guidelines, medical air and surgical air must be from two independent sources. Hence please add "If the bidder is quoting as per NFPA 99 then surgical air system		10.1 Performance Security	
lowered to 5 percent of the contract price since the estimated cost is higher.  Vol. IV Technical Specification Pg. No. 10  3. MEICAL AND SURGICAL SYSTEM  Kindly provide tolerance 10 +/-10 % to flow capacity.  Pg. 11  Combination or de-combination of Medical Air & Surgical Air system should be followed as per standards mentioned in the technical specification of tender.  It should be Oil Less Screw Compressors/Scroll Compressors to produce the plant output of {minimum Liters Per Minutes (LPM)} as mentioned in BOQ of respective institute as primary and same capacity as standby.  Kindly include oil free screw compressor /oil free tooth compressor.  According to NFPA99 guidelines, medical air and surgical air must be from two independent sources. Hence please add "If the bidder is quoting as per NFPA 99 then surgical air system"		_	
Vol. IV Technical Specification Pg. No. 10   +/-10 % to flow capacity is permitted		lowered to 5 percent of the contract price since	
3. MEICAL AND SURGICAL SYSTEM  Kindly provide tolerance 10 +/-10 % to flow capacity.  Pg. 11  Combination or de-combination of Medical Air & Surgical Air system should be followed as per standards mentioned in the technical specification of tender.  It should be Oil Less Screw Compressors/Scroll Compressors to produce the plant output of {minimum Liters Per Minutes (LPM)} as mentioned in BOQ of respective institute as primary and same capacity as standby.  Kindly include oil free screw compressor /oil free tooth compressor.  According to NFPA99 guidelines, medical air and surgical air must be from two independent sources. Hence please add "If the bidder is quoting as per NFPA 99 then surgical air system"	130		1 7
capacity.  131 Pg. 11  3.1  Combination or de-combination of Medical Air & Surgical Air system should be followed as per standards mentioned in the technical specification of tender.  Compressors to produce the plant output of {minimum Liters Per Minutes (LPM)} as mentioned in BOQ of respective institute as primary and same capacity as standby.  Kindly include oil free screw compressor /oil free tooth compressor.  According to NFPA99 guidelines, medical air and surgical air must be from two independent sources. Hence please add "If the bidder is quoting as per NFPA 99 then surgical air system		3. MEICAL AND SURGICAL SYSTEM	permitted
3.1  Medical Air & Surgical Air system should be followed as per standards mentioned in the technical specification of tender.  Compressors to produce the plant output of {minimum Liters Per Minutes (LPM)} as mentioned in BOQ of respective institute as primary and same capacity as standby.  Kindly include oil free screw compressor /oil free tooth compressor.  According to NFPA99 guidelines, medical air and surgical air must be from two independent sources. Hence please add "If the bidder is quoting as per NFPA 99 then surgical air system		¥ =	
It should be Oil Less Screw Compressors/Scroll Compressors to produce the plant output of {minimum Liters Per Minutes (LPM)} as mentioned in BOQ of respective institute as primary and same capacity as standby.  Kindly include oil free screw compressor /oil free tooth compressor.  According to NFPA99 guidelines, medical air and surgical air must be from two independent sources. Hence please add "If the bidder is quoting as per NFPA 99 then surgical air system	131		Combination or de-combination of Medical Air & Surgical Air system should be followed as per standards
free tooth compressor.  According to NFPA99 guidelines, medical air and surgical air must be from two independent sources. Hence please add "If the bidder is quoting as per NFPA 99 then surgical air system		Compressors to produce the plant output of {minimum Liters Per Minutes (LPM)} as mentioned in BOQ of respective institute as	specification of tender.
and surgical air must be from two independent sources. Hence please add "If the bidder is quoting as per NFPA 99 then surgical air system		<u> </u>	
separate sources /compressor systems". This point is necessary since the tender requires third party		and surgical air must be from two independent sources. Hence please add "If the bidder is quoting as per NFPA 99 then surgical air system and medical air system must be from completely separate sources /compressor systems". This point is necessary since the tender requires third party	
	132		+/-10 % to flow capacity is permitted
		4 VACUUM SYSTEM	

	Primary plant output (+/- 5%) capacity	
	Kindly increase tolerance to +/-10%	
133	Commercial criteria:  1. Since most of the items belongs to US/UK/EUROPE origin. Request you to please consider products which belongs to US/UK/EUROPE origin those must be consider in their respective currency.	Tender terms and conditions prevail
	2. Major products like Air Compressors & Vacuum Systems is a customized product according to client requirement. And these systems dispatches from "Ship Cargo" due to highly in larger size. So, we request you to kindly accept 240 days instead of 180 days.	
134	Pre-Qualification criteria: 1. According to NIT, only Indian Experience have been asked. Whereas other India government organizations like HLL/HITES also accept Global Experience.	Tender terms and conditions prevail
135	Minimum Works of Similar Nature: Eligible bidders should have successfully executed globally in last Seven years from the date of tender opening, similar turnkey project of value, equivalent to or exceeding 50% of estimated schedule/tender value. Out of total 50% value, at least one single order for similar work of minimum 10% of the estimated schedule/tender value should have been executed globally. The details of requirement of cumulative schedule value of MWSN (minimum work of similar nature) are mentioned in Eligibility Table. The value of the executed works shall be brought to current costing level by enhancing the actual value of work at simple rate of 7% per annum, calculated from the date of completion to last date of receipt of tenders.	Tender terms and conditions prevail
	Example/Clarification: Similar projects means that Medical Gas Pipeline System meeting major technical parameters irrespective of material of construction.	
136	1 22Ain Communication Marketing	a) Tandan (tanas and tanas
	1. "Air Compressor Modules"	a) Tender terms and conditions

As per NIT, Oil free Rotary Screw/Scroll compressors only accept.

a) Atlas Copco also manufacturers ''OIL FREE ROTARY TOOTH'' compressors which is smaller version of Oil Free screw. Oil Free Screw requires for larger requirement & Oil Free Tooth designed for lesser demand especially for the Medical Application as compare to Oil Free Screw Tooth. The only difference between both the technologies is Element Size. And this technology is globally accepted. Our sincere request you to kindly refer the attached technical brochure which gives you more glimpse & advantages of the technology.

- **b) Standby Capacity-** As per NIT, there is specific 'standby capacity' is mentioned. Whereas every standard i.e. HTM/NFPA99/ISO 7396 has its own calculation for system stand by capacity. Request you to please accept ''system standby capacity'' as per relevant standards.
- As per NFPA99 compliance- Secondary should be 25% of primary flow.
- As per HTM 0201/ISO 7396-1 compliance- If there are 6 Vacuum Pumps, 2 Pumps should maintain as secondary.
- c) Air Receiver Capacity- As per NIT, this is also specified for one standard. Air Receiver capacity and size must be design as per the relevant standards HTM/NFPA99/ISO 7396. For ex: HTM/ISO says Air Receiver capacity should be minimum of 50% flow whereas NFPA99 says i.e. 5.1.3.5.6 Medical Air Receivers be of a capacity sufficient to prevent the compressors from short-cycling.

The above mentioned tender seeks a declaration from the manufacturer, (in case NFPA system is being offered ) that the quoted system conforms to NFPA99 guidelines. The technical specifications of tender demands the Medical Air and Surgical Air be a combined package unit whereas NFPA99 doesn't allow common source for Medical Air and Surgical Air.

In case a combined system is installed, it will fail to comply third party audit to conform to NFPA99.

prevail

b) Standby in Compressed Air system should be as per the standards mentioned in the technical specification of tender.

c) The air receiver / vacuum reservoir capacity should be as per standard mentioned in the technical specification of tender.

Combination or de-combination of Medical Air & Surgical Air system

NFPA 99 2005 edition does not contemplate the use of combined air systems in which Medical Air and Instrument air derive from a single source. This is a violation of a basic principle of the standard which seeks to ensure that no one failure can deny supply, and in this case, it could deny supply to two systems.

should be followed as per standards mentioned in the technical specification of tender.

- 1. According to NFPA99 edition 2005 **para no. 3.3.80** states that
- 3.3.80 Instrument Air. For the purposes of this standard, instrument air is intended for the powering of medical devices unrelated to human respiration (e.g., surgical tools, ceiling arms). Medical air and instrument air are distinct systems for mutually exclusive applications. Instrument air is a medical support gas that falls under general requirements for medical gas. (PIP)
  - 2. Medical Air and Instrument are different sources as mentioned in **Para no.** 5.1.3.3.1.3
- 5.1.3.3.1.3 Any of the following system shall be permitted to be located together in the same room:
- 1) Medical air compressor supply sources (see 5.1.3.5.3.)
- 2) Medical-surgical vacuum sources (see 5.1.3.6)
- 3) Waste anaesthetic gas disposal (WAGD) sources (See 5.1.3.7)
- 4) Instrument air compressor sources (See 5.1.3.8)
- 5) Any other compressor, vacuum pump, or electrically powered machinery
  - 3. There are different set of quality air levels as per NFPA99 for Medical Air and Surgical Air Quality.
  - 4. System configuration

The NFPA 99 guidelines defines different system configuration for medical and instrument air system and the guideline states different dew point levels for medical air system and surgical air system. It is self-explanatory that the medical and

	instrument/surgical air system must be from mutually exclusive and different sources.	
137	2. "Vacuum Pump Module"	a) Tender terms and conditions prevail
	a) NIT says only one technology that is "Rotary Vane Oil Lubricated". Whereas other technologies are also available which is more energy efficient i.e. "Rotary Screw Oil Lubricated and Dry Vane" Request you to kindly allow these technologies. These kind of pumps delivers higher output in with less motor capacity as compare to Rotary Vane Oil Lubricated. I have enclosed product catalogue which is self explanatory about these technologies.	b) Standby in Compressed Air system should be as per the standards mentioned in the technical specification of tender.
	b) None of the standards says that Primary system capacity is same as Secondary system capacity. Because as per your NIT Primary Plant output and secondary output is same which is bias the standard norms & regulations.	
	- As per NFPA99 compliance- Secondary should be 25% of primary flow.	
	- As per HTM 0201/ISO 7396-1 compliance- If there are 6 Vacuum Pumps, 2 Pumps should maintain as secondary.  Vacuum Receiver Capacity- As per NIT, this is also specified for one standard. Vacuum Receiver capacity and size must be design as per the relevant standards HTM/NFPA99/ISO 7396. For ex: HTM/ISO says Air Receiver capacity should be minimum of 50% flow whereas NFPA99 says i.e. 5.1.3.6.3 Vacuum Receivers be of a capacity based on the technology of the numps	The air receiver / vacuum reservoir capacity should be as per standard mentioned in the technical specification of tender.
138	pumps.	Alarm should be digital or as per
	Master Alarm and Area Alarm Panel According to NIT- only area alarm should have digital display/Touch screen type of pressures. We would request you to kindly accept 'touch screen panel' only for both Master and Area Alarm Panel.	standards mentioned in the technical specification of tender
139	Page no. 3, Volume-I, Period of Completion: 6 Months Our Suggestion: The period of completion should be 10 months. The important items of	Period of work completion – 7 Months from the date of letter of commencement

	T	T
	Modular	
	Operation Theatres are imported and takes time	
	to finally arrive in India and being big Project in	
	the history	
	of MOT the period of completion should be	
	atleast 10 months. One should also consider the	
	vicinity of the	
	project. Therefore please extend the completion	
	period to 10 months.	
140	Page no. 5 & 6, Clause no. 2.2 (ii) Volume-I,	The experience Certificate for
	Pre-Qualification Criteria; (ii) Experience of	completed similar works during last
	having	7 years should be ending last date
	successfully completed similar work during	previous to the date of submission
	last 7 years ending last day of month previous	of tender.
	to the one in	
	which tenders are invited should be either of	
	the following:	
	Our Suggestion: The completed Experience	
	Certificate of similar work i.e. Modular	
	Operation Theatre should be last date of receipt	
	of application for tender. It should not be last	
	day of month previous to the one in which	
	1 •	
	tenders are invited. This is big project in the	
	history of MOT therefore the qualification	
	criteria should be relaxed, so that bidders like us	
	could take part in the tender. Therefore amend	
	experience to last date of receipt of	
1.41	application for tender.	1) 750/ 6 /1 800
141	Page no. SCC-38, Clause no. 21.0, Volume-	1) 75% of the BOQ contract rates
	III, Terms of Payment	on delivery of equipment at site
	Our Suggestion: The terms of payment should	after Inspection and Despatch
	be:	Clearance Report on pro-data basis.
		2) 15% of BOQ contract rates on
	A. 80% of the BOQ contract rates on delivery of	Installation (Installation certificate
	equipment at site after inspection and passing on	to be provided with bill) of MGPS.
	pro rata basis.	3) 10% of BOQ contract rates after
	B. 10% of BOQ contract rates on satisfactory	final acceptance of system by the
	take over certificate by client after erection.	client
	C. 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.	
	The payment is important part of contract. The	
	department should understand, to secure "A"	
	payment, a contractor has to incur various	
	expenses, such as payment to	
	supplier/manufacturer, transportation cost,	
	contract expenses such as PBG, Labour Cess,	
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	<u> </u>	
	Security Charges, GST etc etc. After so much of	
	<u> </u>	

	and should be looked upon.	
142	Page no. 6, Volume-I, 2.2 (iii), Solvency	Tender terms and conditions prevail
	Certificate Our Suggestion: We participate in Government/Private Tenders, floated by various Departments such as MES, PWD etc for similar nature of work. One such Department M/s HLL Infra tech service ltd's qualification criteria is:  "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".  This is big project in the history of MOT therefore the qualification criteria should be relaxed. The Solvency Certificate should be 10% of the estimated cost of tender or bidder should be allowed to submit Average Net worth Certificate for the last five years of not less than 10% of the estimated cost from Chartered Accountant.	
	Accountant. Therefore please amend the criteria for more	
1.10	participation.	7. (61)
143	Page 2- 1.2 Oxygen Manifold Supply System (without Cylinder) - The Manifold should be hydraulically tested at 3500 psig.  Page 3- 1.3 Emergency Manifold Supply System (without Cylinder) - The Manifold should be hydraulically tested at 3500 psig.  Page 10 - 2.2 Nitrous Oxide Manifold (without Cylinder) - The Manifold should be hydraulically tested at 3500 psig.	Manifolds are designed with at least inlet pressure of 3000 psig or shall be as per standard.
	Page 10 - 2.3 Emergency Nitrous Oxide Supply System (without Cylinder) - The Manifold should be hydraulically tested at 3500 psig.	
	Our Suggestion: It is requested to please note as per NFPA standard, Manifolds are designed with a maximum inlet pressure of 3000 psig instead 3500 psig. Please amend "The Manifold should be hydraulically tested at 3000 psig".	
144	Page no. 10 & 11 - 3. Medical and Surgical Air System (Package Unit - Imported) Page no. 13, 14 - 4. 4. VACUUM SYSTEMS	+/-10 % to flow capacity is permitted

	(Package unit – imported)	
	<b>Our Suggestion</b> : We request +/- 10% variation should be provide as in all Government Tenders variation is allowed.	
145	Page no. 11, 12 - 3. Medical & Surgical Air System (Package Unit - Imported) - Total air receiver capacity shall be atleast 50% (+/- 5%).  Page no. 13, 14 - 4. Vacuum Systems (Package unit – imported) - Vacuum reservoir shall have total volume of atleast 100% of Primary plant output (+/- 5%).	The air receiver / vacuum reservoir capacity should be as per standard mentioned in the technical specification of tender.
	Our Suggestion: The air receiver / vacuum reservoir capacity should be as per standard HTM 02 01/NFPA-99 Standard.	
146	Page no. 18, 19 - 12. Alarm System 12.2 Medical Gas Area Alarm  Our Suggestion: We suggest the alarm system should be digital as this is the latest technology.	Alarm system shall be digital or as per standards mentioned in the technical specifications of tender document.
147	Page no. 3 - 1.4 Oxygen Flow meter with Humidifier Bottle -  Our Suggestion: The certificates of the product should be European CE Certified with notified 4 digit body no. / UL Listed.	BIS/US FDA/European CE Certified with 4 digit notified body number or American ETL/ UL listed
148	Quality standards-US FDA/European CE with 4 digit notified body no./ETL/UL etc for quoted model	Quality standards-BIS/US FDA/European CE with 4 digit notified body no./ETL/UL etc for quoted model
149	Operation and Maintenance of MGPS	The Estimated cost of MGPS Project is excluding of Cost of Operation and CMC Agreement for Operation and CMC shall be made between AIIMS and the contractor. AIIMS will award for Operation and CMC and make payment accordingly for the same. In addition to technical specification, details of manpower planning and management of Operation and Maintenance are mentioned in the attached sheet.

Payment for Operation shall be half yearly basis after satisfactory completion of operation of the said period
Revised BOO attached

Revised BOQ is attached.

All other terms & conditions remain unchanged.

Sr. Chief General Manager -I , HSCC (I) Ltd. For & on behalf of Director, AIIMS, Kalyani