

October 13, 2010

**Name of Work :** Design, Supply, Installation, Testing & Commissioning of Medical Gas Pipe Line and Manifold System and associated works for Super Speciality Block at Nizam's Institute of Medical Sciences, Hyderabad under PMSSY  
**Tender No. :** HSCC/PMSSY/HYD/NIMS/2010

**Amendment No.4 and Replies to Pre-bid Queries**

<b>S.No.</b>	<b>Query raised by Bidder</b>	<b>Response /Reply</b>
1.	We have gone through the technical specification and PQ criteria and are comfortable with the same	No comments.
2.	Oxygen Manifold – Imported The specifications are written for indigenous makes, where as this item on Volume IV, page no.1, para A-1 is written as imported. Please clarify and similarly on Volume V Page No.1 of 6 item A-1 because imported specifications are entirely different and the price difference between indigenous and imported is more than 10 times approximately.	No change. Tender conditions prevail
3	Fully Automatic Control Panel (for oxygen) – Imported Since it is not required as per NFPA-99 (latest edition 2005) and it is asking for analogue pressure gauges, hence you may either change digital to analogue or mention as digital/analogue. Regarding Microprocessor word, every where in the specifications of Oxygen and N2O control panels should be changed microprocessor/relay circuit board again microprocessor is not demanded in NFPA 99 (latest edition) NEMA-1 is changed to NEMA-3, as per NFPA 99 (latest edition 2005) requirement. Change 60psi to 50 to 55 psi because all American Standard Medical gases pipeline system is 50 to 55 psig and the same is asked in NFPA 99 (latest 2005, page 99-60 table 5.1.11	No change
4.	Oxygen 10+10 cylinders emergency system – imported The specifications are written for indigenous makes, where as this item on Volume IV, page no.2, para A-3 is written as imported. Please clarify and similarly on Volume V Page No.1 of 6 item A-3 because imported specifications are entirely different and the price difference	No change. Tender conditions prevail

S.No.	Query raised by Bidder	Response /Reply
	between indigenous and imported is more than 10 times approximately.	
5.	<p>N2O Manifold – Imported The specifications are written for indigenous makes, where as this item on Volume IV, page no.3, para B-1 is written as imported. Please clarify and similarly on Volume V Page No.2 of 6 item B-1 because imported specifications are entirely different and the price difference between indigenous and imported is more than 10 times approximately.</p>	No change. Tender conditions prevail
6.	<p>Fully Automatic Control Panel (for N2O) – Imported Since it is not required as per NFPA-99 (latest edition 2005) and it is asking for analogue pressure gauges, hence you may either change digital to analogue or mention as digital/analogue</p> <p>Regarding Microprocessor word, every where in the specifications of Oxygen and N2O control panels should be changed microprocessor/relay circuit board again microprocessor is not demanded in NFPA 99 (latest edition)</p> <p>NEMA-1 is chanded to NEMA-3, as per NFPA 99 (latest edition 2005) requirement.</p> <p>Change 60psi to 50 to 55 psi because all Americal Standard Medical gases pipeline system is 50 to 55 psig and the same is asked in NFPA 99 (latest 2005, page 99-60 table 5.1.11</p>	No change. Tender conditions prevail
7.	<p>N2O 2+2 cylinders emergency system – imported The specifications are written for indigenous makes, where as this item on Volume IV, page no.5, para B-3 is written as imported. Please clarify and similarly on Volume V Page No.2 of 6 item B-3 because imported specifications are entirely different and the price difference between indigenous and imported is more than 10 times approximately.</p>	No change. Tender conditions prevail
8.	<p>Compressed Air System – Imported Please clarify the total air plant output capacity and how do you want to achieve this output capacity, Do you need to achieve with duplex, triplex or quarterlap (for your information incase you need duplex system, you need to have each pump of total rquired capacity and</p>	<p>Two sets of air compressors – One for Accident (Trauma) and Emergency Block and One for Super Speciality Block are required.</p> <p>BOQ quantity of Item No.C.1 at page no.2 of Volume V, Bill of Quantities</p>

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	<p>second one will act as standby and if you need triplex system the total of two pumps will have to meet the total system requirement and third will act as standby similarly for quarterlap system, the total of three pumps will have to meet the total system requirement and fourth will act as standby) also please note that for this capacity the whole world as per international practices is to use quarterlap, hence please clarify. Kindly note that based on your number of air 4 Bar and Air 7 Bar outlets requirement you need minimum total 190 CFM air plant with 100 psig pressure in quarterlap system means 4 compressors with each compressor an output of minimum 63 cfm at pressure of 100 psig and with 20 HP motor. Please amend the specifications accordingly.</p> <p>Since you are demanding NFPA system, hence, the unit of tank capacity is always in gallon and all standard NFPA tanks are either one of 200 gallon or 240 gallon with each plant, therefore please amend accordingly. It is surprising that you have asked CA compress air 7 bar (means 100 psig) pressure outlets on Volume V Page 2 of 6, Para c-2, Quantity 20 nos. which means that you need to this pressure air outlets to run your pneumatic drills in the operation theatres, where as the source air plant delivery pressure is asked as 50 psig, how can you supply 100 psig at air outlets, when your plant is delivering 50 psig, therefore change the pressure from 50 psig to 100 psig.</p>	<p>stands amended to “2 (<i>Two</i>)” in lieu of “1”</p>
9.	<p>Vaccum System – Imported</p> <p>The total plant output do you need to achieve with duplex, triplex or quarterlap (for your information in case you need duplex system, you need to have each pump of total required capacity and second one will act as standby and if you need triplex system the total of two pumps will have to meet the total system requirement and third will act as stand by similarly for quarterlap system, the total of three pumps will have to meet the total system requirement and fourth will act as stand by ) also please note that for this capacity world practice is to use quarterlap, hence please clarify since you are demanding NFPA system, hence the unit of tank capacity is always in gallon and all standard NFPA tanks are either one of 200</p>	<p>No change. Tender conditions prevail. These are for future expansion.</p>

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	<p>gallon or 240 gallon with each plant, therefore please amend accordingly.</p> <p>It is surprising to note that against total 323 vaccum outlets you are asking 172 172 cfm capacity each vacuum pumps and in quarterlap means for numbers of such vacuum pumps means the total of three (because fourth one is stand by) = <math>172 \times 3 = 516</math> cfm where as the total vacuum plant should be around or less than 100 cfm which can be met with triplex system and each having 49 cfm at 19 inch Hg pressure with 7.5 HP motor requirement. However, if you still insist to have three and half times bigger plant then please amend the specs as 168-172 cfm at 19 inch Hg pressure each vacuum pump in quarterlap system because most of the international brands make within this range, so that we can participate in the tender.</p>	
10.	<p>Ward Vacuum Unit – Imported Delete the specs from “The ward.... Back plate” . (However digital display is possible to provide and we can but it is a gimmick because what will happen if battery of this display gets exhausted hence pressure gauge are the best for life time trouble free display) because it is make specific and being represented on exclusivity basis by one company. Rest of general Specification are OK. The line “the ward vacuum unit should conform to ISO 19979-3 and ASTM F 960” is make specific and hence please delete. Suction jar</p> <p>Amend “The 1200 ml suction Jar..... silicone for long life.: as only “Suction jar with range 1000 to 1800 ml with filter trap in the jar” and delete the rest.</p>	No change. Tender conditions prevail
11.	<p>Theatre Suction Unit – Imported Delete the specs from “The ward.... Back plate” . (However digital display is possible to provide and we can but it is a gimmick because what will happen if battery of this display gets exhausted hence pressure gauge are the best for life time trouble free display) because it is make specific and being represented on exclusivity basis by one company. Rest of general Specification are OK. The line “the ward vacuum unit should conform to ISO 19979-3 and ASTM F 960” is make specific and hence please delete.</p>	No change. Tender conditions prevail

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	<p>Suction jar</p> <p>Amend “The 3200 ml suction Jar..... breakdown of foam.” as only “Suction jar with range 1800 to 2000 ml each with filter trap in the jar” and delete rest as these are make specific..</p>	
12.	<p>Master Alarm/Area Alarm c. “The alarms shall be .... per standard box.” Please amend this to 4 to 8 services with a standard module of 4 services in each box.</p>	No change. Tender conditions prevail
13.	<p>Please extend the submission period for another 15 days atleast from the date of issue of amendments/clarifications.</p>	Please refer amendment no.2
14.	<p>Eligibility should be either of the below during the last 7 years either in Government or private:</p> <ul style="list-style-type: none"> <li>- 1 job with 80% of gas outlets</li> <li>- 2 jobs with 60% of gas outlets</li> <li>- 3 jobs with 40% of gas outlets.</li> </ul>	Please refer amendment no.3 enclosed
15.	<p>The tender is for imported items which would be procured through LC opened in favour of foreign manufacturer. Hence there is no significant financial strength needs to be evaluated. Hence, requirement of solvency certificate from Bank is not vital, which otherwise could be a deterrent for participation. You are requested to delete this clause.</p>	No Change. As per tender documents
16.	<p>Complete location plan of the outlet points along with the floor plans of the building.</p>	Outlet disposition schedule is enclosed at Annexure I
	<p>Flow requirement of Nitrous oxide per OT should not be more than 7 litre per minute. For 16 OTs, the total flow would be approx. 112 per minute. Whereas in tender specification, 1000 litre per minute is asked which is very very high.</p>	Flow capacity of Control panel is amended to 500 lpm.
	<p>In view of the timelines, kindly amend the dates appropriately.</p>	Please refer amendment no.2
17	<p>Ward Vacuum Unit asks about “Only digital” and “NO Analog monitoring: of vacuum. Specification also mentions “Push to Set Technology” and “2 turn to full wall vacuum”. These specifications are patented and available with only one company.</p> <p>Complete Technical specifications are drafted in and around the products available with a company and hence a major discouragement for the competition.</p>	Push to Set Technology or equivalent is acceptable. All other details as mentioned in the Technical Specifications remain unchanged.

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	Request to remove above points/push to set technology from the specifications and ask for both Digital and Analog Monitoring to ensure use of equipments on patient even in case of digital display failure.	
18.	3200 ml jar is asked which is very rare size and specific to set of manufacturers. Also material asked is polysurphane which is not known. Please include general sizes such as 2000 ml, 4000 ml made of polycarbonate.	No change. Tender conditions prevail
19	Valve box specifications asks for construction with steel and aluminum at two different places. Request you to mark it as Either/Or.	No change. Tender conditions prevail
20.	Pneumatically retractable ceiling pendants are very specific to one or two companies. We request you to allow other retraction patterns ie manual and electrical in addition to pneumatic retraction.	No change. Tender conditions prevail
18.	The definition of Similar works should mean works of similar nature viz. related to supply of Medical Gases even if the nomenclature of the job is different. Request for inclusion of supply of modular OT's as PQ eligibility criteria.	No Change.
19.	<p>Request the following amendments in the PQ criteria</p> <p>i. Six similar completed jobs costing not less than the amount equal to 20% of the estimated cost.</p> <p style="text-align: center;">Or</p> <p>ii. Similar completed works costing not less than 150% of the estimated cost.</p> <p>iii. Similar works means Design, Supply, Installation, Commissioning of Medical Gas System, and pipeline and Manifold System as well as Oxygen Generator Plants/Liquid Oxygen Tanks and Operation Theatres with Pendants/Laminar Air Flows as well as or Media Bridges”</p> <p>PQ criteria should specify experience as having handled similar MGPS systems in hospitals with the number of beds being close to what is required in the tender.</p>	Please refer amendment no.3 enclosed.
20	The estimate of Rs.6.70 crores is very much on the higher side resulting in only a couple of firms to be eligible for this job.	Not accepted.

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	Request for split packages related to nature of works.	
21	Request clarification for adoption of International Standards like DIN and HTM apart NFPA. It can be seen from tender specifications that CE instead of UL standards is specified in some items, ie, Horizontal Bed Panel which needs to be rectified.	NFPA, DIN and HTM standards are acceptable Both CE and UL listed are acceptable
22.	It is requested that Drawings and layouts be made available to all prospective bidders as part of tender specs to achieve uniformity of design over various suppliers and ease of comparison of design at the technical stage of evaluation.	Outlet disposition schedule is enclosed at Annexure I
23.	Request for clarification on the issue of non usage of analog devices as suggested in the tender for Ward Vacuum Units and Theatre Suction Unit, wherein we have the opinion that a combination of both analog and digital devices be used as these have been proved over time to be most reliable combination.	Not accepted. Only Digital device is acceptable.
24.	Push to Set is a patented system and cannot be replicated by any other manufacturer. We request you to elaborate the technology desired by you along with permissible variations to enable us and other competing suppliers to quote for the same. To have healthy competition, we strongly suggest to delete such type of clause.	Push to Set Technology or equivalent is acceptable. All other details as mentioned in the Technical Specifications remain unchanged.
25.	We suggest to remove the supply of liquid oxygen tanks and cylinders from the scope of work, since these items are easily available locally at cheaper rates from the end users in the respective place of installations.	Not accepted. Tender conditions prevail
26.	Kindly also specify that the experience should be in State/Central Govt./PSU Hospitals. which would be keeping with clause 3.4.	Not accepted. Tender conditions prevail
27.	Sl.No.A.2 of Technical Specifications.- Fully automatic control panel for oxygen. There is no mention of applicable standards. Please mention the same as NFPA-99 (2005) and UL Listed, in conformity with the technical requirements of the rest of the system.	No change. Tender conditions prevail
28.	Sl.No.B.2 of Technical Specifications.- Fully automatic control panel for N2O. There is no mention of applicable standards. Please mention the same as NFPA-99 (2005) and UL Listed, in conformity with the technical requirements of the rest of the system.	No change. Tender conditions prevail

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29.	Sl.No.A.4 of Technical Specifications.- Terminal Units. There is no mention of applicable standards. Please mention the same as NFPA-99 (2005) and UL Listed, in conformity with the technical requirements of the rest of the system. This would also be in keeping with the specifications of Ceiling Pendants where compatibility with NFPS-99 standard outlets is asked for.	No change. Tender conditions prevail
30.	Item Sl. No.H & I Master Alarm/Area Alarm There is no mention of applicable standards. Please mention the same as NFPA-99 (2005) and UL Listed, as per the detailed specifications (requiring digital display of pressure valves).	No change. Tender conditions prevail
31.	Payment terms have not been mentioned anywhere. Please clarify the payment terms.	Please see clause no.33, Volume III – Specific Conditions of Contract for details.
32.	Prequalification Eligibility Criterion should be based on bed-strength of hospitals the tenderers have worked with and not the cost of the project which can be as per cost projected by individual companies. Request to add one more option in prequalification point no.ii as “Company should have minimum 10 years of experience in similar line with annual turnover of 10 times the cost of Project.”	Not accepted. Please see amendment no.3 enclosed.
33.	Either the layout plan or outlet disposition should be given to enable us to suggest compressor and vacuum pump of correct capacity.	Outlet disposition schedule is enclosed at Annexure I
34.	Oxygen Control Panel – Flow of oxygen control panel at 1000 lpm is very low considering huge quantity (323 nos) of oxygen outlets, the flow should be atleast 2000 LPM.	Flow Capacity of Oxygen Control Panel is amended to 2000 LPM.
35.	Triplex aircompressors with 58 CFM capacity each (2 running and 1 standby) . We think the volume of Air Flow has been miscalculated. The compressor system must not be able to cater 322 no. of air outlets.	Two sets of air compressors – One for Accident (Trauma) and Emergency Block and One for Super Speciality Block are required.
36.	Quadruplex Vacuum pumps with 172 CFM capacity each (3 running and 1 standby) Considering no. of vacuum outlets (323), the size of vacuum pump is much bigger than the requirement. Please check the calculation.	No change. Tender specifications prevail.
37.	Absence of outlet disposition – A list of disposition of outlets against each service is needed for flow calculation of the system.	Outlet disposition schedule is enclosed at Annexure I

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38.	No other manufacturer can offer vacuum regulator with push-to-set technology.	Push to Set Technology or equivalent is acceptable. All other details as mentioned in the Technical Specifications remain unchanged.
39.	Bed Head Panel should be CE marked. As per tender specification, the total system should be compliant to NFPA-99 and UL-Listed. But for this particular item, CE certification has been asked. Please note that all NFPA compliant items are UL-listed, not CE-marked. Hence bed head panels should also be UL listed and not CE marked.	Both CE and UL listed are acceptable
40.	The whole tender should be refloated with fresh specifications or defer the tender submission by minimum 20 days after necessary amendments to enable the prospective bidders to submit quality offer for the proposed project.	Please see amendment no.2

**All the uptodate amendments shall form an integral part of the Bid Document and should be submitted duly stamped and signed along with the Envelope No.2.**

**All other terms and conditions of the tender shall remain unchanged.**

-sd-  
Chief General Manager (Civil)  
HSCC (India) Ltd.

List Of Medical Gases Outlets - NIMS Speciality Block										
Location	Oxygen	N2O	C. Air (4 Bar)	C. Air (7 Bar)	Vacuum	AGSS	Location of Outlets	Flow meter	WVU	TSU
<b>Lower Ground Floor</b>										
Medical Gas Manifold System										
<b>Ground Floor</b>										
<b>NIL</b>										
<b>First Floor</b>										
ICU & Isolation Room (10 Beds)-5Nos	50		50		50		On Wall	50	50	
HDU (15 Beds)-2 Nos	30		30		30		On Wall	30	30	
CCU & Isolation Room (9 Beds)	9		9		9		On wall	9	9	
<b>Second Floor</b>										
Single Bed Ward-4 Nos	4		4		4		On wall	4	4	
Isolated Ward-1 no	1		1		1		On wall	1	1	
6 Bedded Ward	6		6		6		On wall	6	6	
<b>Third Floor</b>										
Operation Theatre-10 Nos	20	10	10	10	20	10	Pendant	10	10	10
Procedure Room	2		1	1	2	1	Pendant	1	1	
Endoscopy Room	2		1	1	2	1	Pendant	1	1	
Cathlab-2 nos	2		2	2	2	2	Pendant	2	2	
Recovery Room (4 Beds)	4		4		4		On Wall	4	4	
Pre- Operative Ward (13 Beds)	13		13		13		On Wall	13	13	
Post Operative ward ( 10 Beds)	10		10		10		On Wall	10	10	
Anesthesia Induction Room	1		1	1	1	1	On Wall	1	1	
<b>Fourth Floor</b>										
Single Bed Ward-4 Nos	4		4		4		On Wall	4	4	
Isolated ward-1 no	1		1		1		On Wall	1	1	
2 Bedded Ward-1no	2		2		2		On Wall	2	2	
6 Bedded ward	6		6		6		On Wall	6	6	
<b>Fifth Floor</b>										
Isolated Ward	1		1		1		On Wall	1	1	
2 Bedded Ward	2		2		2		On Wall	2	2	
3 Bedded ward	3		3		3		On Wall	3	3	
6 Bedded ward	6		6		6		On Wall	6	6	
<b>Sixth Floor</b>										
Isolated Ward	1		1		1		On Wall	1	1	
2 Bedded ward	2		2		2		On Wall	2	2	
3 Bedded Dialysis	3		3		3		On Wall	3	3	
6 Bedded Ward	6		6		6		On Wall	6	6	
<b>Total</b>	<b>191</b>	<b>10</b>	<b>179</b>	<b>15</b>	<b>191</b>	<b>15</b>		<b>179</b>	<b>179</b>	<b>10</b>

List Of Medical Gases Outlets - NIMS Trauma Block										
Location	Oxygen	N2O	C. Air (4 Bar)	C. Air (7 Bar)	Vacuum	AGSS	Location of Outlets	Flow meter	WVU	TSU
<b>Ground Floor</b>										
ECG Room	1				1		On Wall	1	1	
Examination/Minor Procedure	1		1		1		On Wall	1	1	
Resuscitation- 8 beds	8		8		8		On Wall	8	8	
Examination/Triage- 9 Beds	9		9		9		On Wall	9	9	
Critical Care-5 Beds	5		5		5		On Wall	5	5	
Observation Room 10 Beds	10		10		10		On Wall	10	10	
Minor OT	2	1	1		2		On Wall	1	1	1
Major OT	2	1	1	1	2	1	Pendant	1	1	1
<b>First Floor</b>										
Single Bed Ward-5 Nos	5		5		5		On Wall	5	5	
2 Bedded Ward-5 Nos	10		10		10		On Wall	10	10	
6 Bedded Ward	6		6		6		On Wall	6	6	
3 Bedded Ward-1 no	3		3		3		On Wall	3	3	
Bleeding Room-2 couch	2				2		On Wall	2	2	
<b>Second Floor</b>										
CT Scan Room	1		1		1		On wall	1	1	
MRI Room	1		1		1		On wall	1	1	
<b>Third Floor</b>										
Operation Theatre-4 Nos	8	4	4	4	8	4	Pendant	4	4	4
Pre-Post Operative Ward (7 Beds)	7		7		7		On Wall	7	7	
ICU & Isolation Room (12 Beds)-2	24		24		24		On Wall	24	24	
HDU (10 Bed)	10		10		10		On Wall	10	10	
<b>Fourth Floor</b>										
Single Bed Ward-4 Nos	4		4		4		On Wall	4	4	
4 Bedded Ward	4		4		4		On Wall	4	4	
6 Bedded Ward	6		6		6		On Wall	6	6	
3 Bedded ward-1 nos	3		3		3		On Wall	3	3	
<b>Fifth Floor</b>										
NIL - Admin Block										
<b>Total</b>	<b>132</b>	<b>6</b>	<b>123</b>	<b>5</b>	<b>132</b>	<b>5</b>		<b>126</b>	<b>126</b>	<b>6</b>