Amendment No.4

Date: 11/02/2016

Sub: Amendment to the Tender Enquiry Document

Ref: NIT No.: HLL/PCD/PMSSY/Rohtak/03/15–16 dated 18/11/2015 read with Amendment no.1 dtd.19/12/2015, Amendment no.2 dtd.18/01/2016 and Amendment no.3 dtd.09/02/2016

The following changes have been incorporated in the referred NIT.

Section – IX
Qualification Criteria

FOR:

07. **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.

READ AS:

07. **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.

a. For the following major items, Manufacturer's Authorization as per Section XIV- A 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)

b. For the other items in the BOQ, Manufacturer's Authorization as per Section XIV- B should be submitted.

PROFORMA FOR PERFORMANCE STATEMENT

For:

** **The bidders are requested to submit the latest purchase order copies supplied to AIIMS, PGIMER, JIPMER, Institute of National importance for the specific model quoted along with the price bid.**

Read as:

**** The bidders are requested to submit the latest purchase order copies supplied to any central govt./ State govt/ Institutes of Repute.**

FOR:

SECTION – XIV
MANUFACTURER"S AUTHORISATION FORM

READ AS:

SECTION – XIV- A

MANUFACTURER'S AUTHORISATION FORM

New Section:

SECTION – XIV- B

MANUFACTURER'S AUTHORISATION FORM

SVP (GB),
HLL Lifecare Limited, Procurement and Consultancy Division
B-14 A, Sector -62, Noida -201307, Uttar Pradesh

Dear Sir,

Ref: Your TE document No _____ dated _____

We, _____ who are proven and reputable manufacturers of_____(*name and description of the goods offered in the tender*) having factories at_____, hereby authorise Messrs_____(*name and address of the agent*) to submit a tender, process the same further and enter into a contract with you against your requirement as contained in the above referred TE documents for the above goods manufactured by us.

We also state that we are not participating directly in this tender for the following reason(s): _____*(please provide reason here).*

We also hereby extend our full warranty, CMC as applicable as per clause 15 of the General Conditions of Contract, read with modification, if any, in the Special Conditions of Contract for the goods and services offered for supply by the above firm against this TE document.

We also hereby confirm that we would be responsible for the satisfactory execution of contract placed on the authorised agent

We also confirm that the price quoted by our agent shall not exceed the price which we would have quoted directly"

Yours faithfully,

[*Signature with date, name and designation*]
for and on behalf of Messrs_____
[*Name & address of the manufacturers*]

Note: 1. This letter of authorisation should be on the letter head of the manufacturing firm and should be signed by a person competent and having the power of attorney to legally bind the manufacturer.
2. *Original Letter may be sent. Photocopy not acceptable.*

TECHNICAL SPECIFICATIONS

1. **Existing Specification:**

   Para: 1.3 Fully Automatic Oxygen Control Panel (IMPORTED):

   The Manifold control panel should be **digital**, fully automatic type and switches from "Bank in Use" to "Reserve bank "without fluctuation in delivery supply line pressure.

   Read as:

   Para: 1.3 Fully Automatic Oxygen Control Panel (IMPORTED):

   The Manifold control panel should be **digital/ analogue**, fully automatic type and switches from "Bank in Use" to "Reserve bank " without fluctuation in delivery supply line pressure.

2. **Existing Specification:**

   1.3 Fully Automatic Oxygen Control Panel (Imported):

   Control panel should have Alarm reset switch to control and monitor the alarm indications by the operator. All high pressure manifold regulators should contain no halogenated polymers and have adiabatic certification.

   Read as:

   Para: 1.3 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. **(This is applicable for all control panel alarms)**

3. **Existing Specification:**

   Para: 1.4 Emergency Oxygen Manifold – 2 x 4 Class-D type bulk cylinders as per BOQ: Manifold shall consist of two high pressure header bar assemblies to facilitate connection of 4nos of primary and 4nos of secondary cylinder supplies. Each header bar shall be provided with 4 numbers of cylinder pigtail connections to suit cylinder valves as per **IS.3224** incorporating a check valve at the header connection

   Read as:

   Para: 1.4 Emergency Oxygen Manifold – 2 x 4 Class-D type bulk cylinders as per BOQ: Manifold shall consist of two high pressure header bar assemblies to facilitate connection of 4nos of primary and 4nos of secondary cylinder supplies. Each header bar shall be provided with 4 numbers of cylinder pigtail connections to suit cylinder valves as per **IS.3224/ BS/ ASME** incorporating a check valve at the header connection

4. **Existing Specification:**

   Para 1.5. 1.5 Oxygen Flow meter with Humidifier Bottle

   I) It should be CE marked/UL Listed imported product from the manufacturer.

   Read as:

   Para 1.5. 1.5 Oxygen Flow meter with Humidifier Bottle

   I) Deleted

5. **Existing Specification:**

   Para 2.1 Manifold -2 X4 Class-D type bulk cylinders as per BOQ

   Manifold shall consist of two high-pressure header bar assemblies to facilitate connection of primary and secondary cylinder supplies. Each header bar shall be provided with 4 number of cylinder pigtail connections to suit cylinder valves **as per IS3224** incorporating a check valve at the header connection.

   Read as:

   Para 2.1 Manifold -2 X4 Class-D type bulk cylinders as per BOQ

Manifold shall consist of two high-pressure header bar assemblies to facilitate connection of primary and secondary cylinder supplies. Each header bar shall be provided with 4 number of cylinder pigtail connections to suit cylinder valves as per **IS.3224/ BS/ ASME** incorporating a check valve at the header connection.

6. **Existing Specification:**

   Para : 2.2 Fully Automatic Nitrous Oxide Control Panel

   The Manifold control panel should be **digital**, fully automatic type and switches from "Bank in Use" to "Reserve bank "without fluctuation in delivery supply line pressure.

   Read as:

   Para : 2.2 Fully Automatic Nitrous Oxide Control Panel

   The Manifold control panel should be **digital/ analogue**, fully automatic type and switches from "Bank in Use" to "Reserve bank " without fluctuation in delivery supply line pressure.

7. **Existing Specification:**

   Para : 2.2 Fully Automatic Nitrous Oxide Control Panel

   Control panel should have Alarm reset switch to control and monitor the alarm indications by the operator. All high pressure manifold regulators should contain no halogenated polymers and have adiabatic certification.

   Read as:

   Para : 2.2 Fully Automatic Nitrous Oxide Control Panel

   Control panel should have **Alarm reset switch/Mute /acknowledgement switch** to control and monitor the alarm indications by the operator. **(This is applicable for all control panel alarms)**

8. **Existing Specification:**

   Para: 3.1 Fully Automatic Control panel for CO2 System

   All regulators should be protected from over-pressurization by relief valves which are vented to atmosphere. There should be a bypass valve fitted to the 2nd stage regulators to allow CO2 to be vented outside the manifold room during the commissioning stage. **"Regulators shall comply with BS EN ISO 10524-2 and shall have documented test reports available confirming successful completion of the oxygen ignition tests stated therein. Multi stage regulators combined into single unit is not acceptable"**

   Read as:

   Para: 3.1 Fully Automatic Control panel for CO2 System

   All regulators should be protected from over-pressurization by relief valves which are vented to atmosphere. There should be a bypass valve fitted to the 2nd stage regulators to allow CO2 to be vented outside the manifold room during the commissioning stage.

9. **Existing Specification:**

   Para:3.1 Fully Automatic Control panel for CO2 System

   To aid maintenance, the connections within the panel should be flat face/'O' ring design and facilitate easy removal of the regulators and pressure switches. There should be manual changeover buttons so that servicing either side of the system can be simply achieved. The PCB's should be linked with plug and socket connectors for easy removal. **"The manifold control systems should be 'CE' marked under the Medical Devices Directive (Lloyd‟s Register Quality Assurance)".**

   Read as:

   Para:3.1 Fully Automatic Control panel for CO2 System

To aid maintenance, the connections within the panel should be flat face/'O' ring design and facilitate easy removal of the regulators and pressure switches. There should be manual changeover buttons so that servicing either side of the system can be simply achieved. The PCB's should be linked with plug and socket connectors for easy removal.

10. Existing Specification:

Para: 4.1.1 Vacuum Pump Module:

Designed flow capacity should be minimum 2000 LPM ± 10% variation in **Duplex/Triplex configuration.**

It should be European CE marked/UL listed. The medical vacuum plant shall comprise **Duplex/Triplex, air-cooled, oil lubricated rotary vane vacuum pumps to provide a flow rate of at least 2000l/min ± 10%as per the relevant standard (i.e. as per HTM 02-01/NFPA99C/DIN/EN/ISO 7396 standard) to provide the desired flow of the hospital to maintain a vacuum level of 450 mmHg at the plant connection point.**

The vacuum plant shall comprise **Duplex/Triplex** air-cooled; oil lubricated rotary vane vacuum pumps suitable for both continuous and frequent start/stop operation at inlet vacuum levels between 500mmHg and 660 mmHg.

Read as:

Para: 4.1.1 Vacuum Pump Module:

Designed flow capacity should be minimum 2000 LPM ± 10% variation for primary and minimum 2000 LPM ± 10% for secondary vacuum supply.

It should be European CE marked/UL listed.

The vacuum plant shall comprise air-cooled; oil lubricated rotary vane vacuum pumps suitable for both continuous and frequent start/stop operation at inlet vacuum levels between 500mmHg and 660 mmHg.

11. Existing Specification:

Para 4.1.1. Vacuum Pump Module:

Each vacuum pump shall be fitted with anti-vibration pads between the pump foot and mounting frame. The plant shall be fitted with duplex bacteria filter system. Each individual filter shall have the capacity to deliver full design flow such that one set is designated duty and the other will be standby. Bacteria filters shall have efficiency at least 99.999% when tested by the sodium flame method in accordance with **BS 3928:1969** utilising particles in the 0.02 to 2 micron size range. The pressure drop across each clean filter at 50% of the system design flow should not exceed 25 mm Hg (3 kPa) at a vacuum of 475mm of Hg (63 kPa). Bacteria filters shall be marked with the legend „Bio-Hazard".

Read as:

Para 4.1.1. Vacuum Pump Module:

Each vacuum pump shall be fitted with anti-vibration pads between the pump foot and mounting frame. The plant shall be fitted with duplex bacteria filter system. Each individual filter shall have the capacity to deliver full design flow such that one set is designated duty and the other will be standby. Bacteria filters shall have efficiency at least 99.999% when tested by the sodium flame method in accordance with **BS 3928:1969/as per required standard** utilising particles in the 0.02 to 2 micron size range. The pressure drop across each clean filter at 50% of the system design flow should not exceed 25 mm Hg (3 kPa) at a vacuum of 475mm of Hg (63 kPa). Bacteria filters shall be marked with the legend „Bio-Hazard".

12. Existing Specification:

4.3 Theatre Vacuum unit

It must consist of the following: - 1no. Suction Regulator and **2nos. 4000ml** polysulfone/ polycarbonate collection jar and both to be mounted on a trolley.

Read as:

4.3 Theatre Vacuum unit

It must consist of the following: - 1no. Suction Regulator and **2nos. 1700ml or more** polysulfone/ polycarbonate collection jar and both to be mounted on a trolley.

13. Added Para: (Under Para 5. Medical And Surgical Air System)

Surgical Air 7Bar outlet will be 32 nos. (the supply of surgical air outlet will be in the scope of MOT vender). **"The quantity given for flow calculation value of copper pipe installation upto MOTs"**

14. Existing Specification:

5.1 Air Compressor (Imported)-

Duplex/Triplex **Rotary screw/scroll** Continuous duty Compressed Air System with Desiccant Dryers. Air compressor with multistage air/oil filters or oil free compressor should be supplied.

All compressors to contain timed automatic drain valves for system purging control.
All pressure receivers to contain timed automatic drain valves for system purging control.

5.1.1 Compressor Modules

It should be Duplex/Triplex Medical Air Plant (Imported)of 2000 lpm (Package unit). The medical air plant shall fully comply with the requirements of the HTM 02-01/ NFPA 99 C/EN/DIN. It should be European CE/ UL listed.

Medical quality air shall be delivered at a nominal pressure of 400 kPa (4 bar) or 700 kPa(7 bar) gauge for supply of the hospital medical air system. The medical air plant shall deliver both medical and surgical air, with a minimum total flow rate of 2000 l/min.
Compressor plant should be designed in such a way that compressors will switch on in a sequential manner as per flow demand.
One/two identical air compressors should run to provide a flow rate of 2000lpm and One identical air compressors will be standby. The compressors should be standalone ones with independent power supply. It should comply with the HTM 02-01/ NFPA 99 C/EN/DIN/ ISO 7396-1).
Each **rotary screw/scroll compressors** should be suitable for both continuous and frequent start/stop operation at a nominal outlet pressure **of 13 bar** shall be provided.

Read as:

5.1.1 Compressor Modules

It should be **Duplex or more <u>Oil Less Screw Compressors</u>** Medical Air Plant (Imported) **of 3500 lpm +/- 10% (Package unit).** The medical air plant shall fully comply with the requirements of the HTM 02-01/ NFPA 99 C/EN/DIN. It should be European CE/ UL listed.

Medical quality air shall be delivered at a nominal pressure of **400 kPa (4 bar) and 700 kPa(7 bar)** gauge for supply of the hospital medical air **and surgical air** . The medical air plant shall deliver both medical and surgical air, with **a minimum total flow rate of 3500 l/min +/- 10%.**
Compressor plant should be designed in such a way that compressors will switch on in a sequential manner as per flow demand.
One or more identical air compressors/Modules should run to provide a primary flow rate of 3500 lpm +/- 10% and one or more compressors/modules to provide 3500lpm +/- 10% as standby.
The compressors should be standalone ones with independent power supply. It should comply with the HTM 02-01/ NFPA 99 C/EN/DIN/ ISO 7396-1)

Each **Oil Less Screw Compressors** should be suitable for both continuous and frequent start/stop operation at a nominal outlet pressure **of 11 bar or more** shall be provided.

15. Existing Specification:

Para 6.1 Piping specifications

Copper pipe should be as per standard **BS: EN 13348:2008 standards**; Solid drawn, seamless, deoxidized, non-arsenical, half hard, tempered and degreased copper pipe conforming to the standard.

Read as:

Para 6.1 Piping specifications

Copper pipe should be as per standard **BS: EN 13348:2008/ ASTM B819 standards**; Solid drawn, seamless, deoxidized, non-arsenical, half hard, tempered and degreased copper pipe conforming to the standard.

16. Existing Specification:

Para 7.2 Medical Gas Alarm (Main & Area)

The medical gas central alarms should be capable of monitoring 6 medical gas services by means of pressure sensors which detect deviations from the normal operating limits of either pressure or medical vacuum. The area alarm should have a digital/analogue display of pressures. The medical gas area alarm should fully satisfy the HTM 02-01/ NFPA 99 C/EN/DIN requirements and should be CE Certified or UL listed under Medical Devices Directive.

Each gas service should be displayed by coloured LED's to show 'Normal' (green), 'Low' and 'High Pressure' (red) conditions. Medical vacuum systems should be displayed in the 'Normal' (green) and 'Low Vacuum' (red) conditions only.

Failure indications should be displayed by flashing lights and normal indications should be steady light. An audible warning should sound simultaneously with any failure indication and a mute facility should be provided. **Following a mute selection the audible should resound after approximately 15 m inutes, or should operate simultaneously should a further alarm condition occur. A maintenance „Mute‟ switch should be provided internally to the panel for use during maintenance which results in prolonged pipeline or plant shutdown. This facility should automatically reset when the gas service returns to normal.**

The alarm panel should have a 'test' facility to prove the integrity of the internal circuits, LED's and audible warning. The alarm panel should incorporate a volt free normally closed relay to allow for interconnection to either a medical gas central alarm system or an event recording circuit of a building management system.

The alarm should be microprocessor based with individual microprocessor on each module and should provide interface to Gas Delivery Management System. A centralised alarm in the manifold room is also essential.

Read as:

Para 7.2 Medical Gas Alarm (Main & Area)

The medical gas central alarms should be capable of monitoring 6 medical gas services by means of pressure sensors which detect deviations from the normal operating limits of either pressure or medical vacuum. The area alarm should have a digital/analogue display of pressures. The medical gas area alarm should fully satisfy the HTM 02-01/ NFPA 99 C/EN/DIN requirements and should be CE Certified or UL listed under Medical Devices Directive.

Each gas service should be displayed by coloured LED's to show 'Normal' (green), 'Low' and 'High Pressure' (red) conditions. Medical vacuum systems should be displayed in the 'Normal' (green) and 'Low Vacuum' (red) conditions only.

An audible warning should sound simultaneously with any failure indication and a mute facility should be provided.

17. Existing Specification:

Para 10. GAS OUTLETS (IMPORTED)

• Flow rate exceeds the requirements of ISO 9170 – 1.

Read as:

Para 10. GAS OUTLETS (IMPORTED)

• Deleted

18. Added (Under BOQ S/no. 9: AGSS Outlets = 16 Nos. (Important)

19. Existing Specification:

Para 11. AGSS: Control system: (last line)

AGSS Remote Control indicator must be provided for each OT with the system.

Read as:

Para 11. AGSS: Control system: (last line)

AGSS Remote Control indicator must be provided for each OT with the system **/ as per required standard if applicable**.

20. **Added Para:**

The specification mentioned in the tender document are general in nature. If design specification meet the standards quoted in the tender, the same shall be acceptable to the institute. **However this clause shall not apply to the compressed air system and vacuum system** where the quality of air has to be as per the standard tender requirement.

21. Existing BOQ:

11	AREA VALVE BOX (WITHOUT VALVES) **:** Supply,Installation, testing and commissioning of Area Valve Boxes		
	Valve Box - 3 Gas Service with NIST Connection	7	**Indian**
	Valve Box - 5 Gas Service with NIST Connection	12	**Indian**
	Valve Box - 6 Gas Service with NIST Connection	4	**Indian**

Read as:

11	AREA VALVE BOX **(WITH VALVES) :** Supply, Installation, testing and commissioning of Area Valve Boxes		
	Valve Box - 3 Gas Service with NIST Connection	7	**Indian**
	Valve Box - 5 Gas Service with NIST Connection	12	**Indian**
	Valve Box - 6 Gas Service with NIST Connection	4	**Indian**

All other contents of the tender enquiry including terms & conditions remain unaltered.

<u>Note:</u> Prospective Bidders are also advised to check the website regularly prior to the closing date and time of online submission of bids