

AMENDMENT-XI

Subject: Tender for “Execution including Design, Supply, Installation, Testing & Commissioning of Special services (SES) Works at 100 bedded Hospital at ESIC Siliguri-West Bengal”.

Tender No: HSCC/SES/ESIC/SILIGURI/WEST BENGAL/2024/65 Date:21.08.2024

With reference to the above cited subject work, the following Amendment may be noted, which shall be treated as a part of the contract to be uploaded along with tender/ bid:

The validity of Bid Security/ Earnest Money Deposit (EMD) to be submitted by the bidders with their bid in the form of Bank Guarantee (BG) shall be considered from the original due date of bid submission i.e., from 05.09.2024.

1. Reply to Technical Queries raised by bidder.

Sr. No.	Vol./ Cl.No. / Ref.	Bidder Queries / request	HSCC Reply / to be amended
1.	Tech. Specs Vol 4 and BOQ Vol 5	As per BOQ 12 + 12 size of oxygen manifold complete with middle frame, chains NRVs and 24 nos pig tail pipes. As per Technical Specification 2 x 10 Nos Oxygen Cylinder Manifold Clarification Required Please clarify while bidding the tender, what configuration needs to be followed.	Configuration may be read as 12 + 12 size of oxygen manifold complete with middle frame, chains NRVs and 24 nos pig tail pipes along with all accessories as per technical specification

2.	Tech. Specs Vol 4 and BOQ Vol 5	<p>As per BOQ 04 + 04 size of oxygen emergency cylinder Manifold complete with middle frame chain and NRVs and fully automatic control panel for oxygen</p> <p>As per technical specification Specification given, size states: 2 x 10 Nos. Oxygen Cylinder Manifold</p> <p>Clarification Required Please clarify while bidding the tender, what configuration needs to be followed.</p>	Configuration may be read as 04 + 04 size of oxygen emergency cylinder Manifold complete with middle frame chain and NRVs and fully automatic control panel for oxygen along with all accessories as per technical specification.
3.	Tech. Specs Vol 4 and BOQ Vol 5	<p>As per BOQ Oxygen Outlet as per HTM 2022 (Imported) As per technical specification Double Lock Outlet Clarification Required As per specification product is indigenous, however BOQ states imported.</p>	As per technical specification.
4.	Tech. Specs Vol 4 and BOQ Vol 5	<p>As per BOQ Oxygen H.P. antistatic rubber tube (Imported) As per technical Specification LP tubing Clarification required BOQ says imported HP tubing however specification states indigenous LP Tubing. Pl clarify.</p>	As per technical specification.
5.	Tech. Specs Vol 4 and BOQ Vol 5	<p>As per BOQ 04 + 04 size of N2O manifold complete with middle frame chains NRVs 6 nos. pig tail pipes. No technical specification provided. Please clarify , how to submit technical compliance.</p>	<p>Nitrous Oxide Manifold (Without Cylinders)</p> <p>The size of Manifolds should be as mentioned in BOQ and it shall be compatible with Class-D type bulk cylinders.</p>

			<p>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 respective number of cylinder pigtail connections to suit cylinder valves as per IS.3224/ BS/ ASME incorporating a check valve at the header connection. The high-pressure header bar shall be designed in such a manner that it can be extended to facilitate additional cylinder connections.</p> <p>Each header bar assembly shall be provided with a high pressure shut off valve. The manifold should be hydraulically tested to 3500 psig. The manifold should be so designed that it shall suit easy cylinder changing and positioning. The cylinder should be locked with the help of cylinder brackets and fixing chains which should be galvanized.</p>
6.	Tech. Specs Vol 4 and BOQ Vol 5	<p>As per BOQ 2 cylinders size of N2O emergency cylinders manifold complete with middle frame chains NRVs. No technical Specification provided. Please clarify , how to submit technical compliance.</p>	<p>Emergency N2O Manifold (Without Cylinders)</p> <p>The size of Manifolds should be as mentioned in BOQ and it shall be compatible with Class-D type bulk cylinders.</p> <p>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 respective numbers of cylinder pigtail connections to suit cylinder valves as per IS 3224/ BS/ ASME incorporating a check valve at the header connection. The high-pressure header bar shall be designed in such a manner that it can be extended to facilitate additional cylinder connections.</p> <p>Each header bar assembly shall be provided with a high pressure shut off valve. Nitrous oxide manifold should consist of 2 rows of respective numbers of cylinders.</p> <p>The manifold should be hydraulically tested to 3500 psig. The manifold should be so designed that it shall suit easy cylinder changing and positioning. The system should have non – return valves for easy changing of cylinders without closing the bank. The cylinder should be placed with the help of cylinder brackets and fixing chains which should be galvanized.</p>

7.	Tech. Specs Vol 4 and BOQ Vol 5	<p>As per BOQ Fully automatic pneumatically operated N2O control panel with heater (imported) No Technical Specification provided</p>	<p>Fully Automatic Nitrous Oxide Control Panel</p> <p>The Nitrous Oxide Control Panel shall be of microprocessor based and preferably Digital Display Type. Pressure reduction shall be in two stages. Panel shall be integrated with pressure gauges inside panel on downstream of pressure regulator. Panel shall be fitted with standby line regulator. Line regulators shall have pressure relief mechanism for testing and servicing purpose.</p> <p>The manifold assembly should provide two stages of pressure regulation. A single stage primary regulator, one for each cylinder bank should be used to initially reduce cylinder pressure and two single stage pressure regulators should be provided in the control cabinet for final delivery pressure regulation. One delivery pressure regulator in service and one should be ready for service in a Standby mode. 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. Changeover should be performed by electrically/pneumatically operated valves contained in the control cabinet. In the event of an electrical power failure the valves should automatically open to provide an uninterrupted gas flow. The manifold should not require any manual resetting or adjustments after the replacements of the depleted cylinders.</p> <p>All functional components should be enclosed on fire resistant, robust synthetic polymer/SS.</p> <p>The Control Panel shall include two pressure relief valves, one high pressure approx.200psi and one low pressure approx.75 psi.</p> <p>The control panel should also have heaters to prevent ice formation on the regulators at high flow rates.</p> <p>The Control Panel should be made to provide Heavy Duty and have a flow capacity of 500 LPM or more at</p>

			50 to 60 psi. The Automatic Control Panel should be installed in such a way to meet the peak flow requirement of the Hospital/Institute .Control panel should have Alarm reset switch/Mute /acknowledgement switch to control and monitor the alarm indications by the operator.
8.	Tech. Specs Vol 4 and BOQ Vol 5	As per BOQ Nitrous Oxide Outlet as per HTM 2022 (Imported) As per technical Specification Double Lock outlet As per specification product is indigenous , however BOQ states Imported. Pl clarify	As per technical specification.
9.	Tech. Specs Vol 4 and BOQ Vol 5	As per BOQ Nitrous Oxide H.P. antistatic rubber tube (Imported) As per technical specification LP tubing BOQ says imported HP Tubing, however specification states indigenous LP tubing. Pl clarify.	As per technical specification
10.	Tech. Specs Vol 4 and BOQ Vol 5	As per BOQ Compressed air system complete with oil free air compressor (2 nos. x 57.18 cfm) equipped with air receiver capacity of 2000 Ltrs and complete with air dryer of 60 cfm As per technical specification Medical Compressed air system comprising of compressors 36 CFM (Min. 10 HP Compressor) capacity at 8.5-10 kg/sqcm mounted with 2000 litres receiver tank. Pl clarify	Capacity may be read as Compressed air system complete with oil free air compressor (2 nos. x 57.18 cfm) equipped with air receiver capacity of 2000 Ltrs and complete with air dryer of 60 cfm along with all accessories as per technical specification
11.	Tech. Specs Vol 4 and BOQ Vol 5	As per BOQ Medical Air -4 bar Outlet as per HTM 2022 (Imported) As per technical specification Double Lock outlet As per specifications, product is Indigenous, however BOQ states imported.	As per technical specification.
12.	Tech. Specs Vol 4 and BOQ Vol 5	As per BOQ Surgical Air -7 bar Outlet as per HTM 2022 (Imported) As per technical specification Double Lock outlet As per specifications, product is Indigenous, however BOQ states imported.	As per technical specification.

13.	Tech. Specs Vol 4 and BOQ Vol 5	As per BOQ Compressed air HP antistatic rubber tube (imported) As per technical specification LP tubing BOQ says imported HP Tubing, however specification states indigenous LP tubing. Pl clarify.	As per technical specification.
14.	Tech. Specs Vol 4 and BOQ Vol 5	As per BOQ Vacuum Central System complete with vacuum pumps (2 Nos. x 7V) reciprocating base frame mounted with motor and 2000 ltrs capacity vacuum reservoir. As per technical specification Vacuum Pumps of 36 CFM (Min. 10 HP) capacity with 2000 litres receiver tank, filter, Non –return valve, Isolation valves, Auto switch gear to set minimum & maximum operating vacuum and interconnecting piping.Pl clarify	Capacity of Vacuum pump of Vacuum Central System may be read as complete with vacuum pumps (2 Nos. x 7V) reciprocating base frame mounted with motor and 2000 ltrs capacity vacuum reservoir along with all accessories as per technical specification.
15.	Tech. Specs Vol 4 and BOQ Vol 5	As per BOQ Vacuum Outlet as per HTM 2022 (Imported) As per technical specification Double Lock Outlet As per specifications, product is Indigenous, however BOQ states imported.	As per technical specification.
16.	Tech. Specs Vol 4 and BOQ Vol 5	As per BOQ Vacuum HP antistatic rubber tube (imported) As per technical specification LP tubing BOQ says imported HP Tubing, however specification states indigenous LP tubing. Pl clarify.	As per technical specification.
17.	Tech. Specs Vol 4 and BOQ Vol 5	As per BOQ Theatre vacuum unit complete with regulator collection bottle and adopter and trolley No technical specifications are provided. Pl clarify.	Theatre Vacuum unit for OT It must consist of the following: - 1. Ino. Suction Regulator and 2nos. 1700ml or more polysulfone/ polycarbonate collection jar and both to be mounted on a trolley. 2. Suction Regulator: Suction regulator should be supplied with a safety jar, including an anti-bacterial filter and an anti-overflow safety device. Should have wide membrane continuous suction controller

			<p>3. Should have vacuum levels : 0-760 mm of Hg</p> <p>4. Should have vacuum gauge fitted with a protective bumper device.</p> <p>5. Should have on/off knob allowing for the quick restoration of a readjusted vacuum level.</p> <p>6. Must have central adjustment knob with a color coded for 0-760 mm of Hg. Should have polysulfone/polycarbonate safety jar, autoclavable at 121° C, unbreakable, fitted with an anti-overflow safety device and equipped with a plastic antibacterial filter.</p> <p>7. Collection jar should be totally transparent, to ensure perfect sucked liquid visibility.</p>
18.	Tech. Specs Vol 4 and BOQ Vol 5	<p>As per BOQ</p> <p>AGSS system consisting of Duplex Skid mounted AGS pumps with remote switches –AGSS simplex start switch (as per 2022)</p> <p>No technical specifications provided.</p>	<p>AGSS (Anesthetic Gas Scavenging System) Plant</p> <p>Duplex Anesthetic Gas Scavenging System (AGSS) of minimum 1000LPM, should be BIS/ European CE Certified or UL listed. It shall confirm to HTM 02-01/ NFPA 99 C/EN/DIN/ISO 7396-1.</p> <p>One pump working and one stand by and vice versa. The package should consist of two rotary vane vacuum pumps, a control panel, and mounted on a common base frame.</p> <p>AGSS pump: AGSS pump shall operate completely dry permanently lubricated and sealed. Each pump should be completely air cooled and have absolutely no water requirements.</p> <p>Duplex system in-line non-return valves should allow individual pump servicing. Active anesthetic gas scavenging systems should be designed to safely remove exhaled anesthetic agents from the operating environment and dispose of them to atmosphere from the highest point of the hospital building, thus preventing contamination of the operating department and providing a safe and healthy workspace for the personal. AGSS design should be dependent upon flow rate and pressure drop characteristics of the individual components of systems. It is essential that terminal units, remote controls (If required) and pump units work in synchronized manner after connection of workstation</p>

			to the AGSS System. Installation should be on roof top/suitable location. Piping, Non-Return-Valves (NRVs), and inlet nozzle should be suitably placed. Connecting hose suitable to fit with anesthesia workstation should be provided.
19.	Tech. Specs Vol 4 and BOQ Vol 5	As per BOQ AGSS Outlet as per HTM 2022 (Imported) As per technical specification Double Lock Outlet As per specifications, product is Indigenous, however BOQ states imported.	As per specification.
20.	Tech. Specs Vol 4 and BOQ Vol 5	Master Alarm No technical specifications are given Pl clarify	ALARM SYSTEM Master Alarm Should be BIS/ European CE Certified or UL listed under Medical Devices Directive. Complies with HTM 02-01 / NFPA 99C/EN/DIN/ ISO 7396-1 Standards. Each Master Alarm should be modular in design and be fitted with required number of master alarm modules. The master alarms should be capable to monitor minimum 40 Point. Each point represents an alarm condition that the source equipment might have. When an alarm condition exists, a red light flashes and the audible alarm sounds. If several alarm conditions occur simultaneously, the most recent alarm light should flash, while the other alarm lights should remain lit. When an alarm condition is created, an audible alarm should be actuated. A dry contact module should be available to interface with a building management system. The box material should be of gauge steel of requisite thickness and equipped with mounting brackets. The emissions from alarms should conform with EMC standards. Master alarm management system should be designed to display alarm conditions from the source supply units indicating the broad status of the source equipment and manifolds as well as the master distribution status from the source supplies. Depending

			<p>on the alarm priority, a visual and audible alarm should be initiated to indicate an alarm condition. Each panel shall display and/or input up to forty point alarms. Panel should be ready to use with BMS system.</p> <p>The master alarm must be able to monitor the following source alarm conditions.</p> <ul style="list-style-type: none"> • Oxygen Source Empty/Fault • Oxygen Cylinder Bank Empty/Fault • Oxygen Emergency Bank Empty/Fault • Air Compressor Faulty/Operation • Vacuum Pump Faulty/Operational • Vacuum Deficiency Vacuum Reservoir • Other MGPS Signals & Alarms <p>Bidder shall be responsible for all cabling from local alarm panels to master alarm panel .</p>
	Laundry Equipment		
21.	Tech. Specs Vol 4 and BOQ Vol 5	Washer Extractor 60 Kg mentioned in technical specification. Not given in BOQ	Deleted
22.	Tech. Specs Vol 4 and BOQ Vol 5	Sluicing cum Washer Extractor mentioned in technical specification. Not in BOQ	Deleted
23.	Tech. Specs Vol 4 and BOQ Vol 5	Flat Bed press mentioned in technical specification. Not in BOQ	Deleted
24.	Tech. Specs Vol 4 and BOQ Vol 5	Storage rack mentioned in technical specification. Not in BOQ	Deleted
25.	Tech. Specs Vol 4 and BOQ Vol 5	Laundry scrub station with 2 sink mentioned in technical specification and not in BOQ	Deleted
26.	Tech. Specs Vol 4 and BOQ Vol 5	Mending machine mentioned in technical specification and not in BOQ	Deleted
27.	Tech. Specs Vol 4 and BOQ Vol 5	Flat work Ironer given in BOQ and not in technical specification	<p>1. FLATWORK IRONER CHEST HEATED (Calendaring m/c) Suitable for rapid ironing of linen like Bed sheets, Pillow cover or flat sheet etc</p> <p>Roller Size- 380 Ø mm x 3000 mm length, Electrically heated Front feed and Front Return Type, Variable Speed Control, Powder coated outer body</p>

			<p>Auto timed and Auto temperature control Roller - Made of Stainless steel AISI-304. Machined with perforations through out the length and periphery for moisture suction. Roller should run on self aligning ball bearings.</p> <p>a. No. of Rollers- 1 (One). padded with heavy duty heat resistant Numex/Polyester</p> <p>b. Ironing Chest- Sliding type. Grinded smoothly Polished Chest should move back and forth through pneumatic cylinders at both sides. Adjustable and uniform ironing pressure should be across the entire roll.</p> <p>c. Drive - Heavy duty chain drive with spring loaded adjustable sprockets and equipped with Geared Box Motor</p> <p>d. Drive Motor- 1.5 Kw (Approx.)</p> <p>e. Suction Motor- 0.37 Kw (Approx.)</p> <p>f. Control - Digital control with variable speed of Roller through VFD</p> <p>g. Roller Speed - 2-6 m/min</p> <p>h. Main body - Made of steel sheet of 1.5 mm thickness with powder coating</p> <p>i. Safety - Start and stop of the machine with emergency switch. Automatic stopping of the machine for Finger guard</p> <p>j. Padding - Galvanized coil type/leaf type springs should be covered with heat resistant double layer Polyester Padding of minimum 900 GSM</p> <p>k. Heating load- By easily replaceable heaters with thermostat. Heating elements should be oriented in the Roller in a manner for good dissipation of heat</p>
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28.	Tech. Specs Vol 4 and BOQ Vol 5	As per BOQ Steam Boiler -200 Kg with Water Softener As per technical specification steam generation 8Kg/hr	As per technical specification.
Modular OT			
29.	Tech. Specs Vol 4 and BOQ Vol 5	<p>Door and Frames (Automatically Hermetically Sealed Sliding Door) As per technical Specification The top layer on both sides is high pressure laminates of size 6 mm It is requested to amend the top layer on both sides is high pressure laminate of size 4 mm as reputed manufacturer of doors has thickness of HPL available is 4 mm instead of 6 mm.</p>	<p>Door and Frames (Automatically Hermetically Sealed Sliding Door) Top layer on both sides is high pressure laminate of size 4 mm</p>
30.	Tech. Specs Vol 4 and BOQ Vol 5	<p>Surgeon Control Panel Temperature and Humidity Indicator with Controller It is requested to read it as Temperature and Humidity Indicator with controller (0-10 V)</p>	<p>Surgeon Control Panel Temperature and Humidity Indicator with Controller (0-10 V)</p>
31.	Tech. Specs Vol 4 and BOQ Vol 5	<p>Adjustable Movable Boom Arm System (Imported) As per technical Specification The arms should be easy to move and each should come with Pneumatic brakes as a standard option to support a locked position. It is requested that The arms should be easy to move and each should come with Pneumatic/electromagnetic brakes as a standard option to support a locked position.</p>	<p>Adjustable Movable Boom Arm System (Imported) The arms should be easy to move and each should come with Pneumatic/electromagnetic brakes as a standard option to support a locked position.</p>
32.	Tech. Specs Vol 4 and BOQ Vol 5	<p>Adjustable Movable Boom Arm System (Imported) As per technical Specification Should have atleast 3 shelves of minimum 750 mm size. It is requested that it should have atleast 3 shelves of minimum 500mm -750 mm size.</p>	<p>Adjustable Movable Boom Arm System (Imported) it should have at least 3 shelves of minimum 500mm - 750 mm size.</p>

33.	Tech. Specs Vol 4 and BOQ Vol 5	<p>Anesthesia Boom System</p> <p>The arms may be fitted with pneumatic brakes to prevent inadvertent movement.</p> <p>It is requested the arms may be fitted with pneumatic/ electromagnetic brakes to prevent inadvertent movement.</p>	<p>Anesthesia Boom System</p> <p>The arms may be fitted with pneumatic/ electromagnetic brakes to prevent inadvertent movement.</p>
34.	Tech. Specs Vol 4 and BOQ Vol 5	<p>Hatch Box</p> <p>As per BOQ Hatch Box – 600 x 1200 mm As per technical specification Hatch box – 600 x600 As a standard practice size of Hatch Box provided for OT is 600 x 600 approx.</p>	<p>Hatch Box size should be min. 600 mm x 600 mm .</p>
35.	Tech. Specs Vol 4 and BOQ Vol 5	<p>View Window</p> <p>As per technical specification The window blinds should be operated with remote control and manually. It is requested that the window blinds should be operated with remote control/manually.</p>	<p>View Window</p> <p>The window blinds should be operated with remote control/manually.</p>

All other terms & Conditions of the Tender shall remain unchanged.

The above amendment shall be treated as integral part of the tender document and to be submitted duly signed & stamp along with tender/bid.

Prospective bidders are advised to regularly visit through HSCC e-tender portal <https://hsc.enivida.com> & HSCC website <http://www.hsccltd.co.in> as corrigendum/amendments etc., if any, will be notified on this portal only and separate advertisement will not be made for this.

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General Manager (Procurement)
HSCC (India) Ltd.