Amendment No. 2

Date: 20-12-2018

Sub: Amendment to Tender Enquiry Document.

Ref: NIT No.: HITES/PCD/CBRN/II/18-19 **dated 09.11.2018 read with amendment no.1 dated 19-12-2018**

The following changes have been incorporated in the referred NIT.

SECTION – V
SPECIAL CONDITIONS OF CONTRACT (SCC)

Added Para:
A joint Central and State team with representatives from HITES. Inspection shall be carried out at three stages - before prefabrication, after prefabrication and before dispatch and after installation and commissioning. For the first two cases if the inspection needs to be carried out at manufacturer premises outside India or within India purchaser shall bear the travel cost of the inspecting team.

Section-VI

Existing:

Part II: Required Delivery Schedule:

150 days from date of Notification of Award to delivery at consignee site. The date of delivery will be the date of delivery at consignee site (Tenderers may quote earliest delivery period).

Installation and commissioning shall be done within 180 days from the date of Notification of Award or within 30 days of handing over the site for installation after receipt of goods at site, whichever is later.

Read as:

Delivery, Installation and commissioning at consignee site shall be done within 540 days from the date of Notification of Award.

Section – VII
Technical Specifications

Triage area:

Added Para:

This would require dressed up area preferably at-least 20x20 mtrs, with impermeable canopy (fiber glass), with support pillars. It should have provision for movement of ambulance.

III Critical area for managing contaminated patients (Page no.47):

Added Para:

Equipment to be supply for ICU

Sl. No	Name of Equipment	Qty
1	ICU Bed	5
2	Ventilators	5
3	Multi Para -Monitors	5
4	Defibrillator	2
5	Syringe Pump	5
6	Infusion Pump	5
7	Crash Cart	1
8	Medicine trolley	1
9	Suction Pump	5
10	ECG machine 12 lead	1
11	Nebulisers	5
12	BP instrument	2
13	weighing scale	1
14	Stretcher with Trolley	5

Sl. no.1

SN	ICU Bed
	Description
1	**Description of Function**
	ICU Beds are required in the Intensive Care for comfort &safety of the patient and to facilitate comfortable transfer to and fro emergency/OT/Wards etc. It is also required to carry out point of care procedures including radiological procedures at the bedside.
2	**Operational Requirements**
	The system should be electrically operatable by control panel and adjustable for heights, trendelenburg etc. It should also be having radiotransluscent top for carrying out X-Ray at the bedside.

3	**Technical Specifications**
3.1	Should have four section mattress base
3.2	Should have X-Ray translucent back section made up of high pressure laminate/ABS.
3.3	Should have X-Ray cassette holder underneath the back section & should allow insertion of X-Ray cassette from either side of the bed or from Head end.
3.4	Base frame & support frame should be made up of Epoxy powder coated MS or CRCA tubes for long life & prevention from rusting.
3.5	Should have stepless electrical adjustment for the following :-
a.	Height: 450-840 mm +/-10%
b.	Back section: 0- 70 degrees or more
c.	Leg Section: 0-25 degrees or more
3.6	Should have step-less pneumatic / electric adjustments for Trendlenburg (12 deg or more.); anti-trendlenburg (12 deg or more)
3.7	Should have a manual quick release mechanism for back section adjustment during emergency situation
3.8	Should be equipped with four articulated half-length tuck away side rails with lock facility
3.9	Should be equipped with large castors (diameter atleast 125 mm) with central braking and steering facility.
3.10	Mattress of the Bed should be made up of high density foam with Anti-Microbial agent incorporated into all components that assists in Prohibiting growth of bacteria & fungi and easy to clean.
3.11	Mattress should be fully Radiolucent for ease in performing portable X-Rays.
3.12	Should have bumpers at all four corners and place for fixing accessories
3.13	Dimensions of bed:
	a. Length: 2100 -2300 mm
	b. Width: 850 -1000mm
	c. Mattress Size: appropriate as per bed size
	d. Safe working load more than 170 Kg.
4	**System Configuration Accessories, spares and consumables**
i	I.C.U Bed Mainframe perforated heavy gauge sheet
ii	Bed Ends, detachable: 01 pair
ii	Articulated half-length tuck away side rails: 04 Nos.
iv	IV Rods: 01 No.
v	Mattress 12 cm Thick: 01 No.
5	**Power Supply**
i	Power input to be 180-270 V AC, 50-60 Hz as appropriate fitted with Indian plug with rechargeable battery backup of atleast one hour.
6	**Standards, Safety and Training**
i	Electrical safety conforms to standards for electrical safety IEC-60601 /IS-13450
ii	Manufacturer should have ISO 13485certification for quality standards.
iii	Electric Shock Protection level-Class-B
iv	Electric current Protection- Class -1

v	Should have local service facility. The service provider should have the necessary equipment recommended by the manufacturer to carry out preventive maintenance test as per guidelines provided in the service/maintenance manual.

Sl. no.2

ICU Ventilator

Sl. No	Technical Specification
1	Should be touch screen.
2	Screen should be minimum of 12" inch or more and integrated single screen.
3	Compressed air / oxygen driven/ integrated non removable turbine based
4	Should have the following modes.
a	Volume and Pressure Controlled modes
b	SIMV (Pressure controlled and volume controlled) with pressure support
c	Spontaneous modes like CPAP / PEEP
d	Inverse Ratio ventilation
e	Airway Pressure Release ventilation
f	Non-invasive ventilation with leak compensation
5	Should have the facility for following settings:
a	Tidal Volume: Minimum 5ml or less and maximum of 1500 ml or more in Volume control
b	PEEP upto 30 cmH2O or more
c	Pressure support upto 35 cmH2O
d	Flow Pattern: Square, Decelerating
e	Respiratory Rate upto 80 bpm or more
f	Inspiratory Plaetau upto 60% of Inspiratory time
g	SIMV Rate upto 60 cycles/min
h	FIO2: 21% - 100%
i	**Inspiratory flow or pressure Trigger Sensitivity**
j	Manual Cycle, Inspiratory Pause, Expiratory Pause .
6	Should be able to monitor and measure the following parameters
a	Tidal Volume
b	Plateau
c	Mean Airway Pressure
d	Peak Airway Pressure
e	Intrinsic PEEP
f	RSBI (Rapid Shallow Breathing Index)
g	Resistance and Compliance
7	In-line Nebuliser with capability of producing < 3 micron drug particle.

8	Should have the facility to find (Lower inflection point) and UIP (Upper Inflection Point)
9	Compiled trend analysis at least for 24 hours for all measured parameters.
10	Should have the facility to record multiple loops for comparison
11	Should have facility to measure:
a	Pressure / Volume loops
b	Flow/ volume loops
12	Should display minimum 2 curves/graphs /loops simultaneously on the screen
a	Should have audio-visual alarms for the following parameters:
b	Peak inspiratory pressure – High & Low
c	FiO2 – high & low
d	Respiratory rate – high & low
e	Tidal volume – high & low
f	Minute volume – high & low
g	Apnea
h	Gas supply failure
13	Should have battery back up atleast for 1 hour.
14	Event log: 1000 Alarm History.
15	Spares should be available for 10 years.
16	Should be supplied with 2 nos Reusable Silicon adult the 1 no Pediatrics tubing's and imported servo controlled humidifier.
17	Ventilator should have external compressor, from the same manufacturer (Price to be quoted separately).
18	**Expiratory valve/cassette/expiratory filter should be autoclavable/sterilizable and supply 2 no's with each unit.**
19	Oxygen sensor should be paramagnetic/ultrasonic/Galvanic and covered under warranty & CMC and will be supplied free of cost during warranty and CMC period.
20	Should provide ET-tube leak compensation .
21	**Compressor, hinged arm (or circuit support arm) and ventilator trolley should be from the same manufacturer**
22	**Should have US FDA or BIS or European CE with four digit notified body number certificate for the quoted model and certificate to be submitted.**

Sl.No	BOQ	Qty	UOM
1	Ventilator-High End (I.C.U) as per specification	1	No
2	Nebulizer	1	No
3	Servo controlled Imported Humidifier	**1**	**No**
4	Mobile Trolley	1	No
5	Expiratory valve/cassette	2	Nos
6	Reusable Silicon adult patient circuit with filter	2	Nos

7	Reusable Silicon pediatric patient circuit with filter	1	No
8	External compressor (if applicable)	1	No
9	**Hinged Arm/Circuit support arm**	1	No
10	**Proximal flow sensor (with necessary hardware and software required in the machine)**	**1**	**No**

Sl. No. 3

MultiPara Monitor

Sl. No	Technical Specification
1	**Description of Function**
1.1	It should provide monitors of ECG, NIBP, SpO2, Temperature, Respiration
2	**Operational Requirements**
2.1	Comprised of bedside monitors
2.2	Capability of storage of patient data and printing of patient reports.
2.3	Demonstration of the equipment to be given if required.
3	**Technical Specifications**
3.1	Minimum 10 inches or more multicoloured TFT display.
3.2	**Should have facility to monitor and display - ECG, NIBP, SpO2(Nellcor/Masimo), Temperature, Respiration and upgradable to ETCO2(Sidestream or Microstream or mainstream) & IBP.**
3.3	Digital and 4 waveforms/traces display of all parameters. Specification include – monitoring of heart rate & respiratory rate in addition to above to make it a complete monitor.
3.4	Multichannel ST segment analysis.
3.5	**Automatic arrhythmia detection & alarm for standard arrhythmia.**
3.6	Should be suitable for Adult to Neonate usage
3.7	Should be able to measure B.P in automatic, manual and stat mode.
3.8	Motion tolerant NIBP with cuff overpressure protection
3.9	Should be capable of measuring oxygen Saturation even in case of motion artifact.
3.10	Should have audio – visual alarms for all parameters and should display alphanumeric alarm messages.
3.11	Trend of at least 48 hours.
3.12	Should have automatic and manual alarm setting for all parameters
3.13	Should have inbuilt 2 Ch thermal recorder with selectable recording speed of 25 & 50 mm /sec.
3.14	Battery backup of at least 2 hours, when fully charged.
4	**System configuration Accessories, spares and consumables**
4.1	Accessory as per BOQ
4.2	Necessary wall mounting solution/ mounting for monitors

5	**Environmental factors**		
5.1	The unit shall be capable of operating continuously in ambient temperature of 0 -40° C and relative humidity of 15-90%		
5.2	The unit shall be capable of being stored continuously in ambient temperature of 20 – 60° C.		
5.3	Deleted		
6	**Power Supply**		
6.1	Power input to be 220-240VAC, 50Hz fitted with Indian plug		
7	**Standard Safety And Training**		
7.1	Manufacturer/ Supplier should have ISO certification for quality standards.		
7.2	Should have local service facility the service provider should have the necessary equipment recommended by the manufacturer to carry out preventive maintenance test as per guidelines provided in the service/maintenance manual.		
8	**Documentation**		
8.1	User Manual in English		
8.2	Service manual in English		
8.3	Compliance Report to be submitted in a tabulated and point wise manner clearly mentioning the Page /para number of original catalogue / data sheet. Any point, if not substantiated with Authenticated catalogue/manual, will not be considered.		
8.4	List of important spare parts and accessories with their part number and costing and to be blocked for 5 years.		
8.5	Log book with instruction for daily, weekly, monthly and quarterly maintenance checklist. The job description of the hospital technician and company service engineer should be clearly spelt out.		
	BOQ	**Qty**	**UOM**
1	Monitor as per tender specification	1	No
2	Wall Mount	1	No
3	2 Channel recorder	1	No
4	5 Leads ECG cable with electrodes	2	Nos
5	Reusable Spo2 probe adult	2	Nos
6	Reusable Spo2 probe pediatric	2	No
7	Reusable Spo2 probe neonatal	2	No
8	NIBP cuff for Adult ,child and neonate	5	No each
9	NIBP Hose	2	No

10	Temperature probe nasopharyngeal (Adult & Paediatric)	1	No each

Sl no.4

Defibrillator

Sl. No	Technical Specification
1	**Description of Function**
1.1	Defibrillator is required for reviving the heart functions by providing selected quantum of electrical shocks with facility for monitoring vital parameters.
2	**Operational Requirements**
2.1	Defibrillator should be Bi- Phasic, light weight and latest model
2.2	Should monitor 3 vital parameters and display them
2.3	Should print the ECG on thermal recorders.
2.4	Should work on both Manual mode upto 200J or more and Automated external defibrillation (AED) mode up to 150 J or more.
2.5	Should be capable of doing synchronized & asynchronized cardioversion
2.6	Can be operated from mains as well as battery
2.7	Should have defibrillator testing facility
2.8	Demonstration of the equipment is a must.
3	**Technical Specifications**
3.1	Should be a Low Energy Biphasic defibrillator monitor with Recorder, having capability to arrest all arrhythmia within a maximum energy of 200 Joules for manual mode
3.2	Should monitor ECG through paddles, pads and monitoring electrodes and Defibrillate through pads and paddles. Should have Automatic or Manual Lead switching to see patient ECG through paddles or leads
3.3	Should measure and compensate for chest impedance for a range of 25 to 125 ohms
3.4	Should have a built in min 48mm strip printer/ thermal recorder
3.5	Should have charging time of less than 6 seconds for maximum energy. Charging indicator should be there.
3.6	Should have bright 5.5" or more LCD / TFT display for viewing messages and ECG waveform of 3 seconds
3.7	Single Adult and pediatric paddles should be available. Internal paddles (adult & pediatric) should also be available (price to be quoted separately)
3.8	Should have event summary facility for recording and printing at least 250 events and 50 waveforms. Patient data storage 90 mins of ECG and events.
3.9	Should have a battery capable of usage for at least 90minutes or 30 discharges.
3.10	Should be capable of printing Reports on Event summary, configuration, self-test, battery capacity etc

3.11	Should have facility for self-test/check before usage and set up function		
3.12	Should have SPO2 and EtCO2 integrated facility. (Optional – price to be quoted separately)		
3.13	**In manual mode the unit should provide energy selection at (2-200 J in variable step) joules and AED mode of upto minimum 150 Joules.**		
3.14	Should have user friendly 1,2,3 color coded operation.		
3.15	Voice prompts on AED mode		
3.16	Printing reports of events summary configuration/set test/ battery capacity		
4	**System Configuration Accessories, spares and consumable**		
4.1	Defibrillator -01		
4.2	Paddles Adult/Paediatric (pair) -01		
4.3	Deleted		
4.4	ECG Rolls -10		
4.5	Disposable pads-10 nos.		
4.6	Complete set of ECG cable with electrodes- 02		
5	**Environmental factors**		
5.1	The unit shall be capable of operating continuously in ambient temperature of 10 -400 C and relative humidity of 15-90%		
5.2	The unit shall be capable of being stored continuously in ambient temperature of 0 -500 C and relative humidity of 15-90%		
6	**Power Supply**		
6.1	Power input to be 220-240VAC, 50Hz		
6.2	Resettable overcurrent breaker shall be fitted for Protection		
7	**Standards, Safety and Training**		
7.1	**Should have US FDA or BIS or European CE with four digit notified body number certificate for the quoted model and certificate to be submitted.**		
7.2	Should conform to international test protocols on exposure to shock forces and to vibration forces. The standard should be documented.		
7.3	Should have local service facility. The service provider should have the necessary equipments recommended by the manufacturer to carry out preventive maintenance test as per guidelines provided in the service/maintenance manual.		
8	**Documentation**		
8.1	User Manual in English		
8.2	Service manual in English		
8.3	List of important spare parts and accessories with their part number and costing		
8.5	Log book with instruction for daily, weekly, monthly and quarterly maintenance checklist. The job description of the hospital technician and company service engineer should be clearly spelt out.		
8.7	Compliance Report to be submitted in a tabulated and point wise manner clearly mentioning the page/Para number of original catalogue/data sheet. Any point, if not substantiated with authenticated catalogue/manual, will not be considered.		
	BOQ	**Qty**	**UOM**

1	Defibrillator as per specification	1	No
2	Paddles Adult/Paediatric (pair)	1	Pair
3	ECG Rolls	10	Nos
4	Disposable pads	10	Nos
5	Complete set of ECG cable with electrodes	2	Nos
6	**Deleted**		
7	SpO2 Module (Optional)	1	No
8	ETCO2 Module (Optional)	1	No
9	Internal paddles (adult & pediatric) - 1 set each (price to be quoted separately)		

Sl no.5

Syringe Pump

Sl. No	Technical Specification
1	The syringe pump should be programmable, user friendly, safe to use and should have battery backup and comprehensive alarm system.
2	Must Work on commonly available standard 5ml/10ml/20ml/50ml/60 ml Syringes with accuracy of minimum of +/-2% or better, with automatic syringe size recognition.
4	Flow rate programmable from 0.1 to 1000 ml/hr or more in steps of 0.1 ml/hr with user selectable flow set rate option. SAVE last infusion rate even when the AC power is switched OFF.
5	Bolus rate should be programmable to 40 to 1000 ml/hr or more with infused volume display and one key press bolus. Reminder audio after every 1 ml delivered/programmable bolus should be available
6	Display of Drug directory of more than 50 drugs, customized and adjustable.
7	Key board locking system for patient safety.
8	Keep Vein Open (KVO) must be available at 0.1 ml or set rate
9	Selectable Occlusion pressure trigger levels selectable from 300/500/900 mmHg. or atleast 3 selectable levels
10	Automatic detection of syringe size & proper fixing. Must provide alarm for wrong loading of syringe such as disengaged plunger, unsecured barrel etc.
11	Manual / automatic pusher
12	Anti bolus system to reduce pressure on sudden release of occlusion.
13	Should have comprehensive ALARM package including: Occlusion limit exceed alarm. Near end of infusion pre-alarm & alarm, Volume limit pre-alarm & alarm, KVO rate flow, Low battery pre-alarm and alarm, AC power failure and Drive disengaged alarm.
14	Rechargeable Battery having at least 4hours backup for about 5ml/hr flow rate with 50ml syringes. Larger battery life and indication of residual life will be preferred.
15	**Docking Station for at least four pumps as per requirement so as to enable to power up to 4 pumps with one power cord when mounted on IV pole (Price to be quoted separately)**

16	The unit shall be capable of stored and operating continuously in ambient temperature of 10 - 50deg C and relative humidity of 15-90%		
17	Power input to be 220-240VAC, 50Hz.		
18	Log book with instructions for daily, weekly, monthly and quarterly maintenance checklist. The job description of the hospital technician and company service engineer should be clearly spelt out.		
19	User Manual and service manual in English.		
20	List of important spare parts and accessories with their part number and costing.		
21	Clamp to be supplied with each machine		
	BOQ	**Qty**	**UOM**
1	Syringe Pump as per specification	1	No
2	Docking station	1	No

Sl. no. 6

Infusion Pump (Volumetric)

Sl. No	Technical Specification
1	**Description of Function**
1.1	Volumetric Infusion Pump is a medical device that delivers intravenous fluids and medicine to patients in hospitals, outpatient surgical centres, hospices, nursing homes, and in ambulances
2	**Operational Requirements**
2.1	Programmable volumetric infusion pump is required
3	**Technical Specifications**
3.1	Battery back-up operating time 4 hours.
3.2	LCD programming display
3.3	**Deleted**
3.4	Pole clamp Multi-function mounting clamp
3.5	Nurse call output alarm, time and date settings
3.6	Quick titration of rate or dose with volume-time programming
3.7	Flow rate range (primary) 0.1 to 99.9 ml/hr. (0.1 ml increments) and 1 to 800 ml/hr. (1ml increments.)
3.8	Volume to be infused 0.1 to 99.9 ml (o.1ml increments) and 1 to 9999 ml(1 ml increments).
3.9	Both flow rates and volume to be infused should be configured to limit the maximum allowable range
3.10	Accuracy ±5%.
3.11	Pump Database: Events of 24 hours with real time.
4	**System Configuration Accessories, spares and consumables**
4.1	"Compatible with any standard (PVC) infusion sets available in local Indian market."

4.2	10 numbers of required infusion sets should be supplied with the single unit
5	**Environmental factors**
5.1	The unit shall be capable of being stored continuously in ambient temperature of 0-50deg C and relative humidity of 15-90%
5.2	The unit shall be capable of operating continuously in ambient temperature of 10 -40deg C and relative humidity of 15-90%
6	**Power Supply**
6.1	Power input to be 220-240VAC, 50Hz fitted with Indian plug
7	**Standards, Safety and Training**
7.1	Manufacturer/Supplier should have ISO certification for quality standards.
8	**Documentation**
8.1	User/Technical/Maintenance manuals to be supplied in English.
8.2	Certificate of calibration and inspection from factory.
8.3	List of Equipment available for providing calibration and routine Preventive Maintenance Support as per manufacturer documentation in service/technical manual.

	BOQ	Qty	UOM
1	Infusion Pump as per specification	1	No
2	Infusion Set	10	No
3	Mounting Clamp	1	No

Sl. no. 7

SN	Crash Cart
	Description
1	Minimum Size 950mm L x 500mm W x 1500mm H .
2	Frame work made of Stainless Steel tube of minimum 25mm dia.
3	Two light weight polystyrene boxes each with three drawers, upper drawer with medicine container of different sizes.
4	Provision to hold Oxygen cylinder and cardiac Massage Board.
5	Six numbers coloured hand out bins to keep important supplies at eye level. Two nos.
6	Stainless Steel shelves to carry monitors, ECG Machine, suction apparatus etc.
7	Provided with corner buffers & Rails. All stainless steel components should be of 304 quality.
8	Crash cart should be movable on four non-rusting swivel casters of 125mm dia two with brake.
9	Manufacturer should be ISO 13485 certified.

Sl. no. 8

SN	Medicine Trolley
	Description
1	Frame work made from SS steel material.
2	Flat top of SS &at least 6inch deep removable bucket at the bottom
3	Should have multiple long drawers to hold drug strips made of high quality epoxy plastic or steel material with convenient and smooth slide in and slide out motion (At least 30 separate drawers – in about six to eight rows)
4	The front of the each drawer should be half covered on which removable medicine label can be pasted and upper half open to see the contents inside.
5	Mounted on four 100mm castors (2 with brakes). Approx.Size: 750(L)x450(W)x850(H)mm.
6	All the Stainless Steel should be 304 grade/ 16 gauge
7	Manufacturer should be ISO 13485 certified.

Sl. no. 9

Suction Machine

Sl. No	Technical Specification
1	High vacuum suction unit, run on electricity with two section jars of 4-5 liters capacity each. If one jar filled, it should be automatically/manually connect to other jar.
2	Auto cut off device of preventing entry of fluid in pump.
3	Fast and efficient jar change facility.
4	Easy access and controls
5	**It should be heavy duty and noiseless, with piston/cylinder/Diaphragm technology.**
6	Should be able to create desired maximum vacuum in least possible time, vacuum should be up to –90 K pascal **with minimum capacity of 45L/min.**
7	Light and maneuverable fitted on a mobile trolley.
8	One plastic suction jar cover, steam sterilizable to be provided extra.
9	Two extra suction jar (Plastic) of capacity 4-5 ltrs. Should be quoted along with accessories like lid, tubing etc. with the equipment to make the unit functional.
10	The firm should clearly indicate in the technical bid itself that the prices of all standard accessories are included in the quoted price.

11	The firm will give rate list of all possible spares, accessories & consumables if any, as part of financial bid. If price of any spare is not mentioned & is required for repair in life time of equipment/instrument, then the firm will be obliged to give it free throughout life cycle of the equipment.		
	BOQ	**Qty**	**UOM**
1	Suction Machine as per specification	1	No
2	Mobile Trolley	1	No
3	Suction Jar	4	No

Sl. no. 10

ECG Machine

Sl. No	**Technical Specification**		
1	Twelve channel 5.7" or more LCD display for all 12 leads along with on screen details.		
2	Recording for 12 channels simultaneously and have option for user selectable any lead as Rhythm lead. Can able to print ECG at A4 size paper through inbuilt printer.		
3	Recording speed selection of 5, 10/ 12.5, 25 and 50 mm/sec.		
4	Sensitivity of 2.5,5,10,20 mm /mV. It should also have AGC (Automatic Gain Control)		
5	Facility to enter patient information (Patient ID, Name, Age, Sex, Hospital's name) which get updated in system and is recorded on the recorder A4 paper		
6	Patient memory function 20 patients or more		
7	Waveforms can be recorded.		
8	Interpretation software.		
9	Mains and in built rechargeable battery backup atleast 2 hrs/ 30 ECG		
10	Should have USB port/SD card (to be supplied by the bidder)/ equivalent port to send the data in the Computer.		
	BOQ	**Qty**	**UOM**
1	ECG Machine as per Specification with standard accessories	1	No
2	Interpretation software.	1	No
3	ECG paper	100 patients	

Sl. no. 11

	Nebuliser
S.No	**Technical specification**
1	Should be light weight, portable and compact
2	Should have a dust filter
3	Should be able to deliver a flow rate/ 7lpm
4	Should have air pressure/ 35 psi
5	Should have a check valve to protect the device against contamination due to backward inhalation.

Sl. no. 12

	BP Instrument - Aneroid
S.No	**Technical specification**
1	Sphygmomanometer -Aneroid Type
2	Should have a measuring range from 0 to 300mmHg
3	Should be provided with adult arm cuffs of size medium & large and pediatrics cuff.
4	The fastening arrangements of the cuff should be of hook and loop type (Velcro)
5	The inflating rubber bag should be capable of withstanding an internal pressure of 450 mmHg without leaking.

Sl. no. 13

	Digital Weighing Machine Adult
S.No	Technical specification
1	Should have an accuracy of 100gms.
2	· Should be dial type having a magnifying lens to see the measurement
3	· Should measure a maximum weight of 150kgs.
4	· Should be round shape of diameter 300mm (minor variations will be accepted)
5	· Shall be made of Metal, epoxy powder coated with rust proof parts

Sl. No. 14

SN	Stretcher with Trolley
	Description
1	Dmension:-2000mmx 550mmW x 800H mm.
2	Frame work made of 31-75 OD mm x 1.60 mm vertical & 25 mm x 1.20 mm horizontal CRC tubes Trolley mounted on 15 cms dia castors – 2 with brakes
3	Removable stretcher top made of 1.22 mm aluminium sheet with S.S. handle / M.S. with PVC cover handle at both end with 40 density foam Mattress covered with good quality rexine.
4	Manufacturer should be ISO 13485 certified.

Clause no. VI

Isolation Facility:

Added Para:

- Isolation facility with HVAC to be provided
- Ante-Room. Air Lock System required for isolation ward

- 10 quantities of Fowler Bed to be supply for Isolation Ward

SN	Fowler Bed Technical Specification
1	Should have 3 section mattress base
2	Retracting backrest and legrest
3	Hygienic design (PP), lockable and tuck away side rails.
4	Profile frame with easy removable ABS plastic covers.
5	Removable head and foot ends
6	Four castors (2 with break castors).
7	Electrostatic painted metal frame.
8	X-Ray translucent backrest and cassette carrier
9	Height adjustable stainless steel IV pole.
10	Easy adjustable knee break position
11	Plastic crash bumpers
12	Dual sided manual CPR at backrest
13	Overall Length : 215 cm or more
14	Overall Width : 99 cm
15	Height Range : 47 cm
16	Trendelenburg : 0°- 12°
17	Reverse Trendelenburg : 0°- 12°
18	Backrest Angle (Max.) : 75°
19	Legrest Angle (Max.) : 34°
20	Castor Diameter : 12.5 cm
21	Safe Working Load : 230 kg or more
22	Manufacturer should be ISO 13485 certified.

Sl no.1 Decontamination Station (Page no. 50)

Existing:

b) Capable of being configured in an area of 30M X 30M

Read as:

b) Capable of being configured in an area of 50M X 50M

Existing:
Container Size 6000 mm X 3000 mm

Read as:
Container Size 20 feet X 8 feet X 8 feet

Added para:

Water tanks of SS (304) underground, modular, removable, on concrete support – 2500 Ltrs x 4 Nos.

Sl. No. 3

Existing:

d) TLD

Read as:
Deleted

Sl no. 12 Diesel generator Set (Page no. 56)

Existing:
220V, 50/60 Hz, 63 KVA, single phase

Read as:
Two 15 KVA DGs will be required.

Bill of Quantity (page no. 68)

Existing:

Sl. No.	Equipment Name	Qty
12	PLD	15

Read as:

Deleted

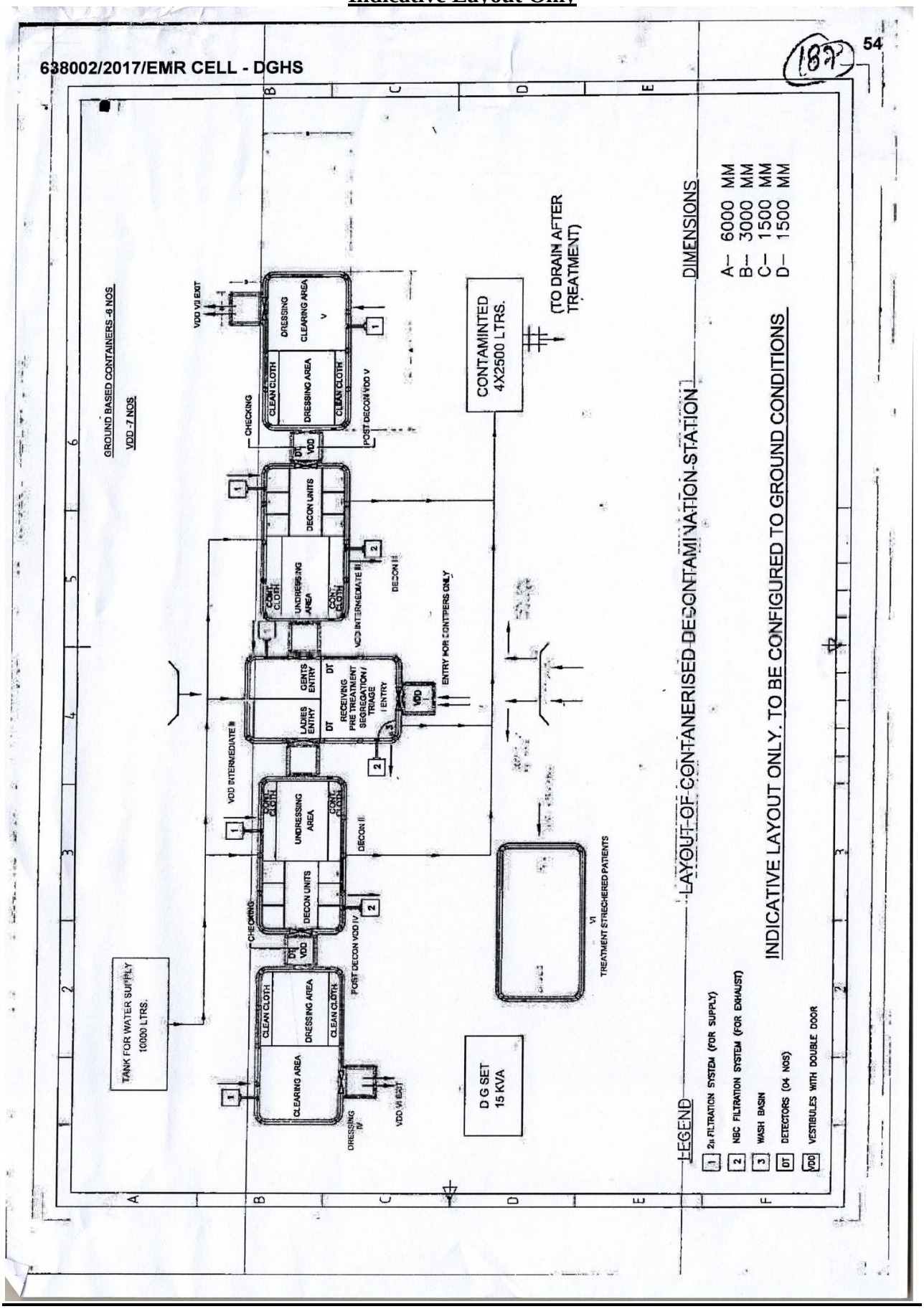
Added Para

Sl. No.	Equipment Name	Qty
31	ACADA	1
32	CAM	6

Added Para under Technical Specification Section VII

- **Temperature of 22◦C ± 2◦C should be maintain inside all the container**

Indicative Layout Only



Brief of scope of works to be done for each secondary level CBRN medical management centre

S. No.	Physical facility	Specifications
1	Triage area	It will be an earmarked area located in the open. This would require dressed up area preferably at-least 20x20 mtrs, with impermeable canopy (fibre glass), with support pillars. It should have provision for movement of ambulance.
2	Treatment area/ICU	It will be a five bedded (ICU beds) facility with ventilators, defibrillator, suctions machines, infusion pumps, ECG machines, nebulizers, crash cart, medicine trolley, BP instrument, multipart monitor, weighing scale and syringe pump. Container based (as per standards provided) or pre-engineered, sizes not to exceed 10 M X 10 M. Temperature of 22◦C ± 2◦C should be maintained inside the ICU. It should use non-circulating ventilation, which will exhaust clean air to the atmosphere outside, well away from any habited area, air intake or open windows. If air is either being re-circulated back into the ICU, then the air inflowing into the ICU must be decontaminated by using Filtration (HEPA Etc.) and Purifications (Exposure to UV Radiation).
3	Decontamination facility	Container based (as per standards provided) or pre-engineered, sizes not to exceed 30 M X 30 M. Temperature of 22◦C ± 2◦C should be maintained inside the decontamination facility. It should be capable of decontaminating 80-100 ambulatory personnel per hour. It should have separate areas for male and female patients. There should be a provision for fresh water storage capacity of at least 10,000 ltrs. The decontamination station should have the capability of continuous monitoring of contamination levels of patients as well as the environment. It should have a provision for decontamination of stretcher bound casualties. There should be arrangements for storing of contaminated clothing and clean clothing. It should have provision for air supply and exit through NBC filter systems.
4	Isolation ward	There would be provision for converting one of the existing 10 bedded wards into an Isolation Facility meeting isolation ventilation Norms. The facility should be provided with an ante-room and air-lock system between Isolation room and corridor. There should be provision for maintaining continuous negative pressure of >2.5 Pa. Adequate ventilation to ensure 12 to 15 Air changes per hour (ACH), air flow must be directional, from corridor to room entrance and back and further to outside. Provision for Minimum Efficiency Reporting Value – 14 (MERV-14) air filters (with 90% dust spot test filters) on the supply side and HEPA filters on exhaust side. Temperature of 22◦C ± 2◦C should be maintained inside the isolation ward.
5	Equipment	
	• Medical	i. ICU Bed ii. Ventilators iii. Multi Para -Monitors iv. Defibrillator v. Syringe Pump vi. Infusion Pump

		vii.	Crash Cart
		viii.	Medicine trolley
		ix.	Suction Pump
		x.	ECG machine 12 lead
		xi.	Nebuliser
		xii.	BP instrument
		xiii.	Weighing scale
		xiv.	Fowler Beds for isolation ward
		xv.	Stretcher with Trolley
	• Radiological	i.	Direct Reading Dosimeter - Watch Type
		ii.	Pocket Type Dosimeter/Digital Dosimeter
		iii.	Dose Rate Meter (High Range)
		iv.	Contamination Monitor
		v.	Radiation Survey Meter With Beta Window
		vi.	Portable Alpha Monitor (ALSCIN)
	• Chemical	i.	Automatic Chemical Agent Detection And Alarm System
		ii.	Chemical Agent Monitor
	• Miscellaneous	i.	NBC Suit Permeable
		ii.	Respirator W/O Canister
		iii.	Canister
		iv.	N-95 Respirator Mask
		v.	Overboot
		vi.	Gloves with Inners
		vii.	Integrated Hood Mask
		viii.	Haversack
		ix.	Surgical Mask
		x.	Protective Eyewear
		xi.	Autoject Injector
		xii.	Pers Decn Kit
		xiii.	Decontamination Solution
		xiv.	Decontamination Suit
		xv.	Water Testing Kit
		xvi.	Portable Decontamination Apparatus
		xvii.	Casualty Bags Full
		xviii.	Stickers with Radiation Symbols. a. 7.5 Cms Diameter b. 15 Cms Diameter
		xix.	Self Sealing Plastic Bags- 1 Ltr Capacity
		xx.	Plastic Bags (1 Mtr X 1 Mtr)
		xxi.	Plastic Sheet 2 Mtr Width
		xxii.	Cordoning Tape
		xxiii.	Generator Sets – 2 X 15 KVA
		xxiv.	Tank for Fresh water supply of 10,000 Ltrs

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

Note:

Prospective bidders are advised

1. to ensure the validity of your EMD as per this revised schedule.
2. to check the website regularly prior to the closing date and time of online submission of tenders.