



## राजस्थान चिकित्सा सेवा निगम

स्वास्थ्य भवन, सी-स्कीम, जयपुर

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क्रमांक : F-8 ( )/RMSC/EPM/ M-3/ MMUs/13-14/NIB-36/13/ 825

दिनांक: 27-8-13

### CORRIGENDUM

**Subject: -** Amended technical Specifications and other conditions of Bid document for the procurement of MMUs on Turnkey basis under NIT No. F-8 ( )/RMSC/EPM/ M-3/ MMUs/13-14/NIB-36/13/ 656 Dated: 25.07.2013

In Reference to above sited subject and NIT, The Technical Specification of items (Annexure-c) are here by Amended as below.

#### ANNEXURE-C

##### (1) Technical Specification of High Frequency 2.5 KW or more with stationary Anode X-Ray Machine

1. **X-Ray Generator:** High Frequency X-Ray Generator.
2. **mA:** 60mA or more
3. **Output :** 2.5 KW or more
4. **mAs :** Up to 200mAs
5. **KVP Range :** 40 to 100KVP or more
6. Machine weight less then 250 Kg & height less then 185 cm.
7. **Control :**
  - (A) Attractive & Ergonomically designed Control Panel with total Soft Touch Switches for various operations.
  - (B) KV Increase & Decrease Switches.
  - (C) MAs Increase & Decrease Switches.
  - (D) Machine On/OFF Switch.
  - (E) Bucky Selection Switch.
  - (F) Collimator Lamp 'ON' Switch.
  - (G) Stand by & Exposure Release Switch.
  - (H) X-Ray on Indicator.
  - (I) Incoming Voltage Indicator.
  - (J) A dual action hand Switch with Retractable cord is provided for Radiation Protection of Operator.


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8. **Tube Head** : Monoblock version, Stationary Anode, BEL/Toshiba X-Ray Tube, Focus 2.8 mm<sup>2</sup>.
9. **Stand** : Floor to Ceiling Stand & with Counter Balanced Tube Head (Rotatable  $\pm$  180 Degree), 360 Degree Rotatable; mounted on Floor Ceiling Rails for convenient movements.
10. **Table** : Horizontal Bucky Table (6¼ x 2¼ feet) should be for over couch & Bucky radiography of various body parts. The Table should consists of motorized teciprocating Bucky with more then 14" x 17" should have Grid Ratio of 6:1, 60 lines/Inch & a stainless steel cassette Tray is provided. The Bucky should travel the entire length of the table and can be located at any desired position by a lock. The tabletop should be made of low radiation absorption, waterproof material and Compression Band.
11. **Accessories** :
  - (A) Collimator Alumimum filter.
  - (B) Hand Switch with retractable cord for exposure.
12. **Power supply** : 230V, AC, 50Hz. 15 Amps with line regulation of  $\pm$  10%. Line resistance < 0.4 ohms. Machine should work on single phase.
13. **Other Requirement** :
  - (A) The company should be ISO Certified.
  - (B) The unit should be approved by AERB.
  - (C) The company should have a local Service center.
  - (D) Catalog with circuit diagram (operation & service manual)
14. **Following Consumable Items of Dark Room & Accessories also to be supplied by the firm.**
  - (A) Large stainless steel tank with cover containing two tank having capacity of 13.5 liters each for developer and Fixer and one tank for Rinsing water having capacity.
  - (B) Safe light.
  - (C) Hangers two each of various sizes.  
8" x 10", 12" x 15" and 14" x 17"/
  - (D) Two lead aprons 0.5 mm of lead equipment.
  - (E) 10 sets of lead numbers markers alphabets.
  - (F) Lead divider two sets.
  - (G) Casseters with intensifying high speed screen (400) blue base two each of 8" x 10".
  - (H) Thyroid and Gonad protection.
  - (I) Binder.
  - (J) 2 Cones-Pituary & Neck.
15. **VIEW BOX** with twin plate (2 films of 35x43 cms) X-ray viewing screen with uniform illumination (with three tube light or more). It should be equipped with eight spring loaded clips to secure the X-ray film when is use.
16. Three (3) years complete guarantee for the entire X-Ray system except Consumables.
17. Comprehensive annual maintenance for all supplied items to be quoted for next 5 years after expiry of 3 years guarantee period.
18. Consumables:None

**(2). Technical Specification of Automatic film processor**

1. Should be a tabletop model and be able to use it anywhere in Dark Room.

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2. Should be able to develop upto 35x43 cm size X-ray films.
3. Should have 3 racks for developer, fixer and water for wash.
4. Should be able to develop minimum of 50 films/hour.
5. Water flow rate should be within one liter per minute.
6. Should have low noise level.
7. Should maintain developer temperature from 35 deg. C to Deg. C and drying is from 35 Deg. C to 65 Deg. C.
8. Should have auto replenishment option during long period of inactivity.
9. Film processing speed should be less than 2 minute.
10. Drive motor should stop when top cover is open as a safety measure.
11. First fill of developer, fixture etc. to be supplied.
12. The Mfg. should have ISO certified & the unit should have BIS/CE/USFDA approved.
13. Firm has to demonstrate the quoted model to technical committee.
14. Three (3) years complete guarantee for the entire system.
15. Comprehensive annual maintenance for all supplied items to be quoted for next 5 years after expiry of 3 years guarantee period
16. Consumables: None

### **(3) Amended Specification of Semi Auto Analyzer**

- a. Should be open system and use friendly.
- b. Minimum 6 interference filters from 340 nm to 700 nm and 2 free position.
- c. Flow cell with 10mm optional path.
- d. Photometric range 0.0 to 2.5 absorbance.
- e. Should be manual and automatic "0" setting for blanking.
- f. Flow cell temperature should be programmable at 25°C, 30°C & 37°C by peltier elements  $\pm 0.1^\circ\text{C}$ .
- g. Should have inbuilt incubator minimum for 10 samples.
- h. Programmable peristaltic/Bellows/Vacuum pump for aspiration.
- i. Halogen lamp with lamp saver facility.
- j. Auto diluter be a available or at least 3 good quality viable pipettes (ISO certified) range 5 to 50ul, 20 to 100ul & 100 to 1000ul be supplied with the machine.
- k. Minimum 50 method stored in EPROM.
- l. 5 different types of basic testes: end point, kinetic, fixed time, bio-chromatic, absorbance.
- m. Calibration standards for each method.
- n. Results graphics of calibration curve on screen.
- o. Graphics of Kinetics and optical facility of final results, intermittent results and graphics.
- p. Internal printer with printing facility of final results, intermittent result and graphics.
- q. Parallel interface for external printer.
- r. Serial output: Standard Rs. 232, for host computer connection with standard data transfer, necessary software/hardware should be provided along with.
- s. Flow cell system.
- t. Should be able to work under Indian conditions of mains power supply of 180-240VAC; 50 Hz with suitable onlineVEC.

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- u. Installation includes satisfactory practical demonstration training to staff with needed kits preferably for sugar urea, creatinin, SGOT, SGPT, Bilirubin etc. chemicals & other required material.
- v. Capable of doing Haemoglobin electrolyte, immunoassays & turbidimetric assays.
- w. Lab name/work list/ patient name will be on the print.
- x. Previous blank and Std. should be in the memory.
- y. More than 200 patients result should be in the memory.
- z. Local engineer should be available in Rajasthan.
- aa. Operation and service manual with each equipment.
- bb. 5 years CMC rates after three years guarantee period to be quoted.
- cc. Manufacture and principals who are having ISO certified production unit/assembling unit and service center in India will be eligible for bidding.
- dd. The Manufacturer should have ISO-13485 certified & the unit should have BIS/CE marked/USFDA approved.
- ee. Consumables: Exhaust filter, flow cell cleaning solution, flow cell leur kit, waste jar assembly, vaccum/waste tubing kit.

**(4) Specification of Folding Scoop Stretcher**

- a. It should telescope to accommodate the tallest patient and fold for compact storage.
- b. Attendants should be able to uncouple either end of the stretcher and gently scoop up the patient using scissors.
- c. Should have tubular aluminum construction with extruded aluminum blades.
- d. Item should have BIS/CE/USFDA approved certificate.
- e. It should have the following dimensions:

Maximum Length	Approx. 200 cm
Minimum Length	Approx. 170 cm
Folded	Approx. 120 cm
Width	Approx. 45 cm
Depth Folded	Approx. 10 cm
Weight	Approx. 10 kg
Load Capacity	Approx. 150 kg

- g. Guaranty for 3 years from date of delivery of MMU.
- h. Consumables: None

**(5) Specification of Portable 3 Channel ECG Machine**

- a. Microprocessor based 3 channel ECG machine with auto interpretation facility and feature touch key operation.
- b. It should display all 12 leads.
- c. It should do calculation and interpretation.
- d. Should have internal battery to support at least 20 ECG.
- e. Battery not in use should have self life of at least one week.
- f. Should be able to print individual leads, with or without interpretation.
- g. It should have high resolution in built thermal array printer.

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- h. Manufacturer should have ISO certificate.
- i. The unit should have RIS/CE marked/USFDA approved & should submit relevant certificate of IEC safety standard from regional test laboratory Govt. of India.
- j. Automatic lead marking.
- k. Input impedance more than 100 mega ohms per electrode.
- l. Frequency response 0.10 to 150 Hz.
- m. Operating mode-manual and Automatic.
- n. Operating & service manual to be supplied along with machine.
- o. Three years guarantee.
- p. The unit should be supplied with complete accessories.
- q. Patient cable with electrodes-2set.
- r. Power cable-1nos., Earthing Cable- 1 nos., Thermal array Recording paper for 500 patient ECG & jelly- 1 nos.
- s. 5 years CMC rates after three years guarantee period to be quoted.
- t. Consumables: Battery (Minimum life one year), patient cable, electrodes, thermal paper, jelly.

#### **(6) Specification of Centrifuge Machine**

- a. Laboratory centrifuge with 8 tubes x 15ml capacity.
- b. Unit should have speed regulator.
- c. Digital speed meter with suitable digital count down timer should be provided.
- d. Unit should have safety lid interlock to prevent cover opening during centrifugation.
- e. Dynamic brake for quick deceleration.
- f. Operating voltage: 190 V AC-230 V AC Single phase, 50 Hz.
- g. Unit should have ISI/CE marked/US FDA approved.
- h. Should submit certificate of relevant IEC safety standard, from Regional test laboratory Govt. of India.
- i. Adaptors should be provided for using different sizes of test tubes.
- j. Technical Literature :- The firm should positively submit printed illustrated technical literature/ leaflet indicating the model quoted and service manual by them.
- k. Guaranty for 3 years from date of delivery of MMU.
- l. Protection against Vibration (System should off automatically when any imbalance during opposition)
- m. RPM -3500 or more.
- n. Consumables: Adaptors and Carbon brush

#### **(7) Technical specification for supply of chassis & MMU body fabrication & fitment/installation of equipment:-**

1. The vehicle chassis model specification should be of current be of current DGS&D rate contract of DGS&D rate contract in between 2010-2012 whichever is latest.
2. Vehicle chassis model should be of standard chassis manufacture & engine & gear box of reputed make & capacity & should be suitable for complete MMU & also conform to BS III specification fitted with power steering. Vehicle engine's power should not less than 80 BHP & gear box

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- should have synchromesh gears (5 gears minimum) & the GVM should not be less than 6000kg. the vehicle should have aerodynamic design for better operation.
3. Vehicle should have suitable vehicle engine operated compressor Air conditioning system with inbuilt heating system & A.C. (Split type) should be of reputed manufacturer like carrier subros. Voltas, Lloyd, etc. Air conditioning system should maintain the temperature suitable for MMU & insulation material (theromocal) should be used of density 14-16 kg/rrr<sup>3</sup>. Air conditioner should be properly placed in MMU. So that complete MMU maintains the uniform temperature i.e. up  $25^{\circ} \pm 3^{\circ}C$ .
  4. Vehicle wheel base should be between 3800mm to 4400mm so that after fabrication work, the working space (Excluding cabin) should be available in be between 17' to 22' in length & height should not be less than 6.5'.
  5. MMU vehicle should have enough space for all equipments/gadgets installed in the vehicle & necessary platform to be provided for installation-fixing of equipments & movement of patient & staff. MMU should have capacity to accommodate 09 persons.
  6. Lead lining as per AERB guidelines
  7. All structures to be fabricated with proper size of M.S. sheet, Angles, Channel etc. Outer paneling of the body should be of galvanized steel with minimum joints. Suitable insulation to be provided between outer & inner panel & roof Flooring should be done by marine water proof plywood with vinyl flooring. Fabrication work should be of standard quality & with proper finishing. All equipment to be fixed properly & concealed when not in use. Body of the vehicle to be fabricated by tubular structure of 40x40 or 60x40mm & confirm to IS & floor's structure should be of minimum channel size 75x40mm & outer paneling should be done with galvanized steel sheet of 18 or 20 SWG or 1mm thick & inner paneling to be M.S. cold rolled sheet or laminated aluminum sheet of 18/20 S.W.G. Vinyl flooring to be done (1.6 to 2.00mm size) on 12mm plywood floor. Provide air exhaust system (vents) for proper air circulation & overhead shelves for proper storage.
  8. Minimum 2 nos. doors are to be provided, one at rear side & another at one side, having good quality heavy duty hinges. Foldable ramps are to be provided for rear door & foldable steps for side door & door for D.G. Set with sliding mechanism. Suitable size of windows are to be provided with toughened dark tinted glasses. Door sizes should be of approx 6'. Length & 2<sup>112</sup>, Approx. width. Front wide shield glass should be of 5.5 mm approx. laminated (single piece) & straight & curved glass for windows of 5.00 mm size toughened. Curtains & Curtain rods are to be provided. Tents & poles are to be supplied with hooks on top of body for waiting space. Lights to be provided in 3 sides of vehicle.
  9. Complete vehicle should be water proof & there should be no leakage & anti corrosion treatment is to be provided & best quality paint is to be used.
  10. Portable D.G. Set of 5.5 KV A capacity to be supplied of standard manufactures & fitted properly in vehicle with sliding mechanism for taking it out if required. Good quality of switch boards, switches are to be provided. Additional wire loom to be provided for external use of electricity. Vehicle should be capable to bear the load capacity of all equipments. Electrical system should have 12v/24v battery & alternator not less, then 55 amp. A control panel with. MCCB, changeover switch is to be provided for electric system for D.G. set & direct supply. Separate switchboard & connection are to be provided for main A.C. & D.C. supply. Lights should provide better visibility & elect. Fitting should confirm to CE standards. A suitable invertors system to be provided. One small fridge to be provided below the table of equipments. Space to be provided for another D.G. set for future (5.5 KVA capacity).

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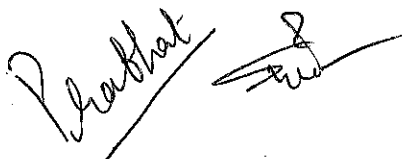
11. Vehicle should be complete in all respect for registration purpose like lights, number plates etc.
12. Firm should provided wash basin, suitable water tank 100 liter approx, ward robes for storage purpose towel/stand, mirror soap stand, waster system, fans 4-6 nos., bell, siren, light/blue on top, roof lights as per requirement, public address system, fire extinguisher 02 nos., first aid box, needle cutter, Dr. Chair 02 nos., stool revolving (02 nos.), one wheel chair, one oxygen cylinder, chair 08 nos. plastic etc.
13. The roof top have facility to install V-set antenna in future.
14. Fabrication work will be checked by a committee during the fabrication work thrice. Modification in arrangement of equipments installation will be allowed by the technical committee. Equipments to be installed properly so that no damage occur during the traveling.
15. Deptt. name should be mentioned on both side of vehicle & also name of fabricator to be mentioned on body of vehicle. NRHM monogram to be written on vehicle and sticker design provided by the department.
16. Consumables to be excluded from guarantee: Oil, grease, coolant, all kind of packing, all rubber parts, electrical bulbs, gas, glass items, Bakelite items and fuel.

### **Terms & Conditions:-**

1. Firm will submit the same literature/leaf lets brochures, of models of the manufacturer, which they have quote their offers.
2. Firm should submit the experience certificate of fabrication work of vehicle/MMU/ Ambulance etc. Firm/bidders should have experience of A.C. vehicles fabrication.
3. The firm should submit the list of clients to whom they have supplied such vehicle & also performance report for clients if received any.
4. ISO certificate to be provided for fabrication work of vehicle MMU.
5. **Inspection** : During fabrication, inspection will be done at 3 stages by a committee
  - (i) **Structure Completion**
  - (ii) **Paneling & Validation of Equipments**
  - (iii) **Final Inspection along with equipment.**  
and at final stage shower test has to be conducted for any leakage.
6. **Sample**: Lowest bidder has to supply first MMU as sample for approval & if required by a committee, suitable changes may be allowed.
7. All welding joints should be of mig welded. Length of welding should be not less then 25mm at equal pitch.
8. Wherever painting is required is P U paint of good quality has to be use for example Asian paint, SD or equivalent.
9. Stick ring approximately 100sq. feet as per the requirement and direction of NRHM has to be done.

### **(8) Technical Specification of Binocular Microscope**

- Binocular head Seidentopf type, 30° inclined; 360° rotating.
- Coaxial coarse and fine knobs; tension adjustment on the right side.
- Wide field eyepiece WF 10X/20mm; one with pointer (Optional)
- Reverse mounted quadruple revolving nose piece.



- Objective achromatic EF-N plan (Antifungal) 4X, 10X, 40X, 100X; ccis
- Focusable condenser NA 1.25 above condenser with iris diaphragm slider slot, Focusable and lockable.
- Stage movement (XY direction) on rack and pinion.
- LED illumination 3W with intensity control >10,000 hrs bulb lifespan with battery backup of 1 hr.
- Attached mirror set.
- Wooden box with lock for storage.
- Other essential accessories, oil, lenses, cleaning solution, dust cover.
- Technical final approval after demonstration.
- 5 years AMC rates after three years guarantee period to be quoted
- ISI/ISO/CE marked will be preferred. Preference will be given at the time of technical Evaluation/Demonstration.
- Consumables: Battery (Minimum life one year), Immersion Oil, Cleaning Solution.

**(9) TECHNICAL SPECIFICATION ON PORTABLE GENERATOR**

**Engine Parameters**

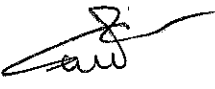
Max. Output	6500 VA or more
Rated Output 230v/ 50Hz	5500 VA or more
Engine HP	13 HP or more
Choke	AUTO
Starting	Electric / Recoil start
Fuel Type	Petrol / Diesel
Fuel Tank Capacity	15 ltr or more
Continuous Operating Hours	4 hrs or more
Oil alert system	Yes
AC circuit protector	Yes
Dimensions	1200 X 700 X 800 mm or less

- 5 years CMC rates after three years guarantee period to be quoted
- Consumables: Oil, Coolant, fuel, all filters, Rubber parts

**A. General terms & conditions:-**

**20. SUPPLY ORDERS:**

- (i) All the supply orders will be placed to the approved bidder by RMSCL through registered post/e-mail/any communication medium. The date of dispatch of letter or communication date will be treated as the date of order for calculating the period of supply. The supply period shall be 90 days for the first supply order including for preparation of prototype/sample & its approval. The finalization of prototype should be within a period of 30 days from issue of supply order.  
Any delay in prototype preparation will be adjusted in total supply period of 90 days.
- (ii) In case of further supply order minimum 30 vehicles shall be supplied in 60 days or proportionate delivery period subject to minimum of 30 days.

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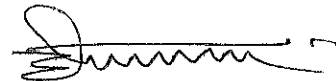
**B. Special Terms and conditions:-**

14. The bidder shall be a Manufacturer/Fabricator who must have manufactured/ fabricated and supplied and installed satisfactorily Mobile Medical Unit/Ambulances/ Air Conditioned Buses/Coaches/and other similar nature air conditioned vehicles etc. in India to the extent of at least 10% in last three financial years (2009-10, 2010-2011 and 2011-12) of the quantity specified in the NIB. The list of such installation of the quoted equipments may be asked from the bidder in verification of Annexure-G information and he should submitted self attested copy of purchase order, Indent and invoice (Inclusive of Quantity & Rate). **However, the condition of past performance is not applicable for the ISI Marked Items.** Bidder should have technological expertise and modern machinery/equipments for the fabrication of Mobile Medical Unit/Ambulances/ Air Conditioned Buses/Coaches/and other similar nature air conditioned vehicles etc

**E-tenders are invited as per following time schedule:-**

Last Date for Sale of Bid Form	Last Date of Receipt of Bid Form	Date of Opening of Technical Bid
11.9.13 11.00 A.M.	11.9.13 Up to 1.00 P.M.	11.9.13 From 3.00 P.M.

Please note that above all Amendments in technical Specifications/bid conditions is the integral part of Annexure-C and tender document. This corrigendum shall be signed and annexed with tender document.



Executive Director (EPM)

RMSC, Jaipur



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