

99. MINI RAD METER

(10)

(248)

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
GENERAL SPECIFICATIONS	<ol style="list-style-type: none"> 1. Should be hand held 2. Should be battery operated. 3. Detector : one Energy compensated GM tube, energy response according to ambient dose equivalent H*(10). 4. H* (10) ambient dose equivalent dose and dose rate. 5. Radiation detection required for Gamma, X-ray, 48KeV to 3MeV. Alpha, Beta radiations with an external probe having large area alpha, beta contamination monitoring provision. 6. Dose rate measurement range is required 0.01 micro Sv/h to 0.1 Sv/h. 7. Dose measurement range is required 0.01 micro Sv to 10 Sv. 8. Calibration accuracy: +/- 5%, Cs-137, calibration direction and calibration field, temperature +20 degree Celsius. 9. Dose rate linearity: +/- 15% +/- least significant number 0.05 micro Sv/h to 0.1 Sv/h. 10. Variation of the response due to photon radiation energy and angle of incidence (Re,A) : 71%, 160% (48KeV to 3 MeV); +/- 60%. 11. Configurable units: Sv, Sv/h, R/h, for large area alpha, beta contamination probe Gy, Gy/h, cps, cpm, dpm and Bq. 12. Real time clock function. 13. Configurable visual, audible and internal vibrator alarm. 14. RF - communication and USG-communication with suitable adapter. 15. Customised LCD display with 5 digit 14-segment floating point area and special symbols for alarm, external probe, battery, RF-communication, vibration alarm, chirp and mute. Energy save backlight with automatic illumination control. 16. Power supply: 2 AA size batteries (alkaline or NiMH). Each unit must supply with 4 numbers of AA size NiMH batteries with battery charger. 17. Contacts for external power with cable and suitable adapter. Contacts for external power with cable and suitable adapter/ connector for charging NiMH batteries (charging conditions 5-35 degree Celsius). Additional one set of NiMH batteries shall be provided with each unit. 18. Operation time with fresh alkaline batteries more than 4 months at background radiation level at +23 degree Celsius or more, up to 8 h daily use. 19. Operation time with fully charged NiMH batteries more than 1 month at background radiation level at +23 degree Celsius or more, upto 8 h daily use. 	<p>Board should check or measure the product.</p>	<p>As per specification.</p> <p><i>M. S.</i></p> <p><i>Approved</i></p>

P.O.

Member:1

2.

3.

4.

5.

6.

[Signature]

[Signature]

[Signature]

[Signature]

[Signature]

[Signature]

[Signature]

	<p>20. Case : High impact durable plastic reinforced with glass fiber, immersion proof, rubber grip an cushion around the case.</p> <p>21. Enclosure class IP67 (IEC 60529), water proof including battery compartment.</p> <p>22. Weight of radiation survey meter without batteries : not more than 200 gm</p> <p>23. Wrist/neck strap and belt clip for radiation survey meter should be provided.</p> <p>24. Environmental characteristics : -25 to +60 degree Celsius (storage temperature) Relative humidity : upto 85% at +35 degree Celsius..</p> <p>25. Should fulfil the RF-immunity levels of applicable standards.</p> <p>26. Internal memory to store measurements.</p>	<p>OEM should submit an undertaking regarding its quality and specifications.</p> <p>Board should check or measure the product.</p>	<p>As per specification.</p>
<p>Requirement for sign-off</p>	<p>Demonstration to the uses while delivering the product.</p>		
<p>Training of Staff (Medical, Paramedical, Technicians)</p>	<p>Training of users in handling and basic maintenance shall be provided.</p>		
<p>Warranty</p>	<p>3 years warranty.</p>		
<p>Operating Manuals, Service Manuals, other Manuals.</p>	<p>Advanced maintenance tasks required shall be documented user, technical and maintenance manuals to be supplied in English/ Hindi language along with visit Log Sheet</p>		

100. CONTAMINATION MONITOR (BETA & GAMMA)

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
<p>GENERAL SPECIFICATIONS</p>	<ol style="list-style-type: none"> 1. Monitor shall be based on micro controller system. 2. GM Detectors with efficiency better than 10%. 3. Contamination detection for both sides of right hand and left hand, left foot and right foot and clothing. 4. Hand insertion shall be vertical to avoid dust and water collection on the detector sensing area. 5. Must has display for 1. Counts in progress 2. Ready 3. Clear4. Contamination and 5. In case of contamination, message shall be displayed in English and Tamil. 6. One relay with 2 C/O contacts shall energize for 5 Sec (provision for changing this time) in case of "CLEAR" and it remains reenergise otherwise. 7. Monitor casing shall be covered totally to prevent dust and rat entry. All electrical connections shall be through Bulkhead connectors along with mating connectors. 8. P rovision for computer interface shall be made available. 9. Input power: 240 V AC +/-10%50 Hz with ON/OFF Switch. 10. Ambient: Temperature upto 45 Deg C and RH upto 90%. 11. Monitor shall be mounted on a trolley with Wheel. 12. Measurement range: 0-9999 CPS. 	<p>OEM should submit an undertaking regarding its quality and specifications.</p> <p>Board should check or measure the product.</p> <p><i>M.L.</i></p> <p><i>Ashok Kumar, MS, SRM</i></p>	<p>As per specification.</p>

P.O.  Member: I.  2. *M.V.G.*  3. *Pr*  4. *Prasanna*  5. *Pr*  6. *Pr*

(9)

(247)

	<p>13. Alarm range: 1-9999 CPS. 14. Acquisition time, Background count time, Background updating time shall be user programmable. 15. Provision for enabling/disabling individual detectors is required. 16. Test points for all Power supplies may be provided. 17. Cloth monitoring will be done first. If it is clear allow 10 sec time (this shall be programmable) to step in for monitoring hand and foot. If that also shows clear, the above said relay at S.no6 operates. Provision shall exist to make cloth monitoring enable/disable.</p>	<p>OEM should submit an undertaking regarding its quality and specifications. Board should check or measure the product.</p>	<p>As per specification.</p>
<p>Requirement for sign-off</p>	<p>Demonstration to the uses while delivering the product.</p>		
<p>Training of Staff (Medical, Paramedical, Technicians)</p>	<p>Training of users in handling and basic maintenance shall be provided.</p>		
<p>Warranty</p>	<p>3 years warranty.</p>		
<p>Operating Manuals, Service Manuals, other Manuals.</p>	<p>Advanced maintenance tasks required shall be documented user, technical and maintenance manuals to be supplied in English/ Hindi language along with visit Log Sheet</p>		

101. BETA GAMMA COUNTING SYSTEM

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
<p>GENERAL SPECIFICATIONS</p>	<ol style="list-style-type: none"> 1. Detector: End window GM tube with area density of window: 1.5 to 2.0 mg/cm². 2. Efficiency of system: Beta detection: Typical Efficiency of GM tube Detector for Beta radiation (Sr-90) at 2 cm distance ~ 6% 3. Slope of G.M. tube may be less than 5 % per 100 volts 4. Solid State Micro-Controller may be provided. 5. Operating Modes should have Provision of preset timer, preset counts, CPS & CPM 6. HV Supply may be adjustable to more than 1000 V by setting 7. Should have provision of data storage and provision of data transfer 8. Power: 240 V (± 10%), 50 Hz AC Mains 9. Holder assembly: Planchet holder assembly having provision of mounting the G.M. tube at its top and with nearly 6 tray mounting grooves and SS tray with central hole of approx. 33 mm diameter 10. Lead Shield: Lead shield rings (nearly 50 mm Pb with 3mm Al liner) with door arrangement for installing GM tube and planchet holder is required. 	<p>Board should check or measure the product.</p>	<p>As per specification.</p>
<p>Requirement for sign-off</p>	<p>Demonstration to the uses while delivering the product.</p>	<p><i>M. S. S. & Co.</i></p>	<p><i>M. S. S. & Co.</i></p>

P.O. _____ Member-I. _____

1. _____ 2. *M. S. S. & Co.* 3. _____ 4. *Quality* 5. _____ 6. *AK*

Training of Staff (Medical, Paramedical, Technicians)	Training of users in handling and basic maintenance shall be provided.	OEM should submit an undertaking regarding its quality and specifications.	As per specification.
Warranty	3 years warranty.	Board should check or measure the product.	
Operating Manuals, Service Manuals, other Manuals.	Advanced maintenance tasks required shall be documented user, technical and maintenance manuals to be supplied in English/ Hindi language along with visit Log Sheet		

102. PORTABLE GAMMA SPECTROMETER

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
GENERAL SPECIFICATIONS	<ol style="list-style-type: none"> 1. Detector Dimensions :4.75" L(12.1cm) x 2.5" W(6.4 cm) x 1.22" H(3.1cm) (approx) 2. Should be light weight. 3. Should be Easy to operate 5 button keypad 4. Audio & visual alarm with vibration may be provided. 5. Micro controller based architecture may be provided. 6. Sodium doped Cesium Iodide crystal (CsI (Na) ½ " x 1 ¾ " (13mm x 38mm) 7. Internal Lithium Ion battery with charging LCD indicator Battery life up to 10 hours. Battery recharging time up to 4 ½ hours using wall charger or PC USB 	OEM should submit an undertaking regarding its quality and specifications. Board should check or measure the product.	As per specification.
ENVIRONMENTAL	<ol style="list-style-type: none"> 1. Operating Temperature : 14°F (-10°C) to + 113°F (+45°C) 2. Shock Resistance : up to 1 meter drop test 3. DISPLAY 4. Viewing area : 2 ½ " L (6.35 cm) 5. LCD with backlight 128 x 128 resolution 6. Backlight auto off : .180 seconds with push button auto on 7. Battery level indicator 8. Warning Messages : move closer, move away, high dose move away, exceeds threshold, dose rate above threshold, stabilization off on ID, stabilization required re calibration required , memory is full, neutrons detected (with optional Neutron Detector) 9. Real time spectrum display shows accumulated spectrum 10. LCD with backlight 1'28 x 128 resolution 11. Menu feature selection controlled by a five push button actuation 12. Selectable features : Automatic or Manual Modes Stabilization mode, CPS Alarm Threshold, Dose Alarm Threshold, Identification Time 13. PC configurable : Reports, Date & Time, Units of Measure, Language etc 14. Selectable displayed units – CPS, R/hr, Sv/hr 15. RESPONSE / SENSITIVITY 	<p><i>M.D.</i></p> <p><i>ADDI/level/ CAPS, R/hr, Sv/hr</i></p>	

P.O. *[Signature]* Member:1. *[Signature]* 2. *[Signature]* 3. *[Signature]* 4. *[Signature]* 5. *[Signature]* 6. *[Signature]*


<p>ENVIRONMENTAL</p> <ul style="list-style-type: none"> • Operating Temperature : 14°F (-10°C) to + 113°F (+45°C) • Shock Resistance : up to 1 meter drop test 	<p>OEM should submit an undertaking regarding its quality and specifications.</p>	<p>AS per specification.</p>
<p>DISPLAY</p> <ul style="list-style-type: none"> 1. Viewing area : 2 1/2 " L (6.35 cm) 2. LCD with backlight 128 x 128 resolution 3. Backlight auto off : 180 seconds with push button auto on 4. Battery level indicator 5. Warning Messages : move closer, move away, high dose ate move away, exceeds threshold, dose rate above threshold, stabilization off on ID, stabilization required re calibration required , memory is full, neutrons detected (with optional Neutron Detector) 6. Real time spectrum display shows accumulated spectrum 7. LCD with backlight 1'28 x 128 resolution 8. Menu feature selection controlled by a five push button actuation 9. Selectable features : Automatic or Manual Modes Stabilization mode, CPS Alarm Threshold, Dose Alarm Threshold, Identification Time 10. PC configurable : Reports, Date & Time, Units of Measure, Language etc. 11. Selectable displayed units – CPS, R/hr, Sv/hr 	<p>Board should check or measure the product.</p>	<p>ML</p>
<p>RESPONSE / SENSITIVITY</p> <ul style="list-style-type: none"> 1. Energy Range : 30 KeV – 3.0 MeV (Gamma) 2. Dose Rate Range : from 0.01 μSv/hr to 10.0 mSv/hr 3. Resolution : 9% or better at 662 KeV 4. Gamma Spectrum : 1024 Channels 5. Optional neutron detector sensitivity : 0.6 CPS/NV 6. Supports auto stabilization – Range 41°F (5°C) to 131°F 	<p>AS per specification.</p>	<p>ML</p>

PO Member 1 2 m/e 3 4 5 6

Requirement for sign-off	Demonstration to the uses while delivering the product.	OEM should submit an undertaking regarding its quality and specifications.	As per specification.
Training of Staff (Medical, Paramedical, Technicians)	Training of users in handling and basic maintenance shall be provided.		
Warranty	3 years warranty.		
Operating Manuals, Service Manuals, other Manuals.	Advanced maintenance tasks required shall be documented user, technical and maintenance manuals to be supplied in English/Hindi language along with visit Log Sheet	Board should check or measure the product.	

103. MICRO R SURVEY METER

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
GENERAL SPECIFICATIONS	<ol style="list-style-type: none"> 1. Detector: Plastic scintillate detector 2. Radiation Detected:(Beta/Gamma) 3. Count Rate Range: Upto 100 KCPS, Upto 100 KCPM 4. Dose rate Range:1µR/h to 200 mR/h, 0.01 µSv/h to 1.99 mSv/h with Auto RangeSelection 5. Accumulated Dose:1µR to 999999µR / 00000.01µSv to 99999.99µSv with time h:mm 6. Display units: µR/h, mR/h, µSv/h 7. Alarm: Audio & visual settable alarm for dose rate and count rate 8. Time Constant: Auto or Manual 9. Accuracy:±15% (Cs-137) 10. Micro Controller Based 11. Display:16 x 2 Character 12. Back-lit LCD: Backlit 13. Auto off: Turn off automatically after 10 sec & ON by pressing any key. 14. Bargraph:4 decade bar graph for dose rate upto 10mR/h. 15. Chirp: Buzzer sound per count. 16. User Interface: Menu driven with STORE, UP, DOWN, LEFT, RIGHT, ENTER & UNIT, CHIRP. 17. Calibration Factor: User settable calibration factor for dose & dose rate range:-50% to +50% 18. Data Storage and Retrieval: Last 1000 readings with Serial Number, Real Date & Time for Dose Rate, Count Rate and Preset Time. 19. Recall Menu: Recall of saved data. 	<p>OEM should submit an undertaking regarding its quality and specifications.</p> <p>Board should check or measure the product.</p>	As per specification.


 Mr. N. S. Rao
 ADDITIONAL CHIEF INSPECTOR

P.O.  Member I.  2.  3.  4.  5.  6. 

	<p>20. Block Menu: Data transfer to PC via serial port delete with FROM & TO range. Serial Port: RS232, 9600bps.EHT: Suitable Voltage for the detector. Power: Rechargeable batteries with battery charger.</p> <p>21. A provision should be available for the batteries to be charged without removing them from instrument,</p> <p>22. Accessories (with each unit): Additional1 set of Rechargeable batteries, Battery charger, carrying case to be provided with this instrument.</p>	<p>OEM should submit an undertaking regarding its quality and specifications.</p> <p>Board should check or measure the product.</p>	<p>As per specification.</p>
<p>Requirement for sign-off</p>	<p>Demonstration to the uses while delivering the product.</p>		
<p>Training of Staff (Medical, Paramedical, Technicians)</p>	<p>Training of users in handling and basic maintenance shall be provided.</p>		
<p>Warranty</p>	<p>3 years warranty.</p>		
<p>Operating Manuals, Service Manuals, other Manuals.</p>	<p>Advanced maintenance tasks required shall be documented user, technical and maintenance manuals to be supplied in English/ Hindi language along with visit Log Sheet</p>		

104. PORTABLE ALPHA CONTAMINATION MONITOR

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/As desired
<p>GENERAL SPECIFICATIONS</p>	<p>DETECTOR * Radiation Detected Detector: Alpha</p> <ul style="list-style-type: none"> Built-in-ZnS Scintillator covered with aluminized mylar & with 2" φ PM tube 9256B of M/s EMI or equip. Scintillation Window Circular window of 11cm diameter with operating area >80% Efficiency background < 30 Counts/hrs <p>SCALER</p> <ul style="list-style-type: none"> Counting Capacity 0-9999 counts Display - 0.5" Height, 4 digit LCD <p>GATE TIME</p> <ul style="list-style-type: none"> 1 Minute or Manual, with built in timer <p>TIMER</p> <ul style="list-style-type: none"> Manual Mode Controlled by START / STOP switches Auto Mode Starts with START switch & stops by itself after 1 minute Reset To reset SCALER & Timer 	<p>OEM should submit an undertaking regarding its quality and specifications.</p> <p>Board should check or measure the product.</p>	<p>As per specification.</p> <p><i>MKS</i></p> <p><i>Additional copy is sent</i></p>

P.O. *[Signature]* Member 1 *[Signature]* 2. *[Signature]* 3. *[Signature]* 4. *[Signature]* 5. *[Signature]* 6. *[Signature]*

(9)


[Handwritten mark]

	<p>CONTROL & INDICATIONS</p> <ul style="list-style-type: none"> • Power on • Toggle switch with LED indication • Gate on indication • LCD Colour • Low Batt indication • LCD Dot, when battery Voltage falls below 5.5 V • Over Range Indication • LCD Dot, when count exceeds 9999 • HV • 500V- 1000V DC (Set as suitable for detector) • Power • 7.5VDC : 1.5V x 5, R14 size batteries as well as battery eliminator • Accessory • Battery Eliminator 	<p>OEM should submit an undertaking regarding its quality and specifications.</p> <p>Board should check or measure the product.</p>	<p>As per specification.</p>
<p>Requirement for sign-off</p>	<p>Demonstration to the uses while delivering the product.</p>		
<p>Training of Staff (Medical, Paramedical, Technicians)</p>	<p>Training of users in handling and basic maintenance shall be provided.</p>		
<p>Warranty</p>	<p>3 years warranty.</p>		
<p>Operating Manuals, Service Manuals, other Manuals.</p>	<p>Advanced maintenance tasks required shall be documented user, technical and maintenance manuals to be supplied in English/Hindi language along with visit Log Sheet</p>		

105. IODATED TAB – QRs/TDS NOT REQUIRED.

106. ELECTRONIC DOSIMETER (DIGITAL):

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
GENERAL SPECIFICATIONS	<ol style="list-style-type: none"> 1. Detector : Geiger-Muller tube 2. Dose Equivalent (DE) measurement range :1 µSv-25 Sv 3. Dose Equivalent rate (DER) measurement range :0.1 µSv/h – 100mSv/h 4. Energy range :48KeV- 3.0 MeV 5. DE measurement accuracy :+/- 15% 6. DER measurement accuracy :+/- (10+0.0005/h + 0.05) %, (H-DER value) 7. Energy response relative to 0.662 MeV 8. in the range from 0.048-3.0 MeVno more than 29% 9. Thresholds :2 independent thresholds for both DE and DER 10. Alarm type :Visual, Audible, Vibration 	<p>OEM should submit an undertaking regarding Board should check or measure the product</p>	<p>As per specification.</p>

Approved by

 Approved by


P.O.  Member:1.  2.  3.  4.  5.  6. 

	<ol style="list-style-type: none"> 11. Memory : Non-volatile 12. P C Communication : USB 13. Data Exchange : GPS 14. Power Supply : One rechargeable battery LIR2450 3.8 (+0.4; - 0.2) V 15. Battery Lifetime : PM1211-02 at least 4 months with GPS used a least 15 days 16. Operating temperature : From -20°C to 60 °C 17. Humidity : Up to 98 % at 35°C 18. Atmospheric pressure : From 84 to 107.7 KPa 19. Ingress protection : IP54 20. Dimensions : 128 x 48 x 20 mm 21. Weight : 1340 G (including battery) 	<p>OEM should submit an undertaking regarding its quality and specifications.</p> <p>Board should check or measure the product.</p>	<p>As per specification.</p>
<p>Requirement for sign-off</p>	<p>Demonstration to the users while delivering the product.</p>		
<p>Training of Staff (Medical, Paramedical, Technicians)</p>	<p>Training of users in handling and basic maintenance shall be provided.</p>		
<p>Warranty</p>	<p>3 years warranty.</p>		
<p>Operating Manuals, Service Manuals, other Manuals.</p>	<p>Advanced maintenance tasks required shall be documented user, technical and maintenance manuals to be supplied in English/ Hindi language along with visit Log Sheet</p>		

107. THERMO LUMINESCENT DOSIMETER (TLD) :

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
<p>GENERAL SPECIFICATIONS</p>	<ol style="list-style-type: none"> 1. Light Source : Tungsten Halogen Lamp 2. Diffraction : Grating (lines/mm) 1800 3. Switching of Light Source : Automatic 4. Wavelength Setting And Scanning : Automatic 5. Type of Spectrophotometer : VISIBLE 6. Type of Optical System : Split Beam 7. Monochromator Type : Czerny-turner 8. Detector Type : Photodiode 9. Spectral Bandwidth Type : Fixed Bandwidth 10. Source Wavelength : Minimum 320 nanometer 11. Source Wavelength : Maximum 1100 nanometer 12. Resolution : 0.5 nanometer 13. Wavelength Accuracy (+/-) : 0.5 nanometer 14. Bandwidth (nm) : 5.0 15. Focal length (mm) : 150 to 199 	<p>OEM should submit an undertaking regarding its quality and specifications.</p> <p>Board should check or measure the product.</p>	<p>As per specification.</p> <p><i>ML</i></p> <p><i>As per specification</i></p>

P.O. R Member 1 [Signature] 2 [Signature] 3 [Signature] 4 Queller 5 [Signature] 6 [Signature]

	<ol style="list-style-type: none"> 16. Photometric measurement modes : Transmittance, Absorbance, Concentration (Wavelength, time) 17. Photometric Absorbance : (Max) (+/-) 5 18. Photometric Absorbance Accuracy : (Max) (+/-) 0.002 19. Photometric Transmittance : (Max) (+/-) 100 percent 20. Photometric Transmittance Accuracy : (Max) (+/-) 0.002 percent 21. Photometric Reflectance : (Max) (+/-) 0 percent 22. Display In : built display 23. Display type : LCD touch screen 24. Display Size : 7 inch 25. Test result printing : Through external printer 26. If inbuilt printer : Type of printer N/A 27. Internal storage : (GB) 32 28. Maximum Path Length of sample : 10 millimeter 29. Number of Cuvettes supplied-inclusive in the scope of supply : 2 30. Spares and Consumables inclusive in the scope of supply : No 31. Minimum Operating Temperature : 10 degree Celsius 32. Maximum Operating Temperature : 50 degree Celsius 33. Operating Humidity : (RH) (%) at 40 degree C 85 percent 34. Onsite Warranty : 2 year 35. Availability of Spares (at extra cost) : 10 year 36. Availability of UL/CE Certification as per EN 61010-1:2010 Safety requirements for electrical equipment for measurement, control, and laboratory use General requirements 37. Conformance to EMC/EMI as per EN 61326-1:2013 Electrical equipment for measurement, control and laboratory use 38. Availability of Test Reports from Central Govt / NABL approved / ILAC accredited lab to prove conformity to the specification 	<p>OEM should submit an undertaking regarding its quality and specifications.</p> <p>Board should check or measure the product. OEM should submit an undertaking regarding</p>	<p>As per specification. As per specification.</p>
<p>Requirement for sign-off</p> <p>Training of Staff (Medical, Paramedical, Technicians)</p>	<p>Demonstration to the users while delivering the product.</p> <p>Training of users in handling and basic maintenance shall be provided.</p>		
<p>Warranty</p> <p>Operating Manuals, Service Manuals, other Manuals.</p>	<p>3 years warranty.</p> <p>Advanced maintenance tasks required shall be documented user, technical and maintenance manuals to be supplied in English/ Hindi language along with visit Log Sheet</p>		

ML

ADG (In-charge) C&IT, NCC, Q&A

P.O. *[Signature]*

Member: 1. *[Signature]*

2. *[Signature]*

3. *[Signature]*

4. *[Signature]*

5. *[Signature]*

6. *[Signature]*

108. PORTABLE DECONTAMINATION APPARATUS:

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
GENERAL SPECIFICATIONS	<ul style="list-style-type: none"> DAP is made up of-Stainless Steel Provision -For pressurizing manually as well as from a vehicle compressor Uses-DAP is designed for working at a safe distance from the contaminated surface Shelf Life-5 Years for all non metallic components and 10 years for metallic components The DAP is meant for decontamination purposes on a small scale. 	OEM should submit an undertaking regarding its quality and specifications.	As per specification.
Requirement for sign-off	Demonstration to the uses while delivering the product.	Board should check or measure the product.	
Training of Staff (Medical, Paramedical, Technicians)	Training of users in handling and basic maintenance shall be provided.		
Warranty	3 years warranty.		
Operating Manuals, Service Manuals, other Manuals.	Advanced maintenance tasks required shall be documented user, technical and maintenance manuals to be supplied in English/ Hindi language along with visit Log Sheet		

109. BATTERY OPERATED AIR SAMPLER WITH FILLER PAPER

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
GENERAL SPECIFICATIONS	<ul style="list-style-type: none"> Cat No :710-0869 Air Flow :100 l/min Use with :90mm Petri dishes Portable :Yes Battery :Rechargeable Battery Life :70 000 litres Speed Sensor :Yes 	OEM should submit an undertaking regarding its quality and specifications.	As per specification.
Requirement for sign-off	Demonstration to the uses while delivering the product.	Board should check or measure the product.	
Training of Staff (Medical, Paramedical, Technicians)	Training of users in handling and basic maintenance shall be provided.		
Warranty	3 years warranty.		
Operating Manuals, Service Manuals, other Manuals.	Advanced maintenance tasks required shall be documented user, technical and maintenance manuals to be supplied in English/ Hindi language along with visit Log Sheet		

ADG...

M...

P.O. _____ Member: 1. _____ 2. *M...* 3. *P...* 4. *Qu...* 5. *P...* 6. *P...*

5
242

110. MASK OXYGEN CHILD NON-REBREATHER (UNIVERSAL SIZE)

CRITERIA	SPECIFICATIONS	Procedure suggested for trial for Board of Officers	Result expected/ desired
GENERAL SPECIFICATIONS	<ul style="list-style-type: none"> • Nebulizer Mask : Child • Sterility : Sterile • Utility : Single use – Disposable • Soft Clear Medical Grade Material : 100 % PVC • Connecting Channel or tube : With Chamber or Swivel connector: With Edges of the Mask : Feathered • Compatible with all kind of Nebulizers • Mask in Anatomical form • Nebulizing Rate (CC/min) : 0.2 • Adjustable straps 	OEM should submit an undertaking regarding its quality and specifications. Board should check or measure the product.	As per specification.
Requirement for sign-off	Demonstration to the uses while delivering the product.		
Training of Staff (Medical, Paramedical, Technicians)	Training of users in handling and basic maintenance shall be provided.		
Warranty	3 years warranty.		
Operating Manuals, Service Manuals, other Manuals.	Advanced maintenance tasks required shall be documented user, technical and maintenance manuals to be supplied in English/ Hindi language along with visit Log Sheet		

(Dr. Jalaj Sinha)
CMO(SG), BSF
Member-I

(Dr. M Venkata Rao),
CMO(SG), CH, CRPF
Member-II

(Dr. A K Sharma)
CMO(SG), ITBP
Member-III

(Dr. Sanjay Chaudhary)
Comdt.(Med.), SSB,
Member-IV

(Dr. Jishnu Barua),
TC(Med.), NSG
Member-V

(Dr. Ajit Mukherjee)
PSO(LS), BPR&D
Member-VI

(Dr. Ashok Kumar Trivedi)
DIG/Director(Med.) CISF
Presiding Officer

APPROVED / NOT APPROVED

Rabun Asthane

DG BSF

Recommendation of Addl. Comd. BSF
Recommendation / Not Recommended
Hase