All India Institute of Medical Sciences (AIIMS) Bhopal  
Saket Nagar, Bhopal 462020  

**Pre-Bid Clarification and Amendment No. 1**  
Dated: 9th July 2015  

**Note:** All the clarifications & amendments are the integral part of Tender. Vendors are requested to download this Pre-Bid clarification and amendment and enclose them with technical bid.


Subsequent to Pre-Bid queries sought for clarification in Pre-Bid meeting/ or queries received through e-mail (stores@aiimsbhopal.edu.in) /hardcopy till 6th July 2015 upto 17:30 hrs, the following clarification to Pre-Bid queries are circulated for the wider information to the prospective tenderers and requested them to download Pre-Bid clarification and submit the same along with their “Technical Bid” envelope.

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Query</th>
<th>Clarification</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 i)</td>
<td>Do you need AMC or CMC, please clarify?</td>
<td>Kindly quote the price for Annual Comprehensive Maintenance Contract (ACMC) for three years after warranty period of 3 years.</td>
</tr>
</tbody>
</table>
| ii)   | For Item No. 5, Refrigerated High Speed Centrifuge a) Vacutainer tube rotor, adaptor how many tubes are required?  
  b) The rotor of 6x50 ml, is this rotor for culture tube or for round bottom tube. Also confirm the required rpm & rcf value as per the rotor.  
  c) Swing out rotor please confirm about the adaptors for 50 ml, 15 ml tube. Is this for culture tube or round bottom tube. | Please refer to Amendment 1, Point No.1 |
| iii)  | For Item No. 8b. Laboratory Autoclave.  
  What is desired temperature and pressure?  
  Do you need timer in autoclave? | Please refer to Amendment 1, Point No.2 |
| (v)   | For Item No. 10, Laminar Hood.  
  a) Please confirm, do you need laminar hood or Biosafety Cabinet?  
  b) Some of the specifications mentioned in tender are only available in Biosafety Cabinet. | Please refer to Amendment 1, Point No.3 |
| 2 i)   | Terms for delivery of items are not mentioned in the tender | Please refer to Point 2, Chapter 3 of Notice inviting tender |
| ii)   | For Item No. 5, Refrigerated High Speed Centrifuge:  
  a) Please clarify the run time setting, is it 99 hr 59 min or 9h 59 min  
  b) We request you to change the ambient temperature range to 15-35°C | Please refer to Amendment 1, Point No.1 |

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*signature*

Ashok Kumar  
Mammalian Biology  
Department of Biochemistry  
All India Institute of Medical Sciences  
Saket Nagar, Bhopal 462020
<table>
<thead>
<tr>
<th>3 Queries raised by M/S Citizen Industries Pvt Ltd</th>
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</thead>
<tbody>
<tr>
<td>i) For Item No. 1. Individual Ventilator Caging (IVC) System: a) The bidder suggested that IVC doesn’t come with borosilicate water bottles. Further, since polysulphone is the better among all the materials, it should be incorporated in the requirement.</td>
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<tr>
<td>Please refer to Amendment 1, Point No.4</td>
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<tr>
<td>ii) For Item No. 3a. Rabbit Cages with Rack</td>
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<tr>
<td>Vendor suggested that the size (450 mm X 600mm X 450 mm) of rabbit cages is smaller.</td>
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<tr>
<td>No change</td>
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<tr>
<th>4 Queries raised by M/S Saksham Industries</th>
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<tbody>
<tr>
<td>i) Vendor has mentioned that their firm is registered with National Small Industries Corporation and there firm has a valid NSIC certificate. The vendor has requested to exempt EMD as per rule 157 of chapter 6 of GFR.</td>
</tr>
<tr>
<td>EMD exemption is permitted with valid NSIC certificate as per rule 157 of chapter 6 of GFR.</td>
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</tbody>
</table>
Amendment 1.

Tender No. 195 AIIMS BHOPAL/MC/RC/ANIMAL HOUSE EQUIPMENTS/2015-16/01

Ref. Advertisement dated 25.06.2015 and Pre-bid meeting held on 6th July 2015 and Pre-Bid queries received till July 6th 2015, 17:30 PM

Following amendments are hereby authorized in the subjected Tender Enquiry by the approval of the competent authority of AIIMS Bhopal.

Amendment Point No. 1. Schedule of Quantity and Technical Specifications

Item No. 5. Refrigerated Table Top Centrifuge

For:

- High Speed Refrigerated table top centrifuge, microprocessor controlled, freely programmable, spin control comfort with LCD graphic display screen (for centrifugation in angle rotors, swing-out rotors and microtiter plate rotors)
- Maximum speed: 14,000 rpm or more
- Max. RCF:
  - Fixed Angle Rotor: ≥20,000 x g
  - Swing-bucket rotor: ≥4500 x g
- Max. Rotor Capacity: 4 x 250 ml
- Drive System: Brushless high frequency motor
- Temp. Set Range: -8°C to 40°C
- Temp. Control Range: 2°C to 40°C
- Cooling: CFC/ HCFC free
- Run Time: 99hr 59min; Hold
- Temp. Control Accuracy: ± 2°C of set temperature
- Ambient temp. range: 15 to 40 ºC
- Speed Control Range: 300 rpm to 20,000 rpm
- Speed Control Accuracy: ± 25 rpm
- Programmability: 20 programs or more
- Acceleration/ Deceleration Profile: 9/10
- Power Input: 200-240 VAC
- Should be CE certified/FDA/BIS approved product
- Vendor should quote for 3 years AMC
- Should be supplied with compatible rotors

Compatible Swinging-Bucket Rotor
Max. Speed: 3750-4,500 rpm
Max. RCF: 3,500 – 5,000 x g
Capacity: 4 x 250 ml
(Rotor should be supplied with bucket and adaptor for 50/15 ml tubes)

Compatible Fixed Angle Rotor with lid
Max. Speed: ≥11,000 rpm
Max. RCF: ≥15,000 x g
Capacity: 6 x 50 ml
(Rotor should be supplied with adaptor for 50/15 ml tubes)

Drs. Ashok Kumar
Assistant Professor
Department of Biochemistry
AIIMS Bhopal
Bhopal - 462016
Read:

- High Speed Refrigerated table top centrifuge, microprocessor controlled, freely programmable, spin control comfort with LED display (for centrifugation in angle rotors, swing-out rotors and microtiter plate rotors)
- Maximum speed: 14,000 rpm or more
- Max. RCF:
  - Fixed Angle Rotor: ≥20,000 x g
  - Swing-bucket rotor: ≥4500 x g
- Max. Rotor Capacity: 4 x 250 ml
- Drive System: Brushless high frequency motor
- Temp. Set Range: -8°C to 40°C
- Temp. Control Range: 2°C to 40°C
- Cooling: CFC/ HCFC free
- Run Time: 9hr 59min or Hold
- Temp. Control Accuracy: ± 2°C of set temperature
- Ambient temp. range: 15 to 37°C
- Speed Control Range: 300 rpm to 20,000 rpm
- Speed Control Accuracy: ± 25 rpm
- Programmability: 20 programs or more
- Acceleration/ Deceleration Profile: 9/10
- Power Input: 200-240 VAC
- Should be CE certified/FDA/BIS approved product
- Vendor should quote for 3 years ACMC
- Should be supplied with compatible rotors

Compatible Swinging-Bucket Rotor
- Max. Speed: ≥3750-4500 rpm
- Max. RCF: ≥3,500 – 5,000 x g
- Capacity: 4 x 250 ml
(Rotor should be supplied with bucket and following adaptors
- 4 Nos. of adaptors having 4 spaces for 50 ml conical bottom tubes/adaptor
- 4 Nos. of adaptors having 8-12 spaces for 15 ml conical bottom tubes/adaptor
- 4 Nos. of adaptors having 12-16 spaces for 5 ml vacutainer tubes/adaptor

Compatible Fixed Angle Rotor with lid
- Max. Speed: ≥11,000 rpm
- Max. RCF: ≥15,000 x g
- Capacity: 6 x 30-35 ml round bottom tubes
- 6 Nos. of adaptors for 12-15 ml conical bottom tubes

Amendment Point No. 2. Schedule of Quantity and Technical Specifications

Item No. 8b. Laboratory Autoclave

For:
- Automatic adjustable working pressure system.
- Double walled.
- Inside boiler made of stainless steel & outside mild steel finished in cream enamel.
- Radial locking system lid.
- The panel is provided with on/off switch, pressure gauge, steam release valve & indicators to show the working of mains & pressure control system.
- Electrically operated on 220V A/C with stainless steel basket.
- Digital Temperature controller with inbuilt timer that will cut off the heaters automatically after lapse of preset time at the preset temperature.
• Microprocessor based PID controller.
• Height: 600mm.
• Diameter inside: 450 mm
• Should be FDA or CE or BIS approved product

Read:
• Automatic adjustable working pressure system. Working Pressure 15 psi or more.
• Double walled
• Temperature Range: 121 °C to 135 °C
• Inside boiler made of stainless steel & outside mild steel finished in cream enamel.
• Radial locking system lid.
• The panel should be provided with on/off switch, pressure gauge, steam release valve & indicators to show the working of mains & pressure control system.
• Electrically operated on 220V A/C with stainless steel basket.
• Digital Temperature controller with inbuilt timer that will cut off the heaters automatically after lapse of preset time at the preset temperature.
• Microprocessor based PID controller.
• Height: 600mm ± 10%
• Diameter inside: approximate 450 mm ± 10%
• Should be FDA or CE or BIS approved product

Amendment Point No. 3. Schedule of Quantity and Technical Specifications

Item No. 10. Laminar Hood

For
• The basic Equipment shall consist of a HEPA filter, pre filter, suitable blower assembly, necessary lighting, indicators and controls for the cabinet. The Equipment should be mounted on a stand with levelling feet.
• Type of Flow: Vertical – Re-circulatory
• Approximate dimensions: 3ft (Width) X 2ft (Depth) X 6 ft (Height)
• The HEPA filter should have rated efficiency of 99.97% (or better) at 0.3 microns to provide product protection of Class 100 or exceeding Class 100 requirements of Federal Standards 209E or equivalent ISO within the work.
• Pre-Filter with Synthetic, non-woven polyester fibers having casing of enamel painted CRCA frame with Retention of 10 - 15 Micron and 90 % Efficiency.
• Material of construction: Main body and rear panel: Electro-galvanized steel or Mild Steel, oven baked epoxy powder coated finish. Side window (panels): UV stabilized transparent Perspex or polycarbonate. Work table (surface): SS304 or SS316
• Blower Assembly: DIDW type blower system with high RPM motor, enclosed in a powder coated MS casing suitably suspended in a pair springs & connected to the filter chamber through flexible canvas duct.
• Front Windows Acrylic, fixed by clamps.
• Illumination with Fluorescent tubes with diffusers. Light Intensity at Work Surface: 800-1000 lux/75-90 foot candles
• Laminar Airflow Velocity: Approx. 90 feet per minute (fpm) +/-10% average velocity measured 30 mm from the filter face. Uniformity +/-20% of average or better.
• Calibration free Gas burner facility on working bench. Air pressure indicator with manometer (Differential Pressure Gauge with Scale display in cms of water). Drain valve with smooth drainage arrangement. Exhaust ducting as per site requirement
• UV Germicidal lamp intensity >40 microwatt/sq. cm. over the entire work surface
• Switched and indicators: Individual switches and indicator lamps for blower motor, fluorescent
lamp and UV lamp.
- Spare HEPA Filters and PRE Filters- 2 SETS EACH
- Other fitting required for attaching auxiliary services are 1. Electrical outlet socket (5 Amp rating) qty: 2 nos. 2. Valves for gas service-one each for gas and vacuum.
- Should be CE or FDA or BIS approved product
- Vendor should quote for 3 years AMC

**Read**

- The basic Equipment shall consist of a HEPA filter, pre filter, suitable blower assembly, necessary lighting, indicators and controls for the cabinet.
- Vertical Air Flow Type
- Approximate dimensions: 3ft (Width) X 2ft (Depth) X 6 ft (Height)
- Microprocessor Digital Controller with LCD back light display
- Easy to replace filter from the back panel
- Air volume – 980 m³/h
- Leak proof one piece cabinet structure
- Multi Stage Velocity Control, Total using timer, UV/FL on/off
- The HEPA filter should have rated efficiency of 99.97% (or better) at 0.3 microns to provide product protection of Class 100
- Purity – 0.3 μm
- Particle Removal – 99.99 %
- Pre Filter – 3 – 30 μm particle removal
- Air Flow Velocity – 0.3 – 0.6 m/sec
- Noise level – 55-60 DbA
- Light - UV 40W X 1 EA, FL 40W X 1EA
- Material – Inner - SS 304
  - Outer – Epoxy Powder Coated Electro Galvanized Steel
- Door – Tempered Safety Glass, Sliding Door
- Other fitting required for attaching auxiliary services are 1. Electrical outlet socket (5 Amp rating) qty: 2 nos. 2. Valves for gas service-one each for gas and vacuum.
- Should be CE or FDA or BIS approved product

**Amendment Point No. 4. Schedule of Quantity and Technical Specifications**

**Item No. 1. Individual Ventilator Caging (IVC) system**

**For**

- Supply of clean air: The system should supply clean air to each cage individually depending upon the user requirement.
- Evacuation of contaminated air: The system should evacuate the contaminated air from each cage, passes it through filters and then discharges it out of the animal room.
- The system should be comprised of Supply and Exhaust Blower, IVC cage rack and IVC cages with following specifications.
- IVC Rack capacity to be minimum of 96-120 cages for housing Mice (double sided)
- IVC Rack should be made up of Stainless Steel AISI304 & fully autoclavable
- Rack must be mobile with stainless steel/nylon casters with sealed bearings with foot operated brakes on all four wheels (4 No’s of extra castor should be supplied with the unit)
- AHU must be complete for necessary connections like HEPA filtered supply and exhaust air delivery. Regulatory certification (UL/ CE/ISO)/ proof of filter integrity test for HEPA filters is mandatory
- AHU should have touch screen with color display for monitoring operating status and adjusting settings.
- Touch screen to allow "night mode" display to avoid disruption of nocturnal activity.
- IVC Rack to operate both in positive or negative pressure mode
- Built in measurement of Temperature and Humidity monitoring of supply and exhaust air
- Even air diffusion into each cage
- IVC Unit should be supplied with 100 compatible fully autoclavable clear polysulfonecages for mice with full visibility. Price of mice cage should also be quoted separately. Number of cages may be increased or decreased
- Filtered cage top must be with gasket and top to have hinged filter retainer
- The top of mice cage should have arrangement to keep water bottle
- Water bottle should be made up of PP/borosilicate
- Cages to be equipped with feed tray for holding rodent feed
- Each cage should have a barrier filter
- Protection of animals against Equipment disorder and electricity breakdown
- Voltage Requirement should be 200-240V (AC), single phase 50Hz
- Vendor should quote for 3 years AMC

Read

- Supply of clean air: The system should supply clean air to each cage individually depending upon the user requirement.
- Evacuation of contaminated air: The system should evacuate the contaminated air from each cage, passes it through filters and then discharges it out of the animal room.
- The system should be comprised of Supply and Exhaust Blower, IVC cage rack and IVC cages with following specifications.
- IVC Rack capacity to be minimum of 96-120 cages for housing Mice (double sided). L1 cost of whole system will be calculated on per cage basis
- IVC Rack should be made up of Stainless Steel AISI 304 & fully autoclavable
- Rack must be mobile with stainless steel/nylon casters with sealed bearings with foot operated brakes on all four wheels (4 No’s of extra castor should be supplied with the unit)
- AHU must be complete for necessary connections like HEPA filtered supply and exhaust air delivery. Regulatory certification (UL/ CE/ISO)/ proof of filter integrity test for HEPA filters is mandatory
- AHU should have touch screen with color display for monitoring operating status and adjusting settings.
- Touch screen to allow "night mode" display to avoid disruption of nocturnal activity.
- IVC Rack to operate both in positive or negative pressure mode
- Built in measurement of Temperature and Humidity monitoring of supply and exhaust air
- Even air diffusion into each cage
- IVC Unit should be supplied with 100 compatible fully autoclavable clear polysulfone cages for mice with full visibility. Price of mice cage should also be quoted separately. Number of cages may be increased or decreased
- Filtered cage top must be with gasket and top to have hinged filter retainer
- The top of mice cage should have arrangement to keep water bottle
- Water bottle should be made up of PP/borosilicate/POLYSULPHONE
- Cages to be equipped with feed tray for holding rodent feed
- Each cage should have a barrier filter
- Protection of animals against Equipment disorder and electricity breakdown
- Voltage Requirement should be 200-240V (AC), single phase 50Hz
- Vendor should quote for 3 years AMC