

**BOSE INSTITUTE  
KOLKATA**

Tender No.	B.I./T/OVR/17/Fume Hood/2015
Tender Date	24.09.2015
Tender Type	Limited

Tender Title	<b>Procurement of Fume Hood for radioactive laboratory (Room no 443) at Department of Microbiology, Centenary Building Campus, Bose Institute.</b>
Schedule of work	<b>Annexure - II</b>
Quantity	Please refer to Annexure - II

Last Date & Time for submission	14.10.2015 upto 2:00 p.m.
Date & Time for opening bids	14.10.2015 at 3:00 p.m.
Submission of Tender (address)	Tender box at Import Cell, Annex block 1 <sup>st</sup> floor at Centenary Building, Bose Institute, P-1/12, CIT Scheme VII-M, Kolkata 700 054
Venue of bid opening	Annexe Block, Centenary Building
For any query the interested bidders may contact (Dept./Section/Div./Unit)	033 2569 3212

General & Special Terms & Conditions	<b>Annexure - I</b>
Time of completion of the work	45 days from the date of receipt of purchase order.
Bid security (earnest money deposit) if applicable	N.A.
Any other information (if applicable)	N.A.

**Name of the job and submission of tender should be mentioned on the envelope positively**

**Director, Bose Institute reserves the right to accept or reject any or all tenders either in part or in full. The reasons for rejecting the tender of a prospective bidder will be disclosed only when enquiries are made.**

Sd/-  
Sr. Professor & In-charge, Registrar's Office

**BOSE INSTITUTE**

Research Institute funded by DST, Govt. of India

**P-1/12, C.I.T Scheme VII-M, Kolkata - 700 054**

Tender Notice # BI/T/OVR/17/Fume Hood/2015 dated 24.09.2015

Bose Institute, Kolkata invites sealed quotations from nationally reputed & bonafied manufacturers/authorized dealers preferably possessing ISO 9001 14001 & 18001 certificates for supply of Office & laboratory Furniture and setting thereof in the designated locations. For bid documents with details please visit the Bose Institute's website <http://www.boseinst.ernet.in>. Last date of submission of tender is 14.10.2015.

Sd/-

**Sr. Prof. & Incharge, Registrar's Office**

**BOSE INSTITUTE  
Centenary Building  
P-1/12, C.I.T. Scheme VII-M  
Kolkata-700054**

**ANNEXURE - I**

Tender Documents for supplying and installation of standard Office Furniture and Laboratory Furniture as per the quantities and specifications listed in the enclosed annexure.

- a) Bid reference - BI/T/OVR/17/Fume Hood /2015 dated 24.09.2015.
- b) Last date and time for receipt of bids - 14.10.2015 at 2:00 p.m.
- c) Date and time of opening of bids - 14.10.2015 at 3:00 p.m.
- e) Place of opening of bids - Bose Institute, Seminar Room, Centenary Building, P -1/12, C.I.T Scheme - VIIM, Kolkata - 700054.
- d) Address for communication - Bose Institute, Centenary Building P - 1/12, C.I.T. Scheme - VIIM, Kolkata (Overseer Cell Room no 114), Telephone No. 2569 - 3212.

**1.1 INVITATION FOR BIDS**

Bose Institute, Kolkata invites sealed quotation under Technical bid with technical specifications, design commercial terms of reference together. Item wise price from the nationally reputed & bonafide manufacturers/authorized dealers preferably possessing ISO 9001, 14001, & 18001 certificates for supply of office and laboratory Furniture and setting thereof in the designated locations. The suppliers are to supply furniture at Bose Institute Centenary Building and install there. The responsibility of the manufactures/ India Agents shall be not only to ensure supply in full of the order within 45 days from the date of receipt of purchase order but also proper installation/placement within specified period after delivery of the items to this institute and also to ensure that no damage or defective supply of furniture are made. Suppliers with Kolkata base service centers will be preferred.

**1.2 ELIGIBILITY CRITERIA**

The Bidder should have supplied and completed at least three similar orders for supply of furniture in the last two financial years (current year and previous financial year) in scientific research institution or in Universities and

other corporate offices/sectors. Supporting documents/ certificates in this regard should be produced with the tender documents.

## **2. DETAILS OF TECHNICAL SPECIFICATIONS**

The Technical Specifications of the furniture are given separately in Annexure attached with the terms and conditions of this tender

## **3. INSTRUCTION TO BIDDERS**

- a. The copy of tender documents can be downloaded from the Institute website [www.boseinst.ernet.in](http://www.boseinst.ernet.in)
- b. Interested bidders may submit their offers on or before 14:00 hrs (IST) on 14.10.2015. Bid documents will be opened at 15.00 hrs (IST) on the same day in presence of the bidders or their authorized representatives.
- c. In the event of date being declared as closed holiday for purchaser's office, the due date for submission of bids and opening of bids will be the following working day at the appointed time.
- d. The bidders shall provide detailed printed technical literature in original specification, make, model No. quoted in the tender and specification given in the offer must match the printed technical literature and technical capabilities participating in the bid.
- e. The bidder shall clearly mention the period of warranty which is desirable for a minimum period of one year. The bidders shall also submit list of customers in India with copies of orders supplied to them.

## **4. DOCUMENTS COMPRISING THE BID**

- a. A bid form and price schedule indicating the goods to be supplied, a brief description of the goods, and quantity and prices.
- b. Documentary evidence in support of the Bidder that the Bidder is eligible to bid and is qualified to perform the contract if the bid is accepted. In other words, certificates of bonafideness of the tendering firms/suppliers.
- c. Documentary evidence that the goods and ancillary services to be supplied by the Bidder are the goods and services that conform to the Bidding documents.
- d. Documents relating to VAT registration, PAN card of the company or supplier or the manufacturer and attested Xerox copy of valid trade license, ISO certifications, etc.

- e. The price of all items should be mentioned categorically exhibiting the value towards ex-work price, discount on ex-work price, amount of total cost inclusive of Transport/FOR value and installation charges.

**6. WARRANTY**

- a. The bidder shall provide warranty at least for One (01) year.
- b. The supplier shall confirm that the goods supplied under this contract are new, unused of the most recent current models and that they incorporate all recent improvements in design and materials unless provided otherwise in the contract. The supplier further warrants that all goods supplied under this contract shall have no defect arising from design materials or workmanship (except when the design and /or material is required by the purchaser's specifications) or from any act or omissions of the supplier, that may arise under normal use of the supplied goods in the conditions prevailing in the country of final destination.

**7. DEFECT LIABILITY CLAUSE**

- a. In case of any loss, breakage / damage and manufacturing defects are detected in the supply, it should be replaced / compensated by the manufacturer free of cost and without freight charges.
- b. The supplier will remain responsible for any defect arising out of defective or improper materials or workmanship in the work for a period of 1(One) year from the date of issue of final certificate and they shall be bound to make good the same at their own cost or in default the institute may cause the same to be made good by other workman/agency and deduct the expense from any sum that may be there and any time there after may become due to the supplier or from security deposit.

**8. QUALIFYING REQUIREMENTS (TO BE SUPPORTED WITH DOCUMENTARY EVIDENCE)**

- a. Bidders should be regular manufacturers or his authorized distributors/suppliers for the type of goods offered and if the tenderers were an agent of the principal all the documents of the principal shall be submitted in support of it.
- b. The bidders should submit a list of user with full address, telephone & FAX nos. stating date of supply etc. along with the bid documents.
- c. The participating bidder should furnish details of manufacturing facilities of furniture in the workshop with ISO certification of each furniture.

- d. The bidders should have level of experience for implementing purchase order of similar magnitude and should have possessed the financial background and able to meet the capacity to match the delivery of very requirements/

## 9. **BIDDING DOCUMENTS**

- a) All bids in this prescribed tender form duly filled in must be submitted in sealed covers super-scribing Tender No. and date to the “Tender submission Box’ kept in the tender box of Import Cell. Bose Institute at P-1/ 12, C.IT. Scheme VII M Kolkata 700054 on or before 14.10.2015 by 14:00 hrs (IST).
- b) The bidder is expected to examine all instructions, terms and specifications in the bidding documents. Failure to submit all information required by the bidding documents or submission of a bid nor substantially responsive to the bidding documents in every respect will be the Bidder’s risk and may result in rejection of its bid.

## 10. **Enhancement in Rates**

The tender rates shall be taken to be firm and the supplier shall not be entitled to any price variation or escalation of materials and labour on any account whatsoever for at least 6 (six) months.

## 11 **PAYMENT TERMS/SECURITY DEPOSIT**

Payment of bill will be made in three phases in the following manner:-

- i. 40% on delivery/staking of requisite furniture.
- ii. 50% after successful installation at site.
- iii. Balance 10% of the total bill amount will be retained as security deposit which will be released only on expiry of defect liability period of 1 year.

## 12. **Completion Certificate**

- a. To ensure complete supply as per purchase order the successful bidder should submit a completion report to the purchaser.
- b. The purchaser on the other hand, shall submit verification report in support of complete supply of the lists of furniture mentioned in the purchase order and

also to ensure that no defective or short supply is made in any premises of the Bose Institute.

- c. Bid Security of the successful bidder will be adjusted at the time of final clearance of the bills submitted by the supplier or with security deposit.
- d. The successful bidder is also liable to replace the defective furniture or short supply if any found at the time of verification by the Purchaser. Failure in replacement will entail forfeiture or to deduct the price of the furniture from his bill before making final payment

**13. Time and Damages for Non-completion of work in time**

Time is the essence of the contract and the supplier shall pay or allow the Institute to realize the sum equivalent to 1(one) per cent of the total order value per week, subject to a maximum limit of 10% of the order value or the final bill amount whichever is greater, as agreed compensation for delay for the period during which the set work shall remain in complete beyond the time of completion or beyond the time duly extended in writing by the Institute. The Institute may deduct such damages from any money due to the supplier.

**14. Execution of agreement**

The successful bidder should enter into an agreement with the Institute within 7(seven) days of receipt of work order in non-judicial stamp paper (to be arranged by the supplier) and no on-account payment will be released till the agreement is executed.

15. The supplier will have to confirm to the provisions of all local bye- laws acts relating to work/labour and to the regulations and bye laws etc of the Govt. and local authorities and of any company with whose system the installations are proposed to be connected.

16. The supplier will remain bound to strictly follow the institute's security norms. Materials procured and/or to be taken in and out should positively be recorded in our security check post.

17. All legal disputes shall be subjected to Kolkata jurisdiction only.

18. Bose Institute reserves the right to accept or reject any bid in part or full without assigning any reason whatsoever. The Institute also reserves the right not to accept the lowest rates quoted by the bidder and also will not hold any responsibility for postal loss or delay of any bid.

Bose Institute  
Kolkata

ANNEXURE - II

Procurement of Fume Hood for radioactive laboratory (Room no 443) at Department of Microbiology Centenary Building, Bose Institute.

SL No	Description	Qty	Unit	Rate	Amount
1.	4' Fume Hood with electrical connection and ducting	01 No	Each		



## TECHNICAL SPECIFICATIONS

### FUME HOOD

- Standard Fume Hood Performance Requirements

Fume hoods shall be of complete KD (Knock down) construction with airfoil design to insure maximum operating efficiency. Foil sections at the front facials of the hood shall minimize eddying of air currents at the hood face and the rear baffle system shall minimize turbulence in the upper portion of the hood interior.

Test Method - The hood shall be tested by a third party as per the American Society of Heating, Refrigerating, and Air Conditioning Engineers (ASHRAE) Standard 110-1995 and BS EN-14175.

**Self-certified fume hoods will not be acceptable.**

#### Quality Assurance

The laboratory fume hood manufacturer shall provide fume hood work tops and casework all manufactured & shipped with proper packing & shall take the full responsibility of the entire scope of works as specified in the tender.

Each fume hood shall come Pre Wired along with PDI (Pre Dispatch Inspection Report)

- SPECIFICATIONS

**Size** - 1500 W x 900 D x 1800 H

**Superstructure Frame** - A free-standing rigid panel structure of steel (G.I.)

**Interior Walls** - Double wall ends, not more than 6” wide, shall be provided to maximize interior working area. The area between the double wall ends shall be closed to house the remote control valves. Cut outs shall be provided inside the fume hood for service line accessibility. The same shall have a cover with a fastener free design. The vertical facia shall contain the required service controls, electrical switches and receptacles.

**Airfoil** - A streamlined airfoil shall be integral at the bottom of the hood opening on bench and distillation hoods. This foil shall provide a nominal 20mm open space between the foil and the top front edge of the work surface

to direct an air stream across the work surface to prevent back flow of air. The sash shall be provided with a separate handle which also provides for air flow when in completely closed position. The foil shall be of 1.2mm steel to resist denting and flexing.

**Baffle** - A stable, non-adjustable baffle with a single slot on the back baffle to aid in distributing the flow of air into and through the hood. The baffle shall be spaced out from the back liner and shall be removable for cleaning.

**Duct Collar** - A 8"-10" diameter polyethylene funnel shaped rectangular duct collar shall be located in the top of the hood plenum chamber.

**Lighting** - Two fluorescent light fixture (inclusive of CFL tubes) of 20 volts each shall be provided in the fume hood. The lighting fixture shall be completely outside the fume hood area.

**Sash** - A sash provided shall move in a vertical rising steel frame without any noise. The bottom of the sash frame shall have a full length metal handle. The sash track has minimum protrusion to avoid any kind of turbulence. The sash shall be counterbalanced with a weights to prevent tilting and binding during operation. The glass panels shall be 5mm toughened glass mounted in an levelled channel with roller for smooth operation.

**Plumbing Services** - Utility services like Nitrogen, Raw Water, Vacuum and Compressed Air shall consist of remote control valves as selected located within the end panels, controlled by in and out facility with flexible hose passing through the side panels of the hood, with color coded plastic handles. Interior fitting for gases and water shall be with powder coated brass. All gas valves for regular lab gases shall have standard needle valve and push and turn type arrangement for all burning gases shall be supplied. All supplied valves to clear the following pressure test conditions: Gas Fittings - 7 bar, Water fittings - 10 bar.

**Electrical Services** - The hood superstructure shall be fully wired and shall have a control box with MCB blower starter all safety devices like trip etc. Inlet shall be of 3 phase power supply and the whole electrical shall be of plug and play type. It also has 4 nos. electrical sockets and switches of Northwest make (230V, 5/16 A, 50 Hz)

**Liner** - Interior liner panels shall be made of Compact Industrial Laminate

**Lattice Rod Assemblies** - 12mm diameter solid SS rods shall be clamped with the PP clamps to form a lattice arrangement to hold the test samples and rotors within the fume hood.

**Centrifugal Blower** - Silent high efficiency remote blower consisting of continuous rating motor and chemical resistant impeller. The blower is designed to give a face velocity at safe working height as per the international safe velocity norms. (ANSI/AIHA Z9.5).

**Ducting** - Rigid Ducting of PP (Polypropylene) + FRP (Fibre Reinforced Polyester) and flexible ducting with flanges, bends, damper transitions, clamps etc. Flexible joint is provided in the ducting in order to avoid transmitting the blower vibrations to the hood. A weather proof rain cowl is provided at the outlet of blower.

**Base Cabinets** - Fume hoods are designed to rest on a bench (high base stand, pedestal or a cabinet) which is a complete rigid steel structure. Gauge of steel used in its construction shall be made of GI. 4-drawer configuration shall be provided as base cabinets.

**Transition** - Used to connect fume hood with ducting shall be designed to reduce the static pressure and is made up of PP-FRP.

**Work Surface** - Hood work surface shall be 20 mm thick Granite made in the form of a watertight pan, not less than 7 mm deep to contain spillage. Worktop will have oval shaped 100 mm X 200 mm 'PP' Cup-Sink for drainage. The work surface and cup drain shall be available in black colour

#### MAKES OF ITEMS

Steel	TATA Steel
Powder Coating	Kansai Nerolac
Water Faucets, Gas Valves, Emergency Shower-cum-Eye-wash	Watersaver/Broen
Switches and Sockets	Northwest
Locks	Godrej
PP Sink	KL Labs, Malaysia
Blower	Almonard