**Lab floor plan:**

Old building, third floor-CY306; # of hoods = 1

Old building, Dr. Kartiks Lab; # of hoods = 3

Old building, Dr. Arnab's Lab, # of hoods = 2

Old building, Dr. KRR's Lab # of hoods = 1

Room number of Dr. K. C.’s Lab. 323

Room number of Dr. A. R.’s Lab. 325

Room number of Dr. K. R.’s Lab 216.

**Tender Date: 18th January 2017 and Due Date: February 10th 2017.**

The Department of Chemistry, Indian Institute of Technology Madras is inviting quotations for fume-hoods. Fume-hoods must meet the test specifications on par with international standards. Requisite test and safety certificates must be provided along with the technical bid. In addition to this, gas line plumbing need to be provided from the place where gas cylinders are placed in each laboratory.

Quotations are requested to be submitted in sealed covers following two bid system (Technical & Commercial bids). The quotations should be addressed to

**Prof Indarapal Singh Aidhen**

**Head of the Department**

**Department of Chemistry**

**Indian Institute of Technology Madras**

**Chennai – 600 036**

The quotations should reach the above address on or before 3:00 PM of February 10th 2017.

Other terms & conditions:

1. The supplied materials should be installed by the company.

2. Demonstration (wherever necessary) should be given by the technically trained people.

3. List of references in India, where similar systems have been installed, must be provided and this will be taken very seriously while making the decision in awarding the tender.

4. **ONE YEAR WARRANTY** should be given for all the supplied items.

5. The supplied material should meet all the attached technical specifications.

**Please see the SPECIAL INSTRUCTIONS for tender process**

**SPECIAL INSTRUCTIONS FOR TWO PARTS TENDER**

1. MANNER AND METHOD FOR SUBMISSION OF TENDERS

All tenders in response to this invitation shall be submitted in two parts in separate sealed envelopes. On top of the envelopes containing respective part, it should be indicated in bold letters:-

(i) Part I (Technical)

(ii) Part II (Commercial)

1.2 A. PART-I (Technical)

This part of the tender shall include/contain all technical details, technical specifications, drawings and also the terms and conditions of contract for the supplies to be made and the services to be rendered excluding any price details thereof.

PART-I (Technical) should contain drawings for fume-hood, exhaust, gas & electrical systems, technical specifications, technical details, literature,  quantities of the items required, manufacturing and delivery schedule, inspection/testing procedure itemized list of spares and quantity (without price),  terms and conditions of payment, mode of dispatch, the quantum /percentage of statutory levies payable by the purchaser as extra and all related commercial terms and conditions for the supplies and for the services like commissioning to be rendered by the tenderer. **The tenderer shall take special care not to mix up the price in this part of the tender.**

1.2 B. PART-II (PRICE)

This part should contain only the prices of the offer for supply and the charges for the services to be rendered.

PART-II (PRICE) shall include/contain only price, price break-up, freight/safe delivery charges, charges for training of the purchaser’s engineers wherever applicable, charges for commissioning work, testing charges, third party inspection charges etc. This part of the tender i.e. Part-II (Price) shall be enclosed separately in the sealed envelope.

2 TECHNICAL CLARIFICATIONS

2.1 After opening the Part-I (Technical) of the tender, if it becomes necessary for the technical authorities/user Department to seek clarification from the tenderers, the same will be sought for from the tenderers by the technical authorities/user Department. In such an event, the tenderer shall- furnish all technical information/clarification to the concerned technical authority directly in the sealed envelope to reach on or before the due date, and time fixed by the technical authorities in an envelope indicating the purchaser’s tender reference. If the technical clarification/details sought for by the technical authorities from the tenderer do not reach them on or before the due date and time fixed for its receipt, such tenders will be liable for rejection at the discretion of purchaser.

Taxes & Duties: Institute will hand over the custom duty exemption certificate for the items imported & central excise duty exemption certificate for the excisable items, & other relevant documents to the successful bidder.

Hence, bidders are requested to consider the local freight charges after the custom clearance from the arrival Sea/Air Port up to the site.

• The customs clearance is under vendor’s responsibility.

3 OPENING OF TENDERS

3.1. Part-I (Technical) of the tender will be opened at the first stage on or after the due date. The Part-II (Price) will be opened after scrutiny of Part-I (Technical).

3.2 The qualified tenderers in Part-I (Technical) will be intimated by Fax/e-mail, Letter, etc. to participate in the opening of the Part-II (Price).

3.3 The tenders whose Technical Part (Part-I) are found suitable/acceptable to the Purchaser, will be given advance intimation by the Purchaser to enable such tenderers to depute their representative to participate in the opening of the Part-II (Price) of the tender. The technically unqualified tenderers will neither be given any intimation about the due date and time for opening Part-II (Price) of the tender nor will they be permitted to participate in the opening of the same. Part-II (Price) of the technically disqualified tenderers will not be opened.

Note:-

1. Part-I (Technical) and Part-II (Commercial) should be submitted in separate sealed covers, super scribed with the Purchasers tender number and the Part number say Part-I (Technical) or Part-II (Commercial).

2. Both envelops should be sealed in another envelope superscribed with the tender number.

3. Tenders not submitted in the manner specified above will be summarily rejected.

4. The vendor should make a presentation about their products and should display their product as mock-up, if called for.

**BIDDER PREQUALIFICATION CRITERIA**

The bidder shall furnish a covering page indicating item wise compliance to all the Prequalification criteria. Bidder Prequalification Criteria are as given below:

1.0     The Bidder shall have completed the following during the last 5 years ending the last day of the month, previous to this notification.

1.1 The bidder shall possess experience in supply, execution & commissioning of laboratory internal infrastructure (mentioned below) on a turnkey basis for the scope of works, as stated below, with a single point responsibility during the last 5 years ending the last day of the month, previous to this notification.

1) Fume Hood systems

2) Exhaust System

3) Gas and utility distribution system

4) Electrical works

At least one contract should be in Govt. Institutions/any of Central PSU’s / any of central Government/ autonomous bodies, the project should have operated successfully for at least one year prior to due date of submission. The bidder should produce the backup documents like Purchase Order, completion certificates, performance certificate from end user etc.

• Three (3) similar contracts each costing not less than Rs. 1 Crore;

Or

• Two (2) similar contracts each costing not less Rs. 2 Crores;

Or

• One (1) similar contracts not costing less than Rs. 3 Crores,

1.2 The bidder should have a well established (their own) in house manufacturing unit for the Lab Furniture & Fume Hood, Quality Management System as per International Standards providing the products and services on the continued basis for the last 5 years. The vendor shall possess the current / valid approval for such equipment manufacturing facility by a Statutory Certifying Authority, like Factory Inspectorate etc. A notarized copy of valid certificate needs to be enclosed.

1.3 The bidder shall possess the key professional staff of his organization of at least one with good knowledge of codes & standards like SEFA, OSHA, ASHRAE 110 and NFPA 45.  Such professionals should have a valid membership of SEFA and in addition, membership of any of the international governing standards.

1.4 The bidder should have the ability to do ASHRAE testing at site. The bidder should include back up documents verifying similar tests having being conducted at the client site.

2.0     The bidder shall have an annual financial turnover of not less than Rs. 10 Crores (Rupees Ten Crores only) during any of the last three financial years i.e. 2010-11, 2011-12, and 2012-13.

3.0     The bidder shall visit the site to understand the requirements of the project. The bidder shall study the scope in detail before submitting bid.

4.0 The bidder shall provide the complete documentary evidence, duly attested by notary, for the following in support of bidder Pre-Qualification Criteria.

For Clause no. 1.0, 1.1, 1.2, 1.3, 1.4

1) Purchase Orders

2) Completion certificates and experience of performance for jobs, issued by the clients.

3) Experience details duly filled in following format.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| S.No | Name of client | Name & location of the project | Brief description of project | Value of the Project | Documents submitted |
| (PO copy & completion certificate) – (Y/N) |
|   |   |   |   |   |   |
|   |   |   |   |   |   |

For Clause no. 2.0

|  |  |  |  |
| --- | --- | --- | --- |
| Financial year | 2011-12 | 2012-13 | 2013-14 |
| Annual Turnover |   |   |   |

Audited balance sheets to be furnished for the above financial years.

5.0 In the event of the bidder not meeting all the pre qualification criteria as given above, the Technical Committee shall have the right to reject the concerned bidder

Special Note to the Bidder :-

• The Bidder should be registered in India and should be a 100% subsidiary of the parent company, if applicable.

• The qualifying firm should have offered services for the fume hood products in India, as specified in the Make list, for a continuous period of 5 years or more.

• The institute is eligible for concessions in the payment of import duty & full exemption of central excise duty.  As such, if required, a split order for the Imported, excise, non-excise Items could be placed. Bidders can quote accordingly.

• Director, reserves the right to accept or reject any or all tenders without assigning any reason.

**TECHNICAL SPECIFICATIONS OF THE FUME HOODS AND BASE CABINETS**

The fume hoods shall be of the **constant air volume** type. The hood shall be tested per the American Society of Heating, Refrigerating, and Air Conditioning Engineers (ASHRAE) Standard 110-1995. All tests shall be performed in the bidder’s fume hood test facility and certificates for the same should be provided. The On Site ASHRAE testing should also be done.

1. Dimensions:

**Fume hood Quantity: 7 (5 ft. Bench top)**

Overall dimensions with base cabinet: 1450-1600 mm W x 900-1050 mm D x 2300-2450 mm H

Fume hood dimensions     : 1450-1600 mm W x 900-1050 mm D x 1550-1650 mm H

Base cabinet dimensions     : 1350-1500 mm W x 500-700 mm D x 650-750 mm H

Inside working dimensions     : 1150-1270 mm W x 600-800 mm D x 1100-1250 mm H

2. Design Basis : American Design Standard: ASHRAE110- 1995. Should pass all tests including “Tracer gas containment test”,

European Design Standard: EN-14175- 2003 ‘Inner Plane Containment test’.

3. Design Structure   : Aerodynamic, Floor mounted

4. Material of construction : Galvanized Iron (GI) as per IS 277: 2003 standard of at least 1 mm thick and powder coated. Pre-treated with chemical processes and powder coated with highly chemical resistant epoxy colors having dry film thickness of 80 microns or better. Should pass all conformity performance tests as per IS standards.

5. Interior construction : Chemical and heat resistant, fire retardant and easily cleanable panels, made out of durable PRL integral work or equivalent material walls (at least 6 mm thick). ASTM flame spread index < 25.

6. Exhaust system  : Active kinetics exhaust system for light, normal and heavy fumes with baffle to ensure rapid exhaust of fumes.

7. Airfoil    : Aerodynamic Design, Horizontal fixed airfoil mounted on

the worktop made of SS 304 or better material (at least 1.2mm).

8. Worktop : Chemical resistant splash and spillage proof dished granite worktop ≥18 mm of thickness and ≥15 mm of skirting

9. Sink and water tap : Worktop should have sink sealed with sealant for drainage with water tap on left & right back side of worktop. Sink (oval shaped with 100 mm x 200 mm) will have a trap for waste collection.

10. Shutter : Vertical rising shutter with clear openable height of at least 750 mm and made of impact resistant toughened float glass of at least 4 mm thickness

11. Wet and dry service valves : 4 nos. (5 feet fume hood) and 8 nos. (8 feet fume hood) of ~5 kgf pressure with standard color coded valves made of brass for water, nitrogen, vacuum and compressed air with at least 6 mm internal diameter.

12. Internal nozzles : Made of brass and powder coated; male adapter fitting should be staggered with tapered in shape to use flexible tubing of sizes from ¼” to ½” in diameter.

13. Gas piping : Gas piping should be made of stainless steel to connect all the fume hoods for the generalized gas, vacuum and compressed air facility.

14. Lighting    : At least 2 numbers of fluorescent lights with vapor proof fittings.

15. Electrical utilities : Electrical sockets, 4 nos. (5 feet fume hood) and 6 nos. (8 feet fume hood); MCBs with blower switch with built-in starter and light switch in front. All cables and wires should be fire retardant grade.

16. Chemical storage base cabinet : Base cabinet should fit under the fume hood and flush with the fume hood. It Should have Internal special chemical resistant material lining to the cabinet walls; two exhaust ports connected to the fume hood exhaust system internally; complete chemical resistant, fire proof cabinet construction; one removable horizontal partition to store chemicals; PP Trays for chemical storage; cabinets on castors; locking system for the base cabinet doors.

17. Apparatus holding grid : Grid made of powder coated chemical resistant rods (at least 12 mm diameter) should cover the entire length of fume hood and should be installed at a distance of 150 mm from the back.

18. Noise level : < 70 db at 1 meter from fume hood.

19. Centrifugal blower : Silent PP + FRP high efficiency remote blower, consisting of continuous rating motor and chemical resistant impeller. It should satisfy international safe velocity norms.

20. Ducting : Chemical resistant PP (≥3mm) + FRP (≥2mm) rigid and flexible duct work from fume hood to exhaust stack point with weather proof canopy.