

SPEED POST

Ref: SROL/3:4:1

11 08 2006

SUB: QUOTATIONS FOR 'FUMING CUPBOARD AND SCRUBBER'

Dear Sir(s),

Quotation(s) is/are invited for the purchase of the item(s) goods / stores as per the specification listed in the attached schedule (Annexure-1) and the terms & conditions noted hereunder:

1. Quotation(s) in a sealed cover superscribing "**Quotation(s) for FUMING CUPBOARD AND SCRUBBER**" should reach the undersigned latest by 1300 hrs on 06.09.2006. The Quotations shall consist of two parts:

- a) Technical bid consisting of all technical details alongwith commercial terms and conditions; and
- b) Financial bid indicating item-wise price for Fuming Cupboard and Scrubber.

The technical bid and the financial bid should be sealed by the bidder in separate covers duly superscribed and both these sealed covers are to be put in a bigger cover which should also be sealed and duly superscribed.

The technical bids will be opened by a Committee at the first instance. At the second stage financial bids of only the technically acceptable offers will be opened. The eligible bids shall be later evaluated by the Purchase Committee(s) and the designated authority before awarding the contract.

2. The quotation(s) shall be opened at 1500 hrs on 06.09.2006 in the presence of such tenderers or their duly authorized representatives as may care to attend.

3. Unless stated otherwise, quotation(s) shall be deemed to be for delivery at the address given above.

4. The Bureau gives first preference in its purchases to goods certified by National / International Certifying Bodies and second reference to those which conform to the National /International Standards.

5. The delivery of stores is required within 30 days of receipt of order. If however, it is not possible for you to effect delivery during working hours by that date, you should specify the date by which you can guarantee delivery of the stores. Quotation(s) qualified by such vague and indefinite expressions as "Subject to immediate acceptance", "Subject to prior sale" etc., and in complete quotation(s) is / are liable to be summarily rejected.

6. All quotation(s) shall remain open for acceptance for a period of 120 days from the date of opening of quotation(s) specified in para 2 above.

7. An Earnest Money Deposit of **Rs. 2,000/-** for Fuming Cupboard and **Rs.2,000/-** for Scrubber (separately) shall be deposited along with the tender by way of Demand Draft in favour of **Bureau of Indian Standards** payable at Chennai and shall be valid for a period of Six months. It shall be refunded to the unsuccessful bidders on or before the 30th day after the award of Contract to the successful bidder. The EMD amount shall be deposited along with the technical bid.

8. Where the value of the order exceeds Rs. 2,00,000/-, the successful tenderer shall be required to deposit 5% of total value of the order by way of an Account Payee Demand Draft, Fixed Deposit Receipt from a Commercial Bank, Bank Guarantee from a Commercial Bank in an acceptable form in favour of Bureau of Indian Standards, Chennai. It shall remain valid for a period of sixty days beyond the date of completion of all contractual obligations of the supplier including warranty obligations.

9. The rates quoted shall include all charges such as packing and forwarding, freight, insurance, octroi etc.

10. If the rates quoted do not include sales tax, excise duty or any other taxes / charges, the same should be specifically stated. In the absence of any such stipulation, it will be presumed that the prices include all such charges and landing cost at our site and no claim for the same shall be entertained.

11. **Place of Delivery** - In case your quotation is accepted and a firm order is issued to you, you shall arrange to deliver the goods during working hours on all working days at:

Bureau of Indian Standards,
Southern Regional Office Laboratory
CIT Campus, IV Cross Road,
Chennai - 600 113.

12. **Payment** - 90% payment shall be made on receipt of goods in satisfactory condition and after preliminary inspection and commissioning. The balance amount shall be released not later than 60 days thereafter. Any preparation to be made by us for immediate commissioning of the equipment after inspection and acceptance shall be informed to us soon after receiving the order.

13. All goods shall be received subject to approval on inspection. The decision of our Inspecting Officer shall be binding. Rejected items / goods / stores shall be removed by the supplier at his own cost and risk, within 30 days of receipt of notice for the removal of such goods, and no liability, whatsoever, on the Bureau shall be attached for the rejected / disapproved goods / items / stores.

14. The Bureau reserves the right to accept or reject summarily any or all quotation(s) in whole or in part without assigning any reason whatsoever.

15. The Bureau reserves the right to accept or reject summarily any or all quotation(s) after despatch.

16. The Bureau takes no responsibility for delay, loss or non-receipt of quotation(s) after despatch.

17. In case of non-compliance with the contract, the Bureau reserves its rights to:

- a. cancel / rescind / revoke the order; and
- b. impose penalty up to 5 percent of the total value of the order.

18. All questions, disputes or differences arising under, out of or in connection with the order once placed shall be subject to the exclusive jurisdiction of Chennai Courts.

19. Tender is also posted in our Website – www.bis.org.in

Yours faithfully,

(J.T.DAVIDSON)
Sc.'F' & Head (SROL)

Name of the equipment(s):

1. Fuming Cupboard (Table mounted type) and
2. Scrubber

I. FUMING CUPBOARD

1.1 Application: To keep the parting tray with Gold Cornet in Nitric Acid at Boiling Temperature to make the gold cornet free of Silver. The tray contains 24 nos. of thimbles with gold cornet and the total volume of Nitric acid is approximately 1.5 litres.

1.2 Relevant Indian Standard and Clause: IS 1418:1999, Clause 9.1.3 & 9.1.4

2. Specification & Design Features:

2.1 Table: The mounting table top shall be made of 20 mm thick good quality wood (name of the wood shall be specified) and the table shall have a height of 900mm. The legs of the table shall be made of same wood as the top with a dimension of 60mm x 50mm. The legs shall be also interconnected with wooden sections of the same wood.

2.2 Flooring over the table: It shall be made of 20 mm thick Acid Resistant Slab having width or length – 1200mm & Depth-700mm. Joints are not preferable and in case unavoidable, the gaps shall be filled with acid resistance material. (The material and the filler shall be stated in the quotation).

2.3 Dimension of Upper Unit (Hood): Outer dimension shall have length or width – 1250mm, Depth – 750mm, Height-1500mm approximately.

2.4 Material of construction of Hood: 6mm thick Aspo Polyester resin lined with FRP Bisphenol “A” Fumerate resin reinforced with 12mm thick marine ply. The external finish shall be made with melamine sheet.

2.5 Material of construction of Curved Shield below the roof of hood: 6mm thick Aspo Polyester resin lined with FRP Bisphenol “A” Fumerate resin.

2.6 Mounting of the Hood over the table: The hood shall be mounted to the table with rigid joints to eliminate vibration. (The construction shall be explained while quoting).

2.7 Lighting and provision for Electrical connections: One no. 60mm length tube light, 2 nos. 16/6 Amp. 3 pin socket cum switch and one indicator lamp shall be provided.

2.8 Exhaust: Suitable coupling for connecting 225 mm dia and 6 mm thick PP/PVC/FRP exhaust pipe to the Scrubber shall be provided.

2.9 Temperature to withstand – 180°C.

NOTE: In case you have a superior design to give better performance and life, the same may be justified and quoted.

II. SCRUBBER

2.1 Application: The Nitric acid fumes / nitrous fumes from the Fuming Cupboard and the lead fumes from the Cupellation Furnace shall be connected to the Scrubber. The Scrubber shall dissolve the acid and lead in the fumes. The Nitric acid and Lead content in the outlet water of the Scrubber shall be within the limit permitted by Pollution Control Board.

2.2 Relevant Indian Standard: IS 1418:1999

3. Specification & Design feature:

3.1 Material: The Scrubber Unit shall be made of PP with inner lining of FRP material.

3.2 Dimension: Total Height – 3000mm & Diameter – 700 mm.

3.3 Capacity: Scrubber shall be capable of handling 900 m³ of nitric acid fumes and lead fumes per hour.

3.4 Construction: The Scrubber Unit shall be divided into 5 Chambers with perforated bed in between. [‘3’ Spray Chambers, ‘1’ Water Eliminator Chamber and ‘1’ Wetting Chamber].

i) **Spray Chamber:** Each Spray Chamber shall have a depth of 700mm. It shall be filled with PP Ferrules or Pall Rings upto 300mm. Each Spray Chamber shall be fitted with 10 nylon nozzles of length – 100mm. There shall be a 250mm clearance (gap) between tip of the nozzle and the top of the PP Ferrules Bed in each Spray Chamber.

ii) **Water Eliminator Chamber:** The Water Eliminator Chamber shall have a depth of 500mm. It shall be filled with PP Ferrules or Pall Rings upto 300mm. There shall be an exhaust from the Water Eliminator connected with a PVC Pipe of 125mm dia and 4mm thickness.

iii) **Wetting Chamber:** The Wetting Chamber shall have a depth of 400mm. The inlet of the gases from the Blower Unit shall be connected to this Chamber at the top. The Wetting Chamber shall have an overflow outlet fitted 200mm above the bottom of the Chamber.

iv) **Blower Unit:** The impeller shall be made of PP/PVC/FRP material and dynamically balanced. It shall be coupled to a 0.75 kw, 1400 RPM, 3 phase motor. The casing shall be made of 4/6mm thick FRP Bisphenol ‘A’ Fumerate resin. The blower unit is connected to the Fuming Cupboard in the suction side and to the scrubber in the outlet side by 225mm dia, 6mm thick PP/PVC/FRP pipe. The exhaust from the Cupellation Furnace shall be connected by using a 40mm dia pipe to the suction side of the blower. The material used (to be specified) shall withstand the possible high temperature of the exhaust of the Cupellation Furnace which is operated at around 1100°C.

v) **Water Supply to Sprayer:** The water inlets to the three Spray Chambers and the Wetting Chamber from the overhead tank shall be connected through a 0.37 kw, 1400 RPM, Single Phase Pump.

4. **Mounting of Scrubber:**

4.1 The Fuming Cupboard and the Cupellation Furnace are to be installed in the Ground Floor. The Scrubber shall be either mounted on the roof of the building in the first floor or outside on the ground adjacent to the room in which the Fuming Cupboard is mounted. Quotations may be submitted by bidder after inspecting the site between 1000h and 1700h on working days by prior appointment (Tel. No. 2254 1208, 2254 1442 and 2254 1216) and after having a technical discussion.

5. **Other requirements:**

5.1 Quotations shall include details of:

- a. Charges for satisfactory commissioning of Fuming Cupboard and Scrubber.
- b. Warranty with terms and conditions, if any.
- c. AMC after warranty period with terms and conditions, if any.
- d. Material used and dimension of both Fuming Cupboard and Scrubber.
- e. Time required for attending a break-down.

NOTE: In case you have a superior design to give better performance and life, the same may be justified and quoted.