## **SPEED POST**

Ref: SROL/3:4:1 13 07 2006

## **SUB: QUOTATIONS FOR 'XRF MACHINE'**

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 XRF Machine" should reach the undersigned latest by 1300 hrs on 07.08.2006. 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 the items mentioned in the technical bid.

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 <u>1500 hrs on 07.08.2006</u> 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. 40,000/- 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 30<sup>th</sup> day after the award of Contract to the successful bidder.
- 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 <u>www.bis.org.in</u>

Yours faithfully,

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

1.	Name of the Equipment	XRF MACHINE
2.	Application	For measuring purity of Gold and Gold Alloys,
		Jewellery / artifacts.
3.	Relevant Indian Standard	IS 1417:1999
4.	Specification	
	a. Range	0 to 99.99%
	b. Readability /	
	Accuracy	0.01% or better
	c. Repeatability	$\pm 0.01\%$ or better
	d. Sensitivity to	±0.001% per °C or better.
	temperature	

## 4.1 Design Features:

It shall have the following design features:

- i) The X-Ray Tube shall be micro focused to get high intensity. Primary radioactivity shall be controlled by suitable number of primary filters. It shall also have programmable energy saving arrangement.
- ii) Silicon-PIN diode detector with peltier cooling is preferred. The resolution of the detector shall be less than 200 ev (Mn- $K\alpha$ ).
- iii) It shall detect all metals from Aluminium to Neptunium (Atomic No. 13 to 93) including Platinum group metals such as Rhuthenium & Iridium.
- iv) It shall have the approval for Radiation Safety by the highest National or Internationally approved authority.
- v) It shall be able to measure the purity at the soldered joints.
- vi) It shall have the provision to make computerized measurement.
- vii) It shall have provision to do self calibration to the required accuracy.
- viii) The Operating Software shall have the following features:
  - a) Quantitative analysis of solid, powder or paste materials as well as solutions for upto 24 elements simultaneously.
- b) Analysis limits from low ppm to 100%.
- c) Automatic drift compensation during the measurement.
- d) Automatic identification of elements in qualitative mode.
- e) Carat composition analysis of gold jewellery under gold coating.
- f) There should be one software for both qualitative and quantitative analysis.
- g) Should be able to give warning, if different unknown elements are present during quantitative measurement.

## **Information / Certificate / Accessories to be supplied** i) Full Technical information about: a. H.V. Generator and its cooling system, b. No. of Collimeters, their dimension and control c. Type of Detector and X-Ray Tube d. Automatic provision available for positioning of samples e. Video system employed and its resolution and magnification. Measuring method and the relevant Standard. f. The equipment shall be calibrated for Gold Alloy analysis using NIST traceable standards and the calibration certificate supplied. A set of pure calibration elements, tools, cable set and other essential accessories required shall be quoted and supplied along with the equipment. Safety devices & cooling system available in the equipment. iv) Input power supply requirement vi) Detail dimension of the equipment. vii) Details of materials used in the construction of the equipment. viii) Ambient / Environmental condition required for installing the equipment. The warranty, after sales service provided, the AMC charges after the warranty period and any other terms and conditions for after sales service. Time required for attending any breakdown and local facility available. X) A one page write-up highlighting the salient features of your equipment and describing how it is better than the other equipment available in the market and is suitable to the Apex Referral Laboratory of India. xii) Details of minimum three reputed Customers of your equipment along with their testimony of performance. You shall quote for all the essential and optimal 5. Accessories accessories required for the equipment along with the details of their function. (Please also see item 4.1) Training You shall train our personnel immediately after 6. commissioning the equipment in operating it and using the software for different applications. NOTE: In case your equipment does not meet the above specifications, you may quote for the best equipment manufactured by you. 2. The equipment is to be used in the 'Referral Assaying Laboratory' being set up by BIS at their Southern Regional Laboratory, Chennai. You shall

therefore quote for the highest accuracy, most reliable and modern

equipment available in your range of production.