



An ISO 9001
Company

Bharat Heavy Electricals Limited

(High Pressure Boiler Plant)

Tiruchirappalli – 620014, TAMIL NADU, INDIA

CAPITAL EQUIPMENT / MATERIALS MANAGEMENT

ENQUIRY	Phone: +91 431 257 79 38 Fax : +91 431 252 07 19 Email : tvenkat@bheltry.co.in Web : www.bhel.com
NOTICE INVITING TENDER	

TWO PART BID	Enquiry Number:	Enquiry Date:	Due date for submission of quotation:
Tender to be submitted in two Parts	2620900171	01.09.2009	20.10.2009

You are requested to quote the Enquiry number date and due date in all your correspondence. This is only a request for quotation and not an order.

Please note that under any circumstances both delayed offer and late offers will not be considered. Hence vendors are requested to ensure that the offer is reaching physically our office before 14.00 hrs on the Date of tender opening.

Item	Description	Quantity
10	Emission Spectrometer as per the technical specification & commercial conditions applicable (to be downloaded from web site www.bhel.com or http://tenders.gov.in)	1 No.

Important points to be taken care during submission of offer

1. Delivery required 6 months from the date of purchase order.
2. Grace period of 2 months beyond the above delivery period will be considered.
3. Checklist to be filled and enclosed along with the offer failing which, the offer will not be considered for evaluation.

BHEL's General guidelines / instructions (refer MM/CE/GT/001) including bank guarantee formats and list of consortium banks, commercial terms check-list can be downloaded from BHEL web site <http://www.bhel.com> or from the Government tender website <http://tenders.gov.in> (public sector units > Bharat Heavy Electricals Limited page) under Enquiry reference "2620900171".

Tenders should reach us before 14:00 hours on the due date
Tenders will be opened at 14:30 hours on the due date
Tenders would be opened in presence of the tenderers who have submitted their offers and who may like to be present

Yours faithfully,
For **BHARAT HEAVY ELECTRICALS LIMITED**

Manager / Capital Equipment / MM

PART A**QUALIFYING CRITERIA FOR THE SUPPLY OF
EMISSION SPECTROMETER****Qty: 1 No.****SECTION – I**

The BIDDER / VENDOR has to compulsorily meet the following requirements to get qualified for submitting an offer for the emission spectrometer.

S. No.	REQUIREMENTS	VENDOR's COMMENTS
1.0	The BIDDER / VENDOR shall have a minimum of THREE Years of Continuous Experience (from the date of tender opening) in the Design, Manufacture & Supply of "Emission Spectrometer". Kindly indicate the actual experience.	
2.0	The BIDDER / VENDOR shall have supplied at least one number of "Emission Spectrometer" in the last 10 years (from the date of tender opening) in India. Kindly confirm and indicate the number of equipments (quoted model) sold in 2005-09 in the world.	
3.0	Reference List of Customers and Performance Certificates from CUSTOMER(S) with full contact details of CONTACT PERSON.	
4.0	The BIDDER / VENDOR should have sound financial position and should furnish the Finance Statements (Summary of P & L Statement and Balance Sheet) for the immediate past three years.	

5.0	BHEL reserves the right to verify the information provided by vendor. In case the information provided by vendor is found to be false/ incorrect, the offer shall be rejected.	
6.0	DELIVERY - The bidder shall quote the best possible delivery. However the delivery shall not exceed 6 months with an additional grace period of 2 months. The additional grace period will attract a penalty which is explained in the commercial terms of the enquiry. The delivery period shall be reckoned from date of purchase order to despatch from the vendor works.	

SECTION – II

The BIDDER / VENDOR has to necessarily provide the following details, for making an assessment of the firm's capability and competency:

[The BIDDER is expected to give complete details against each clause in the table given below and wherever necessary an additional sheet may be attached (giving clear reference number) to cover the required details]

S. No.	PARTICULARS	VENDOR's RESPONSE
7.0	Number of Years of Experience of the BIDDER/ VENDOR in the field of manufacturing and supplying "Emission Spectrometer"	
8.0	Number of Emission Spectrometer supplied, erected & commissioned till date.	
9.0	Year of launch of the Model quoted against this Enquiry?	
10.0	Is there any other model launched after the quoted Model? Otherwise, indicate the likely year in which the next model is likely to be launched?	

11.0	Number of "Emission Spectrometer" supplied, erected & commissioned till date in the quoted Model?	
12.0	Details on International standards followed in Design of the Equipment (including analysis methodology and verification of equipment). Calibration standards of the equipment.	
13.0	Comprehensive Details on performance Testing - of the Equipment quoted, ensured before dispatch	
14.0	Any Additional Data to supplement the manufacturing capability of the BIDDER	

SECTION – III

The BIDDER / VENDOR has to comply with the following, for accepting the Technical Offer for scrutiny by the Purchaser:

S.No.	REQUIREMENTS	VENDOR's COMPLIANCE
15.0	The BIDDER / VENDOR shall submit the offer in TWO PARTS - Technical & Commercial and Price Bid. The Technical Offer shall be in line with the BHEL Technical Specifications and the Guidelines or Annexure mentioned, wherever applicable.	
16.0	The Technical Offer shall contain a comparative statement of Technical Specifications given by BHEL and the Offer Details submitted by the Bidder, against each clause of the specifications.	
17.0	A just 'CONFIRMED' or 'COMPLIES' or 'YES' or 'NO-DEVIATION' or similar words in the technical comparative statement may lead to disqualification of the Technical Offer.	

18.0	The Technical Offer shall be supported by Product Catalogue, drawings, manuals and Data Sheets in ORIGINAL and complete technical details of 'Bought-Out-Items' with copies of Product Catalogue and Selection Criteria. This should include operational and maintenance spares also.	
19.0	The Commercial Offer (given with the Technical Offer) shall contain the Scope of Supply and the Un-Priced Part of the Price-Bid, for confirmation	
20.0	The reference List of Customers shall be accompanied with the details (Phone Number/E-Mail ID) of the CONTACT PERSON for cross reference	

PART B**Technical Specification for Emission Spectrometer**

To carry out Positive Material Identification of the various steel products manufactured in the Shop Floors of BHEL, Trichy & at the construction sites of power plant of BHEL, a large number of spectro checks have to be performed. The checks are intended to analyse / sort low alloy, high alloy steels and stainless steels.

1.0 BRIEF DESCRIPTION :

Emission Spectrometer: This works on the principle of X-Ray Fluorescence or the like; but not involving any isotopes. However equipments based on optical emission spectrometry will not be considered. The checking is fast and the equipment is truly portable and handy, so that it is accessible for Positive Material Identification (PMI) in base material and the weldments made in the shop floors in various steels. It incorporates rugged features, so that the stability of the equipment in shop floor environment is facilitated.

2.0 SPECIFICATION :

SI No	Description	BHEL Requirement	BIDDER's COMMENT
2.1	Areas of Application in BHEL/Trichy & Equipment Requirements	To carry out Positive Material Identification of low alloy steels, high alloy steels, stainless steels	
2.2	Principle of Operation	The Emission Spectrometer shall be based on X-ray Fluorescence or the like; but shall not contain any Radioactive Source. However equipments based on optical emission spectrometry will not be considered. The Equipment shall be capable of at least 1000 tests with the battery pack.	

2.3	Operating Parameters	The Emission Spectrometer shall NOT require any "ISOTOPE LICENCING" or "TRAVEL RESTRICTIONS"	
2.4	Weight restriction	The Emission Spectrometer shall be light weight (less than 2.0 Kg weight along with Rechargeable Battery Pack) and truly portable. There shall not be any other heavy peripherals (example: vacuum systems, Helium purging etc.) to be carried to the point of use, affecting the portability of the equipment.	
2.5	Power Source	The Equipment shall work with Rechargeable Battery Pack). An extra rechargeable battery pack shall be provided as a spare, with each equipment. The battery should be rechargeable in 230V, Single Phase A.C. power supply, within a reasonable time (supplier to specify).	
2.6	Usage conditions	The instrument is meant for rugged shop floor use and at construction sites (10 - 50 Deg C, Dusty environment, varying humidity levels, handling by many personnel) and should be suitable for the intended rough use and ergonomically designed for heavy duty usage.	
2.7	Modes of operation	The Equipment shall be capable of providing both analysis mode as well as sorting mode i.e., approximate chemical analysis of the material shall be detected and the equipment shall be capable of Identifying the specific Grade from a lot (Sorting mode).	

2.8	Elements to be analysed in steels	The Emission Spectrometer shall have an Analytical module capable of detecting alloying elements including light elements such as Mg, Al, Si & P without using any additional accessories such as vacuum pump, Helium purging etc. in Low Alloy Steels, High Alloy Steels and Stainless Steels. Typical materials which are to be tested (list not complete) include: ASME SA335 P12; P22, P23, P91, P92, 347H; SA213 T1, T11, T22, T23, T91, T92, TP316, TP347H (supplier to indicate complete list).	
2.9	Interface	Additionally the Instrument shall have Port for External Computer and Printer.	
2.10	Memory	Memory of Computer shall be capable of Storing at least 2000 readings.	
2.11	Display	The Instrument shall have LCD / TFT Display of values / grades.	
2.12	Software	The Software shall be for the following: Alloy Identification of commonly used high temperature materials (low alloy, high alloy, stainless steel and nickel base alloys) meeting ASME, EN and DIN. Alloy Verification giving chemical compositions Alloy table with editing facility to include newer materials	
2.13	Calibration	A set of Calibration Samples shall be provided for routine calibration of equipment for all the three ranges namely Carbon and Carbon Manganese Steels, Low Alloy Steels, High Alloy Steels and Stainless Steels.	
2.14	Carrying Case	A Carrying Case for Carrying the Instrument and Battery Pack for field application shall be provided.	

2.15	Commissioning	Commissioning of the Equipment shall be done at our Works, along with training of our personnel on the usage of equipment. The calibration of the equipment against the reference standards shall be demonstrated after supply.	
2.16	Safety of operation	There shall not be any operator health or environmental hazards associated with the equipment, and the specific precautions if any shall be clearly specified in the offer.	
2.17	Service Manual	Service Manual (2 copies) in English shall be provided	
2.18	Erection & Commissioning & Performance prove out at BHEL	Commissioning shall be done by the supplier free of cost. After the installation, the supplier has to run the equipment and demonstrate its performance at BHEL works for the range of materials, including any special requirements.	
2.19	Training on Operation & Maintenance for BHEL Staff at BHEL/Trichy	Training on Operation and Maintenance for BHEL Staff – at least for half a day after the successful commissioning and prove-out of the equipment. This shall be given free of cost by the supplier.	
2.20	Guarantee	Performance Guarantee for 12 months from the date of commissioning. Free service during Guarantee period shall be provided.	
2.21	AMC and service support	An AMC programme, through trained service personnel in India, shall be offered <u>including replacement of spares</u> for a period of two years & shall be quoted for. (AMC shall commence only after the Guarantee period)	