

# **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

Enquiry Number:	Enquiry Date:	Due date for submission of quotation:
2620900049	18.02.2009	21.03.2009
You are requested to quote the Enquiry n	umber date	and due date in all your

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

Item	Description	Quantity	Delivery (Item required at BHEL on)
10	Proximate Analyser as per the technical specification & commercial conditions applicable (to be downloaded from web site <a href="www.bhel.com">www.bhel.com</a> or <a href="http://tenders.gov.in">http://tenders.gov.in</a> )	1 No.	30.11.2009

BHEL commercial terms & conditions with Price Bid and Bank Guarantee formats along with technical specifications can be downloaded from BHEL web site <a href="http://www.bhel.com">http://www.bhel.com</a> or from the Government tender website <a href="http://tenders.gov.in">http://tenders.gov.in</a> (public sector units > Bharat Heavy Electricals Limited page) under Enquiry reference "2620900049".

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

Ref: CRC Eqpt: QC-a Rev No. 0/Dt. 05.01.2009 Sheet 1 of 3

#### **QUALIFYING CRITERIA**

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

The bid consists of 2 parts namely Technical and Price bid. Vendor shall submit Technical and Price bid separately. BHEL will study both the Qualifying Criteria and Response for Technical Specifications. The Price bid can be studied only if both the Qualifying Criteria and Response for Technical Specifications are found acceptable.

[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]

<u>Name of the product:</u> BHEL uses the title "CRC EQUIPMENT" in this document. Please refer Technical Specification attached herewith for further details.

S. No.	PARTICULARS	VENDOR'S RESPONSE
1.0	The BIDDER / VENDOR shall have a minimum of <b>FIVE</b> Years of Continuous Experience in the Design, Manufacture & Supply of " <b>CRC EQUIPMENT</b> ". Please indicate the actual experience.	
2.0	YEAR of launch of the Model quoted against this ENQUIRY	
3.0	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.	
4.0	Number of "CRC EQUIPMENT" supplied, installed and commissioned till date in India. Please furnish contact person name, address, phone number, fax number and mail id.	
4.1	Number of "CRC EQUIPMENT" supplied, installed and commissioned till date outside India. Please furnish contact person name, address, phone number, fax number and mail id.	

Committee Members	Name & Design.	Signature	Initial
	Kannan K/DGM/CR/CRC		
	Pattabiraman Dr R /SM/Labs		
	Sivasubramanian R /Manager/Labs		
For Specifications having reference numbers	CRC- 2,	DATE: 05 – 01 –2008	

Ref: CRC Eqpt: QC-a Rev No. 0/Dt. 05.01.2009 Sheet 2 of 3

4.2	Please enclose Performance Certificate from atleast one	
	Indian or Foreign customer for the model quoted.	
5.0	Details of Design Set-Up and Technology Back-Up	
	assured from the PRINCIPAL Equipment Maker.	
6.0	Details on Service-after-Sales set-up in India including	
	the addresses of Agents/Service Centre in India.	
7.0	The BIDDER / VENDOR shall submit the offer in TWO	
	PARTS namely "Technical Bid" & "Price Bid".	
8.0	The "Technical Bid" shall have vendor's responses	
	along with Product Catalogue, Data Sheets in	
	ORIGINAL and complete technical details of 'Bought-	
	Out-Items' with copies of Product Catalogue. All	
	Technical & Commercial terms can be here. NO PRICE	
	DETAIL IS ENTERTAINED HERE.	
9.0	The BIDDER / VENDOR shall assure a continuous	
	support for SPARES and SERVICE for TEN Years, from	
	the date of commissioning of the equipment at BHEL	
	Works.	
	vvoiks.	

Committee Members	Name & Design.	Signature	Initial
	Kannan K/DGM/CR/CRC		
	Pattabiraman Dr R /SM/Labs		
	Sivasubramanian R /Manager/Labs		
For Specifications having reference numbers	CRC- 2,	DATE: 05 – 01 –2008	

Ref: CRC Eqpt: QC-a Rev No. 0/Dt. 05.01.2009 Sheet 3 of 3

10.0	The <u>"Price Bid"</u> shall have Price Part with following options.	
	In case the offered model requires PC with special	
	hardware and software, then bidder should include	
	the same in their scope. The scope includes 17"	
	TFT monitor, Laser printer B/W, Windows XP+	
	services packages also.	
	In case the offered model requires only general PC	
	hardware and software, then bidder should include	
	only the application software in their scope. Bidder should give detailed Hardware and Software	
	specification for arranging at BHEL.	
	opcomodition arranging at Brizz.	
	Option 1(Incase bidder supplies PC):	
	Basic Equipment.	
	All PC hardware and software.	
	All software CDs (1 set) with valid license.	
	Installation & Maintenance manuals (2 Hard copies & 1	
	set of CDs)	
	Mandatory spares.	
	Consumables. AMC	
	Option 2(Incase bidder does not supply PC)	
	Basic Equipment.	
	Application software CDs 1 set with valid license.	
	Responsibilities of interfacing BHEL supply PC with	
	Basic Equipment(including interconnecting cables)	
	Installation & Maintenance manuals (2 Hard copies & 1	
	set of CDs)	
	Mandatory spares.	
	Consumables.	
	AMC	

Committee Members	Name & Design.	Signature	Initial
	Kannan K/DGM/CR/CRC		
	Pattabiraman Dr R /SM/Labs		
	Sivasubramanian R /Manager/Labs		
For Specifications having reference numbers	CRC- 2,	DATE: 05 – 01 –2008	

### TECHNICAL SPECIFICATIONS FOR PROXIMATE ANALYSER

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Ref: CRC-2 Rev No. 0/ Dt. 05.01.2009

Sheet 1 of 4

SI. No.	Particulars	BHEL specifications	Bidder's offer [With complete technical details]
1	Confirmation for each point of specification.	Vendor is requested to give specific confirmation for each point.  Deviations if any shall be clearly indicated.	
2	Ambient Condition	The uncontrolled ambient room conditions area)  Temperature: 10 to 50 ° C,  Belative Humidity: 100 %  C)  Dusty	
3	Scope of Vendor	<ol> <li>Design, Manufacture, Testing, at vendor's works.</li> <li>Original software, Installation &amp; Maintenance manuals, Consumables, Mandatory Spares.</li> <li>UPS(if required)</li> <li>Training, Installation, Commissioning &amp; Proving performance at BHEL Trichy.</li> <li>On-site Guarantee, On-site Annual Maintenance Contract.</li> </ol>	
4	Name of Equipment	PROXIMATE ANALYZER	
4.1	Principle of operation	Thermogravimetric principle	
4.2	Parameters of analysis	Moisture, Ash, Volatile matter, and Fixed carbon in Fuel samples	
4.3	Sample Size	0.5 to 5 grams	
4.4	Number of samples	19 (+ 1 reference)	
4.5	Max.weight loss	100% ± 0.02 % RSD	
4.6	Precision  Balance Resolution	0.0001 g	
4.8	Oven Temperature Control Minimum °C Maximum °C	Ambient (Min) 100 1000	
4.9	Accuracy& Stability	2% of set point or ± 2 °C Whichever is greater	
4.10	Max.Ramp Rate	15 °C / min.	

### TECHNICAL SPECIFICATIONS FOR PROXIMATE ANALYSER

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Ref: CRC-2 Rev No. 0/ Dt. 05.01.2009

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			SHEEL Z UI
	(Ambient to 104)	50 °C / min.	
1 1 1	104 °C to 1000 °C	50 °C / min.	
4.11	Gas flow rate -	0.5 km	
	Low	3.5 lpm	
	Medium	7.0 lpm	
	High	10.0 lpm	
4.12	Min. stability	0.5% full scale	
4.13	Reproducibility(Day	± 1% full scale	
	to day)Unit to unit	± 2.5% full scale	
4.14	Gas pressure (Air)	45 psi (2.41 bars)	
	Nitrogen	35 psi(2.41 bars)	
	Oxygen	35 psi(2.41 bars)	
4.15	Ventilation	20 CFM	
	(Min.flow rate)		
4.16	Min.gas purity (Air)	99.5 % dry, oil free	
	Nitrogen	99.9 %	
	Oxygen	99.5 %	
4.17	Power supply	230V +/- 10% AC/1 Ph/50Hz- 1 Feeder	
4.18	Data System	In case the offered model requires PC with	
		special hardware and software, then bidder	
		should include the same in their scope. The	
		scope includes 17" TFT monitor, Laser printer	
		B/W, Windows XP+ services packages also.	
		In case the offered model requires only	
		general PC hardware and software, then	
		bidder should include only the application	
		software in their scope. Bidder should give	
		detailed Hardware and Software specification	
	A1 1/1 // //	for arranging at BHEL	
5	Along with offer the	a) Scope and interconnection diagrams-2	
	following details in	copies.	
	hard copies shall	b) Catalogs-2 copies.	
	be indicated.	c) Dimensional details for preparing Civil	
		Engg Drawings-2 copies.	
		d) Mandatory spares with Unit price if	
		applicable.	
		e) Consumables along with unit price if	
		applicable.	
		f) Power supply requirement.	
		g) Instrument air and compressed air if	
		required.	
		h) PC configuration.	
		i) Vents and drains if required.	
		j) Space requirement around the	
		equipment.	

### TECHNICAL SPECIFICATIONS FOR PROXIMATE ANALYSER

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Ref: CRC-2 Rev No. 0/ Dt. 05.01.2009

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	1		Sileet 3 Oi
		k) List of software.	
6	Installation and Commissioning	The Equipment with all Accessories is to be installed & commissioned at BHEL Works, free of cost, by the service engineer of the supplier.	
7	Performance Prove-Out at BHEL	The Supplier's Service Engineer has to conduct demonstration & calibration of the Equipment with Accessories.	
8	Inspection and Training at vendor's works	Incase the Equipment is of Indian origin, then BHEL's inspection and free training for 2 persons are applicable. Incase the Equipment is of Foreign Origin, the vendor should thoroughly inspect the equiment, furnish inspection certificate for BHEL's review and get clearance prior to dispatch of Equipment.	
9	Training on Operation & Maintenance at BHEL works.	Complete Training for BHEL Engineers to be given on Operation & Maintenance of the offered equipment at BHEL works, free of cost.	
10	Onsite Performance Guarantee	The Equipment & Accessories (including Bought-Out Items) are to be guaranteed for its performance for a minimum period of one year from the date of performance acceptance at BHEL Works.	
11	Draft and Final Installation and O&M manual in ENGLISH Language	1No Draft Installation, Operation & Maintenance Manual.It shall contain Electric Schematics, Circuit Diagrams, PCB Drawings, Trouble Shooting Charts, Mechanical Sub- Assemblies, Rating of Bought-Out Items, etc. BHEL will review its completeness and inform supplier to make necessary corrections if applicable and ask to furnish 2 more final sets. In addition, one soft copy in CD to be supplied.	
12	Annual Maintenance Contract - AMC	The bidder has to quote for AMC through trained service personnel in India for a period of three years after the expiry of ORIGINAL WARRANTY period. Technical Service for <b>Preventive and breakdown Maintenance</b> , Trouble Shooting and Re- Commissioning of the Equipment INCLUDING the Cost of SPARES and Consumables .Please consider 4 visits per year.	

### TECHNICAL SPECIFICATIONS FOR PROXIMATE ANALYSER

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13	AMC - RESPONSE	The bidder has to furnish / indicate the	
		response time for the service engineer to be at	
		BHEL works, from the time of reporting	
		breakdown through e-mail or telefax.	