



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	2621000132	30.10.2010	30.11.2010

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	Cobalt 60 Gamma Ray Projector with 300 Ci Source 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 8 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 "2621000132".

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 Sr.Manager / Capital Equipment / MM
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PART - A.**QUALIFYING CRITERIA FOR THE SUPPLY OF
300 Ci Cobalt – 60 ISOTOPE CAMERA****SECTION – I : COMPANY PROFILE**

The BIDDER has to provide the details pertaining to each clause in the table given below, to assess the profile of the BIDDER's COMPANY.

S.No.	PARTICULARS	VENDOR's RESPONSE
1.0	Number of Years of Experience of the BIDDER/ VENDOR in the field of design, manufacture and supply of '300 Ci Cobalt-60 Isotope Camera'	
2.0	Details on the International Standards / Codes adopted for the design and supply of above specified ISOTOPE Camera	
3.0	Number of 300Ci Cobalt-60 Isotope Cameras supplied, installed and commissioned till date, in the QUOTED MODEL .	
4.0	Number of 300Ci Cobalt-60 Isotope Cameras supplied, installed and commissioned till date for the following category of CUSTOMERS (within INDIA): a) Government Organisations b) Private Sector Companies [Large Scale Industries] c) Public Sector Undertakings	
5.0	Number of 300Ci Cobalt-60 Isotope Cameras supplied, installed & commissioned till date in the following Category (around the GLOBE) : a) Universities b) R&D Labs c) Reputed Heavy Engineering Works/Manufacturing firms	
6.0	Details of Quality System followed (Kindly furnish the salient aspects of the QA system followed)	
7.0	Comprehensive Details on Performance Testing - of the Equipment quoted, to be ensured in presence of BHEL Executives, prior to dispatch from Supplier's Works.	

SECTION – II : QUALIFYING CRITERIA

The BIDDER / VENDOR has to meet the following requirements to get qualified for submitting an offer for the supply of '300 Ci Cobalt-60 Isotope Camera' :

[Additional Sheets shall be attached with the OFFER, to provide requisite details]

S.No.	REQUIREMENTS	VENDOR's RESPONSE
8.0	The BIDDER / VENDOR shall have a minimum of THREE Years of Continuous Experience of in the Field of Design, Manufacture and Supply of '300 Ci Cobalt-60 Isotope Camera' and associated supporting system	
9.0	The BIDDER / VENDOR might have supplied atleast ONE number of '300 Ci Cobalt-60 Isotope Camera' with associated supporting systems.	
10.0	Reference List of Customers with full contact details of CONTACT PERSON, who are the End Users of '300 Ci Cobalt-60 Isotope Camera' with associated supporting systems supplied as per the above Clause No.8.0	
11.0	The BIDDER has to submit a Performance Certificate in the enclosed FORMAT for a period, not less than one year, from the Bidder's Customer(s). or The Performance Certificate or Reference shall be only from customers who are Heavy Engg. Fabricators like Manufacturers of Pressure Vessels and Heat-Exchangers, Off-Shore Oil Rigs, Thermal Power Plant Equipment, etc.	
12.0	BHEL reserves the right to verify the information provided by vendor. In case, it is found to be false/ incorrect, the offer shall get rejected.	
13.0	Details on SERVICE-AFTER-SALES Set-Up in India including the Addresses of Agents / Service Centres in India, to be furnished .	

SECTION – III : BID / OFFER FORMATS

The BIDDER / VENDOR has to note the following :

S.No.	REQUIREMENTS	VENDOR's COMPLIANCE
14.0	The BIDDER shall submit the offer in TWO PARTS - Technical [with PART A & PART B] & Commercial and Price Bid.	
15.0	The OFFER shall contain a comparative statement of Technical Specifications given by BHEL and the Offer Details submitted by the Bidder, against each Clause. A just 'YES' or 'CONFIRMED' or 'NO-DEVIATION' or 'COMPLIES' or 'ACCEPTED' or similar words in the technical comparative statement may lead to disqualification of the Technical Offer.	
16.0	The Technical Offer shall be supported by Product Catalogue and Data Sheets in ORIGINAL and complete technical details of 'Bought-Out-Items' with copies of Product Catalogue (if applicable)	
17.0	The Commercial Offer shall contain the Scope of Supply and the Un-Priced Part of the Price-Bid, for confirmation of the inclusion of all the accessories, auxiliary parts, spares, consumables, etc. with the main and basic equipment, to meet the technical specification requirements.	
18.0	Earlier performance/field experience (including service support) if any, with BHEL for the VENDOR's Equipment / Service, will be a reckoning factor for the technical qualification of the OFFER.	
19.0	The expected delivery period (including the time for Pre-Dispatch Inspection clearance by BHEL) for the '300 Ci Cobalt-60 Isotope Camera' with associated supporting system is not more than EIGHT Months (which includes time for General Arrangement Drawing approval by BHEL also) from the date of issue of BHEL Purchase Order. In case the quoted delivery period extends beyond EIGHT Months, an additional grace period of two months is permitted, but with a loading for arriving at the PRICE COMPETITIVENESS of the Commercial Offer (if the Offer is technically acceptable on all other accounts). Details are given in the Commercial Terms of this Tender.	

PERFORMANCE CERTIFICATE – [SAMPLE FORMAT]

(On Customer's Letter Head with Additional Sheet – if necessary)

1. Supplier of the Equipment/Source :
2. Make & Model of the Equipment :
3. Month & Year of Commissioning :
4. Application for which Equipment is used :
5.
 - a. Equipment Serial Number :
 - b. Strength of Radioactive Source :
 - c. Type of Radioactive Isotope :
 - d. Half-Life Period :
 - e. List of Accessories procured with Main Source :
6. Performance of the Equipment : Satisfactory /
Good /
Average /
Not Satisfactory
7. Feed- back on 'After Sales Service' by the Supplier :
8. Remarks / Reasons for Recommendations :

Date:

Signature & Seal of the Authority
Issuing the Performance Certificate

PART – B.

**TECHNICAL SPECIFICATIONS for 300 Ci Co-60 SOURCE PROJECTOR
(Exposure Device / Camera) for INDUSTRIAL USE**

S.No.	PARTICULARS	BHEL SPECIFICATIONS	BIDDER's OFFER [with Complete Technical Details]
1.0	Area of Application	For Gamma Radiography of materials and welded structures made of steel, with thickness ranging from 60 mm to 250mm.	
2.0	Principle of Operation	Gamma Ray Source Projector (Exposure Device) is a shielding container with the provision to take out the isotopic source for Radiographic Exposure with the help of a Teleflex Driving System, and to retrieve the isotope back to the shielding container at the termination of the exposure, for safe storage. The projector shall have the safe locking mechanism and connector selector assembly for safe handling of the isotope.	
3.0	Design Base	Projector shall be designed, tested and manufactured to meet the requirements of ANSI N-432-1980, ISO 3999-1 2000E, IAEA TS-R-1 (1996), USNRC 10 CFR34, 10CFR71 and 49CFR173. Additionally the projectors shall be designed, manufactured and serviced under a Quality Assurance (QA) Programme that has been accredited to ISO 9001(2000) and approved in accordance with USNRC 10CFR71, Sub-Part H.	

S.No.	PARTICULARS	BHEL SPECIFICATIONS	BIDDER's OFFER [with Complete Technical Details]
4.0	Constructional Features	a. The exposure device body shall contain Depleted Uranium Shield, Locking - Mechanism, Outlet Port, Protective Covers, etc. b. The device body shall consist of a Titanium "S" tube to house the flexible source pigtail. c. The control unit shall comprise of crank and gearbox, a pair of control housing, a Teleflex drive cable and a safety connector assembly. d. The source guide tube to have flexible stainless steel tubes with protective poly vinyl covering and provision to fit with the projector.	
5.0	DETAILED SPECIFICATIONS		
5.1	Capacity of the source projector	300 Ci Co-60 Radioisotope . The Projector shall be of Certified Type "B" (M) Package. The Original Supplier to be indicated.	
5.1	Shielding Material	Depleted Uranium	
5.2	Source Conduit in exposure device	'S' Type	
5.3	Material for Conduit	Preferably Titanium and the Supplier to be specified.	
5.4	Material for Outer Casing	Stainless Steel / Impact Resistant Plastic	
5.5	Weight of Camera	Shall be Less than 350 kgs.	
5.6	Connector Assembly and Lock	The control unit connector assembly and the connector safety lock shall be preferably mounted at the backside of the projector.	

S.No.	PARTICULARS	BHEL SPECIFICATIONS	BIDDER's OFFER [with Complete Technical Details]
5.7	Control Unit	a. Reel type control unit system shall comprise of the basic control unit, a control housing assembly, a Teleflex drive cable and a safety connector assembly. b. The control housing assembly shall consist of an outer sheath of flexible metal composite cable with a polyvinyl cover and a Teflon inner lining. c. The Teleflex driving cable shall consist of spiral wound flexible steel. d. The length of the control cable shall be 100 feet to facilitate the source travel of at least up to 50 feet.	
5.9	Source Guide Tube	a. Source guide tubes shall be flexible stainless tubes with a protective poly vinyl covering and can be used in SEVEN Feet lengths up to 35 feet. b. Intermediate and termination source guide tubes which are inter-connectable to provide required length, and the termination tube shall have a permanent fixed source stop.	
5.10	Source Assembly (Pig-Tail)	The source assembly shall consist of a hermetically sealed capsule attached to a leader cable. The opposite end of the leader cable shall have a connector for positive attachment to the source drive cable.	
5.11	Source Size	Source size should be as small as possible so that the value of Geometric Un sharpness for Radiography shall be met as per ASME CODE requirement.	

S.No.	PARTICULARS	BHEL SPECIFICATIONS	BIDDER's OFFER [with Complete Technical Details]
6.0	Packaging	Projector should meet IAEA and USNRC requirements for Type 'B' Packaging	
7.0	Type Approval	The projector shall have the Type approval from Atomic Energy Regulatory Board, Mumbai	
8.0	Radiation Survey Meter	<p>A. Surveymeter shall have a telescopic system that includes two internal energy compensated GM tubes for high sensitivity measurements of exposure and exposure-rate available in SI units and fast response to measure the leakage, scattering etc. The detector shall be extended upto 2 meters. The Survey meter shall have 5 ranges with maximum range 100μSv/hr to 10Sv/hr (0-1000R/Hour). It shall have energy response for Gamma and X-rays 80 kv to 3 MeV.The detector shall be rugged, light weight & should work within the environmental temperature of 20 to 50 degrees centigrade. It shall be battery operated.(1 No.)</p> <p>B. Portable/Standalone radiation surveymeter that includes two internal energy compensated GM tubes for high sensitivity measurements of exposure and exposure-rate available in SI units and fast response to measure the leakage, scattering etc. measuring range from 0.01mSv/h to 1Sv/h (10μR/h to 100R/h.) It shall have energy response for Gamma and X-rays 80 kV to 3 MeV. The detector shall be rugged, light weight & should work within the environmental temperature of 20 to 50 degrees centigrade.It shall be battery operated. (1 No.)</p>	

S.No.	PARTICULARS	BHEL SPECIFICATIONS	BIDDER's OFFER [with Complete Technical Details]
9.0	Scope of Supply.	<p>The scope of supply shall include all the requirements given under Specifications as per 'Part B' , mainly Co-60 Source Projector with 300 Ci Source and the following accessories :</p> <ol style="list-style-type: none"> 1) Source Holder (Pigtail) – 1 No. 2) 50ft /15.0 M Reel Type Control with Odometer -2 Nos. 3) Control Cable lock and fitting with Key -1 No. 4) 7ft/2.1 M Source Guide Tube Extension - 6 Nos. 5) 7ft/2.1 M Source Guide Tube with Fixed Stop - 3 Nos. 6) Source Positioning Kit – 1 No. 7) Transport Cart for Co-60 Source Projector -1 No. 8) Collimator Tungsten 20 x 360 deg. Panoramic – 1 No. 9) Collimator Tungsten 60 deg. side–1 No. 10) Collimator Lead 60 deg. Side – 1 No. 11) Teleflex Cable – 1 No. 12) Radiation Survey-meters as per Specification Clause No. 8.0 (A & B) – 2 Nos. 13) Connector - Selector Assembly – 1 No. 14) Dimensional report for Cobalt 60 source. 15) Conformance certificate in accordance with AERB / India Regulations, etc. 	

S.No.	PARTICULARS	BHEL SPECIFICATIONS	BIDDER's OFFER [with Complete Technical Details]
10.0	Consumables for the Source Projector Device& Accessories .	BIDDER has to list down the CONSUMABLES, if any to be used in the Operation of the Source Projector system and QUOTE with UNIT RATE for all the listed consumables, to be procured with the system.	
11.0	Spares for Source Projector device& Accessories	BIDDER has to list down the essential Spares required for ensuring normal operation of the system for 2 Years. BIDDER to QUOTE with UNIT RATE for all the listed SPARES, to be procured with the system.	
12.0	Inspection at Supplier Works	If warranted, the overall system and accessories shall be offered for Inspection to BHEL Engineers at Vendor's Works at free of cost. [Boarding & Loading at BHEL Cost]	
13.0	Performance Prove-Out at BHEL Works	The Supplier has to conduct demonstration of the satisfactory performance operation, control and safety aspects of the source projector system with 300Ci Co-60 source and it's accessories, at BHEL Works, as per the mutually agreed upon testing standards finalized during the technical discussions. .	
14.0	Installation and Commissioning	The over all source Projector system with 300Ci source and it's accessories, to be installed & commissioned at BHEL Works, FREE OF COST, by the SUPPLIER / Indian representative.	
15.0	Documentation in ENGLISH Language	3 Copies (In English) of the Operation & Maintenance Manuals shall be supplied, at the time of inspection by BHEL Engineers. In addition, one SOFT COPY in CD to be supplied.	

S.No.	PARTICULARS	BHEL SPECIFICATIONS	BIDDER's OFFER [with Complete Technical Details]
16.0	Performance Guarantee	The over all Co-60 source Projector System with 300-Ci Source and it's accessories are to be guaranteed for its performance for a minimum period of one year from the date of performance acceptance at BHEL Works.	
17.0	Technical Support	The BIDDER has to QUOTE for Technical support, with detailed scope of work, after the warranty period.	
18.0	Safety and Quality Standards	Supplier to ensure that Safety and Quality of Over all system shall conform to International Standards. Conformance certificate to be along with the system.	