



# Bharat Heavy Electricals Limited

(High Pressure Boiler Plant)

Tiruchirappalli – 620014, TAMIL NADU, INDIA

CAPITAL PURCHASE / MATERIALS MANAGEMENT / MANUFACTURING

An ISO 9001  
Company

<b>ENQUIRY</b>	Phone: +91 431 257 79 38 Fax : +91 431 252 07 19 Email : <a href="mailto:tvenkat@bheltry.co.in">tvenkat@bheltry.co.in</a> Web : <a href="http://www.bhel.com">www.bhel.com</a>
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	<b>Enquiry Number:</b>	<b>Enquiry Date:</b>	<b>Due date for submission of quotation:</b>
	<b>2620700053</b>	<b>06.08.2007</b>	<b>17.09.2007</b>

Your 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	Real Time Radiography for STBW - I as per the technical specification & commercial conditions applicable (to be downloaded from web site <a href="http://www.bhel.com">www.bhel.com</a> or <a href="http://tenders.gov.in">http://tenders.gov.in</a> )	2 Nos.	30.01.2009
20	Real Time Radiography for STBW - II as per the technical specification & commercial conditions applicable (to be downloaded from web site <a href="http://www.bhel.com">www.bhel.com</a> or <a href="http://tenders.gov.in">http://tenders.gov.in</a> )	1 No.	30.01.2009
30	New Real Time Radiography Testing Station for the Existing FT Stn.II as per the technical specification & commercial conditions applicable (to be downloaded from web site <a href="http://www.bhel.com">www.bhel.com</a> or <a href="http://tenders.gov.in">http://tenders.gov.in</a> )	1 No.	30.03.2008

Note:- The technical specifications (Part – A & Part – B) are common for all the above three items.

**BHEL commercial terms & conditions with Price Bid and Bank Guarantee formats along with technical specifications 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 “2620700053”.**

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 Purchase / MM / Manufacturing
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**PART A****SECTION – I: QUALIFYING CRITERIA**

The BIDDER / VENDOR (OEM) has to meet the following requirements to get qualified for submitting an offer for REAL TIME RADIOSCOPY SYSTEM.

<b>S. No.</b>	<b>REQUIREMENTS</b>	<b>VENDOR's COMMENTS</b>
<b>1</b>	The Bidder / Vendor (OEM) shall have a minimum of FIVE Years of Continuous Experience in the field of Design, Manufacture and Supply of REAL TIME RADIOSCOPY SYSTEM	
<b>2</b>	Only those vendors (OEMs) should quote, who have supplied and commissioned at least REAL TIME RADIOSCOPY SYSTEM in the past Ten years (on the date of opening of Tender) and such machine should presently working satisfactorily for more than one year after commissioning (on the date of opening of Tender), However, if such equipment has been supplied to BHEL, then the same must be currently working satisfactorily for not less than six months (as on date of Tender Opening) from the date of commissioning and acceptance.	
<b>2.1</b>	<b>Performance certificate from the customers regarding satisfactory performance of such equipment supplied to them in attached format should to be enclosed along with technical offer.</b>	
<b>2.2</b>	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.	

**SECTION – II**

The BIDDER/ VENDOR (OEM) is requested to furnish the following information:

<b>S. No.</b>	<b>PARTICULARS</b>	<b>VENDOR's RESPONSE</b>
3	Profile of the Company bringing-out the years of Experience of the BIDDER in the field of design, manufacture and supply of 'REAL TIME RADIOSCOPY SYSTEM' for Steel Weld Inspection in Tubular Products	
4	Number of 'REAL TIME RADIOSCOPY SYSTEM' supplied, installed and commissioned till date (with details on equipment type / model, configuration, customer and quantity)	
5	Details on International Standards / Design Process Codes followed in Design and Manufacture of the Equipment.	
	Comprehensive Details on Performance Testing - of the Equipment quoted, to be ensured in presence of BHEL Executives, prior to dispatch from Supplier's Works	
6	Details on SERVICE-AFTER-SALES Set-Up in India including the Addresses of Agents / Service Centers in India. Competency & Experience of the Local Service Agency are to be provided.	
7	Any Additional Data to supplement the manufacturing capability of the BIDDER for the subject equipment.	

**SECTION – III**

The BIDDER/ VENDOR (OEM) to note the following:

<b>S.No.</b>	<b>REQUIREMENTS</b>	<b>VENDOR's COMPLIANCE</b>
<b>8</b>	The BIDDER / VENDOR (OEM) shall submit the offer in TWO PARTS -Technical [ <b>with PART A &amp; PART B</b> ] & Commercial and Price Bid.	
<b>9</b>	The Technical Offer shall be supported by Product Catalogues & description.	
<b>10</b>	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 mere 'CONFIRMED' or 'COMPLIES' or 'YES' or 'NO-DEVIATION' or similar words in the technical comparative statement against clauses where details have been sought may lead to disqualification of the Technical Offer.	
<b>11</b>	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 of the inclusion of all the accessories, toolings, attachments, auxiliary parts, spares, consumables, etc. with the main and basic equipment, to meet the technical specification requirements.	
<b>12</b>	BIDDER / VENDOR (OEM) has to indicate the Country of Origin for the supply of equipment.	

**PERFORMANCE CERTIFICATE**

(On Customer's Letter Head)

- 1. Supplier of the machine :
  
- 2. Make & Model of the Equipment :
  
- 3. Month & Year of Commissioning :
  
- 4. Application :
  
- 5. Jobs Performed in the machine :
  
- Rating of Power source :
  
- 6. Performance of the Machine : Best in the market /  
(Strike off whichever is not applicable) Satisfactory /  
Good /  
Average /  
Not Satisfactory
  
- 7. Any other remarks:

Date:

Signature & Seal of the Authority  
Issuing the Performance Certificate

**PART B-TECHNICAL SPECIFICATIONS for REAL TIME RADIOSCOPY SYSTEM.**

S. No.	PARTICULARS	BHEL SPECIFICATIONS	BIDDER's OFFER [with Complete Technical Details]
1.0	Description of the Real Time Radioscopy System	The Real Time Radioscopy System, (RTR) consists of an X-Ray Source (320 kV constant potential X-Ray equipment) and an Imaging System (Image Intensifier) with digital Image Processor . The out put of the over all system shall be Digital Image meeting the sensitivity as well as other requirements, as outlined subsequently in this technical specification. Section-I: 320 kV constant potential X-Ray equipment with swiveling arrangement Section-II: Image Intensifier Section –III: Digital Image Processor	
2.0	Area of Application	Online Radioscopic Inspection of Straight Tube Butt welds in Steel.	
2.1	Job Details	Butt Welds of Seamless Steel Tubes of Diameter 25.4 mm to 89 mm and Double wall Thickness 4mm to 30 mm.	

**Section –I: 320 kV Constant Potential X-Ray equipment with swiveling system**

Sl. No.	PARTICULARS	BHEL SPECIFICATIONS	BIDDER's OFFER [with Complete Technical Details]
3.0	Principle of Operation	320 kV constant potential X-Ray equipment is the Radiation source in the RTR system .It Generates continuous X- rays by bombardment of high speed electrons on high atomic number Target (Tungsten)	
4.0	Design Base	Constant potential Bi polar metal ceramic X ray tube with capacity 320 Kv/10mA (by varying potential difference across the electrodes (15 kV to 320 kV) with varying tube current 0 to 10 mA High frequency: 40 kHz out put for stability, low ripple and better sensitivity.	
5.0	Equipment Configuration	The minimum desired features are enlisted below	
5.1	Operating Parameters	<b>Tube voltage:</b> Minimum 15 Kv to 320 Kv (Variable insteps of 0.2 Kv). <b>Tube Current</b> Minimum 0.5 mA to 10mA (Variable in steps of 0.1mA).	

5.2	Focal Spot	Dual focal spot preferable (with large focus 1.8 mm and mini focus 0.8mm) as per IEC 336	
5.3	Tube current	To be specified by supplier for large focus and mini focus at 320kV.	
5.4	Exposure Time	Digital display: 1 Second, in steps up to 60minutes	
5.5	Pre warning	1 to 30 seconds	
5.6	Programmed operation	For storing 100 data sets, with read out message for error (With passwords), supplier to specify	
5.7	Inherent filter	Preferably Beryllium filters. Supplier to specify	
5.8	High voltage connections	Two plugs socket with locking lever and safety features, to be specified by the bidder.	
5.9	High Voltage cables	High Voltage cables to have Anode and Cathode connections with 10 meters in length, both ends Rubber cone covered plugs.	
5.10	Dose out put with inherent filter	Supplier to specify	
5.11	Dose-Rate	in Sv/min (R/ min) at 1 M with and without filter - Supplier to specify	
5.12	Leakage level radiation (at full load)	Shall not exceed 1R / 1Hour /1metre from focal spot.	
5.13	Control Unit	Digital Control Unit containing Power Module, Control Module [with clear text in English], Control Cabinet [with table top], Standard Operating Programs, Inter-Connecting Cables [with length of approximately 20 meters], Control Unit Lock & Key, etc.	
5.14	Cooling Unit	a. Heat Exchanger Type Cooling Unit with suitable rating and efficient coolant pump, to meet the peak-load operational requirements. b. The unit shall have the in-built warning system for unit failure, low level of coolant, lack of flow, leakage, etc. and connected with the tripping mechanism of the main equipment. c. BIDDER to furnish complete details on the Cooling System with Accessories provided and to list down Essential Spares like Cooling Fans, pair of Coolant Circulation ,Hoses with end connectors, etc.	
5.15	Flash Lamp	A Warning Flash Lamp with fail-proof safety circuit shall be supplied with 20-meter long cable.	

<b>5.16</b>	X-Ray Unit Manipulator	a.A suitably designed Manipulator having arrangement for swiveling from + <b>45</b> Degrees to <b>Zero</b> and then to – <b>45</b> Degrees, for the movement of the X-Ray Head. b.The Manipulator has to be operated from the Control Room.	
<b>6.0</b>	Weight	Approximately 35 Kg (Supplier to specify.)	
<b>7.0</b>	Safety interlocks	Built in safety interlocks to switch off the system in case of emergency and safety with door interlocks.	
<b>7.1</b>	Input Electric Power Supply	a. BHEL will provide Electric Input Power Supply at ONE POINT only, With $230 \pm 10$ % V, 50 Hz, Single Phase AC through a 3 wire system [Phase, Neutral & Protective Earthing].  <b>O R</b> With $415 \pm 10$ % V, 50 Hz, Three Phase AC through a 3 wire system [No Neutral Conductor, 4 <sup>th</sup> wire for Protective Earthing]. b. BIDDER to take supply from this SINGLE Point to all the sub-systems of the equipment through proper step-up or step-down transformers.	
<b>7.2</b>	Ambient Condition	a.The uncontrolled ambient room conditions are : 1)Temp:18 to 45° C 2)Relative Humidity : 45 to 85 % b.BIDDER to specify the atmospheric conditions, as the working environment for the OFFERED Equipment to deliver precise results and serve for a prescribed life of the Equipment.	
<b>7.3</b>	Accessories	BIDDER to list down (with UNIT RATE) the various ACCESSORIES to be procured with the EQUIPMENT to enhance the Operating Efficiency and Features of the OFFERED EQUIPMENT, over and above those mentioned in the SPECIFICATIONS.	
<b>7.4</b>	Safety and Quality Standards	a. Supplier to ensure Safety and Quality of X-Ray System, which shall conform to International Standards. b. Conformance certificate to be given along with the equipment	
<b>8.0</b>	Scope of supply	Following shall be supplied compulsorily with the Equipment : <b>1. X ray head as per BHEL specifications</b> <b>2. High voltage Generators</b> <b>3. High Voltage Cables:</b> 1 pair. 4. Power connection cables :1no <b>5. Digital Control unit</b> <b>6. Cooling system:</b> <b>7. Warning flash lamp</b>	

		<p>8. Programmable motor control Diaphragm</p> <p>9. Manipulator having swivel arrangement from +45 degrees to Zero to -45 degrees, for movement of x-ray head to be operated from control room.</p> <p>10. HT Silicon paste:1 kg (in 100 grams pack)</p> <p>11. Service tool kit</p> <p>12.Necessary Standard/Certificate traceable to National/International Standard.</p> <p>13. Optional/Compulsory Accessories</p> <p>14..Spares &amp; Consumables</p> <p>15. Inspection at Supplier's Works &amp; Training</p> <p>16. Installation, Commissioning &amp; Performance Prove-Out and Training on Operation, Trouble Shooting &amp; Maintenance</p> <p>17.Documentation: Testing &amp; Calibration Certificates O &amp; M Manuals [3 Sets</p>	
<b>9.0</b>	Consumables for Main Equipment & Accessories	BIDDER has to list down the CONSUMABLES to be used in the Operation of the Equipment and QUOTE with UNIT RATE for all the listed consumables, to be procured with the equipment.	
<b>10.0</b>	Spares for Main Equipment & Accessories	<p>a. BIDDER has to list down the SPARES under Mechanical, Electrical &amp; Electronic Category for the Main Equipment &amp; Accessories for Equipment Operation in 3 shifts a day and for 365 days in a year.</p> <p>b. BIDDER has to compulsorily quote for the following Commissioning Spares with the TECHNICAL OFFER:</p> <p>1) High Voltage Cables for 320kV - 1 Pair</p> <p>2) All types of PCBs for X-Ray Control System-1Set</p> <p>3) Critical Spares for X-Ray Head and HT Transformer-1Set</p> <p>4) All Signal Cables - 1 No. each</p> <p>5)All Fuses – 3 Sets.</p>	

**Section –II: IMAGE INTENSIFIER FOR REAL TIME RADIOLOGY SYSTEM**  
**Compatible with 320 kV constant potential X Ray system**

S. No.	PARTICULARS	BHEL SPECIFICATIONS	BIDDER'S OFFER [with Complete Technical Details]
11.0	Principle of Operation	The image intensifier is an imaging device in place of film for radiographic inspection. X rays are made to pass through the weld and the image of the weld is captured concurrently with X ray irradiation. The image intensifier converts X ray image into visible image and displayed on to TV monitor for evaluation.	
12.0	Radioscopic Technique	Double wall double Image (elliptical image)	
13.0	Equipment Configuration	The minimum desired features are enlisted below	
13.1	Operating Parameters	Compatible to X ray Radiation 15 to 320 kV constant potential, Mains supply 100-250VAC, 50-60 Hz fuse 2A	
13.2	Constructional Features	As follows	
13.3	Intensifier system	<p><u>Input mains voltage:</u> 230volts AC -50Hz.            Tube shall be of latest Technology with Non browning glass for extended life.  <u>Input screen diameter:</u> 230mm(9") (IEC 1262).  <u>Other selectable fields:</u> 2 selectable range of suitable size --supplier to specify.            Applicable fields of X-Ray voltage: 15kV to 320kV.  <u>Conversion factor:</u>- supplier to specify in Cd/M<sup>2</sup> / μGy/second  <u>Output screen diameter:</u> -Supplier to specify in mm.  <u>Limiting visual resolution:</u> preferably 50 lp /cm (Without magnification) and 60-70lp/cm(With magnification) measured with microscope at the output screen directly.</p>	

		<u>Integral distortion in percentage (%)</u> - Supplier to specify. <u>Shutter arrangement to be operated from control room</u> - Specify whether it is an integral part of the system or not. It is to be separately quoted if it is not a part of the system, but as an accessory. (Supplier to specify.)	
<b>13.4</b>	Camera	Television standard with minimum 625 lines /50Hz. Sensing area - (Supplier to specify) Picture elements (750 x 852(CCIR))	
<b>13.5</b>	Optical system	Camera lens with motorized zoom -- Supplier to specify focus and zoom.	
<b>13.6</b>	TV monitor	Power supply 230 volts-AC, 50Hz Television standard with minimum 625 lines /50Hz. TV diagonal size 425 mm (17") switchable to 300mm(12") with Circuit diagram	
<b>13.7</b>	Dose overload	Phosphor burn protection (supplier to specify)	
<b>13.8</b>	Input Electric Power Supply	230 ± 10 % V, 50 Hz, Single Phase AC through a 3 wire system [Phase, Neutral & Protective Earthing]	
<b>13.9</b>	Calibration	Factory calibration	
<b>13.10</b>	Ambient Condition	The uncontrolled ambient room conditions are : - a) Temperature : 18 to 45 ° C, b) Relative Humidity : 45 to 85 % BIDDER to specify the atmospheric conditions, as the working environment for the OFFERED Equipment to deliver precise results and serve for a prescribed life of the Equipment.	
<b>13.11</b>	Accessories	BIDDER to list down (with UNIT RATE) the various ACCESSORIES to be procured with the EQUIPMENT to enhance the Operating Efficiency and Features of the OFFERED EQUIPMENT, over and above those mentioned in the SPECIFICATIONS.	

<b>14.0</b>	Scope of supply	<p>Following shall be supplied compulsorily with the Equipment :</p> <p>a)Image intensifier system as per specification  b)Power cables as required for inter connections  c)Power supply cables  d)Camera  e)Optical system  f)TV monitor  g)Lead Shutter arrangement to be operated from the control room.  h)Duplex wire type IQI EN 462 Part 5,and Line pair 1 Set.  i)Mountable operator control panel with key pads and cables.  j)Necessary Standard / Certificates traceable to National / International Standards.  l)Spares: 1)All signal cables-1 no.  2)All printed control board-2no. each  3)CCTV monitor 3no  4)Camera- 1 no.  5)BNC (Video ) cable 20 meters -2 nos.  6)Zoom lens –2 no.  7)PCB for LI control –2 set  8)All fuses-3set</p>	
<b>15.0</b>	Consumables for Main Equipment & Accessories	BIDDER has to list down the CONSUMABLES to be used in the Operation of the Equipment and QUOTE with UNIT RATE for all the listed consumables, to be procured with the equipment.	
<b>16.0</b>	Spares for Main Equipment & Accessories	BIDDER has to list down the SPARES Printed Circuit Boards – PCBs, etc.) coming under the Category of Mechanical, Electrical & Electronic Spares for the Main Equipment as well for the essential and optional desirable Accessories. To be replaced with actual spares and accessories. BIDDER to QUOTE with UNIT RATE for all the listed SPARES, to be procured with the equipment.	

**Section –II: DIGITAL IMAGE PROCESOR FOR REAL TIME RADIOLOGY SYSTEM Compatible  
with Image Intensifier & 320 kV constant potential X Ray system**

S. No.	PARTICULARS	BHEL SPECIFICATIONS	Bidder's OFFER [With Complete Technical Details]
17.0	Principle of Operation	Digital Image Processor is used in conjunction with Image Intensifier System. Acquisition Software should convert the analogue Image from Image Intensifier to Digital Image. Image Processing software Carries out the Image Processing functions to Improve the Image Quality of this image and Displays it on a monitor.	
18.0	Constructional Features	As follows	
18.1	Image Processing System	The PCI based Image Processing System shall include:  (a)A/D converter and Frame Grabber (b)Computer (c) Image Processing Software	
18.1.1	Image Processing System Computer	-Pentium-IV Processor with Industrial Rack mount chassis, 1GB RAM, 120GB hard disc capacity with Additional Graphics Card, DVD/CD and 89mm floppy drives, 100Base T network interface with RJ-45 socket, minimum 1280x1024 pixel & 0.25mm(maximum) pitch color monitor, key board and optical mouse. Computer shall have sufficient disk space for temporary storage of over 2400 full frame digital Images. -Supplier to specify -Display: preferably, Automatic Gray scaling (16 to 8 bit conversion) for monitor display (supplier to specify)	

18.1.2	Image Processing Software	<p>Image Processing functions: The software should be capable of performing the following functions</p> <ul style="list-style-type: none"> <li>- Noise reduction through integration.</li> <li>- Contrast enhancement</li> <li>- Edge enhancement</li> <li>- 16 bit filter capability, with different Kernel sizes.</li> <li>- Low pass filter, high Pass filter, median, crisping, pseudo 3D etc.</li> <li>- 8-bit type predefined filters for all type of image processing.</li> <li>- It shall be compatible with NIMA DICOM3.0 standard and with ASTM DINCODE standard for image format and functionality. It shall have the facility to make the image automatically available in BMP, JPEG and TIFF image file format for use in standard applications.</li> </ul> <p>-The images must be available for programming the ADR in real time. For this, the Supplier shall provide the source code of the image processor software or,</p> <p>- Provide the images in standard image format (BMP is preferred) in real-time (<b>with out user specification or user prompted file saving</b>) in a fixed location in the PC hard drive</p>	
18.2	Ambient Conditions	<p>The Image Processing system is used together with the Image Intensifier and X-Ray System, and hence the ambient conditions are same:</p> <p>a) Temperature: 18 to 45 ° C,</p> <p>b) Relative Humidity: 45 to 85 %</p> <p>BIDDER to specify the atmospheric conditions, as the working environment for the OFFERED Equipment to deliver precise results and serve for a prescribed life of the Equipment.</p>	

<b>18.3</b>	Scope of supply	Following shall be supplied compulsorily with the Equipment: a) Computer as per specifications b) A/D converter c) Image Processing Software	
<b>18.4</b>	Consumables for Main Equipment & Accessories	BIDDER has to list down the CONSUMABLES to be used in the Operation of the Image Processing System and QUOTE with UNIT RATE for all the listed consumables, to be procured with the system.	
<b>18.5</b>	Spares for Main Equipment & Accessories	BIDDER has to list down the SPARES (Printed Circuit Boards – PCBs, etc.) Coming under the Category of Mechanical, Electrical & Electronic Spares for the main system as well as for the essential and optional desirable Accessories. To be replaced with actual spares and accessories. BIDDER to QUOTE with UNIT RATE for all the listed SPARES, to be procured with the equipment.	
<b>19.0</b>	Inspection	The over all RTR system and accessories (consisting of the items described as per section –I and Section-II) shall be offered for Inspection by BHEL Engineers and Performance Prove-Out, at Supplier's Works.	
<b>20.0</b>	Installation and commissioning	The over all RTR system and accessories (consisting of the items described as per section –I , Section-II and Section-III) is to be installed & commissioned at BHEL Works, FREE OF COST, by the Service Engineer of the SUPPLIER.	

<b>21.0</b>	Performance Prove-Out at BHEL	<p>The Supplier's Service Engineer has to conduct demonstration of the following in accordance with INTERNATIONAL STANDARDS/Codes( ASME Boiler and Pressure vessel code section 5 Article 2,Appendix 2)</p> <p>Resolution of the Image Intensifier system - ie :Image intensifier motorized zoom lens system television camera and TV monitor shall be better than 3 line pair /mm .</p> <p>3numbers of test reports for the above resolution verified with X-ray unit shall be submitted prior to BHEL dispatch.</p> <p>Contrast sensitivity: Supplier to demonstrate 2% using steel wedge</p> <p>Demonstration of IQI sensitivity placing ASME Hole type IQI on Source side for single wall thickness</p>		
		Steel thickness (mm)	ASTM IQI Designation(Source side)	IQI essential hole
		< 6.4mm	12	2T
		6.4 to 9.5 mm	15	2T
9 .5to 12.7 mm	17	2T		
12.7 to 19mm	20	2T		
<b>22.0</b>	Documentation in ENGLISH Language	<p>3 Copies (In English) of the Operation &amp; Maintenance Manuals containing Electric Schematics, Circuit Diagrams, PCB Drawings, Trouble Shooting Charts, Mechanical Sub-Assemblies, Rating of Bought-Out Items, etc. shall be supplied, at the time of inspection by BHEL Engineers.</p> <p>In addition, one SOFT COPY in CD to be supplied.</p>		
<b>23.0</b>	Performance Guarantee	<p>The over all RTR system and accessories (consisting of the items described as per section –I and Section-II, including Bought-Out Items) are to be guaranteed for its performance for a period of two years from the date of performance acceptance at BHEL Works.</p>		
<b>24.0</b>	Service and Spares Support Requirements	<p>Vendor shall ensure after the guarantee period, through trained service personnel in India for next 5 years as and when need arise. Spares to be made available with in a fortnight.</p>		

<b>25.0</b>	Training on Operation & Maintenance	Complete Training for 2 BHEL Engineers is to be given on Operation & Maintenance of the OFFERED Training has to be provided at BHEL Works, after the successful commissioning of the Equipment & Accessories.	
<b>26.0</b>	Annual Maintenance Contract - AMC	The BIDDER has to QUOTE for AMC with detailed scope of work.	
<b>27.0</b>	Safety and Quality Standards	Supplier to ensure that Safety and Quality of the over all RTR system and accessories (consisting of the items described as per section –I and Section-II, including Bought-Out Items) and it shall conform to International Standards. Conformance certificate to be furnished along with the equipment.	