

BHARAT HEAVY ELECTRICALS LIMITED, HEEP, RANIPUR, HARIDWAR

Quality Control Department -Fabrication division

Tender Notice

NIT No: HW/QM/QCF/15-16/01

Dated: 19.05.2015

Sealed quotations superscribing the tender number and due date are invited from well-established, reliable and experienced firms for carrying out Radiography testing and Ultrasonic testing as per the details given below:

Name of Work	Radiography testing (X-Ray & Gammagraphy) and Ultrasonic testing a. X-Ray: 9000 radiographs (of size 19 cm X 10 Cm) b. Gammagraphy: 2400 radiographs (of size 19 cm X 10 Cm) c. Ultrasonic testing: 1800 metres of weld length
NIT No & Date	HW/QM/QCF/15-16/01 Dated: 19.05.2015
Period of Work	One Year
NIT Value	Rs.1261080/- (Rs.twelve lakhs sixty one thousands and eighty only) + Service Tax at the rate applicable at the time of execution of the work
Amount of Earnest Money Required	Rs.40,000/- (Rupees Forty thousands only)
Last Date and time of Receipt of Tender	09.06.2015 (Tuesday) up to 01:45 p.m. at tender box in tender room.
Date & Time for opening of Technical Bid	09.06.2015 (Tuesday) at 02:30 p.m.
Place of opening of Tender	Tender Room in purchase department, 4th floor, Main Administrative Building, HEEP, BHEL, Ranipur, Haridwar. 249403 (Uttarakhand) India
Tender Cost	Rs. 500/- (Five Hundred only)

Note:

- This tender enquiry comprises of following document:
 - This NIT No: HW/QM/QCF/15-16/01 Dated: 19.05.2015
 - Commercial terms and Condition: Annexure-I
 - General terms and conditions: Annexure-II
 - Special terms and conditions: Annexure-III
 - Details of firm: Annexure-IV
 - Pre Qualification Criteria: Annexure-V
 - Checklist and schedule of general particulars: Annexure-VI
 - Price Bid: Annexure-VII
- Full set of Tender can be either downloaded from BHEL websites www.bhel.com / www.bhelhwr.co.in and also from www.tenders.gov.in or can be purchased from office of the undersigned on submission of proof of depositing the Tender cost at

I /We agree.

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the Cash section. If Tender is downloaded from website, cash receipt in original or a demand draft in favour of “Bharat Heavy Electricals Limited Haridwar” against the Tender cost mentioned above is to be submitted along with the Technical bid.

3. The offer must be sent in two separate sealed envelopes containing Technical Bid in one envelope marked ‘**Technical Bid**’ and Price Bid in second envelope marked ‘**Price Bid**’. Both these envelopes must be contained in an outer main envelope. ‘**NIT number**’ and ‘**Date and Time of opening of Enquiry**’ should be clearly displayed on all the envelopes.
4. **Sealed Technical bid envelope should consist of all the documents as mentioned in Annexure VI, ‘Checklist and Schedule of General Particulars’ (point no.1 to 8), except for the price bid (point no.9).**
5. **Sealed Price bid envelope should only contain price bid in Annexure-VII format and should be clearly marked on the envelope as Price Bid. Price Bid in any other format will not be accepted.**
6. Bidders who accept all the terms and conditions of this Tender will only be considered for the Price bid stage.
7. Offers can be sent to the address mentioned below by Registered Post, Courier etc., so as to reach latest by 1.45 P.M. on 09.06.2015. The quotations must be posted with due date allowance for transit time:

**GM(MM) Office
Tender Room in purchase department,
4th floor, Main Administrative Building,
HEEP, BHEL, Ranipur, Haridwar.
249403 (Uttarakhand) India.**

Offers may also be submitted by hand in the Tender Box kept in **Tender Room in purchase department, 4th floor, Main Administrative Building, HEEP, BHEL, Ranipur, Haridwar. (Uttarakhand) India-249403** by 1.45 P.M. on 09.06.2015.

8. Tenders not received, at the Tender room located at 4th Floor of Main Administrative Building, HEEP, by the date and time mentioned above will not be accepted.
9. Tenders without signatures and seal of the bidder on all pages will be liable for rejection.
10. **BHEL reserves the right to extend the contract for one more year after completion of one year contract. The same extension will be done depending upon the satisfactory performance of the contractor during the contract period. It will be done on the same rates and same terms and conditions as in the original contract.**
11. **Pre Qualification Criteria:** Offers of only those vendors shall be considered who meet the following pre-qualification criteria:
 - (a) The vendor should have valid PF code No. and ESI Code No. and should submit the proof of the same or should be willing to submit the undertaking to obtain the same within one month of award of work.
 - (b) The vendor will provide PAN based Service Tax registration number for the relevant services at the time of submitting the bid for the services offered. He will submit a proof of the same.
 - (c) Average annual turnover for the last three financial years ending 31st March or 31st December should be at least 5 lacs. Documentary evidence regarding the same has to be furnished by the vendor.

- (d) The vendor should have executed at least **one** similar Radiography Testing and Ultrasonic Testing work having contract value of at least 9 lacs in the previous five years.
- or**
- The vendor should have executed at least **two** similar Radiography Testing and Ultrasonic Testing works each having contract value of at least 5 lacs in the previous five years.
- or**
- The vendor should have executed at least **three** similar Radiography Testing and Ultrasonic Testing works each having contract value of at least 4 lacs in the previous five years.
- (e) The vendor will submit the documentary evidence such as Purchase Order / Work Order copies etc. clearly mentioning the scope of work, value and award date/ year as per clause 10(d) above.
- (f) He will also furnish the performance certificate(s) from the customer regarding satisfactory completion of work awarded to him with reference to clause 10(d) above.
- (g) Customer's details such as Name of contact persons, Address, Telephone No., Fax No., email ID etc. shall be submitted by the vendor alongwith the offer. BHEL reserves the right to verify the information provided by the vendor with the vendor's customers directly.
- (h) The vendor shall have at least one BARC RT Level-II qualified person who can perform Site Incharge function / perform radiography evaluation work in Radiography Testing. Apart from the same the vendor shall have at least one more RT-Level-II person to perform radiography evaluation work in Radiography Testing. The vendor will also have adequate number of RT-Level-I persons to carry out radiography work. RT Level-II / RT Level-I qualified personnel should be qualified from ISNT/ ASNT/ BARC/ other similar institutions. For Ultrasonic Testing the vendor shall have at least two UT Level-II qualified personnel from ISNT/ ASNT/ other similar institutions. RT and UT qualified personnel with minimum two years working experience will be accepted for deputation at BHEL , Haridwar for testing work.
- (i) The vendor has to fill up the details required with respect to Pre Qualification Criteria in the format given in Annexure V and submit along with the Technical Bid.
12. In case of any query, bidders may contact SDGM (QC-F) at phone: 01334-281809 or email at: sharmar@bhelhwr.co.in .


(R K Sharma)
SDGM (QC-F)

Place: Hardwar.
Date: 19-05-2015

I /We agree.

3/19

Sign and seal of Contractor

TECHNICAL BID
COMMERCIAL TERMS AND CONDITIONS

1. In the present contract radiograph area equivalent to 9000 X-Ray radiographs (of size 19 cmX 10 Cm) and 2400 Gamma Ray radiographs (of size 19 cm X 10 Cm) are proposed to be subcontracted. For the same rates are to be offered in terms of Rs. per square cm of accepted radiograph for X-Ray and Rs. per square cm of accepted radiograph for Gammagraphy. In ultrasonic testing 1800 metres of weld length is proposed to be subcontracted. For the same rates are to be offered in terms of Rs.per metre of tested weld length. Rates for X-Ray, Gammagraphy and Ultrasonic Testing are to be offered only in the sealed Price Bid as mentioned in clause 5 of NIT. Apart from the same rates are **not** to be mentioned anywhere else in the offer.
2. Area of Radiographs to be subcontracted may vary upto -10% on the lesser side and upto +20% on the higher side than the quantity mentioned in the clause 1 above. Similarly the weld length to be subcontracted for ultrasonic testing may also vary upto -10% on the lesser side and upto +20% on the higher side than the weld length mentioned in the clause 1 above.
3. In actual working large proportion of X-Ray and Gammagraphy radiographs have 190 square cm. area (i.e.size19 cmX 10 cm). However area of actual X-Ray and Gammagraphy radiographs may also be different from the same depending upon the job requirements. Area of the accepted radiograph (is square cm.) multiplied by unit rate in Rs. Per square cm. (for X-Ray and Gammagraphy respectively) will be the criteria for payment for the radiograph.
4. **Quotations of only those parties will be accepted who will submit offer for both Radiography (X-Ray & Gammagraphy) and Ultrasonic testing work. Total cost for X-Ray, Gammagraphy and Ultrasonic testing offered by the party will be added up and the same will be taken as the criteria for award of work.**
5. An Earnest Money Deposit (EMD) of Rs.40,000/- (Rs.forty thousands only) is to be deposited in cash (as permissible under income tax act) or vide a demand draft in favour of 'Bharat Heavy Electricals Limited' payable at Haridwar. No interest shall be payable on EMD.
6. Offer of the contractor shall be valid for at least **90** days from the date of opening of the tender.
7. The EMD of bidder will be forfeited if:
 - i) After opening of the tender, the bidder revokes his tender within the validity period of offer or increases his quoted rates.
 - ii) The successful bidder does not commence the work within the period mentioned in the LOI/ award of contract. (In case LOI is silent in this regard, then within 14 days of award of contract.)
8. EMD shall be refunded to the unsuccessful bidders.
9. **Security deposit:**
 - (a) Security deposit shall be collected from the successful tenderer at the rate of Rs.1 lac + 7.5% of the amount exceeding Rs. 10 lacs. The security deposit shall be collected before start of the work by the contractor.
 - (b) Security deposit may be furnished in any one of the following forms:
 - (i) Cash (as permissible under the income tax act)
 - (ii) Pay order / demand draft in favour of BHEL
 - (iii) Local cheques of Scheduled banks, subject to realisation
 - (iv) Bank Guarantees from Nationalised banks/ Public Financial Institutions as defined in the Companies Act. The Bank Guarantee should be in the BHEL approved format.
 - (v) Fixed Deposit Receipt (FDR) duly pledged in favour of BHEL & discharged on the back.
 - (vi) Security deposit can also be recovered at the rate of 10% from the running bills. However in such cases, at least 50% of the security deposit shall be collected before start of the work & the balance 50% shall be recovered from the running bills.

- (vii) EMD of the successful tenderer can be converted & adjusted against part of the security deposit required under the contract.
- (viii) The security deposit shall not carry any interest.
- (c) Security deposit shall be released to the Contractor after satisfactory completion of the contract.
10. Banning of business dealings with the contractor may be resorted to for serious lapses in performance/ misdemeanour such as abandoning the work without completing, resorting to unfair means (including false certification), not accepting the contract when awarded etc. (as per approved Guideline for Suspension of Business dealings with suppliers/ contractors).
 11. The contractor will submit bills, for the testing work completed during the period, in triplicate. Payment shall be made every three months depending upon the quantum of satisfactorily completed work against the bills raised by the contractor in the same period.
 12. **No separate equipment or unit charge / unit mobilization charge / personnel stay charge or any other charge shall be applicable for X-Ray, Gammagraphy (Iridium-192) or Ultrasonic Testing. If the rates are quoted by the party in any form other than as specified in Price Bid Annexure-VII, the offer of the party will not be considered. The rate must be firm and without any escalation clauses for the entire period of contract.**
 13. Bill prepared by the contractor must contain service tax registration number and PAN number.
 14. Payment of service tax shall be made after verifying the deposit of service tax as per service tax act and rules. However, in case, the deposit date of service tax falls beyond the normal payment date of bill, service tax shall be paid based on a declaration by the contractor that the same will be deposited and its proof will be submitted to BHEL along with the next bill.
 15. Payment of subsequent/ final bill shall be made only after verifying the proof of deposit of service tax of the earlier bill.
 16. The payment will be made in e-payment mode. For the same the successful tenderer will submit his bank details on the prescribed format duly verified by the bank.
 17. The Contractor shall maintain a record of Radiography testing (X-Ray and Gammagraphy) and Ultrasonic testing work carried out. The same shall be signed by his representative and subsequently be vetted by authorized BHEL Executive.
 18. All payment will be subject to Tax Deduction at Source (TDS) as per extant rules.

TECHNICAL BID

GENERAL TERMS AND CONDITIONS

1. The decision of BHEL regarding interpretation of any of the terms and conditions set forth in this agreement shall be final and binding to the contractor.
2. The Contractor is to accept all the terms and conditions set forth in this tender document. Conditional tenders are likely to be rejected.
3. BHEL has the right to cancel the tender at any stage without assigning any reason.
4. If the contractor makes default in carrying out the work as directed and continues in that state after a responsible notice from Head (QC-F) or his authorized representative or fails to comply with any of the terms and conditions of contract or after reasonable notice in writing with orders properly issued thereunder, Head (QC-F) may exercise his authority to cancel the work awarded to the contractor in part or as a whole.
5. BHEL reserves the right to cancel the contract at any stage by giving one month notice and the Contractor will not have any claim in this regard for such short closure.
6. In the case of termination of contract on the ground of non-satisfactory services (including non-availability of properly functioning equipment or manpower in time), next lowest contractor may be given the option to complete the remaining work on the same terms and conditions as offered to the terminated contractor.
7. When under this contract or otherwise any sum of money shall be recoverable from or payable by the contractor, the same be deducted from any sum then due against the present contract with BHEL or he shall pay the claim on demand.
8. If any information/documents submitted by the Contractor are found false/fake at any stage, the offer will be cancelled and earnest money/ security deposited shall be forfeited. The suitable action will be taken against the Contractor as per Company rules.
9. All orders, notices etc. to be given under this contract shall be in writing, type-script or printed and communicated by fax / email / registered post / courier.
10. The contract shall include all labour, materials, tools, consumables, equipment and transport which may be required for the execution of the work. The contractor will be deemed to have satisfied himself as to the scope / nature of the work, nature of site, local facilities of access and all matters affecting the execution of work. No extra charges consequent to any misunderstanding in these respects or otherwise will be allowed.
11. The contractor shall not assign, transfer, sublet or attempt to assign transfer or sublet any portion of the work.
12. The expense of completing and stamping the agreement shall be borne by the contractor.
13. All disputes, questions, matters and things touching or concerning the contract upon which the Head (QC-F) and the contractor do not agree, shall be decided by the General Manager (Quality) and his decision shall be final and binding.

TECHNICAL BID
SPECIAL TERMS AND CONDITIONS

1.0 SCOPE:

1.1 This specification describes requirements to be fulfilled by outside NDT agency, who provide testing facilities inside plant.

2.0 GENERAL REQUIREMENTS:

- 2.1 The testing personnel shall have minimum two years of experience in the Radiography (X-ray & Gammagraphy) and Ultrasonic testing. They shall be capable of interpreting the given procedure and to carry out the testing work according to the same.
- 2.2 It will be the responsibility of the contractor to maintain the equipment requiring calibration in proper calibrated state.
- 2.3 Calibration and reference blocks shall be available with the contractor wherever required.
- 2.4 The contractor will reach our works alongwith the testing equipment and start performing Radiography (X-Ray & Gammagraphy) and Ultrasonic testing work within 14 days of award of the testing work contract.

3.0 SPECIAL CONDITIONS FOR RADIOGRAPHY(X-RAY AND GAMMAGRAPHY):

- 3.1 In Radiography, our workload include mainly fabricated assemblies of carbon steel, alloy steel, stainless steel, inconel etc. Type of weld joints tested by radiography are butt welds / inclined butt welds / corner welds / nozzle welds / T-joints etc. Piping assemblies constitute a sizable amount of our X-ray workload. Sometimes castings, forging or machined components are also required to be radiographed. Jobs are required to be tested by X-Ray or Gamma Ray (using Iridium-192 source). Normally radiography of jobs with wall thickness upto 20 mm is to be done with X-Ray and radiography of jobs with wall thickness more than 20 mm is to be done by using Gamma Ray (using Iridium-192 source).
- 3.2 **The contractor shall maintain at least one X-Ray machine and one Gammagraphy (Iridium 192) source at our works during the period of the contract.** The X-ray machine shall preferably be of 300KV rating and shall be able to effectively radiograph the thickness range mentioned for X-ray jobs in clause 3.1 above. However the X-ray machine rating shall not be less than 250 KV in any case.
- 3.3 The contractor has to ensure that he will be able to execute radiography jobs as mentioned above with his equipment in reasonable time. The contractor shall be able to

promptly arrange a second X-ray machine or Iridium-192 gamma camera at our works, whenever required to cater the excess radiography workload or in case of any operational problem in the X-ray machine or Iridium-192 gamma camera. It shall be the responsibility of the contractor to ensure that production work is not suffered due to breakdown of equipment/ non availability of manpower.

- 3.4 The contractor shall be required to operate inside BHEL premises. The workload in X-Ray and Gammaray may vary with the variation in the production activities during the year. However BHEL does not guarantee for the quantum of work.
- 3.5 Testing technique and acceptance norms as per applicable national / international / B.H.E.L. standards / B.H.E.L. Procedures shall be followed.
- 3.6 At least one Radiography Site Incharge (BARC RT-Level-II) person will be deputed by the contractor at our site. Radiography testing (X-ray and Gammagraphy) shall be performed by minimum RT Level-I qualified personnel. Radiography evaluation and decision making shall be done by minimum RT Level-II qualified personnel from ASNT/ ISNT/ BARC or other similar agency.
- 3.7 Noncompliance to any of the clauses of the applicable standard or code shall result in the rejection of the radiograph and the contractor will be required to re-radiograph (reshot) at his own cost. Re-radiography level shall be maintained below 5%, as it delays the completion of work. BHEL reserves the right to cancel the contract if the rejection and re-radiography is more than 5% frequently.
- 3.8 BHEL will provide AERB approved Radiography enclosure for performing radiography work. A dark room will also be provided to the contractor (without consumables). In few cases radiography may also be required to be done outside the enclosure in the shop.
- 3.9 The work is expected to run in day and night shift. During radiography operation, one responsible contractor person qualified as Site Incharge (BARC RT level-II) will be available for supervision of work and shall be answerable to BHEL for the job execution, performance output and safety aspects.
- 3.10 Radiation safety of contractor's employees inside the factory shall be the responsibility of contractor solely. He shall also be responsible for other safety related aspects for his personnel.
- 3.11 The contractor shall arrange AERB permission for movement of his radiation source to our works. All safety requirements laid down by AERB shall be strictly complied by the contractor's personnel. Adequate number of radiation safety and monitoring equipment shall be available with the testing personnel.
- 3.12 All consumables i.e. radiographic films, screens, cassettes, lead sheets, film wrappers, illuminator, cello tapes, lead letters, film processing chemicals etc. shall be arranged by the testing agency.

- 3.13 Radiographic films of brand **Agfa / Kodak / Fuji** shall be used. Films of above brands cut and packaged in India are also acceptable. Film processing chemicals compatible to the above films shall be used. The above items shall be used well within the shelf life of the respective item. Timely procurement of films and their proper storage shall be contractor's responsibility.
- 3.14 Good quality consumables like lead sheets, cassettes etc. shall be used by the contractor. Worn out cassettes, lead screens shall be periodically changed by the contractor. Cost of any reshot due to poor quality consumables shall be borne by the contractor.
- 3.15 Calibrated ASME / EN IQI in sufficient numbers shall be available with the testing personnel.
- 3.16 Radiography shall be performed as per the technique specified in the applicable radiography standard. The radiograph shall be treated as acceptable if it meets the density, sensitivity and other requirements specified in the applicable specification.
- 3.17 For the **X-Ray and Gammagraphy (Iridium-192)** the quoted rates shall include :
1. Taking X-Ray or Gammagraphy exposure as per NDT Laboratory approved procedure, BHEL, national or international code or standard.
 2. Processing of exposed films and marking of identification details on film wrapper.
 3. Evaluation of radiographs as per applicable standards/ Codes/ Specifications.
 4. Maintaining record of receipt and completion of offered requisitions.
 5. Preparation of evaluation reports on BHEL performa.
 6. Getting the radiographs and reports cross evaluated by BHEL NDT personnel.
 7. Marker pen / paint marking of radiographic reference numbers, segment numbers etc. on the job. Marking of defective region on the weld with appropriate colour paint / marker pen.
 8. Returning the radiographs to NDT Lab alongwith concerned radiography reports.
- 3.18 The X-Ray testing on the offered assemblies shall be completed as early as possible, in no case it should be more than 24 hours.

4.0 SPECIAL CONDITIONS FOR ULTRASONIC TESTING OF WELDS AND MATERIALS:

- 4.1 Ultrasonic Testing (UT) workload mainly consists of carrying out UT on weld joints and weld edges (prior to welding) in fabricated assemblies and castings used in power plant equipment.
- 4.2 In welds UT is carried out mainly on **butt welds / inclined butt welds / corner welds / nozzle welds / T-joints etc.** having section thickness from 10 mm to approximately 300 mm.
- 4.3 Ultrasonic Testing of welds in our products normally require sensitivity setting using **Flat Bottom Hole (FBH)** as the reference reflector. DGS scales / DGS diagrams may be used for the same.
- 4.4 **At least one analog or digital type pulse echo, A-Scan equipment, capable of being operated on rechargeable batteries, shall be maintained by the contractor at our works for use in testing.** Prior to first use satisfactory screen height linearity and amplitude control linearity of the equipment (as per ASME Section V) shall be demonstrated to NDT Laboratory. During working the same shall be verified at least once in every three months.
- 4.5 The contractor should preferably possess a standby ultrasonic equipment or make alternate arrangement to carry out and complete the work offered. It shall be the responsibility of the contractor to ensure that testing work do not suffer due to breakdown of equipment/ non availability of manpower.
- 4.6 The contractor shall ensure and confirm availability of equipment - Ultrasonic flaw detector, machine charger, probes, cables, standard (IIW and Miniature) calibration blocks (also called V1 and V2 standard test blocks), DGS scales / DGS diagrams for the probes used etc. all in good working condition. Non availability / break-down of any of the above equipment / accessories shall not be accepted as the cause for stoppage of work.
- 4.7 Good quality probes and cables shall be used. The test system should show adequate resolution, sensitivity and precision for the testing as per the applicable NDT procedure / specification / code.
- 4.8 The operator is required to work inside the BHEL plant. He may be required to work in day and night shift for the completion of work. The ultrasonic testing on the offered assemblies shall be completed as early as possible, in no case it should be more than 24 hours.
- 4.9 Butt welds, inclined butt welds, nozzle welds will require ultrasonic testing as per applicable BHEL specification. These weld joints may require ultrasonic testing by using one or more angle beam probes as per the applicable specification. Ultrasonic testing by normal beam probe/twin crystal probe may also be required in flush ground butt welds, nozzle welds, weld edges etc.

- 4.10 Qualified NDT personnel having at least **UT Level-II** qualification from ASNT / ISNT or from other similar institution shall be employed to perform / evaluate the testing. Besides this the operators should have practical experience in performing Ultrasonic Testing on the similar type of jobs using DGS scale / DGS diagrams. They should be able to carry out the test independently as per BHEL NDT procedures / specifications, national or international standards. They should be able to prepare test report in the BHEL formats.
- 4.11As per the requirement of BHEL Quality Plan applicable for the project, ultrasonic testing may be required to be got witnessed by external customers like NTPC, LLOYDS, RITES, QUEST, NPC etc., wherever required. Availability of external customers shall be arranged by BHEL for witnessing of ultrasonic testing.
- 4.12It is required that high degree of accuracy and precision is maintained in the testing operations. BHEL NDT Laboratory person may verify the test results reported by the contractor. In case of major discrepancies or adverse feed-back is received from external customers, BHEL reserves the right to cancel the contract.
- 4.13The contractor should arrange the couplant-oil, grease, etc. and possess necessary accessories such as spare battery packs, cables, probes, standard calibration blocks, etc. which are required for uninterrupted testing operations. The angle beam probes shall be "built in wedge type" (e.g. GE make WB / MWB series probes or equivalent).
- 4.14The copy of the procedures by which tests shall be conducted will be issued by NDT to sub-contractor. The procedures should be returned to BHEL once the contract is over. The contractor is prohibited in making the copy and using the same elsewhere.
- 4.15The contractor should have at least following probes/ test blocks/ cables in his possession. If the tenderer is not having any particular probe, he will give undertaking to arrange the same before start of the work:

SL.NO.	TYPE	REMARK
1.	IIW calibration block (V1 block)	
2.	Miniature test block (V2 block)	
3.	Normal beam probe 2 MHz 24 mm Φ	Matching cable required.
4.	Normal Beam probe 2 MHz 10 mm Φ	-do-
5.	Normal beam probe 4 MHz 24 mm Φ	-do-
6.	Normal beam probe 4 MHz 10 mm Φ	-do-
7.	TR probe 4 MHz 21 mm Φ	-do-
8.	TR probe 4 MHz 10 mm Φ	-do-
9.	Angle beam probe 2 MHz 45° 8X9 mm	-do-
10.	Angle beam probe 2 MHz 60° 8X9 mm	-do-
11.	Angle beam probe 2 MHz 70° 8X9 mm	-do-

12.	Angle beam probe	4 MHz	45°	8X9 mm	-do-
13.	Angle beam probe	4 MHz	60°	8X9 mm	-do-
14.	Angle beam probe	4 MHz	70°	8X9 mm	-do-

4.16 The contractor shall be required to operate inside BHEL premises. The workload in ultrasonic testing may vary with the variation in the production activities during the year. However BHEL does not guarantee for the quantum of work.

4.17 For the ultrasonic testing the quoted rate shall include:

1. Conducting ultrasonic testing as per NDT Laboratory approved procedure, BHEL, national or international code / specification.
2. Recording the observations as per applicable specifications.
3. Evaluation of the indications as per applicable procedure / specification.
4. Preparation of testing report on the BHEL format.
5. Maintaining record of receipt and completion of offered requisitions.
6. Getting the results / reports cross evaluated by NDT personnel of BHEL or by customer's representative if required as per BHEL Quality Plan.
7. Marking of defective region on the weld with appropriate colour paint/ marker pen.
8. Submission of test reports to BHEL.

ANNEXURE-IV

DETAILS OF THE FIRM
(To be furnished along with the offer against tender Enquiry No. HW/QM/QCF/15-16/01 Dated: 19.05.2015).

- 1.0 Name of the firm :
- 2.0 Address :

3.0 Details of Equipment / accessories available with the firm:

1	2	3	4	5
Equipment/ accessories	Make	Model	Quantity	Remarks
Radiography				
X-Ray Equipment (kV / mA etc.) <i>(Atleast one X-Ray machine of minimum rating 250 KV)</i>				
Gammagraphy Equipment (Iridium-192)				
Radiation Surveymeter				
IQI				
Film Brand used <i>(Agfa, Kodak, Fuji)</i>				
Other consumables				
Ultrasonic Testing				
Ultrasonic Flaw Detector(s)				

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Probes <i>Probe availability as per Clause 4.15 of Annexure-III of Tender Document is to be mentioned)</i>				
IIW standard calibration blocks V1 and V2				
Cables compatible to the probes				
Charger for Ultrasonic Flaw detector				
others				

4.0 Any other information about the firm:

NOTE: Copy of supporting documents may be added, wherever required.

ANNEXURE-V

BHARAT HEAVY ELECTRICALS LIMITED, HEEP: RANIPUR, HARIDWAR
Quality Control Department -Fabrication division
PRE QUALIFICATION CRITERIA

Tender Notice No.: HW/QM/QC-F/15-16/01

NIT Value: Rs.1261080/-

Particulars of the Firm

Sl. No.	Description	Particulars
1.	Name of the firm	
2.	Address	
3.	Phone No.(s)	
4.	Fax No. (if any)	
5.	Email Address (if any)	
6.	PAN Based Service Tax Registration No.	
7.	PF Code No.	
8.	ESI Code No.	

Average annual turnover for the last three financial years ending 31st March or 31st December

Turnover (In lacs) (#)			
2014-15	2013-14	2012-13	Average

(#) Attach relevant documents to support the same.

Experience in similar Radiography and Ultrasonic Testing Work

Sl. No.	Nature of Work (RT / UT)	Customer's Name and Reference Work Order details	Year of execution	Contract Value in lacs	Work Order Copy attached (Yes / No)	Performance Certificate attached (Yes / No)

I /We agree.

15/19

Sign and seal of Contractor

(RT Site Incharge and other RT/ UT Level-II/I qualified personnel details to be given above.)

(Signature of the Tenderer)
Name & Seal

Annexure-VITECHNICAL BIDCHECKLIST AND SCHEDULE OF GENERAL PARTICULARS

NOTE : - Bidder shall fill in the following details and no column should be left blank.

Sl. No.	Description	Vendor to Clarify	Page No. of Tender Doc.
1.	Name & Address of the Bidder	YES/NO	
2.	Email Address / Fax No. Phone nos.	YES/NO	
3.	Submission of signed and stamped of "NIT", Commercial terms and condition-Annexure-I", "General terms & conditions-Annexure-II", "Special terms and conditions-Annexure-III".	YES/NO	
4.	Detail of Firm (Annexure-IV) duly filled up, signed and submitted.	YES/NO	
5.	Tender cost submitted (By cash receipt / bank draft). Pl. give details.	YES/NO	
6.	EMD submitted (Rs 40000/- By Cash receipt / bank draft). Pl. give details.	YES/NO	
7.	Submission of details in Annexure-V as required in Pre Qualification criteria (NIT clause No.11)	YES/NO	
8.	Submission of copy of supporting documents, i.e.: 1. PAN based service tax registration no. 2. PF code no. certificate 3. ESI code no. certificate 4. Turnover values supporting documents 5. RT and UT work Purchase Order / Work Order copies for similar work 6. Performance Certificate from other customers 7. RT/ UT qualified personnel qualification certificates 8. Testing Equipment / accessories list wherever required	YES/NO	
9.	Submission of annexure-VII (Price bid) in a separate sealed envelope.	YES/NO	

The above list consists of minimum documents to be submitted alongwith the offer. Other relevant document, if any, may also be submitted alongwith the technical offer.

I /We agree.

18/19

Sign and seal of Contractor

ANNEXURE-VII**BHARAT HEAVY ELECTRICALS LIMITED, HEEP: RANIPUR, HARIDWAR**
Quality Control Department -Fabrication division**PRICE BID**Tender Notice No.: HW/QM/QC-F/15-16/01

NIT Value: Rs.1261080/-

Sl. No.	Description of work	Unit of measurement	Quoted Rate (Per unit)
1	Radiography Testing : X-RAY	Rs. Per Sq.Cm. of accepted radiograph	In figures:..... In Words:.....
2	Radiography Testing: Gammagraphy	Rs. Per Sq.Cm. of accepted radiograph	In figures:..... In Words:.....
3	Ultrasonic testing	Rs. Per metre of tested weld length	In figures:..... In Words:.....
4	Service tax applicability		YES/NO (Tick whichever is applicable)

Note:

- Rate should be quoted in figures as well as in words. No cutting / Over Writing is allowed in rates. In case of contradiction between percent quoted in figure and Words, the same mentioned in Words will prevail.

I/We have the read the Terms and Conditions and Contractual Obligation of contract as per the Technical Bid under this NIT and undertake to fulfill all its requirement under the quoted rates.

(Signature of the Tenderer)

Name & Seal

I /We agree.

19/19

Sign and seal of Contractor