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सत्यमेव जयते

भारत सरकार
GOVERNMENT OF INDIA
भाभा परमाणु अनुसंधान केंद्र
BHABHA ATOMIC RESEARCH CENTRE
रिएक्टर इंजीनियरिंग प्रभाग
REACTOR ENGINEERING DIVISION

हाल - 7,
ट्रोम्बे
मुंबई - 400 085,
HALL No. 7,
TROMBAY,
MUMBAI - 400 085

Ref.: - RED/PP&ESS/RRS/38/BFS/MW/2023/ P 92673

10 MAY, 2023.

Sub: Invitation to quote

Dear Sirs,

1. Sealed quotations (**in two Parts**) are invited by undersigned for and on behalf of the President of India from the experienced contractors for the **miscellaneous work** as per the requirements given in the technical Specification (*Annexure-I*).
2. Tender should be in a sealed cover (containing **two envelopes, one for technical and another for Price bid**) and super-scribed as "**Miscellaneous Work**" and should indicate this office Ref. No. and due date clearly. The quotation shall be complete in all respects with regard to price, specifications, completion period, validity of the offer, etc. and must reach on or before **20/05/2023 by 16.00 Hrs.** The quotation shall be on printed letter head mentioning complete address, Phone numbers, fax number, PAN number/ GST registration/TIN etc., without these details, quotation will be liable for rejection. The envelope should indicate this office Ref. No. and due date clearly. The sealed quotation should be addressed to undersigned and should be sent through Speed Post Only so as to reach his office before due date.

I. **SCOPE OF THE WORK:** Please refers to the enclosed *Annexure-I*, which describes the detail specifications & scope of the work.

II. **FREE ISSUE MATERIALS:** As per technical specifications *Annexure-I*.

III. GENERAL INSTRUCTIONS

- 1). The earliest period by which the job can be executed in totality should be clearly stated in the quotation and such period should be strictly adhered to in the event of a work-order. However, the entire work is to be completed within **90 (Ninety) days** reckoned from the 5th day after the date of issue of the work order, depending on the site availability.
- 2). Taxes, duties, if any, applicable shall be indicated separately.
- 3). Please note that the goods/services proposed based on this NIT (Notice Inviting Tender) is meant for the Research Institution under the Dept. of Atomic Energy. The purchaser will make available (**if required and applicable**) to the successful bidder with whom a work order is placed the GST exemption certificate duly signed by the authorised officer in the Dept. of Atomic Energy well before the dispatch of the goods by the supplier.
- 4). **Place of work:** Engineering. Hall No. 3 & 7, Trombay, Mumbai-400085.
- 5). Inspection as per specification shall be carried out departmentally after the completion of the work to the satisfaction of the Engineer in-charge. Inspection regarding the work according to specification, checking of the site etc. will be carried out continuously by the Engineer in-charge or his authorised representative.
- 6). The contractor shall have to maintain the area assigned to him for the work very clean and shall follow the instructions of Engineer in-charge in this regard. All equipment/tools etc. are to be removed and cleaned the area after the end of the day's work.
- 7). The bidders have to visit and inspect the site compulsorily before quoting. The site visit appointment can be obtained (**with PVC and work experience certificate**) from our engineer **Shri R. R. Singh through email only - rrsingh@barc.gov.in.**

- 8). Payment will be made by cheque/ECS after satisfactory completion of the work as per Government rules. Income Tax @ 2% will be deducted from the bill.
- 9). Bidder shall note that BARC is final consumer of the goods/services procured and does not intends to make any outward supply. BARC will not avail the benefits of input tax credit and hence, the good can be supplied without quoting the GSTIN of BARC, Mumbai on invoice. The invoices taxed under GST, as per rates applicable under the GST schedule of rates, will be admitted for payment.
- 10). **GSTN Invoice:** The invoice raised by the registered supplier of taxable goods/services along with other details specifically indicating: GSTN, PAN, Location of supply, tax component to be separately indicated.
- 11). An undertaking shall be furnished by the registered supplier that the GST has been promptly deposited with the authorities.
- 12). Recovery of TDS on GST in case of payment of invoices for supply under contract exceeding Rs.2.50Lakhs.
- 13). With your offer please furnish the detailed information regarding whether an ex-employee of BARC is working in your organisation or whether any of your relatives is working in DAE/BARC or you are an ex-employee of DAE/BARC. In absence of such information or wrong information, the quotation or contract is likely to be rejected/cancelled.
- 14). **Confidentiality:** No party shall disclose any information to any third party concerning the matters under this contract generally. In particular, any information identified as proprietary in nature by the disclosing party shall be kept strictly confidential by the receiving party and shall not be disclosed to any third party without the prior written consent of the original disclosing party. This clause shall apply to the sub contractors, consultants, advisers or the employees engaged by the party with equal force.
- 15). **Restricted information categories under section 18 of the Atomic Energy Act, 1962 and "Official Secrets" under section 5 of the official secret act, 1923 :** Any contravention of the above mentioned provisions by any contractor, sub contractor, consultant, adviser or the employees of a contractor will invite penal consequences under the aforesaid legislation.
- 16). **Prohibition against use of BARC's name without permission for publicity purposes:** The contractor or sub contractor, consultant, adviser or the employees engaged by the contractor shall not use BARC's name for any publicity purpose through any public media like press, radio, T.V. or Internet without prior approval of BARC.
- 17). **Safety Precautions:** The contractor will follow all the good industrial safety rules required during the execution of work. He will have to compulsorily follow other safety instructions issued by engineer-in-charge from time to time. The contractor shall provide all safety gears to their workmen at site and all safety rules shall be strictly followed. Any injury/ accident caused to their persons while working inside BARC shall be the full responsibility of the contractor.
- 18). **Police Clearance:** The bidder shall note that entry inside BARC is restricted and it is compulsory for contractor to get police clearance (as prescribed by security section of BARC) for all his staff who will be entering BARC for work.
- 19). The work can be carried out on all working days between 9.30 hrs to 17.30 hrs.
- 20). The offer shall be kept valid for a period of 60 days from the date of opening of the tender.
- 21). Purchasing authority reserves the right to alter the quantity while placing the order.
- 22). *Department* reserves the right to accept or reject any or all the quotations received without assigning any reasons whatsoever.

(R. R. Singh)

Scientific Officer - E

For and on behalf of President of India

Encl. : (Annexure - I),

Technical Specifications

1.0 Scope – Inspection, checking, repairing, testing and maintenance of *earthing and lightning protection system's* installation and components.

2.0 Quantity.

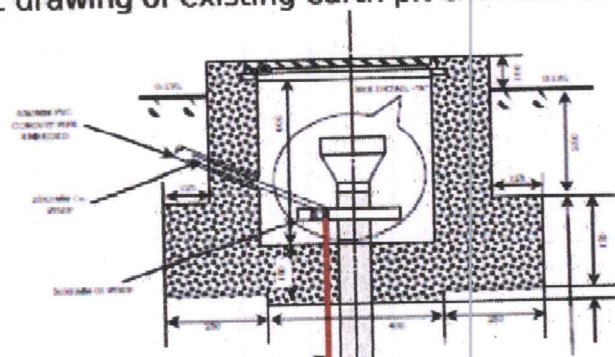
Sr. No.	Description	Qty.
1.	Testing & measurement of earthing pit resistance by using Digital Earth Tester. Copper link/strips shall be disconnected cleaned and checked for wear & tear before testing. All damaged Nut bolts and hardware required shall be replaced with SS hardware. Painting of chamber with enamel paint & stencilling etc.	30 Nos.
2.	Inspection and testing of earthing grids. Job includes inspection of all joints, tightening & replacement of damaged nut bolts, strips etc.	03 Nos.
3.	Inspection, repairing, checking & maintenance of lightning discharge receivers including replacement of damage/worn-out hardware.	44 Nos.

3.0 Applicable Standard.

BS EN 62305	Protection against LIGHTNING
BS EN IEC 62561	LIGHTNING protection system components (LPSC)
IS 3043 : 2018	Code of Practice for EARTHING
BS 7430:2011	Code of practice for protective earthing of electrical installations.

4.0 Description of work

- 4.1 Earth pits of 600X600X600mm with 450mm cast iron covers are available at various locations around building perimeter.
- 4.2 Earth Pit chambers are constructed with concrete and surface finished with cement plaster. Some of the earth pit may require repairing viz. plastering for chipping etc.
- 4.3 The earth connector joint provided in the chambers are to be modified (if required) for easy assessment and measurement. Hardware's (if any) required for the work are to be supplied by the contractor.
- 4.4 All the Earth pit chambers (after repairing) shall be numbered with designation, checking and testing dates, with abrasion resistance paint.
- 4.5 Contractor shall make necessary arrangement for removal and disposal off debris generated during the course of work.
- 4.6 The schematic drawing of existing earth pit chamber is shown below:



Testing and Measurement of Earth Resistance:

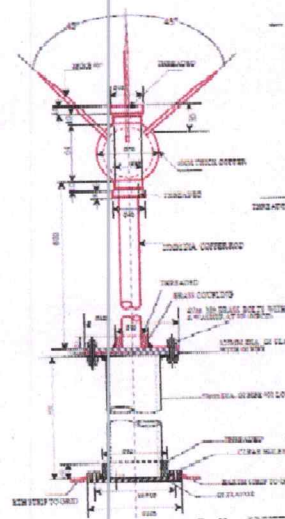
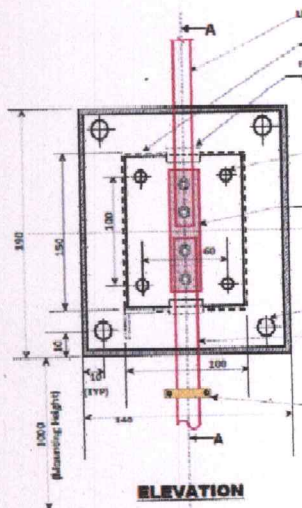
- 4.7 The resistance of the each earth pit (30 Nos.) shall be measured with digital earth tester (*Megger make DET model*) as per site condition and space available. The instrument required for the measurement shall be brought by the contractor along with calibration certificate.
- 4.8 Measurement record format as per site location and designation shall be prepared and approved by the engineer in-charge before start of the measurement.
- 4.9 Earth resistance shall be measured as per applicable code IS/IEC, with due safety requirement at site. Before measurement of earth resistance, permission of engineer in-charge shall be obtained. The personnel protective equipment (PPE) required at site shall be brought by the contractor.
- 4.10 Earth resistance measured shall be recorded by contractor in approved format and shall be witnessed by the departmental representative.
- 4.11 All the earth pits shall be watered with water and salt mixture and after that earth resistance is to be measured with same procedure and comparison statement shall be prepared for the record.
- 4.12 Measurement date shall be written with abrasion resistance paint, inside of the chamber cover plate.

Earth Grid/Bond Conductor Inspection and Testing.

- 4.13 Copper earthing strip of 25X3mm is provided in the building, connecting all the equipments. This earthing grid is to be inspected at places (*including trenches*) and layout shall be prepared accordingly with joint locations.
- 4.14 All the joints shall be cleaned with cleaning agent and coated with bitumen/or other corrosion inhibitor.
- 4.15 Joint resistance shall be measured with micro-ohm meter (*with calibration certificate*) and record shall be maintained in approved format. The testing shall be performed in presence of departmental representative.
- 4.16 Defective and rusted hardware of the joints shall be replaced with suitable stainless steel hardware. The tightening of the bolts shall be carried out with torque wrench only.
- 4.17 A scheme shall be prepared for complete grid testing for continuity and resistance measurement. The complete grid testing shall be carried out as per the instruction engineer in-charge.

Inspection and Testing of Lightning Discharge Receivers.

- 4.18 Lightning discharge receivers (44 Nos.) are installed on the building terrace at height of 3-4 meters, along with copper strip (around 2000 meters) and test link boxes (16 Nos.) schematic diagram is shown below for reference.
- 4.19 All the components including brass saddles are to be checked for the tightness of hardware and missing hardware to be provided with same make and material.
- 4.20 Physical conditions of the receivers are to be checked including wall installation. If found inadequate same shall be rectified as per the instruction of engineer in-charge.
- 4.21 Dissimilar metal joints shall be checked for corrosion and corrosion inhibitor shall be applied as per approved procedure.



4.22 Consumables for site requirement.

Brazing filler rods	As per site requirement.
Sand paper	As per site requirement.
Brush	As per site requirement.
Oil/grease	As per site requirement.
Paint	As per site requirement.

Consumable items brought by the contractor at site will be retained by the purchase on completion of work. *Additional work not covered by the scope of work (as mentioned above), has to be executed by the bidder which shall fall within the envisaged + 10 % variation of the work.*

Free Issue Material (FIM) provided by the Department - NIL

5.0 Inspection & Testing:

Site inspection will be carried out at purchaser's premises by purchaser or his authorised representative for measurements and other requirement of technical specifications. The vendor shall prepare the documents for the process, testing etc. and got approved from the purchaser.

6.0 Completion Time Schedule:

The work stated above shall preferably be completed **within 90 days** from the date of placement of order. Vendor shall specify the completion period in their offer and strictly adhered to the period offered. Delay in completion of work within stipulated period, at site will attract the penalty as per the applicable rule and conditions.

7.0 Location & Timing:

The work shall be carried out at following address with prior intimation to the purchaser.

**Engineering Hall No.-3 & 7
Bhabha Atomic Research Centre
Trombay, Mumbai - 400085**

Timing - 09.00hrs - 17.00hrs (Monday to Friday)

Vendor shall note that, site is restricted area; hence vendor's personnel have to follow the security rules and regulations prevailing at the time of entry.

8.0 Format for Price Bid:

Sr. No.	Item Description	Quantity	Unit Prices for Testing & Measurement (in ₹.)	Total Prices (in ₹.)
1.				
2.				
3.				
In Figure				
In words				

Note:

8.1. Specification along with terms & conditions must be signed by the bidder.

8.2. Specific rates should be quoted. Bare statement like "At scheduled rate", At actual cost, as decided by you etc should not be quoted.

8.3. Overwriting & cutting should be avoided.

8.4. The quoted rates should include all types of expenses & transportation charges etc.

8.5. Taxes, duties, if any, applicable shall be indicated separately.

8.6. The quantum of work may also vary as per requirement (at the time of placement of order).

Note to Bidders: The offer will be considered on the basis of overall total cost including taxes, duties etc. for all the items mentioned above. If any one of the item is not quoted, the offer will be considered incomplete and hence rejected.

9.0 GENERAL TERMS & CONDITIONS

- (i) The completion time period from the date of acceptance of purchase order/work order shall be stated in the offer.
- (ii) Bidders shall go through the technical specifications and provide in the offer, point by point compliance. The technical deviations, (if any) shall be indicated clearly in the offer. Kindly note that no further communication will be made to get the technical clarifications. The offers without this information will be rejected without any consideration.
- (iii) The cost evaluation of the offers will be carried out on the lot basis. Hence vendor shall consider all the expenses towards all items, taxes, loading, unloading, transportation, manpower boarding/lodging, guarantee etc. while quoting. The individual/breakup cost is not required
- (iv) The contractor shall bring his own tools, tackles, ladders etc. required at site for installation work. Department will not provide any tool/tackles at site. Contractor's personnel shall always wear the safety shoes, helmet and high-visibility clothing at site.
- (v) The electricity and water required at site (for very small tools/tackles like drilling/cutting machine) will be provided to the contractor at a single point, from where contractor have to make his own arrangement through extension boards etc. Prior to connection of electrical equipments contractor have obtain written clearance from Engineer in-charge.
- (vi) The technician required to carry out the work at site shall be skilled and have requisite qualification/certificates. The documents are to be provided (in original) to engineer in-charge, before commencement of work at site. Unqualified/unskilled technician/workers will not be allowed to work at site.
- (vii) All the safety precautions as per applicable code and practices shall be followed at site. The PPE shall strictly be used by workers while working at site. The safety instructions issued by engineer in-charge shall be followed in all respect. The contractor will be responsible for any injury/accident occurring at site, due to any reason, department will not pay or liable for any compensation.
- (viii) The site is restricted area and permission to the personnel coming inside the premises for installation work, require security clearances. Hence firm has to obtain Police Verification Certificates (PVC) from Police Commissioner Officer (not local police)/District Magistrate office, for all the persons coming inside the premises for work.
- (ix) Firms who have not worked inside the DAE units (BARC/NPCIL) in past have to go through vetting procedure as prescribed by the Security Section.
- (x) The entry passes for personnel coming inside premises are made by Security Section and require local residence proof (Mumbai/Thane) & identification proof along with PVC.