Ref: RED/THS/VP/ 04 /2BS/MF/ 51635

Date: 13/03/2020

Dear Sirs,

Sub: Minor Fabrication – invitation to quote

1. Sealed quotations are invited by Head, THS, RED for and on behalf of the President of India for “Minor Fabrication work for fabrication and installation work detailed in annexure-1 at ATTF, NPCII. R&D Centre, Tarapur Maharashtra Site, Tarapur, Maharashtra”.

2. The contractor shall specify very clearly the cost of work in the format as indicated in appendix-1. The period of work shall not exceed 18 months from the placement of work order and payment will be made after completion of this period.

3. Necessary safety precautions have to be taken by the contractor during work at site and he shall be fully responsible for the accidents or damages if any. The contractor shall provide safety shoes and helmets to all the staff working for him. Appropriate mechanical handling equipments shall be used for activities like loading, unloading and shifting of equipments and material.

4. The work shall be subjected to inspection from the purchaser or his authorized representative and the work shall be conducted under their supervision and to the full extent of their satisfaction. Their decision shall be final.

5. The taxes shall be quoted separately.

6. The quotation must reach, Head, THS, RED, Hall No.-7, BARC, Trombay, Mumbai 400085 by the date 01/04/2000

7. The quotations must be submitted on printed letterheads.

8. Quotations should be signed and must have rubber stamp of the company. The quotations not having the rubber stamps and unsigned quotations are liable to be rejected.

9. The tools and tackles required for the performing the job assigned are the responsibility of contractor. Further details are provided in appendix-1.

10. The work shall be subject to approval by our concerned Engineers.

11. Payment will be made as per rules after completion of the job satisfactorily and issuance of a work completion certificate by our concerned Engineer. Part payments and Advance payments are not possible.

12. The offer shall be kept open for acceptance for a period of 90 days from the date of opening of the quotation.

13. A brief list of similar jobs executed if any, and name of the organisation for which such job was carried out should be furnished with the quotation.

14. Head, THS, RED reserves the right to accept/reject any or all the quotations received without assigning any reason whatsoever.
The bidder shall furnish the detailed information regarding whether an ex-employee of BARC is working in your organisation or whether any of your relative is working in DAE/BARC or you are an ex-employee of DAE/BARC. In case of absence of such information or wrong information, the quotation or contract is likely to be rejected or cancelled.

16. The work will be performed at NPCIL, R&D Centre, Tarapur. Compliance with the rules of site is thus a must.
   a. Contractor’s supervision: The contractor shall deploy, during the work, at least one safety supervisor/steward: 12th passed/ITI with 2 years experience in the relevant field. Some of the work will be intermittent in nature, depending on availability of work-front and the contractor has to start the work when required. The Engineer-In-charge (EIC) will intimate the contractor at-least 2 days in advance of such availability. A penalty of 0.1% per day (max. 5%) for absence will be deducted for non-deployment of manpower and machinery for the work. However absence with prior permission of Engineer in charge will not be considered as short fall. Work order extension, if justified, will be provided. In case of un-explained delay due contractor which leads to extension of work by more than twice the period stipulated in the work order, the work order contract can be scrapped by BARC and all damages will be borne by contractor.
   b. General Housekeeping: All the work premises shall be maintained in neat & clean condition on day-to-day basis (Before start of work and end of the day work Housekeeping is must to maintain area clean and neat) irrespective of execution of items without any extra cost.
   c. Unauthorized Absence: Unauthorized absence for Safety Steward and Supervisor will be dealt as mentioned in ‘a’ above. However absence with prior intimation will not be considered as unauthorized absence.
   d. Police Verification: Police verification certificate for each & every worker employed for execution of work is required for entry within plant site.
   e. Security Rules: The contractor shall follow at site all security rules as may be framed by the NPCIL from time to time regarding movement of materials & equipment to site, issue of identity card, control of entry of personnel and all similar matters.
   g. Industrial Safety: All safety norms prevailing at Tarapur Maharashtra Site shall be strictly followed. Non-compliance of safety guidelines shall attract penalty.

17. The following persons may be contacted in event of any technical queries related to appendix-I:
   Sh. Vivek Popat, 02525-293056
   Sh. A.K. Vishnoi, 022-25596176
   Dr. Arnab Dasgupta, 022-25591597


18a) 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.

18b) 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.

18c) The contractor or subcontractor, 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 the prior written approval of BARC.

Encl.: 1) Appendix 1

Thanking you,

(Dr A.K. Nayak)
Head, THS, RED

Copy to 1) Asstt. Accounts Officer (Works), CC
    2) RED Office
    3) REZ Stores, RED, Hall-7
    4) Shri A. K. Lal, SO/H, for record
Appendix-I:

Part A: Scope of Work

AHWR Thermal Hydraulic Test Facility is set up at R&D centre, Tarapur, Maharashtra. Currently, the following jobs have to be carried out for commissioning and experiments in the facility:

a. Re-routing of FRCS jacket cooling water return line:

Procurement of material, erection and commissioning of pipe line is in the scope of this work. The work requires a lying of 40 NB SCH 40 ASTM A106 Gr. B. pipeline from FRCS cooling water return header to cooling tower. This work requires 80 m pipe and 10 Nos of 90 degree std elbow. Further, procurement of support material (300 kg), provision of support, or extension of exiting support will also be the in the scope of this work. No, free issue material (Pipe, pipe fitting, welding material and support material) will be provided for the work. Further standard, qualifications and general requirements are as per the Part B.

b. Auxiliary activities prior to operation of facility

This work involves following jobs;
1. Opening, tightening and re-tightening of flanges and replacement of gaskets with sizes ranging from ½” to 6”.
2. Providing thermal insulation along with aluminium plate.
3. Cutting and modification of supports
4. Cutting and modification of low pressure piping.
5. Shifting of heavy equipments like nitrogen cylinders, flanges, valves etc.
6. Repair and upkeep of all manual and motor operated valves. This would include greasing, applying anti-rust solution, checking for gland packing and replacement of gland packing wherever required. Finally smooth opening and closing of valve should be ensured. There are around 20 manual (gate and globe), motor operated and control valves of sizes ranging from 1” to 4”. These have a rating of 1500 lbs.
7. Opening, tightening and re-tightening of copper flexible link to the bus bar plate.

Detailed activities are as follow:

a. Cleaning of the equipments/systems such as pumps, valves, heat exchangers, tanks, compressors, EOT cranes, pipings, tubing trays, cable trays and electrical/instrumentation panels.
b. Through cleaning from building structures, floor gratings of each floor and cleaning by means of swiping, mopping, brushing and vacuum cleaning.
c. Removal of dust from the gratings.
d. Cleaning and removal of dust from areas of beams, columns, supports and roofs of ITFT Main and Annex buildings.
e. Sweeping/mopping of floors, staircases collecting the garbage from buildings and disposing at designated places.
f. Removal of electrical cables, clamps, and electrical waste.
g. Removal of unwanted materials like metallic scrap, used gaskets, oils, wooden pieces/logs from each floors of ITFT Main and Annex buildings.
h. Removal of insulation and packing materials.
i. Removal of unwanted materials such as garbage and loose soil.
It is estimated that for jobs 1-7, an estimated 40 man-days of fitter and 60 man-days of rigger and 25 days of SS welder and 5 days of CS welder are required. For the 8 no job, 80 man-days of housekeeping mans are required. This is a purely **intermittent (Not continuous)** job and man-day will count only of the day, on which man power is called. An attendance register will be maintained on Engineer-in-Charge (EIC) desk. Further standard, qualifications and general requirements are as per the Part B.

All consumables (like welding rods, fillers, fluxes, cutting wheel, welding gas, paint, mob, cleaning tools etc.), safety equipment, welding/cutting/drilling machines, tools and tackles will be in the scope of the supplier.

**Part B: Standard, Qualification and General Requirement**

**Raw Material:**

1. No free issue material will be supplied by purchaser.
2. All materials to be used shall be of tested quality. The material test certificates clearly indicating chemical composition & mechanical properties shall be submitted to the Purchaser for approval.
3. The materials of construction as indicated in this specification are the minimum acceptable. The vendor may offer equivalent or better materials provided the purchaser approve the material.
4. All the material shall conform to relevant ASME section IX specification suitable for the service mentioned in this specification & shall meet all the requirements stated there in. However material test certificates are acceptable only if the purchases are from reputed manufacturers & co-relatable.
5. All the materials used for manufacturing shall be properly stamped / marked & the identification on each part goes in to assembly that shall be easily assessable for verification. The identification marking shall not be punched or scribed on the internal surface of the test section.

**Welding Procedure:**

It is the responsibility of the supplier to develop the best welding procedure to meet the end requirement. All welding procedures & performance test required for this job are to be established as per IS 816.

1. Each layer of weld metal in a multi-layer welding shall be cleaned before applying the next.
2. All welds shall be checked by dye penetration after final pass.
3. The methods used to prepare the base metal shall leave the weld preparation with reasonable smooth surfaces. The surfaces for welding shall be free of cracks, deep indentations, scale, rust, oil, grease & other deleterious material. The work shall be protected from deleterious contamination, from rain & wind during welding. The welding shall not be performed on wet surfaces.
4. The specification of electrodes, voltages, welding speed, current & polarity should be as specified in approved welding procedure. Any deviation from the welding procedure will be treated as objectionable & may disqualify the procedure & the welder or welding operator.
5. The inspector/ purchaser’s representative has the authority to reject any unsatisfactory process or operation or workmanship at any stage of fabrication.
**Part C: Note to the supplier**

The price shall be quoted as follows:

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<thead>
<tr>
<th>S no.</th>
<th>Item</th>
<th>Cost</th>
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<tbody>
<tr>
<td>1.</td>
<td>Re-routing of FRCS jacket cooling water return line:</td>
<td></td>
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<tr>
<td>2.</td>
<td>Auxiliary activities prior to operation of facility</td>
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<tr>
<td></td>
<td>Taxes (as applicable)</td>
<td></td>
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<td></td>
<td><strong>Total cost</strong></td>
<td></td>
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The **Total cost** will form the basis for selection among the quotations.

**Note:**

1. The supplier has to complete the job as per our specifications mentioned in this work order.
2. The work order will be issued for a period of **eighteen calendar months** and subsequent renewal shall be done in case work mentioned in ‘a’ or ‘c’ is pending. The work order extension request in this regard shall be submitted by the supplier before expiry of work order.
3. Payment shall be made only on satisfactory completion of work and on production of bill, advanced stamped receipt and other related documents.
4. The entire job will be planned intermittently depending on scheduling and availability of equipments and material. Requirement of helpers, riggers, fitter and welder will be informed by RED officer in advance of two working days. The job shall be as per schedule & sequence decided by RED officers.
5. Nature of work is important and urgent, so no delay in manpower supply will be permitted, However, EIC will inform supplier in well advance. Any delay which is attributed to the supplier is liable for penalty @0.5% per week (max 5%) to be imposed on the supplier.
6. For any further details, EIC, Sh. Vivek Popat may be contacted on working days (Monday to Friday between 10 AM to 5 PM) on 02525-293056.

Following conditions are to be noted:

1. The activities are to be performed at AHWR Thermal Hydraulic Test facility (ATTF), R&D Centre, Tarapur under the supervision of nominated RED, BARC officer.
2. Manpower engaged for the job shall not be used for any other job than allotted by EIC, RED, BARC.
3. Supplier shall appoint one safety supervisor to ensure safety guidelines as per Tarapur Maharashtra Site (TMS) being followed by manpower engaged in activities.
4. Manpower shall be provided with all safety gears like helmet, safety shoes, safety belt, gloves, welding protection gear, general protection gear etc by supplier.
5. Welding machine and tools required for jobs shall be arranged by suppliers.
6. All the consumable items like welding rod, grinding wheel, cutting wheel, gas cylinder etc shall be arranged by supplier.
7. Supplier shall provide warranty for a period of twelve month from the date of completion of work against workmanship. Supplier shall provide warranty certificate after completion of work.
8. The manpower engaged for the activity should meet the industrial safety requirement as per Tarapur Maharashtra Site (TMS) site safety policy/rules. The person engaged for the activity should have Valid Height Pass as per guidelines of TMS and should have obtained safety training as per TMS site rules.
9. The supplier shall take all the necessary safety precautions during the work and they shall be responsible for any damage or accidents. No compensation in any case will be paid by the purchaser to the supplier and the manpower.

10. The supplier shall comply with all the necessary security requirements for entry into TAPS-3&4 premises. All the workers shall have valid Police Verification Certificate (PVC). Entry permit will be issued as per the contractual rules of TAPS 3&4 site, Tarapur and contractor must comply all the requirements as per the existing rules of TAPS-3&4.

11. All the necessary common mechanical tools required to execute the job shall be arranged by supplier.

12. The supplier shall make his own arrangement for transportation of his man power to the work place.

13. Income tax@2% will be deducted from supplier bill.

14. The 100% payment shall be made by ECS/Cheque only on satisfactory completion of work and on production of bill, advanced stamped receipt, work completion certificate from purchaser and other related documents.

15. The supplier shall mention their VAT No./C.S.T.R.C. No/ PAN No. In the bill.

16. No party shall disclose any information to any third party concerning the matter 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 shall apply to the sub-contractors, consultants, adviser or the employees of a contractor will invite penal consequences under the aforesaid legislation.

17. “Restricted information” categories under section 18 of the Atomic Energy Act, 1962 and “official Secrets” under section 5 of the official secrets Act, 1923: - Any contravention, adviser or the employee of a contractor will invite penal consequences under the aforesaid legislation.

18. Prohibition against use of BARC’s name without permission for the publicity purposes; The contractors or sub-contractor, consultant, adviser or the employee 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 written approval of BARC.