GOVERNMENT OF INDIA
Bhabha Atomic Research Centre
Reactor Safety Division

Minor Fabrication - Enquiry

Hall.No.7
Trombay
Mumbai 400 085

Ref: RSD/CSS/SM/MF/2020/ 56088

March 20 , 2020

Sub: Minor fabrication – invitation to quote for “Supply, fabrication, installation and commissioning of 5HP centrifugal pump along with inlet header, Gate valves, support structure, PVC hose pipe, electrical cable along with associated fittings” at BARCOM Tarapur site as per Annexure – I.

Sealed quotations are invited by Head, Reactor Safety Division for the minor fabrication job as per the following requirements:

Scope of the work:

1. Supply, fabrication and installation of 5 HP centrifugal pump along with a flange-connected Galvanized Iron (GI) inlet header comprising of two inlet nozzles, each with hand operated gate valves for isolation, as per Annexure –I.
2. Supply, fabrication, painting and installation of Mild Steel support structure for pump installation, as per Annexure –I.
3. Supply and installation of ring braided 3” PVC Hose pipe along with clamps, connectors and other associated fittings, as per Annexure –I.
4. Supply and installation of electrical cable and associated connectors for supplying electrical power to the pump, as per Annexure –I.
5. Commissioning of the complete dewatering pump setup, as per Annexure –I.

General:

1. Bidder should quote lump sum cost of the overall work mentioned above in the scope of work.
2. The evaluation of bids shall be done based on the lump sum cost of the full scope of work subject to technical suitability.
3. Bidder should provide GST component exclusively along with the basic cost.
4. Bidder shall submit complete information asked in the enquiry, otherwise his/her quotation will not be accepted.
5. The quotation must reach Head, Reactor Safety Division, Engineering Hall No. 7, BARC, Trombay, Mumbai- 400 085 on or before 03.04.2020.
6. The envelope should be super scribed “Minor Fabrication – Dewatering, BARCOM, Tarapur” and indicate the DUE DATE and Office Ref. No. clearly. The envelope should be sealed.
7. Quotations sent only through registered post/ speed post from India post are acceptable. Quotations sent through any other means will be rejected.
8. The quotation will be opened on 06.04.2020 at 14.30 Hrs.
9. The necessary items (if any) as given in the enclosed technical specifications (Annexure-I) shall be provided by the supplier.
10. In case, bidder needs to clarify and understand the full scope of his work before submitting the quotation, he may do so by prior appointment with Shri Shubham Mishra, SO/D, RSD, Engg. Hall No. 7, BARC, Trombay, Mumbai- 400 085 (for
appointment please contact on ph. no. 022-25596769 or send e-mail at mshubham@barc.gov.in).

11. Duration of the work completion period is **60 working days** reckoned from the 5th working day of date of issuance of work order (depending on the site availability) and the same shall be mentioned in the quotation.

12. The price quoted should be **valid for at least 90 days** from the date of opening of the quotation and the same shall be mentioned in the quotation.

13. The contractor shall ensure to be present at the BARCOM Tarapur site as and when required for timely completion of job.

14. A brief list of similar jobs executed, if any and the name of the organizations for which the work was carried out should be furnished with the quotation.

15. **No Free Issue Material (FIM)** will be supplied for this minor fabrication job.

16. The minor fabrication work will be subject to inspection/supervision by the officer in-charge or his authorized representative.

17. Bidder shall specify that "whether he/she has any relation in BARC or the bidder himself is an ex-employee of BARC or the bidder has an ex-employee of DAE on his payrolls", if any, the supplier shall indicate full details of the concerned person in their quotation.

18. The contractor should strictly follow **"General Term & Conditions" as per Annexure-II.**

19. The contractor should strictly follow **"Confidentiality clause" as per Annexure-III.**

20. All Taxes and excise duty shall be quoted separately. Any tax exemption certificate, if applicable, shall be given along with the order.

21. Bidder shall note that BARC is the final consumer of the goods/service procured and does not intend to make any outward supply. **BARC will not avail the benefits of input tax credit and hence the good can be supplied without quoting GSTIN of BARC, Mumbai on invoice.** The invoices taxed under GST as per rates applicable under the GST schedule of rate will be admitted for payment.

22. GSTIN Invoice: As 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. **GST @ 5% is applicable to the items and services provided to BARC for R&D purpose as per government notification.** The necessary certificate shall be provided to the contractor in this regard.

23. Payment will be made as per Government Rules after successful and satisfactory completion of the job.

24. The **contractor must submit the duly filled GST undertaking form provided in Annexure-IV** along with the bills at the time of settlement to obtain GST exemption certificate.

25. Head, Reactor Safety Division reserves the right to accept/ reject any or all of the quotations received **without assigning any reason whatsoever.**

---

Encl.: Annexure-I, Annexure-II, Annexure-III & Annexure-IV

Copy to:

1. Shri Shubham Mishra, SO/D, RSD
2. Asstt. Stores Officer, Zonal 9, Enng. Hall 7
3. Accounts Officer (Works), CC, BARC, Trombay

(Vishnu Verma)
Head, CSS, RSD

19.03.2020
Annexure – I

Scope of Work

Following works are to be carried out at BARCOM, Tarapur site,

1. Supply, fabrication and installation of 5 HP centrifugal pump along with a flange-connected Galvanized Iron (GI) inlet header comprising of two inlet nozzles, each with hand operated gate valves for isolation.
2. Supply, fabrication, oil painting and installation of Mild Steel support structure for pump installation.
3. Supply and installation of ring braided 3” PVC Hose pipe along with clamps, connectors and other associated fittings.
4. Supply and installation of electrical cable and associated connectors for supplying electrical power to the pump.
5. Commissioning of the complete dewatering pump setup.

A brief description of the scope of work mentioned above is provided in the following:

The layout of the BARCOM facility along with the tentative location of dewatering pump setup is shown in Figure 1. The exact location will be supplied by the indenting officer/officer in-charge during installation on site.

A schematic of dewatering pump setup is shown in Figure 2. The setup consists of a 5HP centrifugal pump along with inlet header, two inlet lines and two hand operated Gate valves. Strainers on both the inlet lines must be supplied and installed. A side view of the setup is shown in Figure 3 to highlight the relative position of header and inlet lines with respect to the centrifugal pump. The material of construction for the header with nozzles is Galvanized Iron (GI) and the approximate dimensions are provided in Table 1 (also shown in Figure 3). The specifications of centrifugal pump are provided in Table 2. The material of construction for the two 3” Gate valves should be Mild Steel (MS). A top view of the support structure along with the centrifugal pump is shown in Figure 4. The pump should be installed 2 feet above the grated walkway shown in Figure 1. A shed should also be provided for protection of pump in rainy season. The details of support structure including the Material of Construction (MoC), dimensions are mentioned in Table 3. A 3 inch ring braided PVC hose pipe of length 65m along with clamps, connectors, strainers and associate fittings should be supplied and installed. All support structure/inlet header and associated pump components should be oil painted.

The electrical 3 core power cable of length 10m along with Direct Online (DOL) starter and associated connectors to power the centrifugal pump should be supplied and installed. Commissioning of the complete setup for dewatering is also in the scope of the work of the contractor.
Table 1: Details of GI pump inlet header

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Shape of Header</th>
<th>Shape of Header Ends</th>
<th>Header Cylinder Diameter ($D_h$)</th>
<th>Header Length ($L_h$)</th>
<th>Inlet nozzles diameter</th>
<th>Material of Construction</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Cylindrical</td>
<td>Ellipsoidal</td>
<td>4 inch</td>
<td>2 ft.</td>
<td>3 inch</td>
<td>GI</td>
</tr>
</tbody>
</table>

Table 2: Specifications of centrifugal pump

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Power Rating (HP)</th>
<th>Total Head (Suction Head + Delivery Head)</th>
<th>Minimum Delivery Flow rate (lps)</th>
<th>Rated Voltage (V)</th>
<th>Insulation Class &amp; Protection Rating</th>
<th>Material of Construction</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5</td>
<td>10 m or higher</td>
<td>17.5</td>
<td>300-440 V (Three Phase)</td>
<td>B/F Class &amp; IP 44/ IP 55</td>
<td>Motor Body – Cast Iron</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Impeller – Cast Iron/ SS/ Bronze</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Delivery casing – Cast Iron</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Shaft – Carbon Steel/ Stainless Steel</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Shaft sleeve – Stainless steel</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Sealing – Gland packed/ Mechanical seal</td>
</tr>
</tbody>
</table>

Table 3: Details of Support structure

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Support structure type</th>
<th>Channel width (W)</th>
<th>Channel length (tentative)</th>
<th>Height of support structure</th>
<th>Material of Construction</th>
<th>Paint required</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>C - channel</td>
<td>100 mm</td>
<td>2.5 m (500mm x 5 Nos.)</td>
<td>2 feet from grated walkway</td>
<td>Mild Steel</td>
<td>Yes; Oil painting</td>
</tr>
</tbody>
</table>
Fig. 1: BARCOM layout with dewatering pump setup location

Fig. 2: Schematic of centrifugal pump with inlet header and manual valve (FRONT VIEW)
Fig. 3: Schematic of centrifugal pump setup with inlet header, two inlet ports and two manual valves (SIDE VIEW); HV-1 & HV-2 are manual Gate valves.

Fig. 4: Support structure for dewatering pump along with pump (TOP VIEW)
Annexure –II

General Terms and Conditions

A. Work Quality:
All work shall be done with good workmanship. Welding should be carried out by qualified welder. Our supervisor will supervise quality of work.

B. Security permission:
   i. Contractor shall appoint the required workers with high integrity and will be responsible for his workers. All BARC security rules will be applicable. Supplier must dispose of all the debris after completions of the job. Entry permit will be issued on monthly basis and contractor must have valid photo pass up to July, 2019.
   ii. 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. The copy of PVC shall be submitted along with offer. Otherwise offer will not be considered for evaluation.
   iii. Firms, who have not worked inside the DAE units (BARC/NPCIL) in past, have to go through security vetting procedure and this may take some time to complete.
   iv. The entry passes for personnel coming inside premises are made by Security Section and require local residence proof and identification proof along with PVC.

C. Free issue Material:
   i. No free issue material (FIM) will be provided.

D. Work period:
   i. The entire work is to be completed within 60 working days reckoned from the 5th day of date of issuance of work order (depending on the site availability). Offer with short period of completion time will also be taken into consideration.

E. Fabrication and Installation:
   i. The fabrication and installation of all the above mentioned components shall be done according to the relevant design practices and as directed by concerned engineer.
   ii. All rubber bushes, lock nuts, inspection crosses, clamps, saddles, spacers, screws, nuts, bolts, washers, and other accessories shall be supplied by the contractor as required.
   iii. The equipment and tools required for executing this work shall be arranged by the contractor. Free electricity will be provided by the department. However, hooking any instruments to the mains power supply, shall be subjected to the necessary approval of the concerned engineer.
   iv. 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 the site area to be cleaned after the end of the day’s work.
   v. The technicians required to carry out mechanical and instrumentation work shall be skilled/semi-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.

F. Testing and commissioning
The testing and commissioning of all the above mentioned electrical and mechanical components shall be done according to the relevant practices and as directed by concerned engineer.
G. **Deviations**
   i. 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.** The necessary catalogues are required to be submitted for supply items along with the offer. It may be kindly noted that no further communication will be made to get the technical clarifications. **THE OFFERS WITHOUT THIS INFORMATION WILL BE REJECTED WITHOUT ANY CONSIDERATION.**

H. **Penalty & Taxes**
   i. It may also be noted that any delay in completion of work, which is attributable to the contractor is liable for penalty @ 1/2 % per week (max 5%) will be imposed on the contractor.
   ii. Income tax of 2% on the bill amount and surcharge as applicable shall be deducted from the payment.

I. **Completion of contract**
   The works to be executed by the contractor shall be deemed to be completed only when
   i. The supply, fabrication, installation, testing and commissioning are carried out as per the technical requirements given in this tender document.
   ii. Any defects, deficiencies brought out during testing are rectified and retested wherever necessary to the satisfaction of the engineer.

J. **General Specifications:**
   i. Quality surveillance, inspection: All work covered by the specification shall be subject to quality surveillance / inspection by our authorized representative.
   ii. No insurance policy is required for free issue material as the job is done in house.
   iii. The fabricator shall not sub-contract any or all of the work without written consent from the purchaser. The fabricator shall be responsible to the purchaser for all work of the sub-contractor, if allowed.
   iv. All the safety precautions as per applicable code and practices shall be followed at site. The Personal Protective Equipment (PPE) shall be strictly used by workers while working at site. The safety instructions 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.
   v. Payment will be made only after satisfactory completion of the work and against submission of original bill and advanced stamp receipt.

Prepared by: (Shubham Mishra)
SO/D, CSS, RSD

Approved by: (Vishnu Verma)
Head, CSS, RSD

19.03.2020
Annexure –III

1. 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 also apply to the sub-contractors consultants, advisers or the employees engaged by a party with equal force.

2. “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 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.

3. 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 the prior written approval of BARC.
UNDERTAKING
(Goods & Service Tax)

The Following certificates should be submitted by the suppliers/contractors to the paying authority on the bills itself when Goods & Servant Tax (GST) is claimed as extra by the contractors/suppliers.

1. **Certified that** the goods and packing on which Goods & Service Tax (GST) has been charged have not been exempted under the Goods & Service Tax (GST) or the rules made there under.

2. **Certified further that** we have actually paid Goods & Service Tax (GST) and are being assessed to Goods & Service Tax (GST) and also that where there are statutory exemptions under the GST act concerned we have availed of the same and certify non-availability of such provisions for Goods & Service Tax (GST).

3. **Certified that** in respect of the amount claimed in the bill, no claim is pending for refund/ or is admissible. Certified that in the event of our getting refund in whole or in part of the element of Goods & Service Tax (GST), we shall pass on the benefit of the amount of refund obtained by us.

4. **Certified further that** we (our branch or agent) __________________________

   (Address)________________________

   __________________________

   are registered as dealer in the State of ______________________ under the Central Registration No.________________________ for the purpose of Goods & Service Tax (GST)

Signature & Stamp