Ref: BARC/DD/MTS/SAT/F&R-2/0PA-108186

October 28, 2020

Due Date: 19/11/2020
Time: 15:00 hrs

Name of the Work: Fabrication of UPVC housing for UF spiral wound membrane element, loaded with 8" diameter and 40" long (8040) membrane elements, as per drawing & technical specifications.

Dear Sir,

Quotations are invited for and on behalf of the President of India for the above work.

Scope of work: Fabrication of UPVC housing for UF spiral wound membrane element, loaded with 8" diameter and 40" long (8040) membrane elements, as per drawing & technical specifications.

Quantity: 2 Nos.

1. The offer should be lump-sum clearly indicating applicable taxes and duties.

2. The address on the envelope should read:
   Head, Desalination Division,
   Bhabha Atomic Research Centre
   Trombay, Mumbai - 400 085.
   Attention: S A Tiwari (SO/F), MDS Tel: 25594706

The quotation must reach this office before 15:00 hrs. on or before the due date (19/11/2020) by speed post/registered post of Indian Postal Service and must be in a sealed envelope subscribing “Fabrication and supply of Spiral UF housing with membrane element” and the above reference number and the due date. Late quotation will not be considered.

3. Quotation should be valid for a minimum period of 90 days from the due date of the tender.

4. The execution of the work is to be carried out to the satisfaction of our Engineers.

5. Head, Desalination Division, BARC reserves the right to accept any quotation or reject any or all quotations without assigning any reason.
Commercial Specification

1. Quotation validity: Quotation should be valid for a minimum period of 90 days from the due date of the tender.

2. Quote Format: Bidder is requested to quote for the above job on lumpsum basis with mention of applicable taxes. Quotation price format will be Rs........(Basic lumpsum cost) + Rs.............applicable taxes = Rs...........(Total cost)

3. A Xerox copy of PAN CARD of Proprietor or company is to be attached with quotation along with providing GST no.

4. Job Completion period (Delivery Schedule): 2 months from the date of issue of the work order.

5. Free Issue Material: No free issue material is involved in this job

6. Inspection Clause: The supplier/contractor must organise pre-despatch inspection at their works which shall be carried out by the Purchaser’s Engineer/representative. Following inspection will be carried out.
   I. Dimensional verifications
   II. Visual inspection of all components
   III. Hydro-testing of membrane housing.

7. Transportation & Unloading
   The UF &RO membrane elements duly inspected and cleared by departmental representative is to be supplied to BARC in safe condition. Packing and forwarding is part of the contract.

8. Place of Delivery: Safe transportation and unloading of material are included in the scope of work. Place of delivery is SWRO Plant, Desalination Division via DDZ Zonal Stores, Trombay, Mumbai – 400 085

9. Payment terms: Payment shall be released within 30 days after satisfactory acceptance of the finished products at BARC. The Accounts Division will release the payment only on receipt of certificate from the Indenting Officer.

10. Mode of payment: Payment will be released through ECS, the party has to fill the ECS/RTG form and submit with the delivery challan and Bill/Tax Invoice.

11. Tax recovery clause: Income Tax @2% will be deducted from the tax component.

12. Delay Penalty clause: Any delay which is attributable to the contractor is liable for penalty @1½% per week (max 5%) to be imposed on the contractor.
III. Specific Conditions of Tender

A. Security Rules:
   a) Police verification certificates are required for supervisors and laborers deployed at the site.
   b) Security rules and transport rules at BARC, Trombay premises shall be strictly followed.
   c) Labour below 18 years age shall be not allowed to work at site.

B. Confidentiality Clause:
   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 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, advisor 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 purpose:-
      The contractor or sub-contractor, consultant, advisor 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.

(S A Tiwari)
DD/ BARC
Annexure-1

**Job Title:** Fabrication of UPVC housing for UF spiral wound membrane element, loaded with 8" diameter and 40" long (8040) membrane elements, as per drawing & technical specifications,

Quantity : 2 Nos..

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### I. Technical specifications

#### 1. Scope of Work

The Job involves the following:

A. Brief steps involved in preparation UF membrane element (please refer to BARC technology transfer document for detail description): Preparation of polysulfone/ polyethersulfone casted non woven fabric in Casting Machine to produce UF &support membrane with following specifications

UF Membrane Area : about 30 m²

<table>
<thead>
<tr>
<th>Support Membrane Specifications</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total thickness</td>
<td>140-150 μm</td>
</tr>
<tr>
<td>Film thickness</td>
<td>40-50 μm</td>
</tr>
</tbody>
</table>

B. Fabrication of UPVC housing/pressure vessel for UF membrane

The housing is to be fabricated with 8" UPVC pipe of Schedule 80; followed by machining. The end caps are to be fabricated from PP/PVC rods.

The air diffuser flow rate 20 CFM, supply of air compressor is excluded.

Fabrication as per drawing no: DD/MTS/SAT/SUF/01
Item: Housing for 8040 spiral UF module
MOC: UPVC, Dimensions are in mm.