Product Development Division
(RC & I GROUP)

Ref No: PDD/5/10/3(a)/2020/R/OPA-62864 22.07.2020

Invitation of quotation
Due date: 31.08.2020 upto 16:30 hrs

Sub: Fabrication, supply and installation of jacketed assembly for hydrogen storage system along with accessories. (As per the attached specification)

Quotations are invited for the fabrication and supply of items as per the enclosed Annexure.

1. Quotations are to be on printed letter head / quotation format which should consist of Sales tax registration number registered with local ST authority/CST authority, PAN of the firm, GST number etc. Quotation that received in computer generated form is to be considered as invalid & rejected. Taxes and duties shall be quoted separately. GST exemption certificate shall be issued on request.

2. All the firms should submit technical and financial bid separately in separate envelops.

3. **Financial bid of those firms whose technically qualified bids only will be opened.**

4. Sample of selected items should be produced for inspection at BARC North Gate within two weeks after technical bid tender opening as per demand for testing of technical suitability.

5. The complete quotation in sealed envelope shall be addressed to Head, Product Development Division, Radiochemistry & Isotope Group, S-62, South site, BARC, Trombay, Mumbai-400085 superscripted with above Tender no. PDD/5/10/3(a)/2019/R/OPA-62864 along with due date and should reach on or before the due date 31.08.2020 upto 16:30 hrs by India Post. The quotations will be opened on the next working day between 14:00 to 16:00 hrs. Vendor’s representatives are not allowed during tender opening.

6. No advance is admissible.

7. Any clarification as regard to this quotation can be obtained from Shri S.G.Sawant, TO(D),SMDS, PDD (Tel# 2559 6368, 6053) with prior appointment.

8. Head, Product Development Division, RC & I group, BARC reserves the right to accept or reject any or all quotations without assigning any reason.

(S.G Sawant)
TO/D, SMDS, PDD
Fabrication, supply and installation of jacketed assembly for hydrogen storage system along with accessories

Scope of work:

a) Fabrication of Jacketed assembly for hydrogen storage system - 3 Nos
   MOC for Jacket Assembly: SS304L
   Jacketed assembly for hydrogen storage system should be made as per the attached sketch.
   Jacketed assembly should be made in double walled vessel in semi-circular fashion with lock.
   Outer jacket of double walled vessel should be vacuum jacket and provision for evacuation to be
   provided along with isolation valve.
   Drawing- PDS/SGS/2020/03

b) SS piping with necessary flanges, fittings, clamps, pressure gauges and its interlinking
   with the existing hydrogen storage tank and manifold at site.
   Inline High Vacuum Bellow Sealed Valve with CF16 end fitting - 4 Nos
   ½” SS304 tube – 50M, Thickness=2MM.
   Oil filled pressure gauge 0-20 bar, Resolution: 0.1 bar with CF-16 end fitting - 2 Nos
   SS304 Cross-3Nos,
   SS304 Tees-5Nos,
   CF-16F Flanges -50N os.
   CF-16R Flanges -50N os
   SS Clamps - as per the requirement
   Fabrication drawing of the gas circulation system should be made and it approved by the
   Indenter before staring the fabrication job.
   Outer jacket to be tested at vacuum of 1x10⁻³ mbar.
   ½” piping assembly to be pressure tested at 50 bar and leak rate should be better than 5x10⁻⁹
   mabr.cc/s and to be tested using HLD.
   Drawing- PDS/SGS/2020/04

c) Supply of Absolute digital pressure gauges with data acquisition cables. GE Druck DPI
   104
   Accuracy: 0.05% of Full Scale
   End connection: ¼“ NPT male along with CF16 to NPT female adaptor for each gauge.
   Selectable pressure units: Minimum 6 (mbar, bar, mm Hg etc’).
   Display with 5 digit resolution, Minimum/Maximum values system.
   RS232 interface for data acquisition to PC,
   Adjustable mounting positions

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Description of Item</th>
<th>Quantity</th>
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<tbody>
<tr>
<td>1.</td>
<td>Range: 0 to 20bar(absolute), Resolution: 1mbar</td>
<td>2Nos.</td>
</tr>
<tr>
<td>2.</td>
<td>Range: 0 to 70bar(absolute), Resolution: 1mbar</td>
<td>2Nos.</td>
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General terms and conditions

1. Material supplied should be guaranteed for one year against any manufacturing defects.
2. No free issue material will be supplied for the fabrication work.
3. All the firms should submit technical and financial bids separately. Financial bid of those
   firms whose technical bids are qualified only will be opened
4. All work covered by the specification shall be subject to quality surveillance by the
   purchaser or his authorized representative.
5. The purchaser reserves the right to inspect any material used by supplier under the
   contract and to reject any, which is found defective.
6. Delivery period: Within 3 Months from release of work order.
7. The job firms have valid PVC
8. Warranty period: One year from date of delivery.
9. No advance is payable.
10. Quotation shall be signed by proprietor or authorized person and affix company seal.
11. All taxes, other charges should be mentioned clearly.
12. GST/PAN Number: Quotation must contain the GST and PAN number of the firm and HSN code of the item.
13. As BARC being a public funded R&D institution, concessional rate of GST, i.e. 5% will be applicable against a valid GST exemption certificate from our side as per CGST notification no. 45/2017 and 47/2017 dated 14-11-2017.

Annexure -I

a) Jacked assembly: PDS/SGS/2020/03

b) Jacked assembly connection to existing manifold: PDS/SGS/2020/04