IRAD/ 14/ 395

October 18, 2019

Sub: Invitation of quotation for procurement of raw material, preparation of fabrication
drawing, fabrication & supply of SS 304L Grills (11 No’s) for HIRUP Water Pool, IRAD,
BARC, Trombay, Mumbai-400085

Dear Sirs,

In connection with the above mentioned work you are requested to submit your detailed
quotation/Agreement on the basis of the following requirements:

- The technical specification & scope of work is attached herewith.
- For any clarification regarding the specification, the contact person is
  Shri Amit Acharya
  Contact No- 022- 225596878
  Email- amita@barc.gov.in

- The party should have valid Police Verification Certificate (PVC) for entry inside BARC. The list of
  manpower available with firm shall be submitted along with their details of PVC.
- The party shall procure all the raw materials required for the work. All material/component should
  be of tested quality.
- Quotation must reach by speed post/registered post to Head, Isotope & Radiation Application
  Division by Wednesday 6th November 2019, 17.30 hrs and should be sent in a sealed
  envelope superscripted with the above reference number and due date.
- The address on the envelope should read:

  Kind Attention: - Head, HCOS, IRAD
  To
  Head, IRAD
  RC&G
  Bhabha Atomic Research Centre, Trombay
  Mumbai - 400085

- The party should furnish valid PAN/GST No along with the quotation, otherwise their quotations
  are liable to be rejected & it may also be emphasized that quotations are submitted in printed
  letter heads.
- The party must offer warranty on components & work for satisfactory performance for a period of
  not less than 12 months.
- The fabrication work is subject to inspection by our officers. The work will be inspected by our
  officers at party’s site before supply of the material.
- No advance payment in full or in part will be admissible and payments will be made only after
  successful completion of job & onsite testing as per satisfaction of our engineers.
- The offer shall clearly indicate the total cost & taxes or levy, if any. The offer shall be valid for a
  minimum period of 3 months from the date of opening the tender.
- Head, IRAD, BARC reserves the right to accept / reject any or all quotations without assigning
  any reason.

Encl: - Tech Spec with tender drawing
(IRAD/14/394, 17/10/2019)

Head, SIRD
For uploading in BARC website/Tenders
Government of India
Bhabha Atomic Research Centre
Isotope & Radiation Application Division

Job Specification

IRAD / 14/ 394
October 17, 2019

The following job needs to be carried out on urgent basis:

1. Brief Description of the job:

Procurement of raw material, preparation of fabrication drawing, fabrication & supply of SS 304L Grills (11 No’s) for HIRUP Water Pool, IRAD

2. Scope of Work:

The Party should fabricate & supply SS grills as per the following details

SS Grill

The SS grill will be made of SS pipe on all 4 sides as outer boundary & square bars will be welded horizontally & vertically at 50 mm gap throughout the inner face of pipe. A 1.5 mm SS sheet will be welded in the bottom surface of the grill.

- Qty- 11 No’s
- Size- approx – 2600 x 500 mm
- MOC- SS 304 L ( Entire Job)
- Structural materials to be used
  - SS pipe- 25 NB Sch40
  - Sq Bar- 10 x 10 mm
  - SS Sheet- 1.5 mm thick
- Total Quantity of material - 850 Kg ± 10 %
- Each Grills should have minimum 4 lifting lugs

Scope:

- Procurement & supply of raw material as per above details & any other consumable raw materials as required for executing the work.
- Raw materials procured for this work shall undergo lab test for both mechanical & chemical properties at any govt approved as decided by purchaser/its representative.
- Preparation of detailed fabrication drawing as per on site measurement. Final drawings should be approved by IRAD officers before commencement of Job.
- Preparation of QAP detailing fabrication, installation, welding & inspection procedures. Fabrication of SS Grills at party’s works & only installation at site.
- Surface finish: - Buffing & mirror polish. (surface finish 0.1 µm/N3 or better)
- Pre dispatch Inspection & Testing of the work by indenting officer or divisional representative at party’s works.
- Installation of grills at site as per final approved drawings.
  - Submission of inspection & test reports, history document & reproducible as built drawings.
- **Welding**
  - Full welding of SS square bar & plate with pipe by TIG welding as per ASME section IX. The filler material shall conform to AWS class ER 308L. SS welding electrodes & filler materials shall conform to ASME section II part C, SFA 5.4 type, E 308L & SFA 5.9 type ER 308L respectively.

- **Testing of weld**
  - Root & final passes of all welds shall be subjected to liquid/dye penetrant examination in accordance with ASME section III NB-5111 & acceptance shall be as per NB-5352.
  - After weld edge preparation, the surfaces shall be subjected to Liquid Penetrant Examination in accordance with ASME section III NB-2546 & acceptance shall be as per NB-2546.3.

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3. **Inspection**

I. The party will arrange all the materials of the above specified work. Department will not supply any material in this regard.

II. The items will have pre dispatch inspection before final acceptance & delivery.

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4. **Warranty, Place of Delivery**

Warranty- Minimum 1 Year
Place of Delivery- RLGZ Stores
<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Item/Activity</th>
<th>Characteristics to be checked</th>
<th>Type/extent of check</th>
<th>Ref. Document/Accepted standard</th>
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<td>SS Pipe, Square bar, SS Sheet</td>
<td>Visual inspection</td>
<td>Major</td>
<td>Approved Fabrication Drawing</td>
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<td>2</td>
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<td>Mechanical, Chemical Analysis, Ultrasonic testing</td>
<td>Major</td>
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<td><strong>B</strong></td>
<td>In process</td>
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<tr>
<td>1</td>
<td>Welding procedure specification &amp; welding procedure qualification</td>
<td>Review</td>
<td>ASME Sec IX</td>
<td>App Fab Drg &amp; relevant doc</td>
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<tr>
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<td>Material cutting</td>
<td>Dimension profile check</td>
<td>Measurement 100%</td>
<td>App Fab Drg</td>
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<td>Weld set up</td>
<td>Dimensions/Alignment</td>
<td>Do</td>
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<td>4</td>
<td>All Welds butt &amp; fillet</td>
<td>Weld soundness</td>
<td>100% DP test after Final Run</td>
<td>App Fab drg &amp; ASME SEC V</td>
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<td>5</td>
<td>Butt/Fillet weld joints</td>
<td>Do</td>
<td>Do</td>
<td>Do</td>
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<td>6</td>
<td>Fabrication &amp; assembly of parts</td>
<td>Dimensions/shape check</td>
<td>Measurement 100%</td>
<td>App Fab Drg</td>
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<td>Correctness if any</td>
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<td>Do</td>
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<td><strong>D</strong></td>
<td>Fabrication of sample Debris Container</td>
<td>All Dimensions, functionality Ok</td>
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<td><strong>E</strong></td>
<td>Final Inspection</td>
<td>Functional Check, Finishing</td>
<td>Moving parts Dim 100%</td>
<td>App Fab drg</td>
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