

TENDER ENQUIRY

Ref.: AFD/ESAS/2022/I/22408

Date: 13-May-22

**Sub: Tender enquiry for "Supply, fabrication and laying of SS pipeline for laboratory drain and G.I. pipe line for potable water supply on plant terrace with fittings at AFD".**

**Scope and specification of work:**

1. The scope of work involves dismantling / removing of existing C.S. pipeline of 50NB size carefully without damaging to other service lines. Actually measurement shall be taken on site for laying of new SS pipeline in replacement of existing CS pipeline and additional pipeline from new laboratory drain locations. Supply of new SS pipe with fittings and same shall be laid on site with proper routing and all safety precautions.
2. The scope of work involves dismantling / removing of existing potable water tank of capacity 1500 L with support structure, old G.I. pipeline and fittings on terrace carefully. Actually measurement shall be taken on site for supply and laying new G.I. pipeline with proper routing and convenient for operation. Supply of new Sintex make 2000 L capacity tank for potable water supply with new structural support stand / table shall be installed at site. Then supply and laying of new 1" NB G.I. pipeline, pipe fittings, valves and proper routing shall be done with all safety precautions.

**3. Technical requirement and material:**

Sr. no.	Description	Quantity
1.	50NB, SCH 40, Seamless pipe	60 meter
2.	50NB, SS Ball valve	04 nos.
3.	50NB, Table 'E', BS Flange,	04 pairs
4.	SS Pipe fittings – 50NB , 90 Elbow	16 nos.
5.	SS Pipe fittings – 50NB, Sleeve	08 nos.
6.	150NB, SCH 20, Seamless pipe	12 meter
7.	Water storage tank : Sintex make - 2000 Liter, Multilayered, 100% UV stabilized white outer layer, 100% virgin food grade material for hygienic water, Threaded Lid with extra insert lid, Cylindrical vertical type and as per IS 12701 (Latest )	01 no.
8.	1"NB, G.I. pipe	60 meter
9.	1"NB Automatic float valve	04 nos.
10.	1" Gate valve ( Threaded end )	02 nos.
11.	1" Inline Strainer	02 nos.
12.	1" Union	04 nos.
13.	1" Elbow	20 nos.
14.	1" Double nipple connector with rubber packing	06 nos.
15.	¾" Gate valve (Threaded end )	02 nos.
16.	¾" Nozzle	04 nos.
17.	¾" Connector( External Threaded )	04 nos.
18.	M.S. Support structure ( structural member –ISMC 75X40 box Channel with 5mm thk. top plate and 10mm thk. base plate)	250 kg
19.	M.S. pipe support brackets /clamps etc	100 Kg.
20.	Civil work – Digging, breaking, brick work and plaster etc.	5 m <sup>2</sup>
21.	Painting of M.S. structure & G.I. pipeline	100 m <sup>2</sup>



Supply, fabrication and laying of SS pipeline for chemical drain from laboratories shall be done as per available space and layout at site. Locations of laboratories are at 4 meter height on mezzanine floor. Related civil work shall be done by the contractor.

Dismantling of existing pipeline with water storage tank and MS support structure are in the scope of supplier. Supply, fabrication and laying of G.I. pipeline for drinking water with water storage tank shall be done as per existing route on terrace of the AFD Building. Entire supply of material is in the Supplier's scope only. Suppliers shall prepare its own layout, fabrication drawings and get it approved. It is to be ensured by the supplier that the fabricated pipeline shall have sufficient rigidity, strength & no leakage in entire length.

**A) General technical requirements:-**

1. All material to be used for this work shall be in the scope of Supplier. Supplier shall utilize all standard materials. Entire supply of material is the responsibility of supplier. Supplier shall use relevant IS standard material for this work.
2. SS Material shall be tested for Mech, Chem and IGC tests as per relevant test standards. Tests shall be performed at standard, NABL accredited labs only. Supplier shall bear the charges of material testing. Material identification, testing shall be witnessed by departmental concerned person.
3. Supplier shall carry out actual measurements at site and suggest deviations/corrections/modifications if any to make necessary changes if required.
4. In case of any technical doubts, supplier shall contact concerned authority for clarifications.
5. Supplier shall have to arrange for ARC / TIG welding m/c. along with all consumables (welding electrodes etc) required for this work.
6. All welding shall be carried out by SMAW technique.
7. Cutting, arc welding, grinding work etc. shall be carried out with utmost care. Supplier shall follow all safety measures while carrying out such work. Department shall provide gas cylinders for gas cutting purpose if available, otherwise supplier shall use other safe metal cutting methods.
8. Burrs, sharp edges, projections etc. caused as a result of cutting, welding etc shall be removed to maintain smooth surface. Workmanship of best quality should be maintained.
9. Supplier shall clear off all left out/unwanted material at the end of the work and ensure clean work area before handing over.
10. Supplier should have the previous experience in metal fabrication and erection work or similar site work along with quality assurance plan and should provide documentary evidence of the same for site visit clearance.

**11. QAP (Quality Assurance Plan):-**

Supplier shall submit a documented procedure for Quality Assurance Plan for fabrication of G.I. and SS pipeline and testing of assembled line for leakage as mentioned against this work.

QAP should include:-

12. i) Raw material Testing, (ii) Fabrication Steps, (iii) In-process Inspection Stages, (iv) Final testing methods, (v) Welding procedures, Weld sequencing and Cleaning procedures,
13. Welding requirements:-
  - i) Welding procedures and welder shall be qualified as per ASME section IX proper to production weld.
  - ii) All the welding if any on MS to MS shall be done by SMAW using E6018/E7018 welding electrodes, welding of MS to SS shall be done by GTAW process using filler wires conforming to AWS A5.9-ER-309L and welding of SS to SS shall be done by GTAW process using AWS A5.9-ER-308L filler wires.
  - iii) Tungsten electrodes shall be conforming to ASME section-II, part-C, SFA 5.12, EW-Th2.
  - iv) DP test shall be carried out by on all weld joints to check surface imperfections.
  - v) Butt weld joints between SS pipe shall be ground flushed and finished smooth.
14. Inspection and final acceptance: Physical verification of all items as per technical specifications.



15. Painting :

- a. Scaling shall be removed by chipping or using wire brush of all welded joint and structure. Polish paper can also be used to make surface smooth & rust free.
  - b. M.S. support structure, pipe support bracket and G. I. pipeline shall be coated with one coat of red oxide primer and two coats of Epoxy paint.
  - c. Colour shade will be decided by the Departmental Engineer-in-charge.
16. Suppliers having knowledge and experiences of preparing documentations, BARC procedures, standard welding procedures, safety procedures, material testing and inspection facilities, calibrated equipments etc. shall be preferred for the work contract.
17. Supplier shall obtain Medical Fitness certificates for all his workers involved in this work.
18. The required safety gears i.e. safety shoes, soap & undergarments etc. shall be provided by the supplier to their employees engaged in this work.

**B) Terms and Conditions:**

1. Taxes GST, if any, shall be specified separately.
2. Quotations/offers shall be valid for min. 90 days.
3. Supplier should **clearly and separately** mention the basic cost of supply, GST etc in the offer.
4. Supplier shall quote **lumpsum** for the entire work specified and not for each item individually.
5. Work completion period is **65 days** from the date of issue of the work order.
6. Any delay which is attributable to the contractor is liable for penalty @ ½ % per week (max. 10%) to be imposed on the contractor.
7. In case of delay in work completion, supplier may send request letter to concerned authority for extension in work completion period with proper justification for delay in work. Concerned authority may or may not give extension with or without penalty depending on the justification for delay.
8. Income tax @2% and GST TDS @2% will be deducted from the Suppliers bill.
9. The materials, fabricated items used against this work order shall be utilized for R&D purpose. Therefore, GST exemption is applicable and eligible for GST @5% against exemption certificate.
10. Supplier should give guarantee for a minimum period of One Year for the workmanship.
11. Contractor must furnish their PAN no. & GST Registration Certificate.
12. 100% payment will be arranged after satisfactory completion of work at AFD and on submission of:
  - a) Bills in triplicate,
  - b) Advanced stamped receipt,
  - c) Delivery Challan,
  - d) Guarantee Certificate
  - e) Site Clearance Certificate,
  - f) GST Undertaking,
  - g) Work Completion certificate,
  - h) ITR undertaking
13. Min. two workers & a supervisor shall be present at site during the work. During execution, all safety measures such as safety shoes, hand gloves, headgear for welding, certified machines for electrical jobs etc. are to be followed. The supervisor shall be experienced enough for safety (fire & personal) to oversee the site activities.
14. The upkeep of area is the responsibility of contractor. Any unwanted or extra materials shall be kept at designated area shown by departmental supervisor. For elevated jobs proper Safety Belts shall be used by all workers.
15. Contractor shall obtain police verification certificate (PVC) for all his employees including his supervisors and workers engaged in the work.
16. **Site Visit:-** The contractor shall have to visit the site to comprehend the scope of work and site conditions. The same will be arranged by the undersigned. The site can be visited on 25/05/22 between 10.00 hrs to 14.00 hrs only. However, for site visit, prior intimation of at least three working days is necessary for arranging the entry permits.  
**The quotations submitted without site visit will NOT be considered.**
17. Contractor shall have to carry valid Photo identity card (Driving licence, passport, Aadhaar card) while visiting this premises. Failing to bring valid identity cards, vendors will not get access into our premises. Further, entry permits will not be arranged for next dates



if vendors unable to visit the site on permitted dates for any reasons. Contractor should not carry any type of electronic items such as mobile, pen drive, camera etc with him/her at the time of visit.

For preparing entry permit, you can contact the undersigned on ph. No. **022-25594869** or can e-mail to (**maladkar@barc.gov.in**) giving complete details of firm, name of visitors, occupation/designation, identity proof, PVC details, probable date of visit etc.

**C) Confidentiality clause:-**

**I. 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.

**II. "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

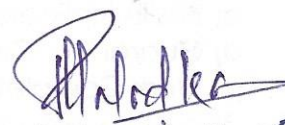
**III. Prohibition against use of BARC's name without permission for publicity purposes. :-**

The contractor of 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, T.V. or Internet without the prior written approval of BARC.

- Quotations are to be in printed letter head / quotation format which should consists of **GST registration no., PAN of the firm** etc. Quotations that are received in computer generated form will be considered as invalid & rejected.
- Sealed quotations must be forwarded by **Registered or Speed Post ONLY**. Quotations forwarded through any other routes will not be considered.
- Sealed quotations should be super scribed on the envelope with the "Reference number and Due Date" of this tender enquiry and should be addressed to and reached by **(02-06-2022 by 16-00 hrs.)**

**TO:**

**Shri. R. M. Maladkar, SA/F**  
Engineering Services & Automation Section,  
Atomic Fuels Division,  
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Trombay, Mumbai-400085.

  
(R. M. Maladkar)  
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(Surendra Kumar)  
Head, ESAS, AFD

(For & on behalf of The President of India)