

Government of India
Bhabha Atomic Research Centre
Reactor Engineering Division

Ref: RED/AKS/OPA/MF/P60648/2022

09th Sept 2022

Sub: Invitation to quote for two-part tender for Retrofitting and stiffening of existing structure at Gamma Garden, BARC, Mumbai-85 as per technical specifications given in "Annexure-I".

Dear Sirs,

Sealed quotations are invited on behalf of the President of India by Head, Reactor Engineering Division for Execution of **"Retrofitting and stiffening of existing structure at Gamma Garden, BARC, Mumbai-85 as per technical specifications given in "Annexure-I"**. This work is to be executed at the purchaser's premises (Gamma Garden, BARC, Mumbai-85).

General Notes:

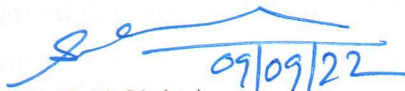
- 1) The work will be carried out at the purchaser's premises (Gamma Garden, BARC, Mumbai-85) and bidder shall provide all necessary infrastructures for carrying out the work.
- 2) Supplier shall arrange sufficient number of qualified/experienced technician to carry out the assignment within time (4month from issue of work order).
- 3) Quotations shall be submitted in two parts i.e. **"TECHNICAL" & "FINANCIAL"**. These quotations shall be put in two separate envelopes and sealed properly. These two envelopes shall be put in a main envelope and sealed properly.
- 4) **Type of quotation (Financial or technical) must be clearly mentioned on each envelope. Reference no. of this letter, date and time of opening of bids also should be clearly mentioned on the all sealed envelopes containing the quotation. The reference no. of this letter, date and time of opening of bids must be clearly mentioned on the all sealed envelopes containing the quotation.**
- 5) Quotations shall be provided on a company letterhead describing Name, address and contact details. All quotations must be complete with proper reference number, signed and stamped by the authorized representative of the bidder. Without this information the offer will be treated as invalid.
- 6) In **"TECHNICAL"** bid, supplier shall furnish the details of manpower, equipments, machinery, infrastructure and at least two similar nature of prior work carried out by him in last three years for assessment by the purchaser. **Copy of work order/completion certificates of at least two similar assignment carried out in the past three year shall be attached in technical part of bid. Without this information the offer will be rejected.**
- 7) The **"TECHNICAL"** quotation must clearly indicate compliance with the technical specification as per Annexure-I. **Offers that do not comply with the technical specification in all respects will be rejected.**
- 8) The **"TECHNICAL"** quotation must be given in the letter head of the bidder. All documents being submitted for **"TECHNICAL"** quotation shall be listed in this letter.

- 9) The quotations must reach to Alok Kumar, SO/F,RED, Engg. Hall-7, BARC, Mumbai-85 latest by 23/09/2022. Quotations will be opened on 26/09/2022.
- 10) The quotations have to be sent by speed post only. Hand delivered quotation will not be entertained.
- 11) The bidder may contact on telephone no.: Alok Kumar: 022-25597161 for inquiries related to MF.
- 12) "TECHNICAL" part of quotations will be opened first and "FINANCIAL" part of quotation will be opened only if the "TECHNICAL" bid is found to be acceptable as per terms and conditions of technical specifications.
- 13) Payment will be made as per government rules after the completion of the work to purchaser's satisfaction against submission of original bill in triplicate and advance stamped receipt.
- 14) Income tax @2% and GST as applicable will be deducted from the bill. Taxes if applicable shall be paid as per government rates.
- 15) Bidder shall mention their PAN and VAT/GST nos. in the quotation.
- 16) The offer shall be kept open for acceptance for a minimum period of 60 days from the date of opening of the quotation.
- 17) The bidder shall furnish the detailed information regarding whether an ex-employee of BARC is working in their organization or whether any of their relative is working in DAE/BARC or whether he/she is an ex-employee of DAE/BARC. In case of absence of such information, or wrong information the quotation or contract is likely to be rejected or cancelled.

CONFIDENTIALITY CLAUSES:

- 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-bidders, consultants, advisers or the employees engaged by the 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 bidder, sub-bidder, consultant, adviser or the employees of a bidder will invite penal consequences under the aforesaid legislation.
- III. Prohibition against use of BARC's name without permission for publicity purposes: -
The bidder or sub-bidder, consultant, adviser or the employees engaged by the bidder 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.

Thanking you,


(S.K. Sinha)
Head, VLS
RED, BARC, Mumbai-85

Enclosure: Annexure-I

Annexure-I

Item: Retrofitting and stiffening of existing structure at Gamma Garden, BARC, Mumbai-85 as per technical specifications given in “Annexure-I”.

This annexure has three parts as follows:

Part-I: Technical Specification

Part-II: General Terms and Conditions

Part-III: Note to Bidder

Part-I : Technical Specification

1. Scope of Work:

Nature of work in this indent involves material handling, cutting, edge preparation, grinding, and welding. All work will be carried out at Gamma Garden, BARC, Mumbai-85 on existing structures. All structural Material required for this job will be as free issue material at work premise. Supplier has to complete the work within time. Details of works are described in section- 2.

2. Major steps of fabrication:

2.1 Cutting, grinding and edge preparation: Supplier has to prepare triangular gusset plate (3000 in number) of size 60mmX60mmX10mm (as shown in figure-1) by cutting from 10mm thick plate. Welding edges and surface on these gusset plates is to be prepared for full perimeter and thickness weld.

2.3 Welding: All welding is to be carried out at site i.e. Gamma Garden, BARC. Welding work consists of reinforcement of existing welding, gusset plate welding and square hollow section welding.

2.3.1 Reinforcement of existing welding (2mm extra welding on existing 3mm weld): Supplier has to reinforce existing full perimeter fillet weld between pipe and plate with 2 mm extra weld. Total length of reinforcement welding is given in table-1.

2.3.2 Gusset plate welding: 3000 gusset plate is to be welded between existing pipes and plates with “4.5mmX4.5mm” fillet weld as shown in figure 1. Figure-1 shows the schematic of typical weld location for reinforcement welding and type Gusset plate welding discussed above.

2.4. Stiffening of structure: Existing structure is to be stiffened by square hollow sections, which will be provided by user. These hollow section will be welded on pipe structure. Where ever full perimeter direct welding between pipe and plate is not feasible, plates will be welded on each side of square hollow section.

Figure 2-a and 2-b shows the typical welding for stiffening work. Welding are along full periphery of overlapping surface. Weld length and sizes of different weld types are given in table-1. Supplier has to ensure that welders are qualified for the structural fabrication work to produce quality weld joints. Fabricator has to comply with safety measures while welding.

3. Inspection and Testing:

3.1: Welding: Supplier has to submit welder qualification certificate conforming IS standard not older than 6 months of all welder else fabricator has to qualify all his welders through qualifying test as per IS:7310(1974) for welds shown in figure-1 before start of work. Only after approval from indenter supplier has start welding work.

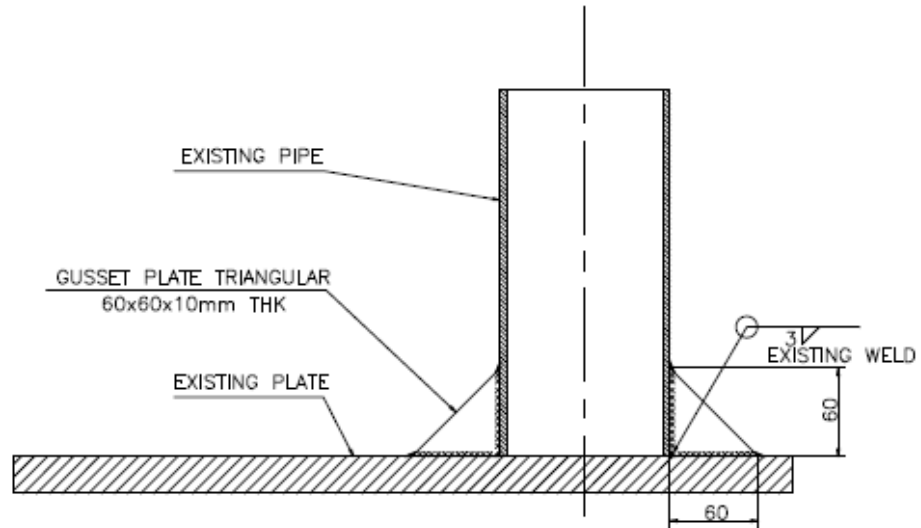
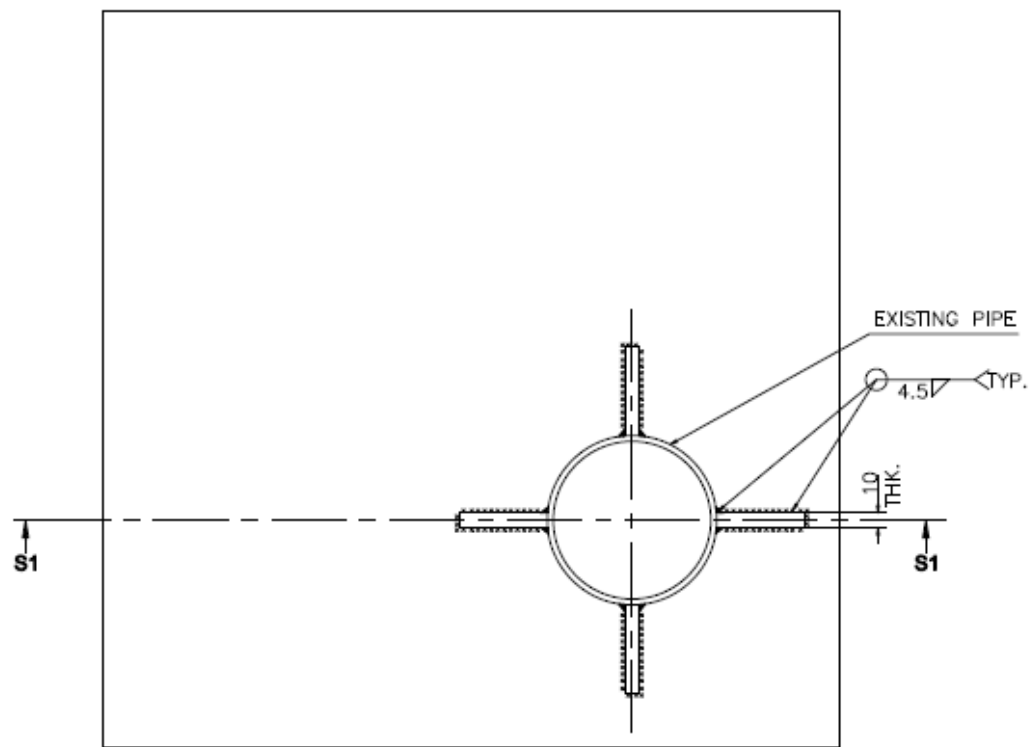
3.3 Post welding inspection: Fabricated components will be subjected to dimensional check, surface/edge preparation before and after welding. Welding shall be uniform and free from defects such as undersized welds, undercut, overlap, surface porosity etc. Liquid penetration test of 10% of randomly selected weld and visual inspection of all welds will be carried out by authorized

representative of the purchaser. All selected welds should pass liquid penetration test.

4. Delivery Period: Supplier has to complete all the work **within 4 Months**. **Accordingly, supplier has to complete at least 12- 16m of (4.5mmX4.5mm) fillet welding on each working day.** It is estimated that supplier has to employ minimum 4 number of welder, 2 fitter and one 1 riggers.

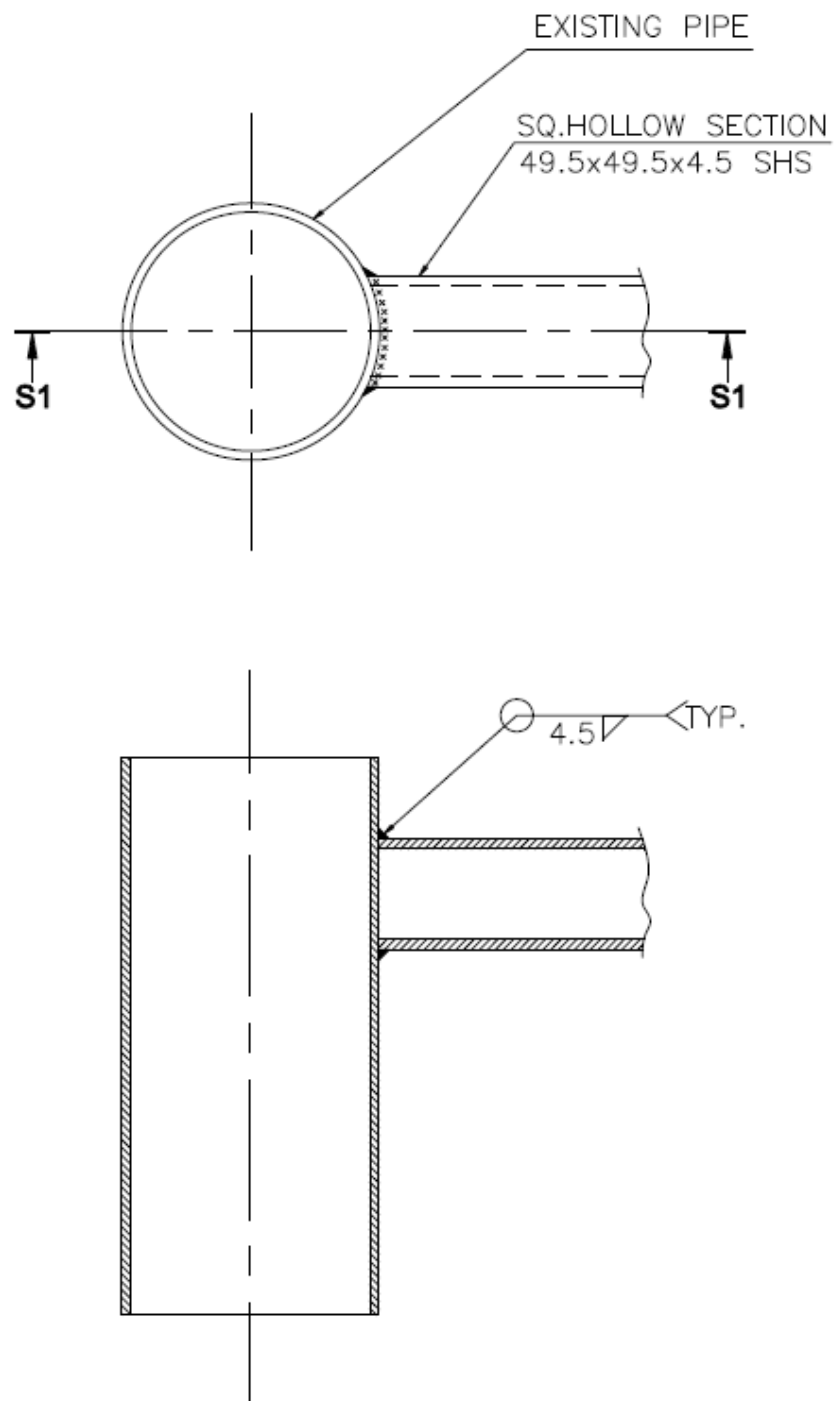
5. Free Issue Material: All structural material and electricity will be provided by user. All machineries and equipment (like welding machine, grinder, cutter etc), safety shoes, safety harness, safety gears, manpower etc are to be arranged by supplier.

Table-1	
Weld details	
Weld	Total Length
Fillet Weld 4.5mmX4.5mm for 3000 number of 60mmX60mmX4.5mm gusset plate welding (Refer Figure-1)	780m
2 mm weld reinforcement on existing weld (Refer Figure-1)	200m
4 mm weld reinforcement on existing weld	220m
Total 4.5 mm fillet weld for welding of square hollow section with existing structure (Refer Figure-2)	308m



SECTION - S1 S1

Figure: 1 Reinforcement welding and gusset plate welding



SECTION - S1 S1

Figure: 2-a Welding details for Square Hollow Section welding with pipe

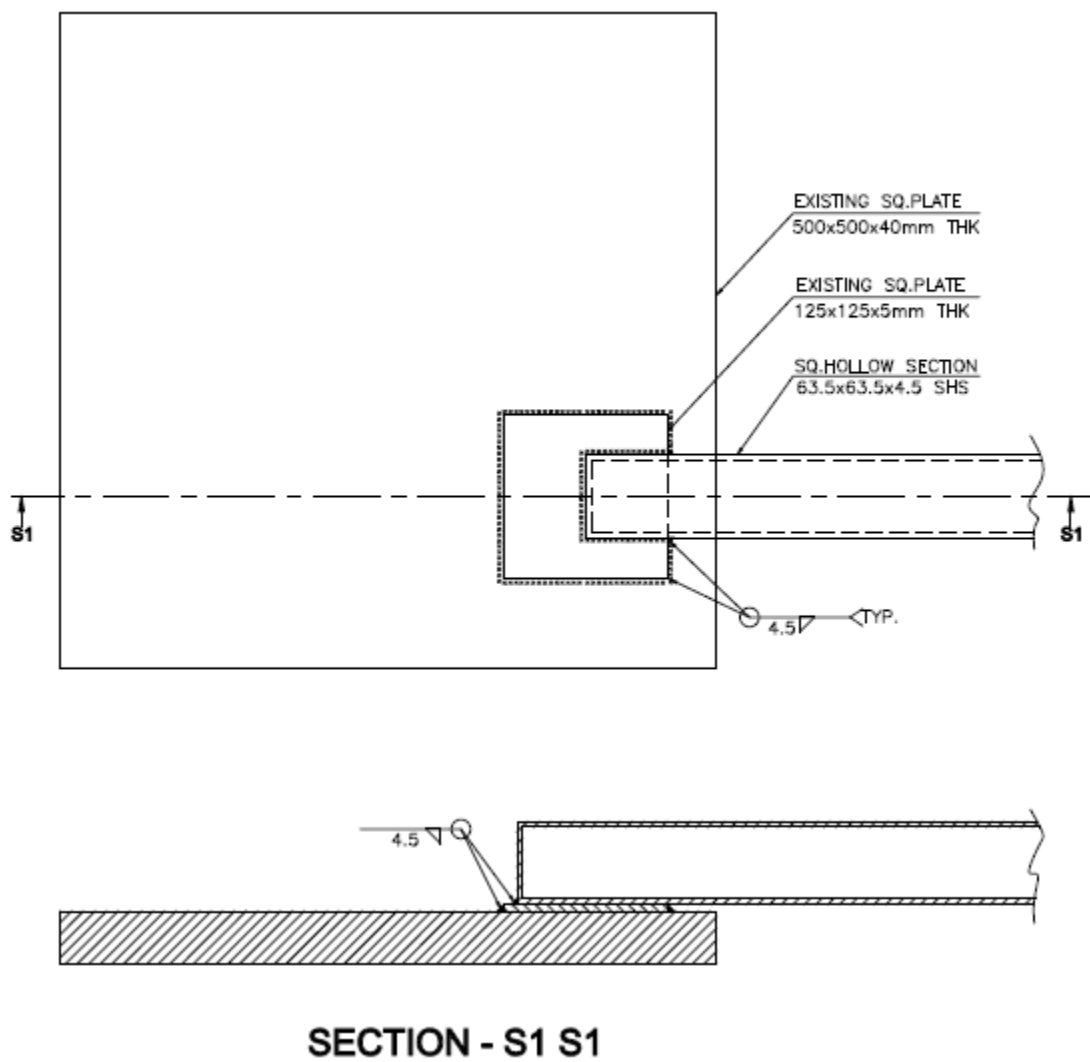


Figure: 2.b Welding details for square hollow section on overlapping surface

Part-II: General Terms and Conditions

1 Necessary safety precautions shall be taken by the fabricator at the site during the work and Supplier shall be fully responsible for any accident or damage caused by his personnel. No compensation will be paid by the purchaser in such case.

3 Fabricator must provide safety gears such as safety shoes, gloves, goggles, safety belts, helmets to their staff while carrying out the fabrication work at the site.

4 Fabricator shall use proper railings, scaffoldings, harness, safety gears while working at higher elevations to ensure the safety.

5 Fabricator shall maintain the work area in orderly and neat manner.

6 The work shall be subject to review by the purchaser or his authorized representative. Work shall be conducted under their guidance and to the full extent of satisfaction of the purchaser.

7 Supplier has to arrange all necessary documents like Police verification certificate, Address proof, Identity proof etc. for his manpower working inside BARC premises for security clearances and work permit of this indent. The supplier has to make arrangement for gate pass, for entry into BARC premise, for all the personnel required for working inside BARC premise for accomplishing installation work. The party must coordinate/communicate with BARC security, North gate for processing of gate pass for personnel and vehicle as required for execution of the job.

Part-III: Note to Bidder

1 Documents to be submitted with bid: The bidder shall submit point wise compliance of the to the technical specifications. Bidder shall submit along with bid list of machinery and man power their offer. **THE offer must mention number of welder, fitter and rigger which supplier is going to employ continuously for this job.** Bidder shall submit documentary proofs of 2 nos. of similar works that they have successfully completed in the past 5 years. Each completed work should be more than 500 kgs.

This information may be asked again during bidder evaluation.

2 Sub contract: No sub-contracting of any part of the job is acceptable without prior approval from the purchaser. The bidder shall clearly indicate any work intended to be sub-contracted to any other party in the offer itself. Sub-contracting will be permitted only if the purchaser is satisfied with the capability of the sub-contractor. The bidder is responsible for all the operations carried out by the sub-contractor.

3 Minor changes: During the process of fabrication or prior to it, the purchaser reserves the right to incorporate minor changes to the reference sketch which do not necessitate a change in machining procedure, inspection procedure. This shall not be taken as a reason for revision of quoted price.

4 Inspection and testing: The purchaser reserves the right to undertake additional inspections, if deemed necessary by him. Inspection from the purchaser does not relieve the supplier of his responsibilities towards fabrication of job as per specifications.

5 Ambiguity or doubt: In case of any ambiguity or doubt, the bidder shall not assume any dimension or configuration. The purchaser shall be contacted to clarify the doubts.