

Government of India
Bhabha Atomic Research Centre
Chemical Technology Division

Ref: ChTD/PTS/CY/677

Dtd: 18.08.2022

Tender Enquiry for Annual Plant Maintenance Work

Sealed quotations are invited on behalf of Presidents of India for the work as per following Technical specification.

Technical Specifications

1. **Job:** Maintenance, testing, cleaning of special machineries & equipments and associated work at Dry Process Reduction Facility, CEL-III plant ChTD, BARC for a period of two years.

2. **Scope of the job:** The scope of job covers-

Maintenance of plant machineries such as diaphragm compressor, centrifugal pumps, water ring vacuum pumps, rotary vane vacuum pumps, control valves, electro-pneumatic valves, manual valves piping & its components, cleaning of piping & its components, removal and putting of ceramic wool insulation on equipments and pipe lines, lifting & shifting of materials and cleaning of equipments as and when needed, assistance in trial preparation activity and inventory management, preventive maintenance of various equipments in the plant and, general up-keep & maintenance of the plant & surrounding area. There will not be supply of any spares or component. Users department shall provide the required spares as and when required.

Quantity of work: As per Table below

Table-1

S.N	Nature of Job	Quantity
01	Maintenance of centrifugal pumps	10 Nos
02	Maintenance of Water ring vacuum pumps	01 Nos
03	Maintenance of Rotary vane vacuum pumps	02 Nos
04	Maintenance of Electro-pneumatic bellow sealed valves	40 Nos
05	Maintenance of control valves	06 Nos
06	Maintenance of manual valves (Boll valves, globe valves, needle valves,& bellow sealed valves)	150 Nos
07	Plasma Reactor system, scrubbers system, Fluorine cell system, Hot water system, Oven system	LS
08	Laying and installation of SS tubings, laying of line trace heaters, Providing ceramic wool insulation on heated surface of	L.S.

	equipments and upkeep of plant area. Pneumatic Testing of piping and equipments before every experimental trial. Updation of plant inventory in store room & pipe racks.	
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Dry process reduction facility at CEL-III, ChTD is a running plant & being operated on campaign basis. To avoid complete shutdown of plant, the proposed maintenance work shall be carried out in phase manner. Total quantum of work shall be divided in eight parts and each part shall be completed on quarterly basis. Work taken up in one quarter must be completed before taking up job of subsequent quarter. On completion of quarterly job, it shall be checked by user before final acceptance.

For proposed work & its timely completion, it is estimated that two number of trained manpower consisting of one skilled technician and one semiskilled person may be required on daily basis, working between 9:00 AM to 5:30PM, i.e., 8.5 hour in a day and 5 days in a week for entire quarter. User will be authorized to call the persons in round the clock or during any emergency plant maintenance. The initial contract for maintenance & cleaning shall be for a period of Two years from issue of work order.

Location of work: CEL-III, ChTD, BARC, Trombay, Mumbai-400085.

3. **Delivery period:** Entire scope of work shall be divided in eight parts and each part shall be completed in one quarter. Quarterly scope of work is specified in Table-2.

Table-2

S.N	Job	Qty of work	Delivery period
Quarter-1			On completion of job of Quarter-1. (From the date of issued work order)
01	Maintenance of centrifugal pumps	03 Nos	
02	Maintenance of Water ring vacuum pumps	01 Nos	
03	Maintenance of Rotary vane vacuum pumps	01 Nos	
04	Maintenance of EP bellow sealed valves	05 Nos	
05	Maintenance of control valves	01 Nos	
06	Maintenance of Manual valves	20 Nos	
07	Laying and installation of SS tubings, laying of line trace heaters, Providing ceramic wool insulation on heated surface of equipments and upkeep of plant area. Pneumatic Testing of piping and equipments before every experimental trial. Updation of plant	L.S (Routine job)	

	inventory in stores and pipe rack area.		
Quarter-2			
01	Maintenance of centrifugal pumps	01 Nos	On completion of job of Quarter-2. (From issue of date of work order)
02	Maintenance of Electro-pneumatic bellow sealed valves	05 Nos	
03	Maintenance of control valves	01 Nos	
04	Maintenance of Manual valves	20 Nos	
05	Laying and installation of SS tubings, laying of line trace heaters, Providing ceramic wool insulation on heated surface of equipments and upkeep of plant area. Pneumatic Testing of piping and equipments before every experimental trials	L.S (Routine job)	
Quarter-3			
01	Maintenance of centrifugal pumps	01 Nos	On completion of job of Quarter-3. (From issue of date of work order)
02	Maintenance of Electro-pneumatic bellow sealed valves	05 Nos	
03	Maintenance of control valves	01 Nos	
04	Maintenance of Manual valves	20 Nos	
05	Laying and installation of SS tubings, laying of line trace heaters, Providing ceramic wool insulation on heated surface of equipments and upkeep of plant area. Pneumatic Testing of piping and equipments before every experimental trial. Updation of plant inventory in stores and pipe rack area.	L.S (Routine job)	
Quarter-4			
01	Maintenance of centrifugal pumps	02 Nos	On completion of job of Quarter-4. (From issue of date of work order)
02	Maintenance of Electro-pneumatic bellow sealed valves	05 Nos	
03	Maintenance of control valves	02 Nos	
04	Maintenance of Manual valves	20 Nos	
05	Laying and installation of SS tubings, laying of line trace heaters, Providing ceramic wool insulation on heated surface of equipments and upkeep of plant	L.S (Routine job)	

	area. Pneumatic Testing of piping and equipments before every experimental trials		
Quarter-5			
01	Maintenance of centrifugal pumps	01 Nos	On completion of job of Quarter-5. (From issue of date of work order)
02	Maintenance of Water ring vacuum pumps	01 Nos	
03	Maintenance of Rotary vane vacuum pumps	01 Nos	
04	Maintenance of Electro-pneumatic bellow sealed valves	05 Nos	
05	Maintenance of control valves	01 Nos	
06	Maintenance of Manual valves	20 Nos	
07	Laying and installation of SS tubings, laying of line trace heaters, Providing ceramic wool insulation on heated surface of equipments and upkeep of plant area. Pneumatic Testing of piping and equipments before every experimental trial. Updation of plant inventory in stores and pipe rack area.	L.S (Routine job)	
Quarter-6			
01	Maintenance of centrifugal pumps	01 Nos	On completion of job of Quarter-6. (From issue of date of work order)
02	Maintenance of Electro-pneumatic bellow sealed valves	05 Nos	
03	Maintenance of control valves	01 Nos	
04	Maintenance of Manual valves	20 Nos	
05	Laying and installation of SS tubings, laying of line trace heaters, Providing ceramic wool insulation on heated surface of equipments and upkeep of plant area. Pneumatic Testing of piping and equipments before every experimental trials	L.S (Routine job)	
Quarter-7			
01	Maintenance of centrifugal pumps	01 Nos	On completion of job of Quarter-7. (From issue of date of work order)
02	Maintenance of Electro-pneumatic bellow sealed valves	05 Nos	
03	Maintenance of control valves	01 Nos	
04	Maintenance of Manual valves	20 Nos	

05	Laying and installation of SS tubings, laying of line trace heaters, Providing ceramic wool insulation on heated surface of equipments and upkeep of plant area. Pneumatic Testing of piping and equipments before every experimental trial. Updation of plant inventory in stores and pipe rack area.	L.S (Routine job)	order)
Quarter-8			On completion of job of Quarter-8. (From issue of date of work order)
01	Maintenance of centrifugal pumps	02 Nos	
02	Maintenance of Electro-pneumatic bellow sealed valves	05 Nos	
03	Maintenance of control valves	02 Nos	
04	Maintenance of Manual valves	30 Nos	
05	Laying and installation of SS tubings, laying of line trace heaters, Providing ceramic wool insulation on heated surface of equipments and upkeep of plant area. Pneumatic Testing of piping and equipments before every experimental trials	L.S (Routine job)	

4. Security and safety procedures:

- All the works in plant shall be carried out using proper Personal Protective Equipment.
- A medical certificate of all the contractor personnel by a registered Doctor has to be produced by the contractor in before starting of the work. Only successfully qualified and medically fit personnel will be permitted to work.
- All work shall be carried out as per safety code as well as standard procedure for the safety of all personnel at site. Instruction issued by officer-in-charge in this regards shall be strictly complied with and he shall have the right for stoppage of work in case unsafe practices are observed. Contractor shall promptly report the case(s) to BARC security post at site.
- The contractor shall give the labourers suitable uniform/dress, safety shoes, monsoon gears, identity card to identify their staff by security and other departmental personnel.

5. Bidder eligibility criteria:

Bidder should be well versed in maintenance of diaphragm compressor, centrifugal pumps, vacuum pumps, valves and carrying out maintenance activities in a chemical plant. They should have pool of trained man power skilled & unskilled with not less than a year of working experience of doing similar nature of work inside BARC or any Govt organization or reputed chemical plant. A

documentary support / work order of carried out such nature of job on previous occasion shall be submitted by the party at the time of submitting the quotation. Bidders with ITI/NCTVT qualified & trained manpower shall be given preference. User is authorized to check the skill/knowledge of manpower by taking trade & oral test before issue of work order. All the persons to be deployed for said work, by the vendor, must possess valid PVC (Police verification certificate). Submission of PVC of along with quotation is necessary. User have right to reject the quotation if found inadequate job skill possesses by manpower.

6. Bid evaluation criteria

The bidder shall furnish the following with their quotation, failing which the offer may be summarily rejected

- a) List of trained/qualified manpower with their qualification
- b) Copy of work contract of previously (in latest 5 year) executed AMC of chemical plant inside BARC.

7. Inspection & Acceptance Criteria:

The completed maintenance work will be accepted after due inspection by Engineer In-Charge (EIC) of DPRF. Post maintenance of pumps, valves and other plant components, each item shall be tested for its intended performance. Failing the performance test, the maintenance clearance shall not be given by the EIC.

8. General Notes:

- a) Disruption of work for more than a week without any prior approval shall be taken very seriously and that may be considered as sufficient reason to cancel the work order.
- b) All the consumable, required during maintenance, shall be provided by users department.
- c) **Initial contract for maintenance shall be valid for a period of twenty four month (24 month) from issue of work order with average 22 working days in a month.**
- d) Contractor/Vendor shall be bound to pay the wage to their workman as per minimum wage act issued by ministry of labour, Govt. of India and same shall be reported to the user on monthly basis.
- e) The contractor shall submit the copies of police clearance certificate of its worker before taking up the job defined in the work order.
- f) The work carried out by the party shall be subjected to inspection by the user before acceptance.
- g) In case any extension in delivery is to be granted to the contractor, party's request for extension may be called for before expiry of work order. The same may be justified by the division, whether extension granted is with or without levy of liquidated damages.

h) A register/ report card shall be maintained by the contractor for recording all the jobs under taken. The register shall be submitted to the concerned officer for counter signature on each occasion of attending any job.

i) The contractor and their workmen shall take all safety precautions as per standard procedure while attending any maintenance job.

j) The vendor shall follow all the safety procedures as per the normal industrial practice during the execution of the job at site. Any mishap occurring during the work due to unsafe workmanship shall be the vendor's liabilities. User's department will not be liable to pay any compensation for any accident.

k) All the tools & the safety gears required for executing the job shall be arranged by the vendor.

l) Payment:

- No advance payment shall be made.
- Payments shall be done on quarterly basis on completion of maintenance work specified in each quarter.
- Income tax @2% and any other charges such as education cess etc if applicable shall be deducted from the party's bill
- The payment shall be made through Accounts Division, BARC only on satisfactory completion of the work and on production of the invoice, the advanced stamp receipt, the completion certificate, the Guarantee Certificate and site clearance certificate. The prices quoted will be firm and final.
- Any delay which is attributable to the contractor is liable for a penalty @ 0.5 % of the work order value per week (max 5%) to be levied on the contractor. It may please be noted that advance payment is not possible. If the contractor fails to engage less than 2 (two) trained manpower on any day for maintenance work, 250/- (Rupees Two Hundred and Fifty only) per head per day will be recovered as penalty from contractor's bill.

m) 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 disclosing party shall be kept strictly confidential by the receiving party without the prior written consent of the original disclosing party.
- This clause shall apply to the sub contractors, contractors, advisors, or the employees engaged by the party with equal force.
- **"Restricted Information" categories under section 18 of the Atomic Energy Act, 1962 and "official secrets" under section 5 of the Official Secret Act 1923.** Any contravention of the

above mention provisions by any contractor, sub contractor, consultants, advisors or the employees of the contractor will invite penal consequences under the aforesaid legislation.

• **Prohibition against the use of BARC's name without permission for publicity purposes.**

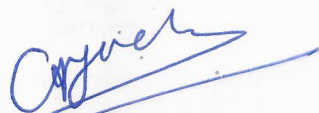
The contractor, sub contractor, consultants, advisors or the employees engaged by the contractor shall not use BARC's name for any publicity through any public media like Press, Radio, T.V., or Internet without prior written approval of BARC.

- n) Quotation without GST number may not be accepted.
- o) The quotation should be detailed with all taxes, excise duty and other charges, if any, with complete breakup. Form "H" will be provided wherever necessary.
- p) Late/fax quotation will not be accepted.
- q) Quotation shall be properly sealed in an envelope. Open or stapled envelopes will not be accepted.
- r) Scrap generated during execution of work order shall be suitably disposed at designated places. The Payment will not be made until generated scrap/debris is cleared; working area is cleaned and duly approved by the user (BARC swatch Monitoring Officer).
- s) Party may contact telephonically on 02225593840 for site visit to know the scope and detail of work.
- t) The quotation in the sealed envelope super scribed with the title of work, reference number and the stipulated due date must be dispatched by Indian post (**SPEED POST**) to reach to Head, Chemical Technology Division by **05.09.2022 at 14:00** hour. The address on the envelop should read

• **Head, Chemical Technology Division,
CEL-II, Bhabha Atomic Research Centre,
Trombay, Mumbai-400085**

Attn: Chandrajeet Yadav, TO/E, PTS, ChTD

- u) Head, Chemical Technology Division, BARC reserves the right to accept or reject any or all quotations without assigning any reason thereof.


(Chandrajeet Yadav)
TO/E, PTS, ChTD