

**GOVERNMENT OF INDIA  
BHABHA ATOMIC RESEARCH CENTRE  
FUEL CHEMISTRY DIVISION**

TENDER NO. : FCD/2020/OPA/117013

13-11-2020

**TENDER ENQUIRY**

**Sub : Fabrication and Supply of cryogenic high pressure liquid argon cylinders and assemblies (2 nos.)- As per the attached Annexure B.**

This tender is raised for Fabrication and Supply of stainless steel, double walled cryogenic high pressure liquid argon cylinders with suitable valves, regulators and gauges for safe storage and delivery of argon (2 nos.) - As per the attached Annexure B.

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, service tax registration number etc. Quotation that is received in computer generated form is to be considered as invalid & rejected. Taxes and duties shall be quoted separately. No Excise & Octroi is payable by this department, if required, necessary exemption certificate shall be issued on request.

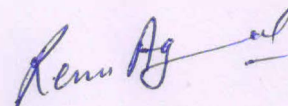
Your quotation should reach the office of Head, Fuel Chemistry Division, RLG, B.A.R.C., Trombay, Mumbai-400 085, by Indian post only, in a sealed envelope bearing the tender no. FCD/2020/OPA/117013 dated 13-11-2020, due date 21-12-2020, super-scribed on the envelope on or before due date 21-12-2020 up to 14:30 Hrs.

No advance is admissible. No free issue material will be supplied to the contractor for carrying out the job. 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. Security and transportation rules at BARC, Trombay premises shall be strictly followed.

Any clarification as regard to this tender can be obtained from Dr. Renu Agarwal, SOH+, Fuel Chemistry Division (Tel. 2559 4574) with prior appointment.

The supplier should supply all the items within 60 days from the date of work order.

Head, Fuel Chemistry Division, RC&l group, BARC reserves the right to accept or reject any or all quotations without assigning any reason.



(Renu Agarwal)  
SOH+, FCD

## Annexure B

### Technical specifications of liquid argon cylinders and assemblies (2 nos.)

Quotations are invited for two numbers of Cryogenic Super-insulated liquid Argon Cylinders with Suitable Valves, Regulators and Gauges along with SS Trolley and Corrugated Pipe as per the specifications given below. The cylinders will be used for storage of high pressure liquid argon and the gas will be retrieved and transported with controlled flow rate, at low pressure, through fixed lines attached to the cylinder to the desired location:

Capacity:  $\geq 230$  liters (gross)  $\geq 220$  liters (net)

Pressure: 24 to  $\sim 33$  bar

Design Temperature:  $-186$  to  $+40$  °C

Vessel Material: Inner Vessel and Outer Vessels should be of high quality corrosion resistant SS

Insulation: Vacuum (better than  $10 \mu\text{m}$ ) and multilayer insulation

Empty cylinder weight:  $< 230$  kg

Maximum outer diameter:  $< 700$  mm

Maximum Height:  $< 1700$  mm

Cylinder should be placed on a good quality corrosion resistant SS-trolley with castor wheels and handle for easy movement of the cylinder during refilling.

It should have the following valves and gauges for convenient and safe storage, filling and withdrawal of argon gas: (i) Evacuation port cum safety device (ii) Comb. pressure regulator (iii) Ar- Level gauge (iv) Ar- pressure gauge (v) bursting disc ( $> 30$  bar) (vi) Safety valve ( $> 24$  bar) (vii) gas withdrawal valve (viii) pressurizing valve (ix) liquid fill and withdrawal valve (x) vent valve.

Additionally a 3 meter long suitable SS corrugated pipe should be attached to the gas-withdrawal valve to connect cylinder to the main supply line, for convenient movement of cylinder at the time of refill without detaching it from supply line.

All material quality control certificates and safety test certificates should be provided with the cylinders.

*Rem Ag*  
13/11/2020