

ENQUIRY No. 020/2019/ DST-PURSE-II/School of Nuclear Studies /Research Infrastructure
Reqn. No: 504, DATED: 27/06/2019
(To be quoted in all Correspondences)
Tele/ Fax: 2414-6154



DST-PURSE- II
Central Project Section
JADAVPUR UNIVERSITY
KOLKATA - 700032, INDIA

Dated: 27/08/2019

Dear Sirs,

I shall be pleased to receive your lowest possible quotation in a SEALED COVER with our ENQUIRY NUMBER and the DUE DATE duly superscripted on the COVER and on the face of the offer letter for the supply of the under mentioned goods or articles, subjects to the TERMS AND CONDITIONS outlined in the below. Last date for submission of quotation is **09/09/2019** at the Central Monitoring Cell, 2nd floor Aurobindo Bhavan

Sl. No	PARTICULARS	APPROXIMATE QUANTITY
1.	Fabrication of Heaters with Control Elements and Debris Bed Coolability Experimental Set- Up Specification:- Technical Specification : Annexure I	01(One) No.

N.B:-

- **Earnest Money Deposit (E.M.D)**
Agency should deposit Earnest money Rs. 12,000/- (Rupees Twelve Thousand) by the DD-(Demand Draft) in favour of "Registrar, Jadavpur University" payable at "Jadavpur Kolkata". For Non Enlisted Party of Jadavpur University & EMD be dropped to the Central Monitoring Cell, "Aurobindo Bhavan" 2nd floor, Jadavpur University (Main Campus), Kolkata- 700032.
- **J.U. Enlisted parties are exempted from payment of EMD.**
- Tenderers having valid / Relevant NSIC or MSME Certificate or Registration are exempted payment of EMD, where such proof needs to be submitted.
- EMD will be refunded after selection of bidder without any accrued interest for all unsuccessful bidders.
- Quotation shall be accepted only from GST registered Vendor/Dealer/Manufactures etc.The GST registration number must be mentioned on the quotation.
- Sealed envelope containing detail specification of material with price bid shall be submitted in the tender box assigned for the tender in Central Monitoring Cell, "Aurobindo Bhavan" 2nd floor, Jadavpur University (Main Campus), Kolkata- 700032
- Warranty must be mentioned in your offer on the above items.
- GST percent must be mentioned on the above items.
- University enjoys a concessional GST rate of 5% for Scientific Equipment, including computers etc. against necessary certificate under govt. Notification.
- The last date of submission of tender is 09/09/2019 within 16:00 p.m. at the Central Monitoring Cell, "Aurobindo Bhavan" 2nd floor, Jadavpur University (Main Campus), Kolkata- 700032. University reserves the right of selection.
- Party may be requested to keep in touch with the School of Nuclear Studies (Director), before quoting the rate for better knowledge of specification & quality of material.

Yours faithfully


Finance Officer

TERMS & CONDITIONS OF TENDER

1. Quotation should be for FREE DELIVERY at Jadavpur unless otherwise arranged.
2. Prices quoted should be nett and minimum period of validity of the quotation SHOULD BE FOR 90 (Ninety) days from the closing date
3. Quotations should be free from CORRECTIONS and ERASURE
4. Sample must be attached with quotation in all possible cases.
5. Manufacturer's NAME and the COUNTRY OF ORIGIN of the materials offered must be clearly specified failing which the Tender will not be considered.
6. Samples must be submitted where specified so as to reach this office before the DUE DATE of Enquiry. Samples must be labelled clearly with our ENQUIRY NUMBER, DUE DATE, NAME OF FIRM and number on sample must correspond to the items in the tender.
7. The tenderers will not be entitled to ask for any further information other than whether their tenders have been received or not.
8. The University does not bind itself to accept the lowest or any tender or assign any reason for non-acceptance. It further reserves the right to accept any tender in part or in whole at its option.
9. If the University finds that the materials supplied are not of the contract quality or not according to the specification required by the University or otherwise not satisfactory owing to any reason, of which the University shall be the sole judge, the University shall be entitled to refuse the acceptance of the said materials, cancel the order and buy its requirement elsewhere at supplier's responsibility.
10. Tenderers must as far as possible, arrange to supply the materials according to the terms of delivery specified in the orders. If however this is not possible, they shall clearly specify the time in which the delivery of the articles can be effected. This delivery time must be strictly adhered to. Failure to supply within the specified time will lead to cancellation of the order without notice.
11. If the deliveries are not regular and if on that account the University is forced to buy the materials elsewhere, any loss or damage that the University may sustain thereby will be recovered from the supplier for non-delivery at the scheduled periods.
12. THREE consecutive failures to supply within the scheduled time or times will entail removal of the Tenderer's name from the Approved List of Suppliers.
13. If any tenderer proposes to charge GST & Delivery charges, in addition to his quoted rates this fact should be stated specifically in his quotation. In the absence of such statement the rate quoted will be deemed to be inclusive of GST & Delivery charges.
14. Non Compliance of a order may lead to cancellation of enlistment and no enquiry will be issued in future. Up to 10% of bill value may be deducted for default on delivery.
15. IN ALL CASES OF DISPUTES, THE DECISION OF THE UNIVERSITY SHALL BE FINAL & BINDING ON YOU.

By Order

Annexure-I

ENQUIRY No. 020/2019/ DST-PURSE-II/School of Nuclear Studies /Research Infrastructure

Reqn. No: 504, DATED:27/06/2019

Fabrication of Heaters with Control Elements and Debris Bed Coolability Experimental Set-up

Brief description of the set-up:

Water to be kept within a top open SS drum (500 dia, 1000 high). Within the drum, a SS wiremesh cylinder will be kept to hold the debris (minimum size 2 mm sphere). Six heater tubes, along with heating element within it, will be placed in the cylinder as shown in Fig-1. Total heating capacity is 3 kW which can be controlled by variac. 10 flexible K type thermocouples will be placed within the debris bed at different locations to take the temperature data of the bed. Thermocouples data to be captured by a temperature data acquisition system. A schematic of the set up may be found in Fig-1.

Scope of Supply:

- 1: SS Drum (Details given in Fig-2)
2. A cylinder made of SS wiremesh. 300 dia 700 high, both ends open. mesh size not larger than 150 mesh per sq inch (max mesh size 2 mm X 2mm). Heater tubes will penetrate through this cylinder also.
- 3: 6 no. of SS heater tubes. Each tube will pass through the drum. Each tube will contain a 500 watt resistance type heater element inside it. Total heat generation will be 3000 watt. Tube dia about 10 mm or may be adjusted as per the requirement. There must not be any leakage at the joints at drum wall and tubes. The heating element should be placed centrally within the heater so that heat generation occurs within the wiremesh cylinder. Suitable placement of heating elements and proper electrical insulation must be ensured so that the tubes are not short circuited.
- 4: Heater control unit. All the heaters to be controlled by a single variac so that power in each heart can be varied from 0 watt to 500 watt. One voltmeter and one ammeter to be provided to show the voltage and current reading.
- 5: Thermocouple and data acquisition module. 10 no of K type calibrated thermocouples to be provided (each 2 m long flexible wire). Data acquisition module (along with cold junction compensation) to be provided for data capture from these thermocouples. The data acquisition module(s) can be connected to a desktop/laptop computer (the computer is not in the scope of this order) to save the data acquired from thermocouples. The data acquisition speed should be at least one per second for each thermocouple.
- 6: Assembly of the components of the set-up and instruments will be in the scope of the supply

For clarification, please contact Prof. Koushik Ghosh/Prof. Swarnendu Sen, Department of Mechanical Engineering, Jadavpur University, Kolkata - 32

Prof. Dr. Anilava Gupta
Secretary
School of Nuclear Studies & Applications
JRU UNIVERSITY
KOLKATA

Anilava Gupta
27/6/2019

Swarnendu Sen
27/6/19

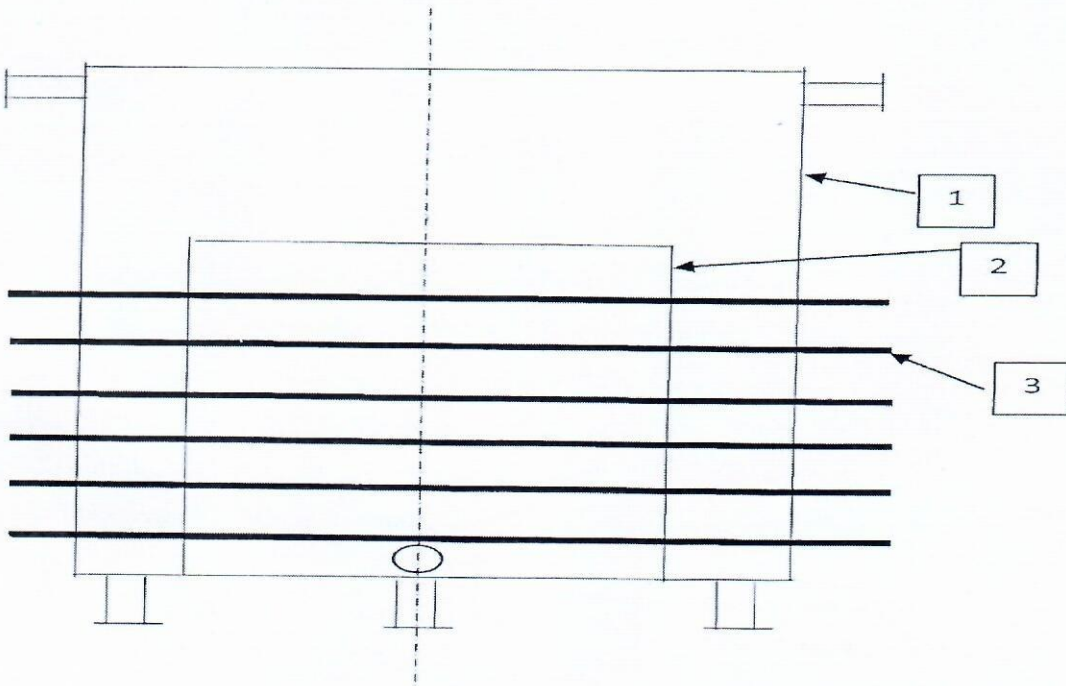


Fig-1: Schematic of the Set-up

Amitava G.L
27/6/2019
Prof. Dr. Amitava Gupta
Director
School of Nuclear Studies & Applications
JADAVPUR UNIVERSITY
KOLKATA

Swaminathan
27/6/19

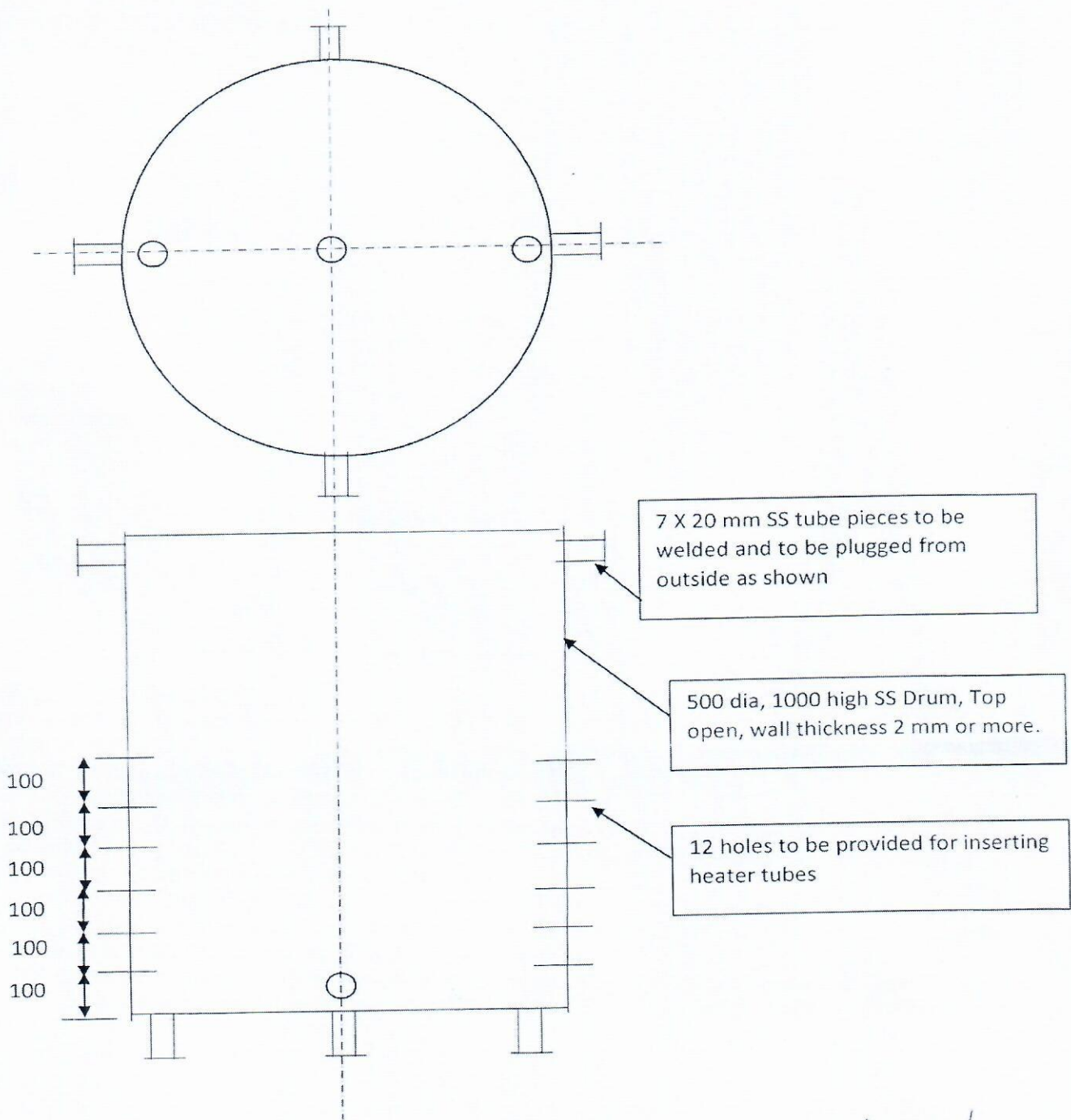


Fig-2: Details of the SS Drum

Handwritten signature
27/6/19