

दूरभाष :
TELEPHONE :
तार : बार्क-मुंबई, चेम्बूर.
TELEGRAMS : BARC-MUMBAI, CHEMBUR.
फेक्स संख्या : ९१-२२-२५५० ५१५१
FAX NUMBER : 91-22-2550 5151



ट्रॉम्बे,
मुंबई-४००.०८५.
TROMBAY,
MUMBAI-400 085.

भारत सरकार
GOVERNMENT OF INDIA
भाभा परमाणु अनुसंधान केन्द्र
BHABHA ATOMIC RESEARCH CENTRE
URANIUM EXTRACTION DIVISION

Ref: UED/PI.13/18/111299

Dt: June 06, 2018

To,

TENDER No: BARC/UED/SKG/18029

TENDER DUE DATE: 18.06.2018 up to 16:00 Hrs. Extended up to: 27.06.2018 up to 16:00 Hrs

Sub: Technical Supports for Analytical and Experimental Works

Dear Sir/ Madam,

Quotations are invited on behalf of Head, Uranium Extraction Division in sealed envelope for *Technical supports for analytical and experimental works at UMRT & EH, UED* as per following specifications, terms and conditions:

TECHNICAL SPECIFICATIONS:

Scope of work & Quantity: The scope of work includes the followings:

Sr. No.	Description	Quantity
1.	Sample preparation in size of 50 – 100 ml	100 Nos
2.	Sample analysis through spectrometer etc	600 Nos
3.	Solution preparation in size of 500 – 1000 ml	50 Nos
4.	Titration studies in 125/ 250 ml beaker	20 Nos
5.	Small scale (500 ml) separation experiments with membranes	10 Nos
6.	Liquid extraction studies at 8 stage x 250 ml continuous contactor	10 Nos
7.	Sample preparation in size of 50 – 100 ml	100 Nos

For detailed job description and other requirements please refer to **Appendix - A** of this specification. The jobs are to be carried out in different laboratories of UED and ACD (Mod Labs).

TERMS AND CONDITIONS

Note: [Reference: (2/Misc-9/Lgl/2001/92 dated April 30, 2001, BARC)]

- 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 **“Propriety”** 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 or 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, Radio, TV or Internet

PRICE: Offered cost should be inclusive of total scope of work mentioned above. Maximum possible cost break up for various items and accessories, taxes and other charges, if any, is to be provided.

VALIDITY: Price quoted should be valid throughout the currency of the contract.

TAX: As applicable, should be clearly indicated in the offer.

COMPLETION PERIOD: The job is to be completed within eight months from the date of receipt of the order. Any delay which is attributable to the contractor is liable for penalty @ ½% per week (max. 5 %) to be imposed on the contractor. Extension required, if any, is to be applied before validity of the Work Order is over, with proper justifications.

INCOME TAX: Income Tax @ 2% shall be deducted from vendor’s bill.

PAYMENT: 100% including taxes after receipt of the unit at our site, successful commissioning and submission of the following documents:

1. Advance Stamped Receipt.
2. Original Bill.

Special Notes:

- Vendor should have security vetting from BARC.
- The vendors have to depute technically qualified manpower (BSc with Chemistry as one of the major subject with minimum two years working experience in analytical laboratories Or MSc in Chemistry from a Government approved university) or persons with at least 7 years with experience of working in chemical analytical laboratories.
- The vendor has to arrange for valid PVC for all workers to work inside BARC.
- Safe handling of chemicals, equipment and instruments are to be ensured by the vendor through proper supervision.
- Safety goggles, paper masks, PVC shoes, aprons, soaps, duster and towels are to be provided by the vendor for all their persons coming for this work in required quantity.

- Sufficient manpower is to be provided on each working day to keep the work movement smooth. This will be decided based on the requirement from BARC side.
- All safety & security guidelines that may be provided by BARC are to be strictly followed during execution of the work order.

Please mention clearly the tender number, due date, party's name and subject on the top of the envelope duly sealed and addressed to Head, Uranium Extraction Division BARC, Trombay, Mumbai – 85.

The quotations should be sent by speed/ordinary/registered post to the above address and timely delivery of the quotation is to be ensured by the party. Private courier services are not allowed.

Note: Please mention your PAN No, S.T. No & VAT TIN No with the offer. Otherwise the offer is liable for rejection.

(SK Gupta)
SO/F, PP&ES,
UED, BARC
Extn: (022) 2559 6027

A. Detailed Scope of work

- 1. Sample preparation in size of 50 – 100 ml:** This will involve preparation of solid/ liquid samples through
 - a. Blending and mixing of 2 or more miscible liquids in predetermined quantities
 - b. Dissolution of measured amount of solids in known volume of liquids
 - c. Blending of two or more salts/ powders in measured amounts
 - d. Approx time required for the job: 25 - 30 minutes/sample

- 2. Sample analysis through UV- Vis spectrometer etc:** This will involve step by step procedures prescribed for the instrument concerned, sample feeding, analysis and data recording. Approx time required for the job: 1 hr/sample

- 3. Solution preparation in size of 500 – 1000 ml:** This job will involve preparation of various reagents and solutions as standards for laboratory use. The solutions are to be kept in proper containers with labels containing the details. Approx time required for the job: 45 min - 1hr/ sample

- 4. Titration studies at 125/ 250 ml beaker:** Titration of various samples produced in the experiments is to be carried out with prescribed reagents and indicators. Also, for some cases, electrode based titration may be performed by proper instruments. All titrations are to be repeated 3 times for accurate results. Approx time required for the job: 45 min - 1hr /sample for 1 person.

- 5. Small scale (500 ml) separation experiments with membranes:** This will include experiments with various solutions and membranes in pressure diffusion cells or equilibrium cells. The job will include preparation of feed, running the trials and collecting the product streams. Approx time required for the job: 8 – 10 working hrs/ experiment for 1 person.

- 6. Liquid extraction studies at 8 stage x 250 ml continuous contactor:** This will include trials at bench scale equipment with solutions to study the system characteristics at various operating conditions. The job will include preparations, system start up, maintaining of flow rates, performance monitoring (measurement of density, interface height etc) as will be specified, sample collection and system shut down. Approx time required for the job: 16 – 20 working hrs/ experiment for 1 person.

B. Terms and conditions:

1. BARC will provide all instruments, chemical reagents, working facilities and services required for carrying out the works.
2. BARC representatives will provide necessary operational and safety guidance to the persons coming for work, hence it will be required not to change the people deputed for the work frequently.
3. The analytical equipments and experimental facilities are to be handled with proper precautions to prevent any damage that may occur to personnel, equipment or samples.
4. All the data pertaining to the experiments and analysis are to be recorded properly and presented on daily basis. No data shall be taken outside in any form.
5. Any problem found in equipment/ system is to be reported immediately.
6. Cleanliness and good peaceful working environment is to be maintained meticulously.
7. Experiments/ analysis are to be carried out strictly as per given instructions only.