



# वै.औ.अ.प.- केंद्रीय औषधीय एवं सगंध पौधा संस्थान

CSIR -CENTRAL INSTITUTE OF MEDICINAL & AROMATIC PLANTS

पी.ओ.सीमैप, लखनऊ- 226015) उ.प्र. भारत

P.O. CIMAP, LUCKNOW-226015 (U.P.) INDIA

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Tender Notice No. 113(1)/ 2018/Pur-T-25

Dated: 26.10.2018

## **NOTICE INVITING TENDER For Supply, Installation and commissioning of Pilot Scale Super Critical Fluid Extraction Plant THROUGH E-PROCUREMENT**

The Director, CSIR-CIMAP invites on-line bids for supply and installation of **Supply, Installation and commissioning of Pilot Scale Super Critical Fluid Extraction Plant** to be used in this institute for research and development work. The bidders are requested to submit online bids, strictly as per the specifications, terms & conditions mentioned in the tender document.

### **The tender document contains the following:**

Annexure-I	Instructions for Online Bid Submission
Annexure-II	Schedule of Requirement
Annexure-III	Price reasonability Certificate
Annexure-IV	Questionnaire
Annexure-V	Terms and Conditions
Annexure-VI	Technical Specification
Annexure-VII	Tender Acceptance letter
Annexure -VIII	Manufacturer's Authorization Form
Annexure -IX	Compliance Sheet
Annexure -X & XI	Price Schedule

### **CRITICAL DATE SHEET**

Tender No	113(1)/ 2018/Pur-T-25
Name Of Organization	CSIR-CIMAP, Lucknow
Tender publishing Date	26/10/2018 at 17.00 PM
Document Download Start Date & Time	26/10/2018 at 17:30 PM
Bid Submission Start Date and Time	15/11/2018 at 17.00 PM
<b>Pre Bid Meeting Date and Time</b>	<b>12/11/2018 at 03.30 PM at Shabd Hall in First Floor Main Block</b>
Bid Submission End Date and Time	26/11/2018 at 11:00 AM
Date and Time for Opening of Bids	27/11/2018 at 11:00 AM
Address for Communication	The Director Central Institute of Medicinal & Aromatic Plants P.O. CIMAP Campus, Lucknow (U.P.)-226015 <a href="mailto:spo@cimap.res.in">Email:- spo@cimap.res.in</a> , <a href="mailto:sosp@cimap.res.in">sosp@cimap.res.in</a>

Section Officer (S&P)

INSTRUCTIONS FOR ONLINE BID SUBMISSION

1. The tender form/bid documents may be downloaded from the web site:  
<https://etenders.gov.in/eprocure/app>
2. Bids must be mandatorily submitted Online through Central Public Procurement Portal -  
<https://etenders.gov.in/eprocure/app>
3. Bids are invited in Two **bid System**.
4. Manual/Offline bids shall not be accepted under any circumstances.
5. Tenderers/bidders are requested to regularly visit the website:  
<https://etenders.gov.in/eprocure/app>. Any changes/modifications in tender enquiry will be intimated by corrigendum through this website only.
6. **EMD of will be Rs 1,60,000.00** in the form of an account payee demand draft, fixed deposit receipt, banker's cheque or, Bank Guarantee. The EMD has to be submitted in offline mode. The EMD must reach us before the opening of technical bid. The Scanned copy must be attached along with technical bid.
7. In case, the day of bid opening is declared a holiday by the government, the tenders will be opened on the next working day at the same time. No separate intimation shall be sent to the bidders in this regard.
8. The Director, CSIR-CIMAP, Lucknow reserves the right to accept or reject any or all the tenders.
9. The Firms are also required to upload copies of the following documents: -
  - a. GST Certificate/Scanned copy of GST No of the Firm.
  - b. Scanned copy of PAN Card in the name of firm/proprietor.
  - c. Scanned copy of completed Questionnaire.
  - g. Scanned copy of RTGS/Bank details of the firm
  - h. Scanned copy of undertaking duly filled in and signed by owner/proprietor of firm with legible name, mobile number & E-mail ID etc.
  - i. Scanned copy of duly Signed and stamped Manufacturer's Authorization Form as per Annexure VIII
  - j. Scanned copy of duly signed and stamped Certificate regarding Reasonability of Price as per Annexure-IX
  - k. The bidders are requested to furnish the user list. Further they are also requested to submit at least 2-3 purchase order copies of similar item(s) supplies to any Govt. R&D institute during the past 6-8 months.
  - l. All annexures must be filled up carefully. Incomplete annexure(s) may cause your bid unresponsive.

Section Officer (S&P)

**SCHEDULE OF REQUIREMENTS**

1. Name of Purchaser: The Director  
CSIR-Central Institute of Medicinal & Aromatic Plants, Kukrail  
Picnic Spot Road, Faridi Nagar, P.O. CIMAP Campus, Lucknow  
(U.P.)-226015
2. Shipping Address: The Director  
CSIR-Central Institute of Medicinal & Aromatic Plants, Kukrail  
Picnic Spot Road, Faridi Nagar, P.O. CIMAP Campus, Lucknow  
(U.P.)-226015

Documents/Papers, EMD (if applicable) to be submitted with Technical Bids: (In the absence of these, tender cannot be considered).

<b>S. No.</b>	<b>DOCUMENTS REQUIRED</b>
1	Scanned copy of duly signed and stamped Certificate regarding Reasonability of Price as per Annexure III
2	Copy of Duly completed Questionnaire as per Annexure IV
3	Tender acceptance letter as per Annexure VII
4	Manufacturer's Authorization Form as per Annexure VIII
5	Compliance sheet as per Annexure IX
6	Price Schedule as per Annexure X & XI
7	Scanned copy of user list. Further bidders are also requested to submit at least 2-3 purchase order copies of similar item(s) supplies to any Govt. R&D institute during the past 6-8 months
8	Copy of GST No of the firm.

**PRICE REASONABILITY CERTIFICATE**

(to be submitted on firm's letterhead)

This is to certify that we have offered the maximum possible discount to you in our Quotation No. \_\_\_\_\_ dated \_\_\_\_\_ for (Currency)\_\_\_\_\_.

We would like to certify that the quoted price is the minimum and we have not quoted the same item on lesser rates than those being offered to CSIR-CIMAP to any other customer nor they will do so till the validity of offer or execution of purchase order, whichever is later.

Seal and Signature of the tenderer

QUESTIONNAIRE

BIDDERS SHOULD FURNISH SPECIFIC ANSWERS TO ALL THE QUESTIONS GIVEN BELOW IN CASE A QUESTION DOES NOT APPLY TO A BIDDER THE SAME SHOULD BE ANSWERED WITH THE REMARK "NOT APPLICABLE" BIDDERS MAY PLEASE NOTE THAT IF THE ANSWERS SO FURNISHED ARE NOT CLEAR AND/OR ARE EVASIVE, THE BID WILL BE LIABLE TO BE IGNORED.

1.	Bid No .....	Date of opening on .....
2.	Bid Validity is 90 days	(Yes/No)
3.	Brand of Goods offered	
4.	Name of Address of Manufacturer	
5.	Place of the Manufacturer	
6.	Whether Manufacturer authorization certificate attached	
7.	What is your PAN	
8.	What is your GST Number	
9.	Are you a small scale unit currently registered with the National Small Industries corporation (NSIC) under single point Registration scheme for the item(S) quoted? If so, indicate the date up to which you are registered and whether there is any monetary limit on your registration.	
10.	State whether business dealings with you have been currently banned by any Ministry/deptt. Or Central Govt. or any State Govt	
11.	Whether the billing and supply will be done by the firm directly or by authorized dealer. Please reply and mention all the details including name, mobile number, E-mail of the same. The authorized dealer may be different on the basis of location	

Signature of Tenderer

## Terms and Conditions

- 01. Preparation and submission of Bid: TWO BID SYSTEM** , Bidding system - *Your quotation should be in the form of Two Bid system i.e. (1) Technical Bid, and (2) Commercial Bid.*
- 02. Note:** The quotation should be submitted by the principal. In case of imported equipments the quotation preferably be in foreign currency.
- A certified copy of the agency agreement between the principal and the agent must be enclosed.
  - Foreign bidders to disclose the name and address of agent and representative in India and Indian bidder to disclose their foreign principal or associates.
- A. TECHNICAL BID SHOULD CONTAIN**
- The "Technical" bid should contain detailed specification with make, model number along with required essential/optional accessories, spares, country of origin, etc., supported by technical literature/leaflets/ photographs/engineering drawings etc. (2 copies) AND the following:*
- 1.1.1 A brief profile of the company.
  - 1.1.2 DGS&D Registration Certificate, if any may be attached.  
Secondly, if the items are available under DGS&D rate contract, rates may quoted as approved by DGS&D and copy of rate contract attached.
  - 1.1.3 List of customers in India with supporting documents like purchase orders [erasing out the rate of supply] including appreciation letters, if any. **Highlight supplies to CSIR Labs in particular.**
  - 1.1.4 Detailed technical compliance sheet along with deviations (if any) (**PI. see annexure**)
  - 1.1.5 Fastest & Exact delivery period/schedule and time required for installation may be indicated.
  - 1.1.6 Any other relevant documents which may help the Institute in rightly assessing the quality of the product (e.g. ISO certification).
  - 1.1.7 The technical bid will be opened in the presence of authorized representative(s), if any, of the quoting firm(s) as per the schedule already mentioned.
  - 1.1.8 **EMD will be as Annexure I Clause No 6** the form of an account payee demand draft, fixed deposit receipt, banker's cheque or, Bank Guarantee banker's cheque. The EMD has to be submitted in offline mode. The EMD must reach us before the opening of technical bid. The Scanned copy must be attached along with technical bid.
- B. COMMERCIAL BID SHOULD CONTAIN**
- The commercial bid should contain a complete financial offer and terms & conditions of offer.
- Please note:**
- a. Commercial bid will be considered only for those offers, whose technical bid is found acceptable.
  - b. The commercial bid of the short-listed tenderers will be opened at a later date after giving intimation regarding the date and time of opening.
  - c. Certificate to the effect that your offer will be valid for at least 90 days from the date of its opening, may be attached.
  - d. **Prices: For Indigenous Supplies**:-The prices should be quoted including all charges for packing, forwarding, loading unloading transportation, insurance and installation(if applicable) at CSIR-CIMAP, Lucknow. The bid mentioning vague terms like as applicable, as actual etc will be treated as non responsive and rejected. The prices should be mentioned in both figures and words. If any discrepancy found in both, the higher price will be treated as final.
  - For Imported Supplies**:- The price may be quoted on FOB/ CIP IGI Airport New Delhi INCOTERMS@2010.  
Insurance cover must be taken by the supplier to insure the consignment from all risks - from supplier's warehouse to the warehouse of CIMAP, LUCNOW.
  - e **The price bid should be submitted in the prescribed proforma as per Price Schedule Annexure – X in pdf format through e-tender only. No manual submission of bid is entertained. Price bid should indicate item-wise price for all the items mentioned in the technical bid.**
- 03. Annual Maintenance Charges:** The party should mention in the quotation, the rate/amount of annual maintenance charges, if we opt for maintenance contract after expiry of the warranty period.
- 04. Discount:** Institutional discount if any should be mentioned clearly.
- 05. Taxes and Levies:** GST/other Govt. Levies will be paid at actual and the prevailing rates of GST and other tax etc, if any may be mentioned separately. No other charges than those mentioned clearly in the quotation will be paid. GST will be 5% as per Govt, of India Ministry of Finance Notification No. 45/2017-Cenrtal Tax (Rate) New Delhi the 14th November, 2017.
- 06. Custom Duty :** Being R&D organization, CSIR-CIMAP Lucknow is exempted for payment of Custom duty (as per the extant rules) and necessary Duty Exemption Certificate can be issued accordingly if required.
- 07. Conversion to Single Currency :** To facilitate evaluation and comparison, the Purchaser will convert all bid prices expressed in the amounts in various currencies in which the bid prices are payable to Indian Rupees at the selling exchange rate established by any bank in India or www.xe.com as notified in the Newspapers/banks' website on the date of Price/Financial Bid opening.
- 08. Evaluation & Comparison Of Bids :** For the bids surviving the technical evaluation which have been found to be responsive the evaluation & comparison shall be made as under:

**i. Indigenous Offers**

The final landing cost of purchase after all discounts, freight, forwarding, insurance, taxes etc. shall be the basis of evaluation.

**ii. Imported Offers**

The CIF/CIP price shall be the basis of evaluation. CSIR-CIMAP reserves the right to place the order for procurement of the material on either of the FOB/FCA basis or CIF/CIP basis.

**iii. Imported Vs. Indigenous Offers**

The final landing cost of purchase taking into account, freight, forwarding, insurance, taxes etc. with customs clearance charges, Bank/LC charges, transportation upto CSIR-CIMAP as per available records with CSIR-CIMAP for imported goods) shall be the basis of evaluation.

09. **Validity of rates:** Bid shall remain valid at least for a period of 90 days for indigenous and imports supplies from the date of opening of the tender prescribed by the Purchaser. A bid valid for a shorter period may be rejected by the purchaser as non-responsive. In exceptional circumstances, the purchaser may solicit the Bidder's consent to an extension of the period of validity. The request and the responses thereto shall be made in writing (or by fax or e-mail).
10. The CSIR-CIMAP Lucknow will open all the bids so received before deadlines in the presence of bidder's representatives who choose to attend the bid opening process. They will sign the prescribed Performa for evidencing their attendance. In case, the opening date happens to be holiday, the bids will be opened on the next working day
11. **Warranty/Guarantee:** Quotation should specifically mention the comprehensive onsite warranty period as mentioned in technical specifications and the warranty period should be start from date of installation of material. If no warranty is mentioned in technical specifications, standard warranty should be quoted.
12. **Reasonability of Price:** The bidders are requested to furnish the user list. Further they are also requested to submit at least 01-02 purchase order copies of similar items(s) supplies to any Govt. R & D institute during the past 06-08 months.
13. The CSIR-CIMAP Lucknow will reject a bid which is not substantially responsive. A substantially responsive bid is one, which conforms to all the terms and conditions of the notice inviting tender.
14. The Director, CSIR-CIMAP Lucknow reserves the right to accept and reject any bid or to annul the bidding process and reject all the bids at any time prior to award of contract, without thereby incurring any liability to the affected bidder or bidders or any obligation to inform the affected Bidder or bidders of the grounds for the CSIR-CIMAP's action.
15. **Award of order:** The CSIR\_CIMAP Lucknow will award the order/Contract to the lowest successful evaluated Bidder whose bids have been determined to be substantially responsive
16. **Performance Guarantee:** Performance Guarantee @10% of the PO value on Rs.100 Stamp form any nationalized bank of india has to be submitted by way of DD/BC/FDR/Bank Guarantee by the Successful bidder only within 14 days of PO. (Applicable for the orders of equipment/Instruments only and not for the orders of Spares/Consumables)
17. **Contract agreement:** you will have to sign a Contract agreement with CSIR-CIMAP Lucknow. (Applicable for complete equipment/Instruments for which value is more than 25.00 Lakh or where mentioned in PO)
18. **Fall Clause :** The fall clause will be applicable : "In case your firm supplies or quotes a lower rate for the tendered item to other Government/public sector/private organisations(within a period of one year past to one year future), your firm is liable to reimburse the difference amount to CSIR-CIMAP."
19. **Submission of the bids.** All bids complete in all respect must be submitted online on CPP Portal. Bids submitted in any other mode shall not be accepted.
20. **Inspections and Tests** The CSIR-CIMAP Lucknow or its representative shall have the right to inspect and/or to test the Goods to confirm their conformity to the Contract specifications at no extra cost to the CSIR\_CIMAP Lucknow. The inspections and tests will be conducted at point of delivery and/or at the Goods on final destination. i.e., CSIR-CIMAP Lucknow. Should any inspected or tested Goods fail to conform to the specifications, the CSIR-CIMAP Lucknow may reject the goods and the Supplier shall either replace the rejected Goods or make alterations necessary to meet specification requirements free of cost to the CSIR-CIMAP Lucknow.  
The CSIR-CIMAP 's right to inspect, test and, where necessary, reject the Goods after the Goods' arrival at its Site shall in no way be limited or waived by reason of the Goods having previously been inspected, tested and passed by the CSIR-CIMAP or its representative prior to the shipment of goods.
21. **Packing: -** The Supplier shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their final destination as indicated in the Contract. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit and open storage. Packing case size and weights shall take into consideration, where appropriate, the remoteness of the Goods' final destination and the absence of heavy handling facilities at all points in transit.
22. **Delivery and Documents:** Delivery of the goods shall be made by the Supplier with in the stipulated period as purchase order in pursuance of notification of award of contract. The time for and the date of delivery of the stores stipulated shall be deemed to be of the essence of the contract and delivery must be completed not later than the date(s) specified as agreed between CSIR-CIMAP & Supplier.

**23. TERMS OF PAYMENT:**

a) **For Indigenous supplies:** The payment shall be made within 30 days after the date of receipt and successful installation of the equipment. The Supplier's request(s) for payment shall be made to the CSIR-CIMAP Lucknow in writing, accompanied by a Tax/Retail invoice describing, as appropriate, the Goods delivered and the Services performed, and by documents submitted, and upon fulfillment of other obligations stipulated in the contract. Payment shall be made in Indian Rupees by way of RTGS/NEFT through State Bank of India, Hazratganj branch, Lucknow. **No advance payment will be made.**

24. b) **For imported supplies:-** 1. **Ordinarily shipment shall be made in open account and payment shall be made through our banker after receipt and satisfactory installation of goods subject submission of PBG, if applicable.**

2. **Alternatively shipment shall be made directly to CSIR-Central Institute of Medicinal and Aromatic Plants, Lucknow on sight draft basis. Shipper has to submit invoice and other shipping document to our banker for payment. CSIR-CIMAP will get the documents retired and payment to the supplier shall be made by our banker.**

3. **Alternatively, payment shall be made through an irrevocable letter of credit to the extent of 90% on production of shipping documents and proof of dispatch and the balance 10% will be paid after completion of installation, commissioning and acceptance of the system/equipment to the entire satisfaction of council/ CSIR-CIMAP and on production of performance bank guarantee for 10% order value valid for warranty period plus two months from the date of acceptance (PBG applicable only if mentioned in PO) and to be submitted either by the manufacturer or their Indian subsidiary/agents.**

4. **ordinarily no advance payment shall be given. However, if necessary, advance payment shall be given against equal value of Security (BG/FDR/DD).**

5. **Consideration of any other terms regarding payment will be prerogative of Director CSIR-CIMAP Lucknow.**

25. **Penalty Liquidated Damage :-** If the Supplier fails to deliver and install any or all of the Goods or to perform the Services within the period(s) specified in the Contract, the CSIR, CIMAP Lucknow shall, without prejudice to its other remedies under the Contract, deduct from the Contract Price, as penalty, a sum equivalent to 0.5% per week and the maximum deduction is 10% of the contract price of the delivered price of the delayed/installed Goods or unperformed Services for each week or part thereof of delay until actual delivery or performance. Once the maximum is reached, the CSIR CIMAP Lucknow may consider termination of the Contract.

26. **Applicable Law:-**The contract shall be governed by the Law of Contract for the time being in force Irrespective of the place of delivery, the place of performance or place of payment under the contract, the contract shall be deemed to have been made at the place from which the acceptance of tender has been issued i.e. CSIR CIMAP Lucknow. The place of the jurisdiction will be Lucknow Uttar Pradesh, India

27. **DISPUTE SETTLEMENT:** The Purchaser and the Supplier shall make every effort to resolve amicably by direct informal negotiation any disagreement or dispute arising between them under or in connection with the Contract.

If, after twenty-one (21) days, the parties have failed to resolve their dispute or difference by such mutual consultation, then either the Purchaser or the Supplier may give notice to the other party of its intention to commence arbitration, as hereinafter provided, as to the matter in dispute, and no arbitration in respect of this matter may be commenced unless such notice is given. Any dispute or difference in respect of which a notice of intention to commence arbitration has been given in accordance with this Clause shall be finally settled by arbitration. Arbitration may be commenced prior to or after delivery of the Goods under the Contract.

The dispute settlement mechanism/arbitration proceedings shall be concluded as under:

a. In case of Dispute or difference arising between the Purchaser and a domestic supplier relating to any matter arising out of or connected with this agreement, such disputes or difference shall be settled in accordance with the Indian Arbitration & Conciliation Act, 1996, the rules there under and any statutory modifications or re-enactments thereof shall apply to the arbitration proceedings. The dispute shall be referred to the Director General, Council of Scientific & Industrial Research and if he is unable or unwilling to act, to the sole arbitration of some other person appointed by his willing to act as such Arbitrator. The award of the arbitrator so appointed shall be final, conclusive and binding on all parties to this order.

(b) In the case of a dispute between the Purchase and a Foreign supplier, the dispute shall be settled by arbitration in accordance with provision of sub-clause (a) above. But if this is not acceptable to the supplier then the dispute shall be settled in accordance with provisions of UNCITRAL (United Nations Commission on International Trade Law) Arbitration Rules.

The venue of the arbitration shall be the place from where the purchase order or contract is issued.

**Notwithstanding any reference to arbitration herein,**

The parties shall continue to perform their respective obligations under the contract unless they otherwise agree.

**28. FRAUD AND CORRUPTION**

The purchaser requires that bidders, suppliers, contractors and consultants, if any, observe the highest standard of ethics during the procurement and execution of such contracts. In pursuit of this policy,

i. The terms set forth below are defined as follows:



1. **“Corrupt practice”** means the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence the action of a public official in the procurement process or in contract execution;
  2. **“Fraudulent practice”** means a misrepresentation or omission of facts in order to influence a procurement process or the execution of a contract;
  3. **“Collusive practice”** means a scheme or arrangement between two or more bidders, with or without the knowledge of the Borrower, designed to establish bid prices at artificial, noncompetitive levels; and
  4. **“Coercive practice”** means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the procurement process or affect the execution of a contract;
- ii. The purchaser will reject a proposal for award if it determines that the Bidder recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive or coercive practices in competing for the Contract in question;
29. **If there is contradiction in place of Delivery, Insurance, warranty etc between terms & conditions and Schedule of requirement (Annexure II) /Technical specifications (Annexure VI). Then the details mentioned in later (Schedule of requirement/Technical specifications) will prevail.**
30. **If the bid security has not been specifically mentioned, then it is mandatory for bidder to submit Bid Security Declaration with the bid.**
31. **Notices:** For the purpose of all notices, the following shall be address of the CSIR-CIMAP Lucknow.

The Director,  
CSIR-Central Institute of Medicinal & Aromatic Plants  
P.O. CIMAP, Kukrail Picnic Spot Road,  
LUCKNOW-226015 (U.P.) INDIA

Yours faithfully

Section Officer (Stores & Purchase)

**Technical Specifications For CSIR-CIMAP, Lucknow Supercritical Fluid Extraction System**

**Scope of Work :** Supply , Installation and commissioning of Pilot Scale Supercritical Fluid Extraction Plant having double extractor of volumetric capacities 5 lt x 1 and 2 lt x 1 suitable for extracting natural plant products such as oils, extracts, oleoresins, phytomolecules & dyes etc. as per following detailed specifications.

1. **High Pressure Extraction Vessels (2 Nos):** Double Extractors having useful net internal useful volumetric capacity of 5 Lt and 2 Lt respectively. Extractors to be constructed of SS-316 for contact surfaces and SS-304 for non contact surfaces with operating pressure rating of 400 bar and proof testing pressure of 500 bar. The vessel to be mirror finished from inside and jacketed in SS-304 / insulated cladding. The extractor to be equipped with non-elastomeric seals in either metal or high density engineering polymer with food safety. Extractors also to be equipped with temperature, pressure transducer and indicators at both entry and exit points along with tested mechanical safety pressure relief valves.
2. **Collection Vessels / Separators (3 Nos):** High pressure fraction collection vessels made in SS316 for contact surfaces and SS304 for non contact surfaces of capacity of 2 liters x 2 No. & 2 Liters x 1 No. with operating pressure rating of 200 bar and proof testing pressure of 250 bar. Separators to be provided with heating / cooling jacket to maintain at temperature ranging from ambient to (+) 50°C at individual collection vessels. One separator to be provided with stainless steel mesh to trap water particles.
3. **Vessels Opening Mechanism:** All extractors and separator vessels to be top opened with quick operable closures and clamps. Extractors opening to be without using tools and spanners. Clamps to be mechanically interlocked to prevent any inadvertent opening of vessel under pressure.
4. **High Pressure CO<sub>2</sub> Pump:** A suitable High Pressure Motorized Pump assembly for flow applications with self-priming, check valves , pressure sensor, variable frequency drive, pressure gauge and suitable motor preferably with rupture Disc. The pump should be capable of generating the fluid pressure up to 500 bar and removing generated heat through coolant circulation and control fluid flow rate from 0 to 200 g/min: MOC : High strength Stainless steel , Sapphire, GEPM, PEEK , UHMWPE.
5. **Heat Exchangers:** (i) Pre cooling heat exchanger having sufficient heat Transfer area to Liquify CO<sub>2</sub> at 5°C with a flow rate of 200G /min for efficient pumping into the high Pressure Pump. (ii) Pre Heating Exchanger (s), working Temperature upto 70°C located upstream from extraction vessels to ensure that the fluid is heated prior to entering the extraction vessels. Another heat exchanger to be placed at entry of first and second separator vessels to prevent precipitation of material in the pipes and connected with high pressure steel tubing.
6. **Temperature control Module:** To monitor & control parameters at liquid, superheated,

gas stage of CO<sub>2</sub>. Points to include inlet to pump, inlet to super heater, inlet to extractor, outlet of extractor, inlet to separators, inlet to condensers and super chillers. Temperature Zones to be setup independently with Alarm setting for Maximum temperature up to 120°C of the system.

7. **Back Pressure Regulators (BPR):** Automated Back Pressure regulator (ABPR) 2 Nos : to maintain pressure in the extraction vessels and in first separator vessel with operating Pressure 0 to 400 Bar or more , maintained at suitable temperature to avoid ice formation on the tubing during de-pressurization. A built-in Pressure sensor for closed loop feedback for control and pressure alarm monitoring. Completely automatic active Back pressure regulation required. The regulating valve to be controlled electronically and be interlocked with plant safety systems. The valve to be always in fail safe mode.
8. **Mass flow Meter :** Inbuilt Mass Flow meter working at 100 Bar (max), for display of liquid CO<sub>2</sub> mass flow rate up to 200g/min or more , density , Temperature etc. located at the inlet to High Pressure CO<sub>2</sub> Pump
9. **Refrigerated circulating Temperature Baths:** Having suitable bath and cooling / heating capacities used at different points in the system viz. for circulating the coolant in pre cooling heat exchanger, in high pressure CO<sub>2</sub> pump suction and in CO<sub>2</sub> recycle system at 5°C. and at separators with temperature Range : (-) 20°C to 120°C
10. **High Pressure Co solvent Pump :** Co solvent addition module including a pump capable of generating pressure up to 600 bar, adjustable flow rate upto 50 g/min or more and high pressure static mixer upto 600 or more , 200g/min or compatible with the system
11. **CO<sub>2</sub> Recycling System:** CO<sub>2</sub> Recycle system (insulated) to collect the vented CO<sub>2</sub> gas from the separators having storage capacity up to 15 L or more, working at about 60 Bar Pressure, suitable condenser / Heat exchanger connected chiller, inlet /outlet / drain Valves, suitable high pressure stainless steel piping / tubing, selection switch for recycle mode and CO<sub>2</sub> source. Pressure relief valve in case of over fill or over pressurization . Level sensor Module to display CO<sub>2</sub> level inside the recycler.
12. **Control system :** Complete Graphic 'User Interface' with PC / PLC & HMI controlled system for Data logging and retrieving , store and write recipe / programs, previous process data, Export Data to MS Office. Should manage pumping rate, pressure, temperature , Process Time and safety Inter locks along with desktop computer containing 7<sup>th</sup> Generation Intel® Core™i5 Processor or higher at least 1 TBB HDD or more, 4 to 8GB DDR4 SDRAM. Intel Graphics, DVD Writer. At least 17" anti glare, full HD LED Backlit Display Monitor. Keyboard, Optical Mouse with preloaded Windows OS and application Software. Laser jet Multi Functional printer with Photocopy Scanner & Cartridge, Wi-Fi Enabled
13. **Safety :** Mechanical Rupture Disc Assembly, Alarms, Relief Valves, Safety valves / switches / Interlocks etc wherever necessary for Safety
14. **15 KVA Online UPS ,** 0.8-0.9 Power Factor , along with Power BANK Batteries for at least 1 h back up on load with 2 Year onsite Warranty
15. **CO<sub>2</sub> Cylinders :** Ultrapure food grade Liquid CO<sub>2</sub> (99.9% Purity) filled cylinders having at least 30 KG Capacity at about 60 Bar Pressure with Dip tubes, coupling with seals to

connect cylinder to the SFE System through 'SS' tubing – **06 Nos**

16. **Air Compressor** Pressure about 8 bar, for high pressure pump with air drying component, regulator, starter, cabling, if system requires.
17. **Spare parts** of main system and auxiliary equipment like chillers, heating system, high pressure air compressors etc. , including all consumable parts such as relief valves, seals, valves, ferrules, nuts, tubing, 'O' Rings, heater elements, hot fluid etc., should be provided sufficient for 2 years
18. The system to be completely installed on structural support and commissioned in respect of all including tubing & wiring / cabling from our terminal points , scope for future up-gradation in the system, operating and maintenance manuals must be provided . The system to be supplied with all utilities / parts that can meet generally the 'overlap' functional and operational requirements as required in SCFE process with latest features.
19. The SCFE Plant to meet highest safety in operation, designed to meet safety and cGMP standards and meeting international safety standards. The plant to have all contact surfaces in SS-316 construction. All non contact but washable surfaces in SS304 and rest in epoxy / powder coated Carbon steel. Manufacturing to be as per ASME guidelines and SIL-4 Safety integrity level.
20. **Satisfactory Certificates** : At least 3 satisfactory commissioning certificates on similar technology from reputed R& D organizations / Industry / Educational Institutes should be enclosed ( merely supplying the list of users shall not be considered )
21. In - depth hands on application oriented advanced training for at least two personal on operation , maintenance and troubleshooting at the Principal / industry including travel & stay
22. A photograph, P&ID / flow diagram of the model quoted including the supporting literature / catalogue / brochure for all critical specifications to be attached
23. **Warranty:** Three Year comprehensive warranty after successful commissioning with free services . Party should give a certificate for being responsible to supply the spare parts for at least coming Ten Years

**Annexure VII**

To

Date :

Sub.: **Acceptance of Terms & Conditions of Tender**

Tender Reference No. \_\_\_\_\_

Name of Tender: \_\_\_\_\_

Dear Sir,

1. I/We have downloaded/obtained the tender document(s) for the above mentioned tender from the website (s) namely: \_\_\_\_\_
2. I/we hereby certify that I/we have read the entire terms and conditions of the tender documents from Page No. \_\_\_\_\_ to page No. \_\_\_\_\_ (including all documents like annexure(s), schedule(s) etc, which form part of the contract agreement and I/we shall abide hereby the terms/conditions/clauses contained therein.
3. The corrigendum(s) issued from time to time by your department/ organization too has also been taken into consideration, while submitting this acceptance letter.
4. I/We hereby unconditionally accept the tender conditions of above mentioned tender document(s)/corrigendum(s) in its totality/entirety.
5. I/We do hereby declare that our firm has not been blacklisted/debarred by any Govt. department/Public Sector Undertaking.
6. I/We certify that all information furnished by our firm is true & correct and in the event that the information is found to be incorrect/untrue or found violated, then your department/organization shall without giving any notice or reason therefor or summarily reject the bid or terminate the contract, without prejudice to any other rights or remedy including the forfeiture of the full said earnest money deposited, absolutely

Yours faithfully,

(Signature of the Bidder with official seal)

**MANUFACTURERS' AUTHORIZATION FORM**

(The Bidder shall require the Manufacturer to fill in this Form in accordance with the instructions indicated. This letter of authorization should be on the letterhead of the Manufacturer and should be signed by a person with the proper authority to sign documents that are binding on the Manufacturer.)

Date: (insert date (as day, month and year) of Bid submission)

Tender No: (insert number from Invitation for Bids)

To (insert complete name and address of Purchaser)

WHEREAS

We (insert complete name of Manufacturer), who are official manufacturers of (insert category of goods manufactured), having factories at (insert full address of Manufacturer's factories), do hereby authorize (insert complete name of Bidder) to submit a bid the purpose of which is to provide the Goods, manufactured by us (insert the category of Goods), and to subsequently negotiate to sign the Contract.

We hereby confirm that we shall be solely and fully responsible in case of discrepancy with regard to quality, quantity, Packages or defects at the time of supply/usage. In such cases we shall provide free replacement immediately.

Signed (insert signature(s) of authorized representative(s) of the Manufacturer) Name:

(insert complete name(s) of authorized representative(s) of the Manufacturer) Title (insert Title)

Duly authorized to sign this Authorization on behalf of: (insert complete name of Bidder)

Dated on.....day of ....., ..... (Insert date of signing)

**Compliance Sheet**

S. N.	Name of specifications/part / Accessories of tender/ enquiry	Specifications of quoted Model/ Item	Compliance Whether "YES" Or "NO"	Deviation, if any, to be indicated in unambiguous terms	Whether the compliance / deviation is clearly mentioned in technical leaflet/ literature
1	2	3	4	5	6

Yours faithfully,

(Signature of the Bidder with official seal)

**PRICE SCHEDULE FOR GOODS BEING OFFERED FROM ABROAD**

Name of the Bidder \_\_\_\_\_

Tender No. \_\_\_\_\_

1	2	3	4	5	6		7		8		9
Sl No	Item Description	Country of origin	Unit	Qty	Unit Price (Mention Currency)		Total price (5x6) (Mention Currency)		Charges for Insurance & transportation to port/ place of destination		Total Price (7+8)
					FOB (named port of shipment)	FCA (named place of delivery)	FOB (named port of shipment)	FCA (named place of delivery)	Ocean	Air	CIF/CIP
1	Supply, Installation and commissioning of Pilot Scale Super Critical Fluid Extraction Plant		01								
2											

Total Bid price in foreign Currency \_\_\_\_\_  
 \_\_\_\_\_ in words.

**Other important details:**

Sl no	Subjects	Details
1	Indian agents name & address	
2	Installation, commissioning & training charges, if any	
3	Beneficiary Name and Address (to whom Order shall be placed)	
3	Beneficiary Name and Address (to whom payment shall be made)	
4	HSN Code of Item	
5	Validity of Tender	
6	Delivery Period	
7	Port of Shipment	
8	Warranty Period	
9	Shipping Terms (INCOTERMS 2010)	
10	Country of origin of Goods	
11	Payment Terms	

**Signature of Bidder****Name:****Business Address:****Note:**

- (a) The Indian agent's commission shall be paid in Indian Rupees only based on the Exchange Rate prevailing on the date of negotiation of documents .
- (b) The cost of optional items shall be indicated separately.
- (c) Shipping terms, HSN Code must be indicated, else bid may be treated as non-responsive.



**PRICE SCHEDULE FOR GOODS BEING OFFERED FROM INDIA IN INR**

Name of the Bidder \_\_\_\_\_

Tender No. \_\_\_\_\_

1	2	3	4	5	6	7	8	9	10	11
Sl. No.	Item Description	Country of Origin	Unit	Qty	Rate	Total price	GST payable, if contract is awarded. With HSN Code.	Packing & forwarding up to Lab/Instt, if any.	Installation, Commissioning & training charges, If any.	Total Cost FOR CSIR-CIMAP Lucknow
	Supply, Installation and commissioning of Pilot Scale Super Critical Fluid Extraction Plant									

Total Bid price in Indian Rupees \_\_\_\_\_  
 \_\_\_\_\_ in words.

**Other important details:**

Sl no	Subjects	Details
1	Beneficiary Name and Address (to whom Order shall be placed)	
2	Beneficiary Name and Address (to whom payment shall be made)	
4	HSN Code of Item (If available)	
3	Validity of Tender	
4	Delivery Period	
5	Warranty Period	
6	Payment Terms	

**Signature of Bidder****Name:****Business Address:****Note:**

(a) The cost of optional items should be indicated separately.

(b) Cost of spares \_\_\_\_\_