



**தமிழ்நாடு மாசு கட்டுப்பாடு வாரியம்
சென்னை -32.**

ஒப்பந்தப்புள்ளி அறிவிப்பு எண்: 8/2018

மூடி முத்திரையிடப்பட்ட ஒப்பந்தப்புள்ளிகள் (இரண்டு உறைகள் முறைப்படி) கீழ்க்கண்ட உபகரணங்களின் உற்பத்தியாளர்கள்/அங்கீகரிக்கப்பட்ட விற்பனையாளர்களிடமிருந்து வரவேற்கப்படுகின்றன.

இன்டெக்ஸிவிலி கப்பிள்கள் பிளாஸ்டிக் மாஸ்டர் ஸ்பெக்ரோமீட்டர் (ஐசிபி-எம்எஸ்) (1) ஒன்று மற்றும் உபகரணங்கள் மேம்படுத்தப்பட்ட சுற்றுச் சூழல் ஆய்வகம், சென்னை- 32 தோராய மதிப்பு - 120 லட்சங்கள்.

ஒப்பந்தப்புள்ளி படிவத்தை www.tenders.tn.gov.in இணையதளத்தில் பதிவிறக்கம் செய்துகொள்ளலாம். மேலும் ஒப்பந்தப்புள்ளி படிவங்களை நேரடியாக துணை இயக்குநர், (ஆய்வகங்கள்) தமிழ்நாடு மாசு கட்டுப்பாடு வாரிய இணைப்பு கட்டிடம், எண் 76, மவுண்ட் சாலை, கிண்டி, சென்னை-32. அவர்களின் அலுவலத்திலிருந்து **24.10.2018** முதல் பெற்றுக்கொள்ளலாம். ஒப்பந்தப்புள்ளி பெறப்படும் கடைசி நாள் - **12.11.2018**.

தலைவர்
தமிழ்நாடு மாசு கட்டுப்பாடு வாரியம்
சென்னை-32.



TAMIL NADU POLLUTION CONTROL BOARD

Chennai – 32.

Tender Notice No: 8/2018

Sealed tender under two cover system are invited from the manufacturers or authorized dealers for:

Purchase of 1 No. of Inductively Coupled Plasma Mass Spectrometer (ICP-MS) with all accessories to AEL, Chennai

Total cost of Tender value Rs. 120 Lakhs.

The tender schedule can be obtained directly from the O/o. the Deputy Director (Labs), TNPC Board Annexe Building, 76, Mount Salai, Guindy, Chennai -32. Eligibility criteria and tender documents may be downloaded from www.tenders.tn.gov.in on or after **24.10.2018** The last date for the receipt of the tender is **12.11.2018**.

Chairman
Tamil Nadu Pollution Control Board
Chennai – 32.

(To be enclosed in Cover-A)

TENDER SCHEDULE

TENDER NO: 8/2018

**INVITATION OF BIDS FOR THE SUPPLY OF
INDUCTIVELY COUPLED PLASMA MASS
SPECTROMETER (ICP-MS) with accessories**

SECTION – I

INVITATION FOR BIDS

1. **Sealed Tenders will be received till 1.00 P.M. on 12.11.2018** by the **Chairman**, or any other official authorized by the Chairman, TamilNadu Pollution Control Board, Chennai for **the supply of Inductively Coupled Plasma Mass Spectrometer (ICP-MS) with accessories** as per the technical specifications in Annexure-A.
2. Interested eligible bidders may obtain further information from the office of the Deputy Director (Labs) at Advanced Environmental Laboratory, TamilNadu Pollution Control Board (Annexe Building), 76, Mount Salai, Guindy, Chennai-32.
3. The bidder should be the manufacturer of the item quoted or his authorized agent who have supplied, tested and commissioned anywhere in India which should be in satisfactory operation with no adverse report as on date of bid opening.
4. The tender documents have been published in the website **www.tenders.tn.gov.in** They can be downloaded. A complete set of bidding documents may also be purchased by any interested eligible bidder on submission of a written application to the above office along with a **Demand Draft drawn in favour of "Tamil Nadu Pollution Control Board, Chennai,"** obtained from any one of the Nationalised Banks towards the cost of the tender document.
5. Each tender schedule should be used for quoting one model of the instrument only. If the tenderer is willing to quote for more than one model, separate tender schedule should be obtained for each model and quoted in separate covers following the tender procedures laid down in the tender schedule.
6. The bidding document may be obtained from the office of the Deputy Director (Labs), Advanced Environmental Laboratory, TamilNadu Pollution Control Board (Annexe Building), 76, Mount Salai, Guindy, Chennai-32 during office hours from **10.00 A.M. to 3.45 P.M.** on all working days either in person or by post.

a)	Cost of bidding document To obtain by post (Non-refundable)	Rs.1,100/-(inclusive of postage charges of Rs.100/-).
b)	Date of commencement of sale of bidding document publishing in the website:	24.10.2018
c)	Last date for sale of bidding document	12.11.2018 up to 12.00 Noon
d)	Last date and time for receipt of bids	12.11.2018 up to 1.00 P.M.
e)	Date and Time of opening of bids	
	Cover – A (Technical Bid)	12 .11.2018 up to 3.00 P.M.
	Cover – B (Price Bid)	Date and time for Price Bid will be intimated separately, if the cover 'A' is found Technically responsive and acceptable by the Tender Scrutiny Committee.
f)	Place of opening of bids	Tamil Nadu Pollution Control Board, 76, Mount Salai, Guindy, Chennai-32
g)	Address for communication	All sealed tenders should be addressed to the Chairman, TNPCB, Chennai-32 and deposited in the office of Deputy Director (Labs), Advanced Environmental Laboratory, Tamil Nadu Pollution Control Board(Annexe), 76, Mount Salai, Guindy, Chennai-32 (or) sent by post to the Deputy Director(Labs), TNPC Board (Annexe), 76, Mount Salai, Guindy, Chennai-32.

7. All bids must be accompanied by EMD as specified in the bid documents and must be delivered to the above office at the date and time indicated above.
8. Bid will be opened in the presence of the bidders or their authorized representatives who are willing to attend on the specified date and time mentioned above.

SECTION – II

CONDITIONS OF TENDER FOR THE SUPPLY OF INDUCTIVELY COUPLED PLASMA MASS SPECTROMETER (ICP-MS) WITH ACCESSORIES

TAMILNADU POLLUTION CONTROL BOARD

SECTION – II

CONDITIONS OF TENDER FOR SUPPLY OF INDUCTIVELY COUPLED PLASMA MASS SPECTROMETER (ICP-MS).

- 1** Sealed tenders are invited by the **Chairman**, TamilNadu Pollution Control Board, Chennai **for SUPPLY OF NEW INDUCTIVELY COUPLED PLASMA MASS SPECTROMETER (ICP-MS) WITH ACCESSORIES**
- 2** The actual manufacturers or their authorized agent and stockiest should only quote. Subletting and assigning of contracts to any other firm/ person is prohibited except with the prior permission of the **Chairman**, TamilNadu Pollution Control Board, Chennai-32 or an officer authorized on behalf of the Chairman.
- 3** **Tender should be enclosed in a sealed envelope super scribed with tender number, the name of the item for which quoted and the due date of the tender and sent to the Deputy Director(Labs), Tamil Nadu Pollution Control Board, (Annex Building), 76, Mount Salai, Guindy, Chennai-32 so as to reach on or before 1.00 P.M. on 12.11.2018** The tender (Covers A & B) received without superscription as above and received late will be rejected.
- 4** (a) Tender will not be accepted, if GST NUMBER of supplier is not indicated in the offer.
(b) Telegraphic, Telex or Fax or open letter offers will not be accepted.
- 5.1** Each tender has two parts viz., Technical bid and Price bid.
Technical bid in Cover-A and Price bid in Cover-B should be separate sealed covers hereinafter called

Cover – A which contains **TECHNICAL BID** AND **Cover-B** which contains **PRICE BID**.

5.2 Technical Bid in COVER – A

The following documents and certificates should be enclosed in Cover-A along with the Technical bid.

a	Check List – A : Check List “ A” along with details called for therein .
b	Earnest Money Deposit and cost of tender document
c	If the tenderer is a manufacturer, duly attested photocopy of industrial license.
d	If tenderer is a dealer, authorization letter in original obtained from the manufacturer
e	Documentary evidence for the constitution of the firm with details of the name address, telephone number, fax No. e- mail address of the firm.
f	Authorization for a senior responsible Officer of the company to transact business.
g	Declaration Form in Annexure-I
h	List of customers using the instrument with documentary evidences for the supplies made <i>with respect to the model quoted.</i>
i	Instrument operation manual with technical specifications of the item.
j	Technical specifications for the item quoted in compliance with TNPCB specifications along with documentary evidences in Annexure-II.
k	List of address of service centers in TamilNadu / other states
l	The tender schedule containing pages 1 to 14 duly signed by the tenderer
m	Copy of Audited Annual Accounts for Last 3 years.

The above documents should be submitted in “ **Cover-A**” addressed to the Chairman, TamilNadu Pollution Control Board, 76, Mount Salai, Guindy, Chennai-600 032 and super scribed as **TECHNICAL BID FOR SUPPLY OF INDUCTIVELY COUPLED PLASMA MASS SPECTROMETER (ICP-MS) WITH ACCESSORIES TENDER NO.8/2018 DUE DATE ON 12.11.2018 1.00 PM.**

5.3 . The tenderer shall demonstrate by making PPT presentation of their product with accessories as quoted for, on the date that will be intimated separately, at their expenses. The Tenderers complying the technical specifications prescribed by the Board only are eligible for price bid opening.

5.4. **Price Bid in COVER - B**

The following documents should be enclosed along with the PRICE BID IN COVER-B.

a. Checklist- B

- b. Annexure III of the tender duly filled giving the rates breakup details of the cost of each item quoted.
- c. Annexure IV Special conditions of the tender duly signed by the tenders.

NOTE:

- 1) The price for indigenous items tendered should be in Rupees and should include all taxes and for free delivery to the places noted in the schedule. If any taxes are chargeable extra, the rate of taxes should be specified. Declaration form, if any, required should be specifically mentioned with time limit for furnishing such declaration.
- 2) If the items quoted are to be supplied by import, the quotation should be furnished in foreign currency indicating cost, insurance, freight charges along with value in Rupees (the current conversion rate should also be furnished)etc.,. The Board is eligible for customs duty concession, if the items are to be supplied by the import,
- 3) Rates should not be altered. Quotations shall always be both in figures and words. In case of difference between the price in figure and words, the price quoted in words shall hold firm.
- 4) The prices should be firm and should not be subject to any variation clauses.
- 5) The Board is not eligible to issue for 'C' (or) 'D' Form.
- 6) To convert tender prices in INR for comparison the exchange rate (selling rate) on the date of opening of the Price bid in Cover 'B' will be taken.
- 7) If Price quoted by 2 or more tenderers remain same, they will be asked to furnish the new rate in a sealed cover to identify the lowest tenderer. If still the price remains the same the lowest tenderer will be identified by draw of lot among them.

The “**Cover B**” should also be addressed to the Chairman, TamilNadu Pollution Control Board, 76, Mount Salai, Guindy, Chennai-600 032 and super scribed as “**PRICE BID FOR SUPPLY OF INDUCTIVELY COUPLED PLASMA MASS SPECTROMETER (ICP-MS) WITH ACCESSORIES “Tender No 8/2018 Due date on 12.11.2018 at 1.00 P.M.**

5.4. Both **Covers A & B** should reach this office on or before **1.00 P.M** on **12.11.2018**.

5.5. Technical Bid in Cover-A will be opened at TamilNadu Pollution Control Board, 76, Mount Salai, Guindy, Chennai – 32 **at 3.00 P.M** on **12.11.2018**.

in the presence of the tenderers/or their authorized representative of the companies who choose to be present. **Price Bid in Cover B** of those companies which satisfy the tender conditions and technical specifications of the Board will alone be opened at a later date. The date of opening of price bid will be intimated separately.

5.6 Each page of the tender should be authorized by the tenderer.

6. The tenderer shall submit check list 'A' in cover A and Check list – B in Cover B with page numbers of the document enclosed.
7. It shall be the responsibility of the tenderer for any shortages/damages at the time of receipt of the tender.

8. All columns of the tender form should be duly, properly and exhaustively filled in. The signature on the quotations shall be deemed to be of the authorized signatory. The words ‘NOT QUOTED’ should be written against any or all the items in the schedule for which a Tenderer does not wish to tender, conditional offers and counter offers are liable to be ignored and/or rejected. All the pages shall be sequentially numbered and the page number of the relevant document should be mentioned in the checklist A&B.
9. Corrections in the Tender shall be authenticated by the Tenderer.

9.1 Clarification of Bidding Documents

(1) If a prospective Bidder has any doubt as to the meaning of any part of the Bidding Documents he may notify the TamilNadu Pollution Control Board for supplementary information and explanation in writing in the format given in attachment 2 at the following address at least seven (7) days prior to the date set for pre-bid conference.

Deputy Director (Labs),
TamilNadu Pollution Control Board,
No.76, Mount Salai, Gunidy,
Chennai – 32.

(2) Pre- Bid Conference

The bidder or his authorized representative is invited to attend the pre-bid conference and the date and time of pre bid conference will be held on **29.10.2018** at **3.00 P.M.** During the meeting the following subjects may be discussed.

- a) The purpose of the conference will be to clarify any issues regarding the Bidding Document.
- b) The bidder is required to submit questions in writing to reach the Deputy Director (Labs) not later than seven days prior to the pre-bid conference.
- c) Record notes of conference including the text of the questions raised and responses given will be transmitted without delay to prospective bidders who have purchased the Bidding Documents. Any modification of the Bidding Document which may become necessary as a result of the pre-bid conference shall be made by the Officer authorized by the TNPC Board exclusively through an addendum to the **bidding documents and not through the record notes of the pre-bid conference.**
- d) Non-attendance of the pre-bid conference will not be a cause for disqualification of a bidder.
- e) The bidder shall depute maximum two authorized persons to take part in pre-bid conference.
- f) The bidder is not expected to raise any additional query after pre-bid conference and the TNPC Board is not obliged to reply any such queries.

- g) The pre-bid conference shall be open to those intending bidders who have purchased downloaded the Bid Documents.

9.2 Amendment of Bidding Documents

1) At any time prior to the deadline for submission of the Bid, the Board, for any reason, whether at its own initiative or in response to a clarification requested by a prospective Bidder, may modify the Bidding Documents by amendment.

2) All prospective Bidders who have received the Bidding Documents will be notified of the amendment in writing at the address contained in their letter of request for issue of bidding documents and will be binding on them. The amendments will also be published in the website www.tenders.tn.gov.in It is the responsibility of the tenderers to notice any subsequent amendment issued in this regard. The TNPC Board will bear no responsibility or liability arising out of non-receipt of the same in time or otherwise.

3) In order to allow prospective Bidders reasonable time in which to take amendment into account in preparing their Bids, the Board, at its discretion may extend the deadline for submission of the Bid.

10. **WARRANTY**: The supplier or the Indian representative should give the comprehensive warranty for the complete system for 3 years from the date of satisfactory installation, AMC for a period of 5 years after warranty and service back up including **commitment for the availability of spares of the system for a minimum period of 10 years** from the date of installation. Also in the case of the instrument/ equipment going out of production, at least 2 years advance notice should be given to enable one time supply of spares.
11. **DELIVERY**: Supply should be strictly made as per delivery schedule issued with the purchase order. All supplies are to be completed within the time specified in the purchase order, failing which Tamil Nadu Pollution Control Board reserves the right to cancel or modify orders if it is seen that the progress of the supplies are not satisfactory.
12. The Chairman, Tamil Nadu Pollution Control Board, reserves the right of accepting or rejecting all or any of the tenders without assigning any reasons thereof for the same and or to split up the tender as it may deem fit and/or also to finalise the tender after negotiations and also increase or decrease the tendered quantity. Repeat orders will also be placed on them after watching the performance if considered necessary.
13. The tenderers must state, while sending their tenders, that they understand and accept this tender enquiry conditions and without such acceptance, the tender will not be considered.

14. The tenderers should mention the brand and the manufacturer's details in the tender and provide service manual along with supply of instruments.
15. The tenderers shall arrange for security for protecting the item from loss or damage during transit. In case of damages, the tenderer should replace the damages during transit by good ones and at destination without any extra cost.
16. The quantity indicated in the schedule is only approximate and will not be, in any manner, whatsoever, binding on Tamil Nadu Pollution Control Board.
17. Goods not conforming to specification and found to be defective or damaged in transit will be returned by the Board. The replacement should be made within a reasonable time on receipt of rejected goods.
18. Any other conditions which might have been quoted by the seller and in contravention to the terms prescribed in the tender instruction will not be accepted.
19. The conditions mentioned herein will form part and parcel of the agreement.
20. The tender schedule should be filled in without any omission and submitted or otherwise the offer will be liable for rejection.
21. The lowest tenderer should be prepared to come for a negotiation in this office at a short notice if called for by the Board.
22. The supplying firms should clearly understand that time is the essence of the contract and no extension of time for the delivery will be entertained, under any circumstances. Therefore, the delivery of the goods specified in the purchase order should be made within the time limit prescribed. Where the tenderer supplies or despatches the items beyond the delivery period, specified in the Purchase Order, the Board will have no obligation to accept the goods. If accepted, Board has the right to recover pre-estimated liquidated damages at the rate of 10% p.a. of the value of goods delayed for each day to the delay thereof, without prejudice to any other relief or compensation due to the purchase order or under any other conditions of the contract. The delivery that can be offered from ready stock should be noted for each item in the schedule.
23. All disputes are subjected to the jurisdiction of court in Chennai City only.
24. Tamil Nadu Pollution Control Board will not accept any responsibility for any postal delay involved in the transmission and receipt of tender documents.
25. It is also requested to furnish whether any service centre in Chennai City and other places in Tamil Nadu and India. *The past record of after sales service rendered by the tenderer/ their authorized service agency will be taken into account for rejection of the tender.*

26. **EARNEST MONEY DEPOSIT:** Each tender must be accompanied by a deposit amount of **Rs.1.20 Lakh (Rupees One Lakh Twenty Thousand only)** as Earnest Money Deposit. The Earnest Money Deposit must be furnished in the form of Demand Draft drawn in favour of the “Tamil Nadu Pollution Control Board, Chennai” and the same should be sent along with the tender in Cover-A. **EMD shall not be accepted in the form of cash /Postal orders/Foreign Cheques /Drafts Tenders not accompanied by the Earnest Money Deposit will be rejected.** Earnest Money Deposit will be returned to unsuccessful tenderers after finalisation of the tender. On no account the security deposit of a previous contract can be taken as an authority for the tender or a tender accepted without the Earnest Money Deposit. Important that *the* Earnest Money Deposits are made by way of Demand Draft in favour of the “TamilNadu Pollution Control Board, Chennai”*only*. No exemption will be permitted. (If exemption is requested for the payment of EMD and SD in case of NSIC/SSI units, a performance security deposit of 5% will be retained by the Board and will be returned after 3 years from the date of completion of installation and satisfactory demonstration.)
27. **SECURITY DEPOSIT:**
Security Deposit equivalent to 5% of the value of the supply order should be furnished in the form of Demand Draft drawn in favour of Tamil Nadu Pollution Control Board, Chennai, within 7 days from the date of receipt of the supply order. Security deposit in any other form will not be accepted.
28. In the case of successful tenderer, the Earnest Money Deposit may, at the discretion of Chairman, Tamil Nadu Pollution Control Board, Chennai *will* be adjusted towards the Security Deposit payable by him and the balance to be paid by the tenderer so as to form 5% of the value of supply order as Security Deposit.
29. **AGREEMENT:**
The successful tenderer shall execute an Agreement on a 20/- Rupee non-judicial stamp paper with the Chairman, Tamil Nadu Pollution Control Board, Chennai within 15 days from the date of the receipt of the supply order. The specimen form of the agreement will be supplied by Tamil Nadu Pollution Control Board.
30. The Security Deposit remitted by the successful tenderer will be returned only after completion of warranty period and upon complete fulfillment of the tender to the entire satisfaction of the Chairman, Tamil Nadu Pollution Control Board.
31. The Declaration Form in Annexure-I must be signed by the tenderer and must be enclosed along with the tender. Tenders received without the declaration form shall not be *considered*.

32. The acceptance / non acceptance of tender shall be communicated to the tenderers in writing.
33. If the items quoted are to be imported, the successful tenderer shall co-ordinate with TNPCB in the clearance of the item from customs authority, whenever necessary.

34. PENALTY CLAUSES

If the successful tenderer fails to execute the said Agreement and/or fails to remit the required security deposit within the time specified or withdraws his tender after the intimation of the acceptance of his tender or owing to any other reasons, he is unable to undertake the contract, his contract will be cancelled and the Earnest Money Deposit made by him along with his tender shall stand forfeited to the Tamil Nadu Pollution Control Board and he will also be liable for all damages sustained by Chairman, Tamil Nadu Pollution Control Board by reasons of such breach including the liability to pay any differences between the prices accepted by him and those ultimately paid for the services concerned. The damages assessed by the Chairman, Tamil Nadu Pollution Control Board will be final in this matter.

35. TRAINING

Sufficient training to be provided to two scientists in each labs on software, operation, maintenance and troubleshooting aspects of instrument at its application laboratory in India at free of cost.

The Contractor shall furnish the schedule and program of the training to the Board within 30 days after the notification of award in such a manner that proper training is imparted to Board staff members.

SECTION – III

TECHNICAL BID TO BE ENCLOSED IN COVER - A

Annexure – A

TAMIL NADU POLLUTION CONTROL BOARD

TECHNICAL SPECIFICATION FOR THE SUPPLY OF INDUCTIVELY COUPLED
PLASMA MASS SPECTROMETER (ICP-MS) WITH ALL ACCESSORIES,

ICP – Mass Spectrometer Analysis System shall include the following:-		
Sl.No.	Specifications	Corrected TNPCB Requirement
1.	Basic design	The ICPMS should be a Bench Top model and should have three quadruple in random or series.
2.	Sample Introduction	The sample Introduction system should have very low dead volume with uptake rate not more than 0.4 ml/min to reduce the waste generation. The system should have the provision to handle high TDS sample >20% without dilution. Close coupled, three are more channel 12 roller integral peristaltic pump, computer controlled with automatic start, stop and tubing saver mode. The sample Introduction system, Torch, Injector & cones should be easily accessible and changeable to both right hand & left hand users with same ease. PFA Nebulizer should also be provided.
3.	Ion Source and RF plasma:	Computer controlled 27 to 40 MHz RF generator operating from 500 to 1600 watts for automatic control of torch ignition, shutdown, and system warm up. The RF generator must electrically decouple the plasma for the ion optics and allow independent adjustment of the ion optic parameters and the plasma conditions. The RF Generator and load coil must have any active cooling provision. The RF generator / load coil life time shall be more than 3 years. Plasma ignition shall be accomplished without having to move the torch from the analytical position-eliminating the need for time consuming torch position re-optimization when plasma is turned off or is accidentally extinguished. Computer controlled adjustments of Torch position (x, y, z directions) with independent movement. Single piece wide bore torch injector systems shall be provided. The system should not use any replacement parts shield or Plasma screen requirements to prevent the secondary Discharge from the cone Interface.

4.	Ion Extraction Interface:	The interface with high purity Ni/Pt sampling and skimming cones suitable orifice of approval of 1.0mm lia to suit all applications. Two sets of extra cones and lenses also to be provided. The cones should be easily removed, cleaned and replaced. To prevent clogging and minimize signal drift to eliminate the need for any extraction lens system the instrument must be provided with hyper skimmer cone to avoid maintenance inside the vacuum region or analyser.
5.	Ion Focusing System:	The ion focusing system should be capable of removing all neutrals and photons from the ion path without causing any damage to the optics. Ion path should be maintenance free and should not require the service of an engineer for maintenance.
6.	Quadrupole Assembly	The system shall be in tandem, one quadrupole shall be before collision/reaction cell and other after CRC. The quadrupole mass filter resolutions must be 0.4 amu or better. The mass range should be from 3 to 275 amu or better. Scan speed should be above 3500 amu/sec. Dwell time should be 0.1ms or better (100 ms) Background equivalent concentration should be 2 CPS or better.
7.	Ion Detector Assembly:	The ion detector is a simultaneous dual-stage discrete dynode electron multiplier, and allows element concentration calibration over a full 9 orders magnitude of dynamic range (from PPM to PPT level) in a single scan using both analog and pulse ion counting mode and is protected against overload in both pulse counting and analog counting mode. The detector life should have life of more than 3 years. The data acquisition rate should be 5000 amu/sec. or more.
8.	Vacuum system	Four stage vacuum system (split flow turbo molecular pump, turbo pump, external rotary pump, turbo pump backing System should consist of two rotary and ceramic-bearing/equivalent turbomolecular pumps for efficient pumping with pneumatic vacuum isolation between first and second stage of vacuum The pumps should be a fume and acoustic free system

9.	System Controller and Operating System:	<p>Suitable data station with all software controls & future upgrade controls with instrument software. Software should provide comprehensive functionality and feature with simplified auto tuning with pre set methods.</p> <p>The software must have real time monitoring system, routine maintenance alerts, QC checks, scheduler and customizable reporting etc.</p> <p>The software should provide full control and operation of the instrument and all the accessories. Independent Branded desktop computer to be provided with i7/i5 (as per the specification provided). The system should also be provided with multi-function laser color printer with scanning and auto duplex printing facility should be quoted.</p> <p>Software for speciation studies along with standard software should be provided</p> <p>The instrument and software should have 21 CRF Port 11 compliance as a standard feature. The system should have GLP/GMP compliance and should strictly meet 21 CRF Part 11 guidelines. The system should enable for audit trails, electronic signature and other requirements related to GLP compliance. Further, required IQ and OQ reports should be generated to meet GLP regulatory requirements during installation and operation by your service personnel.</p>
10.	ICP – MS – Cell Technology	<ul style="list-style-type: none"> • System should come with inbuilt H₂ & O₂ gas channels for effective use of reaction mode while analysis difficult matrix samples. • System should have and operate in collision mode and Reaction mode simultaneously. • System also should be able to use 100% pure reactive gases like CH₄, C₂H₂, CH₃F, C₂H₆ etc., as well as mixture of gases like H₂/He. • System should have Dynamic Bandpass tuning and extended dynamic range to address wide variety of samples and wide variety of matrices. • The collision/reaction cell should be quadrupole with low and high mass cut off to remove interference from the cell.
11.	Performance	<ul style="list-style-type: none"> • Detection limit: ⁹Be: 1 ppt or better ¹¹⁵In: 0.5 ppt or better

		²³⁸ U: 0.5 ppt or better <ul style="list-style-type: none"> • Oxide ratio (CeO/Ce):<3% • Doubly charged ratio: Ce^{2±}/Ce(%):≤3% • Short term stability: <3% (over 10 minutes) and long time stability of <4% (over 10 minutes) and long time stability of <4% (over 4 hours) should be demonstrated. • Isotope ratio precision: Ag¹⁰⁷/Ag¹⁰⁹<0.1% • It shall be possible to measure major and minor concentrations in a single analytical run. • Auto tune facility to optimize plasma conditions, lens and cell voltage, etc. for best ionization and sensitivity
	DATA STATION	
12.	Application Software Capabilities	<ul style="list-style-type: none"> • Windows based software • User-Friendly software that guide users through method and sequence development, a dn method templates for rapid development of commonly used methods. • Quantitate analytes on any possible combination of isotopes • Editable interference correction equations • Calibration for multi-element external calibration, method of standard additions, and isotope ratios • Fully automated instrument initialization (Start-up) routine, including instrument stabilization time, plasma X/Y position adjustment, mass calibration, and quadrupole resolution • Simultaneous real-time graphical display of signal as full mass scan, segments of mass scan, and signal response vs time for multiple isotopes or ratios.
13.	Auto sampler for ICP-MS:	<ul style="list-style-type: none"> • The system shall include a random access auto sampler capable of holding 100 or more 15 mL or sample vessels. • A suitable two stage water purifier system for ICP-MS grade water to be provided along with the system • Argon gas dilutor or equivalent technology for auto dilution should also be quoted along with the ICP-MS system
14.	HPLC and ICP-MS Interface	An integrated HPLC interface to ICP-MS to be provided which should include binary/quaternary pump, photo diode array (PDA) detector, degasser, flow cells, column heater, programmable temperature control auto sampler, speciation columns/kits for chromium, mercury and arsenic with all required

		<p>accessories & reagents. The system must have automatic switch valve to transfer column elution from column outlet to ICP-MS without any manual intervention. It should be programmable & controlled from single software. The full configuration of HPLC and ICP-MS and transfer valve must be under one single software control. The speciation studies should be demonstrated during installation of the instrument at laboratory. Latest configuration of HPLC is to be hyphenated with the indented ICP-MS should be quoted.</p>
15.	HPLC Specifications	<ul style="list-style-type: none"> • Flow rate 0.1-5 mL or better • Maximum operating pressure should be 6000 psi or more for flow rate up to 5 mL/min • PDA wavelength range 200-600 nm or better settable in 1 nm increments • The PDA must have wavelength accuracy of ± 1nm • System should work in the pH range of 2 to 12 • Noise: ± 1.5 to 10^{-5} AU peak to peak at 254 nm • Bandwidth: 20 nm or better • Response time: 2 sec at 20 nm bandwidth • Two additional deuterium lamps should be provided • Suitable solvent tray that can accommodate four solvent bottles of 1L capacity and the solvent spill from this tray must not affect the instrument • The auto sampler tray should have capacity to hold minimum of 48 nos of 1 or 2 mL vials • Autosampler vials (1000nos) should be quoted separately • Autosampler syringes (5nos) should be provided and quoted separately • Column temperature range should be programmable from ambient to 90⁰ C in 0.1⁰C increments • Column temperature accuracy should be within the range of $\pm 0.5$⁰C • Additional two columns each for speciation studies of Cr, Hg & As should be provided.
16.	Microwave Digestion System	<ul style="list-style-type: none"> • Vessel type: 16 vessels • Power: unpulsed Microwave power from 0 to 1400 W using 1 to 2 magnetrons • Built-in cook-book methods • Built-in software with screen display for temperature, weight, method search, power profile, method set-up etc

		<ul style="list-style-type: none"> • TFM type vessel (50 to 100ml capacity) to be quoted which can withstand up to 40 bars working pressure and 240C temperature. • Pressure and temperature sensor of immersing type/probe/contact free for one reference to be included in the offer and the same should be provided of control using transducers and gas bulb respectively with wireless transmission • Built-in integrated cooling system for removal of gases (vapours) and cooling of vessel without a use of external chiller/thermostat in less than 20 minutes. • Various safety features to be incorporated in the basic system
17.	Essential Accessories	<ul style="list-style-type: none"> • Scope of supply for Ni interface cones. One set of Ni sample, skimmer, hyper skimmer cones/extraction system for high matrix and higher sensitivity. • All required pumps • Recirculating chillers: • Gas filters, Gas cylinders and appropriate gas lines, connectors, valves and control systems for these. • 30 KVA UPS with a back up time for 30 mins to 1 hour • Required exhaust system • Prices of full sets of spares and consumables for 2 years for each instrument or preparation module. Please note this list should include the tubing which includes for intake, outlet, drain, air filter, two set of O-rings for the sampler and skimmer cones, vacuum pump oil and multiples • Provide a maintenance chart for all of the components in the system, • Appropriate windows bases computer system with 24 inch monitor and a laser printer. Wireless keyboard and mouse is essential. • Any local ancillary instrument/equipment necessary to run the system, in addition to the above, should also be indicated. • Tuning standard • Single element standards for at least 20 elements must be provided. • Gas cylinders (4 Argon, 1 Helium, 1 oxygen, 1 hydrogen)

18.	Other ACCESSORIES	
	Operation and maintenance manual	Two sets
	Application notes for the analysis of	All metal in IUPAC periodic table
	Service manual	One set
	Requisite Tools	One set
	List of spare parts & consumables	One set
	Troubleshooting Guide	One set
	Dust Cover	One set
	High capacity carrier gas purifier	2 each
	Consumables for three years operation	One set
	Helium regulator (Two stage)	1 each
	Operation Kit	One set
	19.	Training
20.	COMPUTER SYSTEM	
	Processor	B i7/i5 or above
	Processor speed	3.7 GHZ
	Cache	20 MB
	RAM	16 GB
	RAM Type	DDR4
	RAM Speed	2400 MHZ
	Storage Type	HDD
	Operating System	Windows 10 Home
	Peripherals	Keyboard, Mouse
	Connectivity	Bluetooth, LAN, USB
	Display Type	Full HD
	Resolution	1920x1080
	HDD Reading Speed	7200 RPM

Dimension (WxDxH)mm	613.8x53x394.1
Warranty	3
Screen Sizes (Inches)	27
HDD Capacity	1 TB or above
Features	Fu II HD Desktops
Other Features	Along with preloaded software M.S. Office, Antivirus for 5 years with license as CD.

(To be enclosed along with technical bid in Cover - A)

Check List – A (Technical bid)

Sl. No.		Page No.	YES	NO
1.	Earnest Money Deposit (Rs. 1.20 Lakh (Rupees One Lakh Twenty Thousand only).	<input type="text"/>	<input type="text"/>	<input type="text"/>
2.	Declaration Form In Annexure-I	<input type="text"/>	<input type="text"/>	<input type="text"/>
3.	List of customers using the instrument quoted including model number with address and phone number.	<input type="text"/>	<input type="text"/>	<input type="text"/>
4.	Operation and maintenance manual of the instrument quoted.	<input type="text"/>	<input type="text"/>	<input type="text"/>
5.	Technical specifications of the item quoted in compliance with TNPCB specifications in Annexure –II.	<input type="text"/>	<input type="text"/>	<input type="text"/>
6.	List of address of service centre in TamilNadu/other States in India.	<input type="text"/>	<input type="text"/>	<input type="text"/>

7.	The original tender schedule duly signed by the tenderer at the end of each page.	<input type="text"/>	<input type="text"/>	<input type="text"/>
8.	The Power of Attorney authorizing the signatory of the Bid to commit the Bidder.	<input type="text"/>	<input type="text"/>	<input type="text"/>
9.	Attachments in support of meeting qualifying requirements.	<input type="text"/>	<input type="text"/>	<input type="text"/>
10.	Copy of certificate of local branch, sales, residential and representative office (s) of the Bidder in India as per certificate form pursuant to	<input type="text"/>	<input type="text"/>	<input type="text"/>
11.	Certificate from manufacturer stating the country of origin of each Equipment duly authenticated by competent authority of that country.	<input type="text"/>	<input type="text"/>	<input type="text"/>
12.	List of Equipment and consumables offered with manufacturers details.	<input type="text"/>	<input type="text"/>	<input type="text"/>
13.	Pre-requisites for installation of equipment offered.	<input type="text"/>	<input type="text"/>	<input type="text"/>

(To be enclosed in Cover - A)

ANNEXURE – I

DECLARATION FORM

I / We

having our office at

.....
.....
.....

Declare that I / We have carefully read all the conditions of the tender floated for **SUPPLY OF INDUCTIVELY COUPLED PLASMA MASS SPECTROMETER (ICP-MS)** and abide by all the conditions set forth therein.

Place:

Signature with Seal

Date :

Address:

ANNEXURE - II

TAMIL NADU POLLUTION CONTROL BOARD

**TECHNICAL SPECIFICATION FOR THE SUPPLY OF INDUCTIVELY COUPLED
PLASMA MASS SPECTROMETER (ICP-MS).**

ICP – Mass Spectrometer Analysis System shall include the following:-			
Sl.No	Specifications	Corrected TNPCB Requirement	BIDDER'S RESPONSE (Bidder shall indicate "complied" or "Non Complied" as applicable in each row. In case of "Non Complied", detail shall be mentioned)
01.	Basic design	The ICPMS should be a Bench Top model and should have three quadruple in random or series.	
02.	Sample Introduction	The sample Introduction system should have very low dead volume with uptake rate not more than 0.4 ml/min to reduce the waste generation. The system should have the provision to handle high TDS sample >20% without dilution. Close coupled, three are more channel 12 roller integral peristaltic pump, computer controlled with automatic start, stop and tubing saver mode. The sample Introduction system, Torch, Injector & cones should be easily accessible and changeable to both right hand & left hand users with same ease. PFA Nebulizer should also be provided.	
03.	Ion Source and RF plasma:	Computer controlled 27 to 40 MHz RF generator operating from 500 to 1600 watts for automatic control of torch ignition, shutdown, and system warm up. The RF generator must electrically decouple the plasma for the ion optics and allow independent adjustment of the ion optic parameters and the plasma conditions. The RF Generator and load coil must have any active cooling provision. The RF generator / load coil life time shall be more	

		<p>than 3 years. Plasma ignition shall be accomplished without having to move the torch from the analytical position-eliminating the need for time consuming torch position re-optimization when plasma is turned off or is accidentally extinguished. Computer controlled adjustments of Torch position (x, y, z directions) with independent movement.</p> <p>Single piece wide bore torch injector systems shall be provided. The system should not use any replacement parts shield or Plasma screen requirements to prevent the secondary Discharge from the cone Interface.</p>	
04.	Ion Extraction Interface:	<p>The interface with high purity Ni/Pt sampling and skimming cones suitable orifice of approval of 1.0mm dia to suit all applications. Two sets of extra cones and lenses also to be provided. The cones should be easily removed, cleaned and replaced. To prevent clogging and minimize signal drift to eliminate the need for any extraction lens system the instrument must be provided with hyper skimmer cone to avoid maintenance inside the vacuum region or analyser.</p>	
05.	Ion Focusing System:	<p>The ion focusing system should be capable of removing all neutrals and photons from the ion path without causing any damage to the optics. Ion path should be maintenance free and should not require the service of an engineer for maintenance.</p>	
06.	Quadrupole Assembly	<p>The system shall be in tandem, one quadrupole shall be before collision/reaction cell and other after CRC.</p> <p>The quadrupole mass filter resolutions must be 0.4 amu or better.</p> <p>The mass range should be from 3 to 275 amu or better.</p> <p>Scan speed should be above 3500 amu/sec.</p> <p>Dwell time should be 0.1ms or better (100 ms)</p> <p>Background equivalent concentration should be 2 CPS or better.</p>	

07.	Ion Detector Assembly:	<p>The ion detector is a simultaneous dual-stage discrete dynode electron multiplier, and allows element concentration calibration over a full 9 orders magnitude of dynamic range (from PPM to PPT level) in a single scan using both analog and pulse ion counting mode and is protected against overload in both pulse counting and analog counting mode. The detector life should have life of more than 3 years.</p> <p>The data acquisition rate should be 5000 amu/sec. or more.</p>	
08.	Vacuum system	<p>Four stage vacuum system (split flow turbo molecular pump, turbo pump, external rotary pump, turbo pump backing)</p> <p>System should consist of two rotary and ceramic-bearing/equivalent turbomolecular pumps for efficient pumping with pneumatic vacuum isolation between first and second stage of vacuum</p> <p>The pumps should be a fume and acoustic free system</p>	
09.	System Controller and Operating System:	<p>Suitable data station with all software controls & future upgrade controls with instrument software.</p> <p>Software should provide comprehensive functionality and feature with simplified auto tuning with pre set methods.</p> <p>The software must have real time monitoring system, routine maintenance alerts, QC checks, scheduler and customizable reporting etc.</p> <p>The software should provide full control and operation of the instrument and all the accessories. Independent Branded desktop computer to be provided with i7/i5 (as per the specification provided). The system should also be provided with multi-function laser color printer with scanning and auto duplex printing facility should be quoted.</p> <p>Software for speciation studies along with standard software should be provided</p> <p>The instrument and software should have 21 CFR Part 11 compliance as a standard</p>	

		feature. The system should have GLP/GMP compliance and should strictly meet 21 CFR Part 11 guidelines. The system should enable for audit trails, electronic signature and other requirements related to GLP compliance. Further, required IQ and OQ reports should be generated to meet GLP regulatory requirements during installation and operation by your service personnel.	
10.	ICP – MS – Cell Technology	<ul style="list-style-type: none"> • System should come with inbuilt H₂ & O₂ gas channels for effective use of reaction mode while analysis difficult matrix samples. • System should have and operate in collision mode and Reaction mode simultaneously. • System also should be able to use 100% pure reactive gases like CH₄, C₂H₂, CH₃F, C₂H₆ etc., as well as mixture of gases like H₂/He. • System should have Dynamic Bandpass tuning and extended dynamic range to address wide variety of samples and wide variety of matrices. • The collision/reaction cell should be quadrupole with low and high mass cut off to remove interference from the cell. 	
11.	Performance	<ul style="list-style-type: none"> • Detection limit: ⁹Be: 1 ppt or better ¹¹⁵In: 0.5 ppt or better ²³⁸U: 0.5 ppt or better • Oxide ratio (CeO/Ce):<3% • Doubly charged ratio: Ce_{2±}/Ce(%):≤3% • Short term stability: <3% (over 10 minutes) and long time stability of <4% (over 10 minutes) and long time stability of <4% (over 4 hours) should be demonstrated. • Isotope ratio precision: Ag₁₀₇/Ag₁₀₉<0.1% • It shall be possible to measure major and minor concentrations in a single analytical run. • Auto tune facility to optimize plasma conditions, lens and cell voltage, etc. for best ionization and sensitivity. 	
DATA STATION			

12.	Application Software Capabilities	<ul style="list-style-type: none"> • Windows based software • User-Friendly software that guide users through method and sequence development, a dn method templates for rapid development of commonly used methods. • Quantitate analytes on any possible combination of isotopes • Editable interference correction equations • Calibration for multi-element external calibration, method of standard additions, and isotope ratios • Fully automated instrument initialization (Start-up) routine, including instrument stabilization time, plasma X/Y position adjustment, mass calibration, and quadrupole resolution • Simultaneous real-time graphical display of signal as full mass scan, segments of mass scan, and signal response vs time for multiple isotopes or ratios. 	
13.	Auto sampler for ICP-MS:	<ul style="list-style-type: none"> • The system shall include a random access auto sampler capable of holding 100 or more 15 mL or sample vessels. • A suitable two stage water purifier system for ICP-MS grade water to be provided along with the system • Argon gas dilutor or equivalent technology for auto dilution should also be quoted along with the ICP-MS system 	
14.	HPLC and ICP-MS Interface	<p>An integrated HPLC interface to ICP-MS to be provided which should include binary/quaternary pump, photo diode array (PDA) detector, degasser, flow cells, column heater, programmable temperature control auto sampler, speciation columns/kits for chromium, mercury and arsenic with all required accessories & reagents. The system must have automatic switch valve to transfer column elution from column outlet to ICP-MS without any manual intervention. It should be programmable & controlled from single software. The full configuration of HPLC and ICP-MS and transfer valve must be under one single software control. The speciation studies should be demonstrated during installation of the instrument at laboratory. Latest configuration of HPLC is to be hyphenated with the indented ICP-MS should be quoted.</p>	
15.	HPLC Specifications	<ul style="list-style-type: none"> • Flow rate 0.1-5 mL or better • Maximum operating pressure should be 6000 	

		<p>psi or more for flow rate up to 5 mL/min</p> <ul style="list-style-type: none"> • PDA wavelength range 200-600 nm or better settable in 1 nm increments • The PDA must have wavelength accuracy of ± 1nm • System should work in the pH range of 2 to 12 • Noise: ± 1.5 to 10^{-5} AU peak to peak at 254 nm • Bandwidth: 20 nm or better • Response time: 2 sec at 20 nm bandwidth • Two additional deuterium lamps should be provided • Suitable solvent tray that can accommodate four solvent bottles of 1L capacity and the solvent spill from this tray must not affect the instrument • The auto sampler tray should have capacity to hold minimum of 48 nos of 1 or 2 mL vials • Autosampler vials (1000nos) should be quoted separately • Autosampler syringes (5nos) should be provided and quoted separately • Column temperature range should be programmable from ambient to 90⁰ C in 0.1⁰C increments • Column temperature accuracy should be within the range of $\pm 0.5$⁰C • Additional two columns each for speciation studies of Cr, Hg & As should be provided. 	
16.	Microwave Digestion System	<ul style="list-style-type: none"> • Vessel type: 16 vessels • Power: unpulsed Microwave power from 0 to 1400 W using 1 to 2 magnetrons • Built-in cook-book methods • Built-in software with screen display for temperature, weight, method search, power profile, method set-up etc • TFM type vessel (50 to 100ml capacity) to be quoted which can withstand up to 40 bars working pressure and 240C temperature. • Pressure and temperature sensor of immersing type/probe/contact free for one reference to be included in the offer and the same should be provided of control using transducers and gas bulb respectively with wireless transmission • Built-in integrated cooling system for removal of gases (vapours) and cooling of vessel without a use of external chiller/thermostat in less than 20 minutes. • Various safety features to be incorporated in 	

		the basic system	
17.	Essential Accessories	<ul style="list-style-type: none"> • Scope of supply for Ni interface cones. One set of Ni sample, skimmer, hyper skimmer cones/extraction system for high matrix and higher sensitivity. • All required pumps • Recirculating chillers: • Gas filters, Gas cylinders and appropriate gas lines, connectors, valves and control systems for these. • 30 KVA UPS with a back up time for 30 mins to 1 hour • Required exhaust system • Prices of full sets of spares and consumables for 2 years for each instrument or preparation module. Please note this list should include the tubing which includes for intake, outlet, drain, air filter, two set of O-rings for the sampler and skimmer cones, vacuum pump oil and multiples • Provide a maintenance chart for all of the components in the system, • Appropriate windows bases computer system with 24 inch monitor and a laser printer. Wireless keyboard and mouse is essential. • Any local ancillary instrument/equipment necessary to run the system, in addition to the above, should also be indicated. • Tuning standard • Single element standards for at least 20 elements must be provided. • Gas cylinders (4 Argon, 1 Helium, 1 oxygen, 1 hydrogen) 	
18.	Other ACCESSORIES		
	Operation and maintenance manual	Two sets	
	Application notes for the analysis of	All metal in IUPAC periodic table	
	Service manual	One set	
	Requisite Tools	One set	
	List of spare parts & consumables	One set	
	Troubleshooting Guide	One set	
	Dust Cover	One set	
	High capacity carrier gas purifier	2 each	
	Consumables for three years operation	One set	
	Helium regulator (Two stage)	1 each	
	Operation Kit	One set	

19.	Training	Two scientists from TNPCB on the operation and maintenance of ICP-MS in the manufacturer application lab not less than a period of 1 week. Apart from that installation and training to be given in the lab scientific staff where the installation is under taken.
20.	COMPUTER SYSTEM	
	Processor	B i7/i5 or above
	Processor speed	3.7 GHZ
	Cache	20 MB
	RAM	16 GB
	RAM Type	DDR4
	RAM Speed	2400 MHZ
	Storage Type	HDD
	Operating System	Windows 10 Home
	Peripherals	Keyboard, Mouse
	Connectivity	Bluetooth, LAN, USB
	Display Type	Full HD
	Resolution	1920x1080
	HDD Reading Speed	7200 RPM
	Dimension (WxDxH)mm	613.8x53x394.1
	Warranty	3
	Screen Sizes (Inches)	27
	HDD Capacity	1 TB or above
	Features	Fu II HD Desktops
	Other Features	Along with preloaded software M.S. Office, Antivirus for 5 years with license as CD.

**PROFORMA FOR PERFORMANCE STATEMENT FOR MANUFACTURER
(for a period of last five years)**

Bid No. _____ Name of Equipment _____ Date of opening _____ Time _____
Name of the Manufacturer _____

Order placed by (full address of Purchaser)	Order No. & Date	Description of ordered Equipment (Model no.)	Quantity supplied	Value of Order	Date of commissioning and handing over	Has the equipment been satisfactory functioning? (Attach minimum two certificates from the Purchaser/Consignee for each equipment)
1	2	3	4	5	6	7

NOTE : Bidder to furnish above detail for each equipment of the quoted package on separate sheet.

Signature of the Authorized Representative
Name of the person
Position

**PROFORMA FOR PERFORMANCE STATEMENT FOR AUTHORIZED
REPRESENTATIVE OF THE MANUFACTURER
(for a period of last five years)**

Bid No. _____ Name of Equipment _____ Date of opening _____ Time _____

Name of the Manufacturer _____

Order placed by (full address of Purchaser)	Order No. & Date	Description of ordered Equipment (Model no.)	Quantity supplied	Value of Order	Date of commissioning and handing over	Has the equipment been satisfactory functioning? (Attach minimum two certificates from the Purchaser/Consignee for each equipment)
1	2	3	4	5	6	7

NOTE : Bidder to furnish above detail for each equipment of the quoted package on separate sheet.

Signature of the Authorized Representative

Name of the person

Position

<Letterhead of the Bidder>

FORM OF QUESTIONNAIRE

**BIDDING DOCUMENTS FOR SUPPLY OF INDUCTIVELY COUPLED PLASMA MASS
SPECTROMETER (ICP-MS) WITH ACCESSORIES**

Date :

To :

**TamilNadu Pollution Control Board,
76, Mount Salai,
Guindy,
Chennai – 600 032**

From :

Name of Bidder

Address

Name of Representative

Position

Fax No.

Email id.

Signature

Question

Signature of the Authorized Representative

Name of the Person Position

Attachment 3

<Letterhead of the Bidder>

CERTIFICATE OF EXISTENCE OF LOCAL BRANCH, SALES RESIDENTIAL AND REPRESENTATIVE OFFICE(S) IN INDIA

To

**Tamilnadu Pollution Control Board,
76, Mount Salai,
Guindy,
Chennai – 600 032.**

Subject: certificate of Existence of Local Branch, Sales Residential and Representative Office(s) in India

1. Name of Office (s) :
2. Address :
- Tel. No. :
- Fax No. :
- Telex No. :
- Email id. :
3. Status of Office(s) :
4. Date of Establishment of Office(s) :
5. Name & Address of Residential Representative :
6. Total Manpower :
7. Total No. of Trained Service Engineer :
8. Present No. of Offices in India
 (Name the locations & address) :
9. Total Turnover in last 3 years :

Signature :

Name :

Designation :

Seal :

Attachment 4

<Letterhead of the Manufacturer>

FORM OF CERTIFICATE OF COUNTRY OF ORIGIN

To

**TamilNadu Pollution Control Board,
76, Mount Salai,
Guindy,
Chennai – 600 032.**

Subject : Certificate of Country of Origin

We, (Name of Manufacturer), hereby certify that our equipment for procurement and installation of equipment for TNPCB laboratories in the State of, India is to be manufactured in the country mentioned below:

Item No.	Name of Equipment	Country of Origin

Signature

Name of Person

Title

Name of Manufacturer

Legal Address

Countersign of competent authority of the country of origin.

Attachment 5

FORM OF EQUIPMENT LIST OFFERED

Item No.	Name of Equipment	Proposed Model	Manufacturer	Country of Origin Address Tel. Fax Nos. and Email-Id	Technical Catalogue Attached (Yes/No)

Signature of the Authorized Representative

Name of the Person

Position

<Letterhead of the Manufacturer>

**FORM OF CERTIFICATE OF SUPPLY OF SPARES AND CONSUMABLES BY
MANUFACTURER**

Date:

To

**TamilNadu Pollution Control Board,
76, Mount Salai,
Guindy,
Chennai – 600 032.**

Sub.: Certificate of Supply of Consumables and Spare Parts by Manufacturer

This is to certify that we (Name of Manufacturer) shall supply the consumables and spare parts of the equipment mentioned below during AMC period under the contract to the contractor (Name of the Contractor)/Owner.

It is hereby guaranteed that we shall maintain stocks of consumables and spare parts for the following equipment for a period of Ten (10) years after the commissioning of the equipment in India.

Item No.	Name of Equipment	Name of Manufacturer

Signature :

Name of the Person :

Position :

Name of Manufacturer :

Office Seal of Manufacturer :

Legal Address of Manufacturer :

PRE-REQUISITES FOR INSTALLATION OF EQUIPMENT

To

**TamilNadu Pollution Control Board,
76, Mount Salai,
Guindy,
Chennai – 600 032.**

Dear Sir,

Following are the pre-requisites for installations of the equipment offered by us, which are required to be provided by you prior to installation of the equipment:

Package no. / Item No.	Name of the Equipment	Installation & commissioning pre-requisites*

***Requirements of Power supply (KW / KVA etc.), power backup, air conditioning, hooding, space, furniture, gas supply etc. to be mentioned by the bidder.**

Signature of the Authorized Representative
Name of the Person
Position

Note:

Continuation sheets, of like size and format, may be used as per Bidder's requirement and shall be annexed to this Schedule.

SECTION IV

ATTACHMENT FOR PRICE BID

(To be enclosed in Cover - B)

Check List - B

Sl. No.		Page No.	YES	NO
1	Summary of price bid (Attachment 9)	<input type="text"/>	<input type="text"/>	<input type="text"/>
2	Bid price break up for equipment (Attachment 10)	<input type="text"/>	<input type="text"/>	<input type="text"/>
3.	Schedule for supply (Annexure III)	<input type="text"/>	<input type="text"/>	<input type="text"/>
4.	Annual report and Balance sheet for the Last 2 years	<input type="text"/>	<input type="text"/>	<input type="text"/>

PROFORMA FOR FINANCIAL CAPABILITY OF BIDDER

(for a period of last three years)

Bid No. _____ Package Code _____ Date of opening _____ Time _____

Name of the Bidder _____

Year	Currency	Turnover
Annual Balance sheet for last three years may be furnished		

Note:

1. The annual turn over amount is to be supported by annual report.

Signature of the Authorized Representative

Name of the Person

Position

SUMMARY OF PRICE BID

DESCRIPTION	TOTAL VALUE
SUPPLY OF THE EQUIPMENT	
1) For goods supplied from abroad (In Bid-Currency) <ul style="list-style-type: none"> a. FOB price for Package b. Freight c. Insurance up to port of de-embankment 	
CIF Price at port of de-embankment (bid currency) (1a + 1b + 1c)	
2) Local Costs for goods supplied from abroad <ul style="list-style-type: none"> a. Port handling and clearance charges. b. Transportation cost from Port of de-embankment to Sites c. Insurance from Port of de-embankment to Sites d. Installation and commissioning 	
Sub total (2a + 2b + 2c)	
3) For the Goods Supplied from India <ul style="list-style-type: none"> a. The price of the Equipment quoted ex-works, ex-factory, ex-warehouse, ex-showroom, or off-the-shelf including all customs duties and sales and other taxes already paid or payable on the components and raw material used in the manufacture or assembly of the Equipment quoted ex-works or ex-factory. b. Price for handling and inland transportation, insurance up to handing over the equipment at Site and other local costs up to delivery of the Equipment to each Site. c. Installation and commissioning d. Price of other incidental cost, if any. Then the Bidder shall specify the same. 	
Sub total (3a + 3b + 3c)	
TOTAL FOR SUPPLY (1 + 2 + 3)	

**(1) BID PRICE BREAKUP FOR EQUIPMENT
(CIF) PRICE**

Sl. No.	Item/Analyzer Name	Manufacturer	Country of Origin	Model	Quantity in Nos. / Sets	Unit Price (BID CURRENCY)	TOTAL Price (BID CURRENCY)
01.	Main Unit: Inductively Coupled Plasma Mass Spectrometer (ICP-MS).						
02.	Auto sampler for ICP-MS						
03.	Recirculating water chiller						
04.	Vacuum System						
05.	HPLC with Interface to ICP-MS						
06	Microwave Digestion System						
07	UPS System 30 KVA						
08.	Computer and printer						
09	Accessories Gas cylinder RF coil, cones etc.,						
10.	Consumables and all other Spares for the trouble free operation for 5 Years						
11	Installation						
12.	AMC after Warranty for 5 years						

(To be enclosed in **Cover - B**)

ANNEXURE - III

Price Bid

SCHEDULE FOR SUPPLY OF INDUCTIVELY COUPLED PLASMA MASS SPECTROMETER (ICP-MS) WITH ACCESSORIES

(The quantity indicated here in is subject to alternations and omissions and do not necessarily show the actual quantity to be supplied)

1. Name of the instrument required : “Supply of New Inductively Coupled Plasma Mass Spectrometer (ICP-MS)with accessories
2. Quantity required : 1 No
3. Places of Delivery :
4. Rate per unit (in Rupees or Foreign currency as the case may be)

	in Rupees (if quoted for Indian make)	in Foreign currencies (if quoted for foreign make)
i) Cost		
ii) Taxes		
iii) Freight		
iv) Insurance		
v) Others		
Total cost		

Note:

1. The rates should be both in figures and words. The supplies are to be effected within Tamilnadu and the exact location will be furnished at the time of delivery.
2. **The Board is eligible for customs duty** concession. Hence, for items which are to be supplied by import, tender should be furnished in foreign currency exclusive of customs duty.

Place:

Signature with Seal

Date:

Address:

(To be enclosed in **Cover –B**)

ANNEXURE – IV

**SPECIAL CONDITIONS OF TENDER FOR THE SUPPLY OF INDUCTIVELY COUPLED
PLASMA MASS SPECTROMETER (ICP-MS) WITH ACCESSORIES**

1. INSTALLATION

The rates quoted shall be inclusive of free delivery at the locations indicated by Tamil Nadu Pollution Control Board. The system shall be installed and brought into complete operation, at a chosen location and to the complete satisfaction, without any additional charges whatsoever.

2. PAYMENT

Payment will be made through Letter of credit for all imports against documents. For local supply payment will be made within 30 days after proper certification of bills by the officer in charge

3. WARRANTY

- (i) Comprehensive warranty for a minimum period of 3 years shall be given from the date of commissioning; and
- (ii) Service back up including commitment for the availability of the spares of the system for a minimum period of 10 years from the date of installation should be ensured. Also in case of equipment going out of production, at least 2 years advance notice should be given to enable, one time procurement of spares.

4. DELIVERY

The instrument should be supplied within 120 days from the date of confirmed order.

5. DELAY

Any delay in the installation and commissioning the equipment shall be the responsibility of the suppliers.

6. VALIDITY

The rates quoted shall be valid for a minimum period of 180 days from the date of opening of the Tenders.

7. TRAINING

Sufficient training to be provided to two scientists in each lab on software, operation, maintenance and troubleshooting aspects of instrument at its application laboratory in India at free of cost.

Place :

Signature with seal

Date :

Address

