

# TIRUCHIRAPPALLI – 15

# **Department of Chemistry**

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# Quotation Notification No.: NITT/F-NO:UG 001/PLAN 2013-14/CHY dated 04.07.13

Name of the Equipment	: Water Purification System
Quantity required	: 1
Delivery	:15 days
Last Date of submission of Tender	: 25.07.2013 upto 3.00 p.m.
Dept. Amount	: Not Applicable
Address for submission of Tender	: The Director National Institute of Technology Tiruchirappalli – 620 015, Tamil Nadu, India
With Kind Attention to	: The Head Department of Chemistry National Institute of Technology Tiruchirappalli – 620 015
Date of opening of technical bid	: 25.07.2013 at 3.30 p.m.



# **DEPARTMENT OF CHEMISTRY**

# Quotation Notification No.: NITT/F-NO:UG 001/PLAN 2013-14/CHY dated: 04.07.13

#### NOTICE INVITING QUOTATION

The National Institute of Technology, Tiruchirappalli (NITT) is an autonomous body under MHRD, GOI, imparting Technical Education and engaged in Research Activities. It is proposed to procure the following component for the departmental academic/research activities.

Sealed Quotations are invited for the following component subject to the following terms and conditions, from the reputed manufacturers or their authorized dealers so as to reach this office on or before scheduled date and time. The quotations will be opened on the same day in the presence of bidders or their authorized agents who may choose to be present.

Name of the Equipment		: Water Purification System
Quantity required		: 1
Time for completion of supply after p	placing purchase order	: 15 days
Last Date of submission of quotation	n	: 25.07.2013
Dept. Amount		: Not Applicable
Address for submission of Tender		: The Director National Institute of Technology Tiruchirappalli – 620 015, Tamil Nadu, India
With Kind Attention to		: The Head Department of Chemistry National Institute of Technology Tiruchirappalli – 620 015
Date of opening of technical bid		: 25.07.2013 at 3.30 p.m.
Place, Date and time of opening of bid		:
<u>Date:</u> 25.07.2013	<u>Time:</u> 3.30 p.m <u>V</u>	<u>/enue:</u> Store Section

**Note:** The Institute shall not be responsible for any postal delay about non-receipt / non delivery of the bids or due to wrong addressee.

#### **SECTION: 1 INSTRUCTION TO BIDDER**

1. The bidders should give details of their technical soundness and provide list of customers of previous supply of similar items to Universities, Institutes or Government Departments/Undertakings/public sectors with contact details. The details of the bidder/profile should be furnished along with the copy of all related documents.

#### 1.1 **Documents to be submitted in the Bid**:

- (i) Copy of licence certificate for manufacture/supply of the item.
- (ii) Income Tax PAN number
- (iii) Catalogue of the product with detailed product specifications
- (iv) Shelf-life of the chemicals offered for supply is to be specified.
- (v) EMD, if applicable by Demand Draft, drawn on any scheduled bank in favour of "*The Director, NIT, Trichy*" payable at Trichy should be submitted. EMD shall bear no interest. Any bid not accompanying with EMD is liable to be treated as non-responsive and rejected.
- 2. The agencies should submit their rate in Indian rupee as per the format given in Section 4 of the NoticeInviting tender. The rate should be quoted both in words and figures. All the pages of the bid should be signed affixing the seal. All corrections and overwriting should be initialed.

#### The bid cover should be duly superscribed with the following details.

(1) Quotation Notification Number (2) Quotation for the supply of ...... (3) Date of opening .....

Mention "Kind Attention: Contact's person's name and phone number", and submit at the address given in the quotation Notice.

- 3. The quotation will be acceptable only from the manufacturers or its authorized supplier.
- 4. The bid shall be in the format of price schedule given in Section 4. The contract form as per format given in section 5 shall be submitted. Incomplete or conditional quotation will be rejected.
- 5. Details of quantity and the specifications are mentioned in Section 3 appended to this quotation Notice.
- 6. The item to be used is strictly according to the specification and subject to test by the Institute/concerned authorities. It must be delivered and installed in good working condition.
- 7. The Institute reserves the right to cancel or reduce the quantity included in the schedule of requirements at any time after acceptance of the quotation with a notice. The Contractor/Supplier shall have no claim to any payment of compensation or otherwise whatsoever, on account of any profit or advantage which he might have derived from the execution of the work/supply in full but he did not derive in consequence of the foreclosure of the whole or part of the works.

- 8. 5% of the supply value will be retained by the Institute towards Performance Security and will be returned to the supplier after the period of warranty.
- 9. <u>Release of EMD</u>: The EMD shall be released after receipt of performance security from successful bidder.
- 10. <u>Validity of bids</u>: The rate quote should be valid for a minimum of 60 days. No claim for escalation of rate will be considered after opening the Quotation.
- 11. *Imports*: In case, goods are to be imported, the Indian agent should furnish authorization certificate by the principles abroad for submission of the bid in response to this Quotation Notice.
- 12. <u>Clarification of Quotation Document</u>: A prospective bidder requiring any clarification of the Quotation document may communicate to the contact person given in this notice inviting quotation.
- 13. <u>Amendment of quotation document:</u> At any time prior to the last date of receipt of bids, Institute may for any reason, whether at its own initiative or in response to a clarification requested by prospective bidder, modify the Quotation document by an amendment.
- 14. The Institute may at its own discretion extend the last date for the receipt of bids.
- 15. The bids shall be written in English language and any information printed in other language shall be accompanied by an English translation, in which case for the purpose of interpretation of the bid, the English translation shall govern.
- 16. The Institute reserves the right of accepting any bid other than the lowest or even rejecting all the bids. The decision of the Institute Purchase Committee is final in all matters of quotation and purchase.
- 17. The bidder should give the following declaration while submitting the Quotation.

#### **DECLARATION**

I/we have not tampered/modified the quotation forms in any manner. In case, if the same is found to be tampered/modified, I/we understand that my/our quotation will be summarily rejected and full Earnest Money Deposit (EMD) will be forfeited and I/we am/are liable to be banned from doing business with NIT, Trichy and /or prosecuted.

Signature of the Bidder	:
Name and Designation	:
Business Address	:

Place : Seal of the Bidder's Firm

18. Any other details required may be obtained from the contact person given in the notice inviting quotation during the office hours.

- 1. The rates should be quoted for FOR NIT, Trichy for supply within India.
- 2. In case of import both CIF and / or FOB rate should be quoted. All components of expenditure to arrive at Chennai need to be explicitly specified.
- 3. The bidder shall indicate the excise duty exemption for the goods if applicable
- 4. The Institute is eligible for customs duty and excise duty exemption.
- 5. The rate quoted should be on unit basis. Taxes and other charges should be quoted separately, considering exemptions if any.
- Rate quoted should be inclusive of Testing, commissioning and installation of equipment and training.
- 7. <u>Payment</u>: No advance payment will be made. Payment will be made only after the supply of the item in good and satisfactory condition and receipt of performance security by supplier. In case of imports, the payment will be made through LC after installation and performance security need to be submitted at the time of LC commitment.
- 8. Guarantee and Warrantee period should be specified for the complete period conforming to the section 3 of this quotation document.
- 9. Period required for the supply and installation of item should be specified conforming to the section 3 of this quotation document.

10. In case of dispute, the matter will be subject to Tiruchirappalli, Tamil Nadu Jurisdiction only.

# SECTION: 3 SCHEDULES OF REQUIREMENTS, SPECIFICATIONS AND ALLIED DETAILS

Name of the Equipment to be procured Specifications	: Water Purification System : List attached
Quantity	: 1
Any other details/requirement	<ul> <li>1. Certificate of Analysis (CoA) (Supplied along with quotation document)</li> <li>2. MSDS (Supplied along with Material)</li> </ul>
Warranty period required	: Not applicable
Delivery schedule expected after release of purchase order (in weeks)	: 15 days
EMD (in Rupees)	: 9,600/-
Performance Security to be given by Successful bidder after release of purchase order (in Rupees)	: Not applicable

## [To be used by the bidder for submission of the bid]

1.	Component Name	:
2.	Specifications (confirming to Section 3 of Quotation document-enclose	:
3.	additional sheets if necessary) Currency and Unit Price	:
4.	Quantity	:
5.	Item cost (in Indian Rupee) (SI.No.3 & SI.No.4)	:
6.	Taxes and other charges	:
	<ul> <li>(i) Specify the type of taxes and duties in percentages and also in figures</li> <li>(ii) Specify other charges in figures</li> </ul>	:
7.	Warranty period (confirming to the Section 3 of Quotation document. This should be mentioned in Technical bid also in order to get qualified for financial bid)	:
8.	Delivery Schedule (confirming to the Section 3 of Quotation document)	:
9.	Name and address of the firm for placing purchase order	:
10.	Name and address of Indian authorized agent (in case of imports only)	:
Sigi	nature of the Bidder :	
Name and Designation :		
Bus	iness Address :	

[ To be provided by the bidder in the business letter head ]

- 1. {Name of the Supplier's Firm) hereby abide to deliver the .....by the delivery schedule mentioned in the Section 3 quotation document for supply of the items if the purchase order is awarded.
- 2. The item will be supplied conforming to the specifications stated in the quotation document without any defect and deviations.
- 3. Warranty will be given for the period mentioned in the quotation document and service will be rendered to the satisfaction of NIT, Trichy during this period.

Signature of the Bidder	:	
Name and Designation	:	
Business Address	:	

Place :

Date :

Seal of the Bidder's Firm

## Technical Specifications for Water Purification System

TYPE II water purification system:

Type II System should be capable of producing more than 2 Megaohm resistivity with pretreatment cartridge, Reverse Osmosis, Electro Deionization with feed water acceptance of upto 2000micro Siemens conductivity, Fouling Index (SDI) < 12, Total Chlorine < 3 ppm and TOC <2000 ppb.

STAGE 1	* 3 Stage pretreatment filters	
PREFILTE	* 5 micron and 1 micron wrapped type depth filter, Activated carbon, Pump with	
R	unique temperature feed back mechanism	
STAGE 2	* High flux Thin film composite polyamide RO membrane with 94-99% rejection	
	* Recovery loop with capillary tube and diaphragm valve	
	* Conductivity cell after RO would provide the efficiency of the membrane in	
	rejecting the contaminants as well as the permeate water quality.	
	* Electro deionization module with auto regeneration by a weak electric current,	
STAGE 3	eliminating the need for chemical regeneration or replacement of DI resin cartridges	
	EDI (ElectroDeIonisation) module that should not require softening pre-treatment.	
	* Carbon beads at cathode of the EDI module to prevent scaling of the module	
	* Permeate divert valve which will divert low quality water to the drain .	
	* Coaxial resistivity cell with a flow through design and a cell constant of $0.01 \text{ cm}^{-1}$	
	*Display both compensated and non-compensated temperature accurate within	
	$\pm 0.1^{\circ}$ C.	
RESORVI		
OR	A blow molded, cylindrical PE reservoir.	
	Sensor rod float switch, programmed to have high and low level cutoff based on	
	water level in the tank	
	The tank should fill from the bottom	
	Should possess a tank vent filter made of soda lime, activated carbon and 0.22	
	micron hydrophobic membrane to trap contaminants present in atmospheric air.	

## Type I water purification system

Type I water should be produced from two stage mixed bed ion exchange and activated carbon cartridge, 185/254 nm dual wavelength UV lamp. and an option for final filter.

	Type II water should pass through feed water specific cartridge for removal of trace			
STAGE 5	contaminants.			
	* cartridge must attach to the water system without treaded fittings, screws, clamps,			
	or locking tabs.			
	* 17watt, low pressure mercury vapor lamp made of ultrapure quartz with dua			
wavelength (185 and 254nm). The lamp has an electro polished 316L SS				
	housing and will have 2 years of life.			
	* To prevent deterioration of water quality during periods of non-use, the ultrapure			
	water system will be able to recirculate water to maintain high water quality.			
	1. Dispensing height should be suitable to any glassware.			
	2. Volumetric dispensing from 0.5 L till 10L.			
	3. Multi colour monitor displaying : resistivity, level of water in reservior, volur			
	dispensed and other alarms.			

	* Final Filters Options : a) Pharmaceutical grade , final filter with 0.22micron			
STAGE 6	membrane filter in stack disc configuration			
	b) UF cartridge at the collection end with LRV is between 5.6 and 7.65 over			
	challenge range of 220 and 22000 Eu / mL .			
	c) VOC Pak to remove volatile organics.			
	d) LC pak very specific for trace organic applications.			
Pure (Type II) water:				
Resistivity				
TOC (ppb)	< 50			
	hr)5			

Bacteria	< 1 cfu/ml
Water Recovery	upto 18%
Silica Rejection	

# UltraPure (Type I) water:

Ultrapure Water (Type 1) Flow Rate (L/min)	upto 1.5 (Programmable flow rate)
Ultrapure Water Resistivity (M $\Omega$ ·cm at 25°C)	
Microorganisms (cfu/mL)	
Particulates < 0.22 μm ( / mL)	<1
Pyrogen Levels (EU/mL)	<0.001 [with UF]
RNase Level (ng/mL)	< 0.01 [with UF]
DNase Level (pg/µL)	
TOC (ppb)	<5 [with UV]