

**RAJENDRA MEMORIAL RESEARCH INSTITUTE OF MEDICAL SCIENCES
(INDIAN COUNCIL OF MEDICAL RESEARCH)
MINISTRY OF HEALTH & FAMILY WELFARE, GOVT. OF INDIA
AGAM KUAN, PATNA – 800 007.**

TENDER Notice No. Store/WTP/BM/08/1680 / 2016-17

Dated: 20-02-2017

TENDER NOTICE

EQUIPMENT FOR WATER TREATMENT PLANT

DATE OF ISSUE OF TENDER FORM WITH DOCUMENT : 22/02/2017 at 11:00 A.M.

**DATE & TIME FOR SUBMISSION OF TENDER DOCUMENT : From 22/02/2017 To
14/03/2017 up to 05:00 P.M.**

DATE & TIME FOR OPENING OF TECHNICAL BID : 16/03/2017 AT 03:00 P.M.

Administrative Officer

**RAJENDRA MEMORIAL RESEARCH INSTITUTE OF MEDICAL SCIENCES
(INDIAN COUNCIL OF MEDICAL RESEARCH)
AGAMKUAN, PATNA – 800 007
TENDER DOCUMENT**

TENDER Notice No. Store/WTP/BM/08/ 2016-17

Dated: 20-02-2017

Sealed Tender /Quotation(s) are invited for the equipment “Water Treatment Plant” in the premises of the institute RMRIMS, Patna. Tender forms can be downloaded from web site www.rmrim.org.in .

Sealed tenders, complete in all respects, signed with stamp of firm on each page including the tender form, should be submitted at Diary & Dispatch Section of this Institute. Tender will be opened by Tender Opening Committee and in presence of tenderers or their authorized representatives.

Important Instructions:

1. EMD in the form of Demand Draft/Pay Order of Rs. 50,000=00, in favour of Director, RMRIMS, Patna payable at SBI, Agamkuan, Patna (code-07878) from any scheduled bank. EMD in any other form will not be acceptable.
2. Tender evaluation will be done in two stages. i.e. (i) Technical bid (ii) Price bid. Each bid to be submitted in separate scaled envelopes super scribed as Technical bid & Price bid.
3. Technical bids will be opened on 16-03-2017 at 03.00 PM in the Institute premises. Tenderers/Bidders/or their representatives may present on the day of Tender opening date.
4. Financial bid of technically qualified parties will be opened in presence of parties after evaluation of technical bid so it will be informed to successful technical bidders on telephonically or through E-mail.
5. The terms and conditions, name of items with detail specifications can be downloaded from the website www.rmrim.org.in. Director, RMRIMS, Patna has the full and exclusive rights to cancel the tender or extend the last date of submission of tender without assigning any reasons at any time.
6. In case tender form is downloaded from web site, the tender has to enclose the cost of Tender Form as Demand Draft (Rs. 2000/-) drawn in favor of Director, RMRIMS, Patna along with the tender form besides the earnest money.
7. The last date of submission of tender/bid is 14.03.2017 (up to 5:00PM).
8. Interested firms/suppliers/manufacturers/agencies may obtain Tender Form on payment of Cash/Demand Draft of Rs. 2000/- (Rupees Two Thousand) only of any Nationalized/Scheduled Bank The purchase of Tender Form on cash payment can be made by depositing cash of Rs. 2000/- in our Cash Section of the Institute up to 14-03-2017 before 01:00 PM hours on any working day and receive Cash Receipt. The Tender Form will be issued by Store Section from 22.02.2107 on production of Cash Receipt, if desired so in person.

Documents to be attached with technical bid:

1. Earnest Money Deposit in the form of Demand Draft/Pay Order.
2. The Tenderers must attach self attested photocopies of latest and valid VAT/TIN registration certificate and proof of filing income tax return of last 3 years. Failure to submit the same will render the tender invalid automatically. However, Govt. of India/ State Govt. departments and

Public Sectors Undertakings (Central & State) are exempted from submitting VAT & income tax clearance certificates.

3. Pan Card: Submit the self attested copy.
4. Undertaking as per Annexure-I
5. Criminal liability undertaking as per Annexure-II.
6. Cost of Tender Form: DD/Pay Order (In case form is downloaded from website).
7. Declaration in case of manufacturer or Authorization letter in case of distribution ship/stockiest.

Technical Bid:

The firm should submit the technical bid a sealed cover separately super scribing the word “Technical Bid” mentioning tender number, Name of the item, Due date of opening and Name of the Tenderer.

Technical Bid should contain:

1. Only the name of items with specification makes/brands of the items.
2. Literature and catalogues in support of items quoted must be enclosed. **(Original Brochure)**
3. Performance certificate of equipments will be preferred.
4. Current authorization letter. All bidders must get a valid letter of authorization from the principal supplier or manufacturer.
5. Attested photocopy of latest valid License for stocklist and distributorship as applicable should be provided.

The committee constituted by the Director will technically evaluate the items on the basis of specification, make/brand quoted, literature enclosed, sample submitted, the authority from manufacturer for the item. The items accepted technically will only be considered for price evaluation (price bid). Price should not be quoted with technical bid otherwise the tender will be rejected without any correspondence.

Price Bid:

1. Should be submitted in a separate sealed envelope super scribing the word “Price Bid” mentioning tender number, Name of the item, Due date of opening and Name of the Tenderer.
2. The rate quoted should be inclusive of Excise Duty and Exclusive of VAT/Sales Tax and other incidental charges. The rates of VAT/Sales Tax (State & Central) chargeable may however, be given separately. No. VAT/Sales Tax or other charges will be payable if not mentioned in the tender or not applicable under the relevant laws. For imported items the quoted rate should be on FOB basis.
3. Bidder will quote firm rates. Rates should be according to a unit.
4. While quoting rates Sr.No. of Tender must be indicated and The rate should be quoted.

**Administrative officer
For Director**

The detailed technical specifications are as follows:

For 20KLD:

In order to conserve water, the treatment plant should ensure that treated effluent (water) characteristics are well below the permissible limits. It should propose to use Attached Growth System working on the principle of Fluidized Aerobic Bio-reactor process based on the FAB process.

Waste water will flow via gravity through a bar screen chamber & Oil & Grease Trap to an Equalization Tank. Waste water from the equalization tank will be transferred by means of Pumps into the FAB tank where it will be mixed with living organisms also called MLSS (Mixed Liquor Suspended Solids) in presence of air & air will be introduced through submerged air diffusers (MLSS in aeration tank will be maintained 2500-3000Mg/L).

After achieving a complete mixing of organisms over a retention period of 10-12 hrs, the effluent would flow via gravity into the Tube Settler. It is maintained in quiescent condition which allows the solids to settle to the bottom for collection. The accumulating solids known as "Sludge" to be constantly pumped back into the FAB tank by Sludge recycle pumps.

Treated water from tube settler will over flow into a chlorine contact tank where hypochlorite solution will be added to disinfect the treated water.

The Sewage Treatment Plant is based on the following Parameters:

1. Average Characteristics of Waste Water

Sl. No.	DISCRIPTION	VALUE
01	Nature of Wastewater	Sewage
02	Designed Capacity	20KLD
03	pH	6.5-7.5
04	Total Suspended Solids	100-300mg/l
05	B.O.D	200-250mg/l
06	C.O.D	300-450mg/l
07	Oil & Grease	50ppm Treated desired <10ppm

2. Waste Water Parameters – Feed & Treated:

<u>Description</u>	<u>Sewage/Feed</u>	<u>Treated / Desired</u>

pH	6.0-8.5	6.5-8.5
TSS	200ppm	<30ppm
Oil & Grease	50ppm	<10ppm
BOD	200-250ppm	<20ppm
COD	300-450ppm	<150ppm

3. Raw Water Analysis Parameters

Sl. No.	Constituents	Unit	Required parameters
1.	pH value (@ 25 degree C)	PPM	7.0
2.	Chlorides Ion	PPM	< 50
3.	Total Hardness (as CaCO ₃)	PPM	< 50
4.	Sulphuric Acid Ion	PPM	< 50
5.	Sulphide Ion	PPM	Should not be detected
6.	Silica in Ion State (as Silica SiO ₂)	PPM	< 30
7.	Total Iron	PPM	< 0.3
8.	Residual Free Chlorine	PPM	< 0.3
9.	Total Dissolved Solids	PPM	< 150
10.	Total Alkalinity (as CaCO ₃)	PPM	< 50
11.	Ammonium Ion	PPM	< 0.2

4. Treatment:

- a. **Preliminary:** Collection channel with bar screen placement – oil separation Pit.
- b. **Biological & Tertiary Treatment:**

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- Prefabricated module in FRP construction for anaerobic reactor – Aeration Tank – IJ with accessories – Filter Feed Tank, Sand Media Filter Unit.

c. SLUDGE Handling:

- Civil construction for sludge drying beds (brick works, above ground).
- **Details for treatment:**
- Mesh Bar Screen – 0.5m×0.5m
- Aeration Tank (Horizontal): 9.0KL
- Sedimentation Tank (Horizontal): 3.0KL
- Filter Feed Tank (Horizontal): 5.0KL
- PP biomedica
- Airblower with Accessories – 40cu.m/hr, 0.3Kg/cm² pressure
- Sludge recirculation pump – 3cu.m/hr
- Control panel & Instruments
- Pipes & Fittings – Piping – UPVC/MS
Fitting – UPVC/MS

5. Filter and Tanks:

- Filter Feed Pump (3cu.m/hr, centrifugal)
- Sand Media Filter Unit (Pressure 2.0 – 3.0Kg/cm²)
- Activated Carbon Filter Unit: (OPT Pressure – 2.0-3.5Kg/cm², Filter Media – Pebbles & Activated Carbon, Piping – UPVC)
- Disinfection System: (Dosing Pump-Aquanomics/E-dose/UKL/Eql.

Water Filter:

- a. Water filter shall be dual media pressure filter / activated carbon filter suitable for a rate filtration given in bill of Quantities. The design fabrication and construction shall confirm to the requirement of IS:2825.
- b. Filter shall be vertical type skid mounted of required diameter. The shell shall be fabricated from M. S. Plates conforming to IS:2041 suitable to withstand as design pressure given bill of quantities. The minimum thickness of shell shall be 6mm and dished ends shall be 6mm which shall include corrosion allowance and mill allowance respectively.
- c. **Under drain system:**
Each filter shall be provided with an efficient under drain system comprising of collecting pipes, polypropylene nozzle's of manufacturer design. The entire under drain system shall be supported on M.S. plate or cement concrete supports provided by the contractor.
- d. **Face piping:**
Each filter shall be provided within interconnecting face piping comprising of inlet, outlet and back wash complete with valves.

- e. Each filter shall be provided with clean and washed filter media type and depths as recommended by the manufacturer.
- f. Back Wash:**
Backwash flow rate shall be 400 gallons/hr./sq.ft. which shall be achieved by reversal of flow from water supply pumps through the pressure filter. Backwash shall be done once in 48 hours subject to the recommendations of manufacturer.
- g. Piping of water treatment Plant :**
 - a. Pipes shall be M.S. galvanised steel conforming to IS:1239 (medium class) with matching malleable cast iron fittings.
 - b. Valves 65 mm dia and below shall be lever operated Ball valves, screwed type ofg bronze body as per IS:318 with SS ball and SS stem with mild steel lever.
 - c. Non-return valve 65mm and below shall be gunmetal confirming to IS:778.
 - d. Valves 80mm dia and above shall be cast iron lever operated butterfly valve.
 - e. Non-return valve 80mm dia and above shall be cast iron double flanged to IS:5312.
- h. Flow Measurement:**
 - A. The contractor shall provide one bye-pass type Rota meter reading LPH on delievery line of filter and softner.
- i. Cables:**
 - a. Contractor shall provide all power and control cables from motor control center to various motors, level controllers and other control devices.
 - b. All power cable shall be aluminium conductor PVC insulated/PVC sheathed FRLS armoured cables of 1100 volts grade.
 - c. All control and wiring cables shall be copper conductor PVC insulated armoured and PVC sheathed 600 volt grade.

Scope of work:

The scope of work in this subhead shall consist of furnishing all labour, materials, equipment and appliances necessary and required to completely do all work relating to the supply, installation, testing & commissioning of water pumping and water treatment as described hereinafter and shown on the drawings.

The work shall include the following:

Supply, installation, testing & commissioning of

- a. Water supply pumps and drainage pumping system.
- b. Water filtration system.
- c. Electrical works related with water supply pumps & water treatment plant.
- d. Painting of equipment and placing in position at site.
- e. Foundation of equipments as required.

Administrative Officer

For Director

Terms and Conditions:

1. Contractor must submit with the tender a list of similar jobs carried out by him in the last five years along with the name of works, name and address of clients, year of execution, capacity of plant and value of work.
2. Contractor shall submit along with the tender copies of detailed specifications, cuts, leaflets, and other technical literature of equipment and accessories offered by him.
3. Work under this contract does not include the following work:
 - a. Electrical cables up to incoming motor control center.
4. Contractor must visit the site familiarize himself with above problems to ensure that the equipment offered by him are of dimensions that they can be carried and placed in position without any difficulty.
5. All materials shall be new and of best quality conforming to specifications and subject to the approval of engineer.
6. The contractor shall submit detailed shop drawings showing detailed layout of the system showing dia piping , valves etc. For approval of the engineer. The work shall be started only after approval.
7. On award of the work contractor shall submit a guarantee covering the quality and performance of all materials supplied and installed under the contract. This guarantee shall cover each and every material whether manufactured by the contractor or not.
8. The guarantee shall cover a period of two year from the date of installation and handling over including spares and commissioning of plant. After 24 months the firm will provide maintainance service free of cost for another 36 months and Institute will pay only for spares and accessories. After 5 years, the firm has to provide AMC for the minimum period of 5 years (the cost not more than10% of the total cost of the equipment). This undertaking has to be submitted after installation along with bills. Firms violating the warranty are liable for processing of blacklisting.
9. Soft copy in the form of CD for Technical & Price Bid separately must be supplied with hard copy.
10. Any cutting or overwriting in typed tender must be signed by Tenderer otherwise it will not be considered.
11. Each & every page of tender must numbered and signed along with seal of the form.
12. Security Deposit:
 - a. Should submit Bank guarantee from Nationalized bank of 7.5 % of the cost of the equipment indemnifying the RMRIMS against all loses incurred by RMRIMS during the gurantee period(i.e. 24 months from the date of installation)
 - b. Security deposit /EMD is liable to be forfeited if the Tenderer fails to supply the stores and fails to provide the comprehensive warranty for Plant.
 - c. EMD shall be released to unsuccessfull bidders after completion of tender process, subject compliance to all other terms & conditions.

Terms and Condition of the Supply Order:

1. The delivery is to made to concerned store as mentioned in supply order.
2. Supplies has to made within 30 days from date of supply order, failing which a penalty will be imposed as per rule or cancellation of the order and earnest money will be forfeited.
3. In exceptional circumstances and on written request, the extension of date of supply may be considered at the discretion of Director.
4. For important item the delivery period shall be upto 90 days.
5. Penalty Clause:
 - a. For delayed supply: A penalty of 2% a value of order/week will be imposed subject to maximum of 10% of the value of the order.
 - b. For non-supply: EMD will be forfeited and necessary action will be taken.
 - c. A supplier must ensured that the challan with no. and dates will be submitted to store along with the supplies.
 - d. Triplicate bills duly, pre-receipted on revenue stamp affix to be submitted in the name of Director in Store.
 - e. The bill should be in printed form with bill no., VAT/TIN No. as well as D.L. No. (where as applicable).
 - f. All rejected stores will be at risk of supplier and must be removed immediately.
 - g. In case it is a computer generated bill, it must have the seal of the firm affixed on it.

Payments:

Payments will be made only after receipt of items in good conditions as per specification against the orders after satisfactory inspection, demonstration and functioning. No advance payment is to be made.

Exclusive Right of Director:

Director, RMRIMS, Patna has the full and exclusive right to accept or reject any or all the tenders without assigning reasons. No enquiries, verbal or written shall be entertained in respect of acceptance/ rejection of the tender.

Administrative Officer

For Director

RAJENDRA MEMORIAL RESEARCH INSTITUTE OF MEDICAL SCIENCES

(INDIAN COUNCIL OF MEDICAL RESEARCH)

AGAMKUAN, PATNA – 800 007

TO BE SUBMITTED ON A NON-JUDICIAL PAPER OF Rs-100-)

1. I, undersigned certify that I have gone through the terms and conditions mentioned in the tender document and undertake to comply with them
2. The rates quoted by me are valid and binding on me during the period of validity of the tender.
3. I, the undersigned hereby bind myself to the Director, RMRIMS, Patna, for supply of Water treatment plant for use in RMRIMS, Patna during the period of tender.
4. The items supplied by me, would be the best quality and as per specifications.
5. The earnest money deposited by me, may be retained till the validity of the tender.
6. Security deposit/ bank guarantee will be deposited by me and the same may be retained till the warranty/guarantee period.
7. If the RMRIMS authorities think it is necessary to change any item/ items supplied by me found to be defective/ inferior quality the same will be replaced by me at no extra cost.
8. Warranty/guarantee as asked for in the tender form is acceptable to us, if any item supplied by me is found to be defective and beyond repair during the guarantee period is found to be defective and beyond repair during the guarantee period, the same shall be replaced by me at no extra cost.
9. I, hereby undertake to recoup any loss/ damages caused to health/life of patient or loss caused to the hospital authority through the use of defective materials supplied by me.
10. I, hereby undertake to pay penalty as per terms and condition for delayed supplies.
11. I, agree to accept the bill to be paid by the purchaser after completion of all codal formalities and should any amount of bill found to be overpaid, the amount shall be refunded by me/us.
12. There is no vigilance/ CBI or court case pending against the firm.
13. The decision of the Director, RMRIMS, Patna will be final and binding upon me.

Place -----

Signature of Bidder

Name of Bidder

With seal of firm

Affirmation

I pledged and solemnly affirm that the information submitted in tender document is true to the best of my knowledge and belief. I further pledge and solemnly affirm that nothing has been concealed by me and if anything adverse comes to the notice of purchaser during the validity of the tender period Director, RMRIMS, Patna will have full authority to took appropriate action as he/she may deem fit.

Signature of Bidder

(Name of Bidder)

With seal of firm

Place... ..

Date... ..

CRIMINAL LIABILITY UNDERTAKING ON Rs. 10/- AFFIDAVIT.

I... .. S/o... .. Resident
of
... .. do solemnly

Pledge and affirm:-

- 1. That I am the proprietor/partner/authorized signatory of
M/S
- 2. That my firm has not been declared defaulter by any govt. agency and that no case of any
nature i.e CBI, Criminal/Income Tax/Sales Tax/ Blacklisting is pending against my firm.

Name

Signature

Rubber Stamp

Affirmation/Verification