



**NATIONAL INSTITUTE FOR EMPOWERMENT OF PERSONS  
WITH MULTIPLE DISABILITIES**

*(Dept. of Empowerment of Persons with Disabilities)*

*(Ministry of Social Justice and Empowerment, Govt of India)*

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**NOTICE INVITING e-tender**

**NIT NO: NIEPMD/ESTATE 6(12)/2016-17**

Name of work: **Annual Comprehensive Maintenance of Contract for Operation and Maintenance of 100 M<sup>3</sup>/day capacity of Sewage Treatment Plant (STP) MBBR/FBBR - at NIEPMD Campus, Muttukadu, Chennai-112**

Estimated cost: **Rs.13, 00,000/-**

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Certified that this e - NIT contains 1 to 10 Pages. (Schedule of Quantity hosted separately)

**The Director, NIEPMD  
Muttukadu, Chennai-112**

**INFORMATION AND INSTRUCTIONS FOR CONTRACTORS FOR e-TENDERING FORMING PART OF  
NIT AND TO BE POSTED ON WEBSITE**

(Applicable for inviting tenders on two bid system)

The **Director NIEPMD, chennai** on behalf chairman, Executive council of Dept. of Empowerment of Persons with Disabilities, MSJ & E, and GOI invites online tender from the Registered CPWD/PWD/MES and other Government Organization Agencies.

<b>S.No.</b>	<b>Particulars</b>	<b>Particulars</b>
1	NIT No.	<b>NIEPMD/ESTATE 6(12)/2016-17</b>
2	Name of work & Location	<b>Annual Comprehensive Maintenance of Contract for Operation and Maintenance of 100 M<sup>3</sup>/day capacity of Sewage Treatment Plant (STP) MBBR/FBBR - at NIEPMD Campus, Muttukadu, Chennai-112.</b>
3	Estimated cost put to tender (In Rs.)	<b>Rs. 13,00,000/-</b>
4	Earnest money (In Rs.)	<b>Rs. 26,000.00/-</b>
5	Period of Contract	<b>Twelve Months</b>
6	Last date & time of online submission of eligibility criteria, and Financial bids	<b>Up to 15:00 Hrs. on 07.08.2017</b>
7	Time & date of opening of eligibility bid.	<b>15:30 Hrs. on 08.08.2017 (online)</b>

**Information and Conditions relating to Submission of Bids.**

1. The initial period of contract shall be for 12 months may be extended by another 12 months depending on performance of the Agency and at discretion of the tender accepting authority.
2. The interested agencies are required to go through all the terms and conditions and the scope of works mentioned in this tender.
3. All the pages of the tender should be signed by the owner of the firm or his Authorized signatory. In case the tenders are signed by the Authorized signatory, a copy of the power of attorney/authorization may be enclosed along with tender.
4. A copy of the terms and conditions shall be signed on each page and submitted with the technical bid as token of acceptance of terms and conditions.
5. **Submission of bid:** The tender documents should be uploaded through NIC e-Procurements URL <http://eprocure.gov.in/eprocure/app> Up to 07.08.2017 (1500 hrs.), containing following:
  - (i) **Earnest money deposit (EMD) & Tender fee:** the agency shall deposit EMD amount Rs.26, 000/- (Rupees Twenty six Thousand only) and Rs.1, 000 (one thousand only) as tender fee, through e-payment should be paid online through NEFT/RTGS/ in NIEPMD account and payment receipt to be uploaded with the technical bid. Technical bids without EMD and tender fee (Rs.1, 000)
    - NIEPMD Bank details:**
      - A/C No.761297290**
      - Type of Account: Saving Bank**
      - Name of the bank: Indian Bank, Kovalam branch**
      - IFS code: IDIB000K122**
      - Branch code: 01176**
    - Note:** please ensure that you need to mention the correct beneficiary account number and IFSC code as mentioned above while making payment via RTGS/NEFT. In the event of funds remitted to wrong beneficiary account number, NIEPMD, Chennai or its bank would not responsible for the same.
6. **Opening of bid:** bid shall be opened on the 08.08.2017 (15:30 hrs).
7. **Bid validity:** bid shall remain valid for a period of 90 days from the date of opening of bid.
8. **Bid evaluation:** duly filled price bid shall be evaluated on lowest tender basis.
9. The tender submitted by any other means except NIC e-procurement portal, will not be entertained under any circumstances.
10. The list of technically qualified bidder will be published on the notice board/ web site of NIEPMD.
11. The financial bids of technically qualified bidder only will be opened. On the same day or time of opening will be intimated after evaluation of technical bid.

## **12. Tender submission process**

Interested Agencies may submit their quotes in **two bid system (i) Technical bid & (ii) Financial bid** by giving all the necessary documents in English as specified. The Tender must be submitted only online through central public procurement portal e-procurement application only through URL: <http://eprocure.gov.in/eprocure/app> No manual bids will be entertained under any circumstances.

The tender document attached must be direct, concise, and complete and arranged in an organized and structured manner.

To participate in online bidding process, bidder must procure a digital signature certificate as per information technology Act-2000 using which they can digitally sign and encrypt their electronic bids. Bidder can procure the same from any CCA approved certifying agency, i.e. TCS, safecrypt, Ncode. eMudhra etc. bidders who already have a valid digital signature certificate (DSC) need not procure a new DSC.

13. Information and instructions for bidders posted on website shall form part of bid document.
14. The bid documents consisting scope of work, specifications, the schedule of quantities of various types of items to be executed and the set of terms and conditions of the contract to be complied with and other necessary documents can be seen and downloaded from website [www.eprocure.gov.in](http://www.eprocure.gov.in) or [www.niepmid.tn.nic.in](http://www.niepmid.tn.nic.in)
15. Those contractor not registered in the website mentioned above, are required to get registered beforehand. If needed they can be imparted training on online bidding process as per details available on the site.
16. The intending bidder must have valid digital signature to submit the bid.
17. On opening date, the contractor can login and see the bid opening process. After opening of bids he will receive the competitor bid sheets.
18. Contractor can upload documents in the form of JPG format and PDF format.
19. The eligibility bid shall be opened first on due date and time mentioned above. The time and date of opening of the financial bid of contractors qualifying in the eligibility bid shall be communicated to them at a later date.
20. The department reserves the right to reject any prospective application without assigning any reason and to restrict the list of qualified contractors to any number deemed suitable by it, if too many bids are received satisfying the laid down criterion.

### **Eligibility & List of documents to be scanned and uploaded with in the period of bid submission:-**

- i. Valid Contract Registration with CPWD/ state PWD/ MES registered with Civil Engg Works/water supply & sewage disposal works
- ii. Certificate of Registration for service Tax/VAT
- iii. Receipt of EMD and Tender fee payment copy
- iv. Copy of Reg of EPFO / ESIC as Applicable

## General term and Conditions

### **BRIEF PARTICULARS OF WORK**

1. The work is estimated to cost Rs.13, 00,000/Estimate, however, is given nearly as a rough guide. Brief specification to be complied with and the various operations and maintenance activities to be carried out are indicated in the specification for compliance by the contractor
  - I) An Inventory of all civil works, mechanical, electrical, electronic equipment's and other instructions provided in the STP needs to be maintained.
  - II) Operation and maintenance for the STP including preventive maintenance schedule for each equipment. A step by step operation instruction shall be prepared and included in this operation and maintenance manual. The maintenance manual shall provide trouble shooting charts for each equipment, list of essential spares to be stocked for each equipment. One copy of this step operational procedure and a list of preventive maintenance schedule activities for each equipment shall be laminated & displayed in STP for guidance to operators.
  - III) Three sets of flow diagram showing all hydraulic levels, layout plan drawings of the treatment plant has to be prepared showing all treatment units, inter connecting pipe lines with sizes and their routing below ground level and roads and pathways marked in plan together with a brief write up explaining the treatment process. One set of these drawings have to be laminated and mounted on 12 mm thick ply wood board and displayed in Treatment plant in office room.

### **2. Functions and responsibilities of the contractor.**

The contractor has the prime responsibility of efficiently operating and maintaining sewage treatment plant (STP) to conform to quality requirements shown below –

1	PH	6.5 to 8.0
2	Total Suspended solid	Below 30 mg/l
3	BOD	Below 20 mg/l
4	Oil & grease	Below 10 mg/l
5	Detergents	Nil
6	Odour	Not objectionable

To ensure the same the contractor has to organize and carry out the operation and maintenance works in a professional manner using best quality of treatment chemicals and deploying well-trained staff.

3. It is responsibility of the contractor to provide necessary supervisory staff and security staff to prevent entry of unauthorized persons and to ensure security of the STP and the plant and machinery against theft and other losses. The contractor should enclose the names of staff to be employed with qualification certificates, experience certificate and their passport size photographs affixing their signature. The staff to be employed shall be responsible for discharging treatment effluents for redistribution. The contractor is expected to employ reliable persons whose antecedents are properly verified.

4. The contractor has to organize training course in the STP site for all his staff. The course content shall include brief introduction the Technologies of waste water treatment and recycling the water, disinfection, preparation of chemical solution of required concentration and dosage, functioning of aeration tanks, operation and maintenance of aeration equipments air blowers, submersible pump sets, safety measures to be followed in sewage treatment plants, safety in handling machinery, and electrical equipments, maintenance of log books, preventive maintenance works to be carried out for major equipments etc. The training shall be conducted in the presence of Engineer in charge of NIEPMD
5. STP has to be manned and operated round the clock with approved personnel in three shifts at eight hours working for each shift throughout the year.
6. The contractor should exhibit a duty chart in the plant office the persons on duty in each shift.
7. Operation of the STP has to be carried out as per the recommended procedure for each unit treatment process detailed operation and maintenance manual for the sewage treatment plant offered by him.
8. Preventive maintenance scheduled works have to be meticulously carried out at correct time intervals for all equipment.
9. Minor and major repairs to equipments installed in the STP have to be carried out by the contractor during the O&M period of 1 year & any repairs to the pipe lines have to be, attended by the contractor. All such activities including spare parts changed for each equipment shall be documented in log books for each equipment as comprehensive tender contractor will be fully responsible for procurement/ installation/ replacing /repairing of all spare parts/ STP plant equipments and ensure the spares/equipment installed/ replaced all only branded and original spares. The log book of same is maintained. Wherever such replacement/repair/installation is carried out the same should be done in the presence of engineering in-charge or his authorized persons and guard certified.
10. The contractor has to operate and maintain the plant as recommended in the manual and maintain proper logs and records of the work carried out daily in each of the three shifts.
11. Contractor has to properly maintain all pump sets, liquid level control switches; all control valves and other on line instrumentation in good working condition.
12. The contractor has to keep and maintain all units of the treatment plant and its surroundings neat, clean and tidy.
13. The contractor shall maintain separate Log registers showing the following details. All the following registers shall be maintained by the head of the operating staff to be named by the contractor in writing to Engineer In- charge

- i) Register showing the timings of operation of each plant machinery, all sewage and sludge pump-sets, aeration motors, backwashing of filters, submersible mixers, internal recycling pump-sets, chemical metering pump-sets, disinfection pump-sets, etc;
  - ii) Separate registers showing the works done on preventive maintenance for each equipment should be maintained.
  - iii) A separate register showing details of each occurrence of all break downs of equipments, date and time of occurrence of break down, reasons for break down, action taken to set right and date and time of restoration of the equipment back to normal working shall be maintained by the contractor. An attendance register shall be maintained where in all personnel working in each shift shall sign.
  - iv) A separate register shall be maintained in which the daily consumption of each chemical used for treatment and disinfection of the waste water shall be recorded correctly showing the KG of each chemical used or liters of chemical solution used.  
Other registers required to be maintained as stipulated by the State Government Regulations with regard to the labour regulations, payment of EPF, ESI, safety of workmen, accidents register etc shall also be maintained by the contractor
  - v) Mandatory regulations prescribed by the Government shall be followed by the contractor regarding labour and safety clauses which are already furnished in the tender, without any lapse, including those conditions, amended by GOI/State Govt/NIEPMD periodically.
  - vi) The contractor should provide uniform, identification badges to all the staff and they should wear during working hours.
  - vii) The contractor should ensure the treated effluent quality to be always conforming to the standard prescribed in the tender
  - viii) Tools and tackles for the operation and maintenance should be provided by the Contractor.
  - ix) All equipment, tools and plants supplied by the NIEPMD If any, should be kept in good working condition and these should not be taken out of the premises without the written permission of the Engineer - in - charge.
  - x) Contractor shall provide a Notice board detailing precautions to be taken by operation personnel in work conformity with Industries and labour regulations.
  - xi) The materials should be properly stocked for easy verification and easily accessible for receiving and storing the fresh stock whenever they are supplied at site.
  - xii) Printing of registers, log sheets and stationery required for the maintenance of records has to be arranged by the contractor at his cost.
  - xiii) The contractor has to maintain basic cost records for all the direct and indirect expenditure and overheads on regular basis as prescribed by Engineer - in - charge.
14. On completion of the maintenance period, the, treatment plant has to be handed over to the NIEPMD in good running condition. At the time of taking over by NIEPMD all the equipment and accessories in the treatment plant will be inspected and if any defects are noticed, the same will have to be rectified to the original running condition and only after which the unit will be taken over.

15. The contractor should ensure that the team of operational staff would be available to operate the plant and equipments continuously even after completion of the Contract period till such time required by NIEPMD on payment for the same.
16. The contractor shall be responsible for the safety of all the plant equipment and entire plant.
17. To carry out the daily /periodical lubrication and checking oil levels and changing oils periodically etc., for smooth uninterrupted rolling of units, the necessary lubricants, grease, water etc., have to be supplied by the successful Tenderer /contractor and the cost for the same has to be included in the tender cost.
18. Periodical cleaning/brushing of launders, channels, walkways etc., at all the units of the plant will be carried out by the contractor and the entire plant premises shall be kept neat and clean. The contractor should attend to the general cleaning of the plant premises by sweeping, dusting and removal of the screenings, grit and excess sludge etc.
20. The contractor has to abide by various statutory acts of Union /Tamilnadu State Government regarding facilities to be provided to the workmen, labour, staff employed under minimum wages act, workmen compensation act, factories act, ESI, PF ETC. the contractor will be fully responsible for his employees deployed at the STP- NIEPMD/ tender accepting authority/ Engineering In-charge NIEPMD/ authorized persons of NIEPMD will not be responsible for any of the lose/damages/ accident/ accidental death etc.. what so ever
21. Sampling and testing of the influent and treated effluent:  
The contractor shall submit fortnight test report from approved laboratory for parameters of concerned to confirm the performance of STP in accordance to the tender.
22. Quantity of influent and treated effluent to be recorded in each shift:  
Contractor shall maintain a daily record of total wastewater inflow, total treated wastewater recycled and the quantity of wastewater discharged.



**24. Preventive Maintenance Schedules:**

- i) For all electrical motors, pumps, air blowers, diffused air membrane aeration system or any other mode of aeration system deployed, sluice valves, Motorized control center, transponders if any, chlorinating device and all other electrical and mechanical equipments, fixtures and fittings shall be subjected to preventive maintenance and for this a Computerized Planned Preventive Maintenance Schedule shall be got prepared by the Contractor and got approved by the Engineer-in-charge NIEPMD Chennai or the consultant of NIEPMD Chennai which shall be systematically practiced and implemented by the Contractor. All such preventive maintenance schedules carried out shall be entered in the computer file and also hard copies shall be submitted to the engineer-in-charge every month. A list of chemicals used per day and total chemicals used per month shall be supplied to the Engineer-in-charge NIEPMD CHENNAI in the form of a spread sheet statement and the data recorded in computer file.
- ii) A statement showing all the actual hours of working of all electrical motors and the energy consumed for each motor and the total energy consumed per month shall be supplied to the Engineer-in-charge NIEPMD CHENNAI.
- iii) A monthly spread sheet statement shall be submitted by the contractor showing the daily quantum of treated effluent supplied per day from the Sewage Treatment Plant to the Land. This data shall also be stored in computer file. The contractor shall take prior approval of Engineer-in-charge in writing for providing any damaged spare part for any equipment. An inventory of preventive maintenance and breakdown maintenance works carried out which necessitated changing of spare parts for any equipment shall be supplied every month by the contractor to the engineer-in-charge.
- iv) All necessary materials for the smooth operation of the plant and carrying out all maintenance works shall be provided by the contractor. At no time the running of plant or other works such as cleaning, lubrication, lighting etc., should be hampered for want of materials.
- v) Contractor has to maintain along with other data, finger print tests for daily routine operation. The contractor shall also submit fortnightly test report from approved laboratory and or authorized testing lab for parameters of concerned to confirm the performance of STP in accordance to the tender.
- vi) Malperformance of STP shall result in levy of penalty. On such events the Contractor shall furnish a written explanation furnishing the causes and corrective measures taken to restore satisfactory performance of the plant. Such reports shall also be computerized and a hard copy submitted to the engineer-in charge. NIEPMD CHENNAI may arrange for inspection of plant by an expert in wastewater treatment if need be to avoid such incidents and cost there of shall be recovered in monthly bill payable to Contractor.

**25. Penalty and Liquidated Damages:**

- a) Penalty of Rs. 1,000/- per test will be deducted from the bill, if the monthly sample is found not conforming to specified parameters on testing from any lab approved by NIEPMD. The contractor is not permitted to choose the laboratory.
- b) A penalty of Rs. 3,000/- per month will be deducted from the bill for the months when test Certificate from lab approved by NIEPMD is not submitted.
- c) A penalty of Rs. 4,000/- per month will be deducted from the bill for non-visit of Engineer in that month. Engineer to visit at the site at least once a month.
- d) A penalty of Rs. 400/- per 8 hours shift will be deducted from the bill for each day when the helper is not provided.
- e) A penalty of Rs. 600/- per 8 hours shift will be deducted from the bill for each day when the skilled Operator is not provided.
- f) A penalty of Rs. 500/- per hour will be deducted from the bill for non-working or unsatisfactory-working of the plant due to contractor's mistake.

**/CONTRACTOR/**

**The Director, NIEPMD  
Muttukadu, Chennai-112**

**Check list for Tender**

The technically bid shall be summarized rejected, if this document is not uploaded.

<b>S.No</b>	<b>Particular</b>	<b>Yes or No</b>
1.	Receipt of tender fee amount for Rs.1000 (one thousand only) ( non-refundable)	
2.	Receipt of EMD amount of Rs.26,000 (Twenty six thousand only)	
3.	Valid Contract Registration with CPWD/ state PWD/ MES registered with Civil Engg Works/water supply & sewage disposal works	
4.	EPF&ESI registration copy	
5.	Certificate of Registration for service Tax /VAT	

