

Issued to:

NATIONAL CENTRE FOR BIOLOGICAL SCIENCES



**Annual Maintenance Contract for STP & Water Supply Systems at
NCBS, CCamp, Instem and CB Campus for the year 2016-2017**

TENDER DOCUMENT

PRICE BID

(PART – II)

**SCIENTIFIC & ENGINEERING SERVICES
2016**

Tender Notice No: NCBS/Maint(Civil)/264(h)/NIT-53/2016 dated 18/10/2016



NATIONAL CENTRE FOR BIOLOGICAL SCIENCES

Tata Institute of Fundamental Research
GKVK Campus, Bellary Road, Bangalore - 560 065.
Phone: 23666352 Fax: 23636662

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Tender Notice Number: NCBS/Maint(Civil)/264(h)/NIT-53/2016 dated 18/10/2016

1. NAME OF THE WORK : Annual Maintenance Contract for STP & Water Supply Systems at NCBS, CCamp, Instem and CB campus for the year 2016-2017
2. ESTIMATE VALUE PUT TO TENDER : Rs. 27.05 Lakhs
3. EARNEST MONEY DEPOSIT : Rs. 54,100/-
4. COST OF TENDER DOCUMENT : Rs. 500/-
5. SALE PERIOD : 21/10/2016 to 03/11/2016
6. TIME & DUE DATE OF RECEIPT : Up to 15:00 Hrs On: 09/11/2016
7. TIME & DATE OF OPENING : After 15:30 Hrs On: 09/11/2016

SOLD TO: _____ RECEIPT NO: _____

DATE: _____ FOR A SUM OF Rs. _____ TOWARDS
_____ THE COST OF TENDER DOCUMENT.

SIGNATURE OF ISSUING OFFICER:

DESIGNATION:

Important Note: All bidders are requested to attend the Pre bid meeting on 04/11/2016 at 15:30 Hrs. in the office of the Head-S&ES, NCBS.





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GENERAL ABSTRACT

Schedule – 1

A. Part – I - Rs. _____

B. Part – II - Rs. _____

Grand Total Amount - Rs. _____

Amount in Words :

(Rupees

.....

..... Only)

Date:

Place:

Signature of Tenderer





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NCBS, CCamp, Instem and CB Campus for the year 2016-2017**

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Name of work:- Annual Maintenance Contract for Maintenance of STP & Water supply systems at NCBS, CCAMP and CB-Campus for the year 2016-2017.

Schedule - I

| S.No | Description of the items | Unit | Qty | Rate | Amount |
|-----------|---|------|-----|----------------------|----------------------|
| | | | | In Figure & In words | In Figure & In words |
| A. | Part - I: | | | | |
| 1 | Compensation for arranging suitable working mechanisms for carrying out the operation and maintenance of water supply networks and STP including operation of valve and pumping water from 4 lakh to various OHT in different blocks, labs, housing, Animal house on daily basis. collection well operation and maintenance of pumps and related equipments in 2 shifts pertaining to water supply and STP at NCBS campus and CB-campus at yelahanka. | | | | |
| | Operation of pumps, filters rotors, aerators etc., pertaining to STP and collection well and settling tank, sludge pumps including collection wells at basement of admin block and collection well at library, operation of following pumps for 2 shifts/days each of 8 hours duration, complete as directed by Engineer-In-Charge as detailed in ANNEXURE 1. | | | | |
| | Rate shall be inclusive of Pumping of Raw sludge from Collection well at NCBS to Collection well of MBBR at Instem | | | | |
| | Rate shall be inclusive of ESI,PF,ELI,Bonus, other amenities like providing yearly shoes, uniforms etc,. And this shall be documented and department certification must be taken before processing monthly bills. The contractor has to note that rate shall be inclusive of all and no extra payment will be made. | | | | |
| | a).Item shall be inclusive of working mechanism to receive water from BWSSB time to time. | | | | |
| | b) Item shall be inclusive of maintenance of sewer line conduits, manholes, Grit/oil chambers. Agency shall note that maintenance of sewer line includes clearing of blockages mechanically, periodical cleaning of chambers etc,..extra payment for Such work will not be considered. | | | | |



| S.No | Description of the items | Unit | Qty | Rate | Amount |
|-------------------------------------|---|-------|-------|----------------------|----------------------|
| | | | | In Figure & In words | In Figure & In words |
| | Note - Bill will be paid after submission of ESI & PF details for the workers. | | | | |
| | Highly Skilled - 09:00AM to 05:30PM - General shift for all campuses | | | | |
| | Skilled | | | | |
| | Shift 06:00AM to 02:00PM - 2 No's | | | | |
| | Shift 02:00PM to 10:00PM - 2 No's | | | | |
| | Shift 10:00PM to 06:00AM (Night shift for all campus)-1No. | | | | |
| | FOR MANDARA campus STP and Water supply Skilled Operator-1no | | | | |
| | For Weekly off - Rotation purpose - 1No | | | | |
| | Un Skilled | | | | |
| | Shift 10:00PM to 06:00AM (Night shift for all campus)-1No. | | | | |
| | Total 1 Highly Skilled + 7 Skilled + 1 Un Skilled | Month | 12.00 | | |
| Total Amount of Part - I Rs. | | | | | |
| B. Part - II: | | | | | |
| 1 | Cleaning of Treated Effluent water tank and other sewage sumps i.e., removal of grit, floating matter and disposing off the same outside NCBS, in an unobjectionable way including cost of necessary labour, transport all as directed by Engineer-In-Charge etc complete as below. | | | | |
| 1a | Treated effluent tank | No. | 3.00 | | |
| 1b | Sewage sump at SLC | No. | 8.00 | | |
| 1c | Waste water collection sump/rain water sump at SLC | No. | 24.00 | | |
| 1d | Other sumps | No. | 4.00 | | |



2

Signature of the Contractor

| S.No | Description of the items | Unit | Qty | Rate | Amount |
|------|---|------|-------|----------------------|----------------------|
| | | | | In Figure & In words | In Figure & In words |
| 2 | Cleaning the under ground sump of different capacity as below including de-watering, washing with clean water inclusive of necessary tools, soap oil / powder etc., complete all as directed by the Engineer-In-Charge. | | | | |
| 2a | 8.00 lakh liters capacity (located out side the NCBS Campus at Railway bridge in GKVK Campus one more at CB site Campus) | Nos. | 2.00 | | |
| 2b | 4.00 lakh liters capacity (in side the NCBS Campus) | Nos. | 4.00 | | |
| 2c | GL sumps up to 3000 lit capacity | Nos. | 2.00 | | |
| 2d | Rain water collection chambers at various locations in the campus | Nos. | 10.00 | | |
| 3 | Cleaning the overhead water tanks of NCBS of different capacity including de-watering, washing with clean water with necessary scaffolding/ ladder, tools, etc., at all height complete all as directed. | | | | |
| 3a | For housing | Nos. | 12.00 | | |
| 3b | For Eastern laboratories | Nos. | 8.00 | | |
| 3c | Tanks of CCAMP (Syntex Tank) | Nos. | 4.00 | | |
| 3d | SCDC Water Tank | Nos. | 2.00 | | |
| 3e | Syntex tanks and other tanks | Nos. | 4.00 | | |
| 3f | Syntex Tank and Fire fighting tank and Domestic Tank over NLC. | Nos. | 12.00 | | |
| 3g | DHRH OHT | Nos. | 4.00 | | |
| 3h | CB campus OHT's | Nos. | 8.00 | | |



3

Signature of the Contractor

| S.No | Description of the items | Unit | Qty | Rate | Amount |
|--|--|------|--------|----------------------|----------------------|
| | | | | In Figure & In words | In Figure & In words |
| 4 | Supply drinking water /Potable water in water tanks of capacity 6000ltrs including pumping it /Discharging it to GLR/OHT's | Nos. | 900.00 | | |
| Total Amount of Part - II Rs. | | | | | |
| NOTES: | | | | | |
| For Item No. Detail Works lists are enclosed as Annexure-1.The Bidder shall have to consider both A)As briefed in Item no. 1 and B) As per Annexure-1 | | | | | |
| 1. Necessary spares, materials etc., to be issued by department at free of cost. | | | | | |
| 2. Compliant if any shall be promptly attended and duly entered and recorded in log books as directed by Engineer-In-Charge. | | | | | |
| 3. Necessary gate passes / delivery challans for movement of materials shall be obtained in advance. | | | | | |
| 4. All workers safety measures shall be taken by contractors. | | | | | |
| 5. Attendance register must be maintained at site. | | | | | |
| Total amount of Part - I + Part - II Rs. | | | | | |
| Note: The Contractor shall quote his rates in this schedule of quantities only. Submission of tender in any other format is liable for rejection. | | | | | |

Total Amount in words:

Signature of the Contractor:

Date:

Address:



4

Signature of the Contractor

Detailed Breakup- Annexure – F

Schedule- I Breakup

TABLE 'A'

| Sl No | Statutory Benefits | % to be collected from employee | % to be collected by the Contractor | Total % |
|-------|---------------------|---------------------------------|-------------------------------------|---------|
| 1 | PF | 12.00 | 13.36 | 25.36 |
| 2 | ESI | 1.75 | 4.75 | 6.5 |
| 3 | Bonus | - | 8.33* | 8.33* |
| 4 | ELI(Workmen's Comp) | - | 3.00 | 3.00 |
| | Total | 13.75 | 29.44 | 43.19 |

* The amount of bonus payable is 8.33% subject to maximum of Rs. 7,000/- per annum (the ceiling for calculation purpose from the salary or Wages of Rs. 7,000.00 per month as per Section 2(13) of Bonus Act, 1965 & its amendments.

TABLE 'B'

The current Minimum wages for each of the category to be paid shall be as per table below.

| Sr.no | Trade category | Wages per day | | | Remarks |
|-------|--------------------|---------------|--------|--------|---------|
| | | Basic | VDA | Total | |
| 1 | Unskilled Worker | 180.00 | 188.00 | 368.00 | |
| 2. | Semi-skilled | 200.00 | 207.00 | 407.00 | |
| 3. | Skilled Technician | 220.00 | 228.00 | 448.00 | |
| 4. | Highly Skilled | 240.00 | 247.00 | 487.00 | |

The above wages are as per the minimum wages prescribed by Ministry of Labor, Govt. of India with effect from 01/04/2016 and the department approved wages.



Table - 'C'

| Sl. No. | Description | Highly skilled Technician A | Skilled Technician B | Un-Skilled C |
|---------|--|--------------------------------|-------------------------|-----------------|
| 1 | Salary (Basic + VDA) | | | |
| 2 | Salary ((Basic+ VDA) X 26 days) | | | |
| 3 | Conveyance allowances | | | |
| 4 | Accommodation and food allowance, if any | | | |
| 5 | Transport allowance, if any | | | |
| 6 | Communication / telephone allowance, if any | | | |
| 7 | Risk contingency, if any | | | |
| 8 | Uniform, safety shoes, ID cards etc. | | | |
| 9 | Washing allowances (minimum shall be Rs. 400/- pm) | | | |
| 10 | Contractorssupervision, administrative and overhead expenses (including records, documentation, registers, submission of statement, supervisors, labor license, bank guarantee, tools, equipment etc.) (5% on sl.no 1-8) | | | |
| 11 | Contractors profit margin (10 % on sl.no 1-8) | | | |
| | Total direct expenditure per month | | | |
| | Reimbursable expenditure per month | | | |
| 12 | PF (13.36% on basic + VDA) or restricted to Rs. 15,000 of Basic + VDA | | | |
| 13 | Bonus 8.33% on basic or Rs. 7000/-, whichever less as per existing norms | | | |
| 14 | ESI at 4.75% of Gross Salary except (Washing allowances + Yearly Bonus), OR equivalent insurance | | | |
| 15 | ELI (Workmen compensation) 3% on (Basic + VDA) | | | |
| 16 | Servicetax of 14.5% on total direct expenditure indicated at Sl.No 11 above | | | |
| 17 | Total Reimbursable expenditure per month | | | |



| Sl. No. | Description | Highly skilled Technician | Skilled Technician | Un-Skilled |
|---------|--|---------------------------|--------------------|------------|
| 18 | Expenditure per person / per month - sl.no [11+17] | | | |
| 19 | No. of employees proposed | | | |
| 20 | Total expenditure per month | | | |
| 21 | Total direct expenditure on month [Highly Skilled + Skilled + Un Skilled] - A+B+C | | | |

Note:

- Specify designation and experience in the field with level for each column.
- Please specify and attach separate sheets, if necessary.
- All efforts have been made to indicate our requirement. However it is the responsibility of the contractor to fulfill the scope of work as per our requirement without any extra cost. Therefore adequate care must be taken before bidding to ensure that all items are covered.
- In order that the bidders have a clear idea, it is important that the perspective contractors visit NCBS to see the area and work and have discussions before submitting the bids.
- All amounts in Table-B to be indicated in figures. In the event of any discrepancy/erasures only the lowest figure will be considered. The Contractor shall quote salary, supervision & admin. Charges, contractor's margin, (Sl. No. 1, 8 & 9 above) and the rest are either percentages of salary or fixed as indicated herein.
- The Contractor shall supply 2 sets of uniform and one set of safety footwear which consists of safety shoes, socks (minimum two pairs) within a month of award of contract and a fresh set will be issued if the contractor is renewed beyond one year by the 13th month if renewed for 2nd year.
- The monthly and periodical permia/subsorption on all the above shall be paid by the Contractor and the quantum to be paid by the employee shall be collected from each employee by the Contractor or deducted from their salary.

8. Total amount in words: _____

Signature of the Contractor

Date



Company Seal

7

ANNEXURE-1 Schedule of equipments/Plants under AMC-16-17

| Sl. No. | Equipment/pump/Machine/plant | Location | Quantity in numbers | Make | Capacity |
|-----------------------|---------------------------------------|--|---------------------|-------------|-----------|
| CB Site Campus | | | | | |
| 1 | Surface Water pumps | CB site - Mandara Hostel Pump house | 2 | | |
| 2 | Submersible water pumps | CB site Housing (A, B, C & D block) | 8 | Kirloskar | 10 HP |
| 3 | | | | Kirloskar | 10 HP |
| 4 | Diesel pump | CB site Fire line | 1 | Kirloskar | 50 HP |
| 5 | Electrical pump | CB site Fire line | 1 | Kirloskar | 50 HP |
| 6 | Jockey pump | CB site Fire line | 1 | Kirloskar | 10 HP |
| 7 | PLC Control panel | CB site STP | 1 | | |
| 8 | Dual Filter media | CB site STP | 1 | Spx Johnson | |
| 9 | Dosing pump | CB site STP | 2 | Spx Johnson | 0.5 HP |
| 10 | Back wash pump | CB site STP | 2 | Grundfos | 0.75 HP |
| 11 | Filter feed pump | CB site STP | 2 | Spx Johnson | 1.5 HP |
| 12 | Sludge pump | CB site STP | 2 | Spx Johnson | 1.5 HP |
| 13 | Screw pump | CB site STP | 1 | Primo | 2 HP |
| 14 | Filter press unit with Hydraulic pump | CB site STP | 1 | Primo | 1 HP |
| 15 | Twin Blower | CB site STP | 2 | Hibon | 7.5 HP |
| 16 | Garden pump | CB site STP | 2 | Grundfos | 3 HP |
| 17 | Collection pump | CB site STP | 3 | Grundfos | 1 HP |
| CCAMP Campus | | | | | |
| 17 | Fire tank | CCAMP Overhead tank | 1 | | |
| 18 | Domestic tank | CCAMP Overhead tank | 1 | Sintex | 5000 ltr |
| 19 | R.O. water tank | CCAMP R.O. water tank | 1 | Sintex | 10000 ltr |
| 20 | Pump | CCAMP R.O. water tank (Centrifugal pump) | 1 | Sintex | 1000 ltr |
| | | | | CRI | 1.25 HP |



| Sl. No. | Equipment/pump/Machine/plant | Location | Quantity in numbers | Make | Capacity |
|----------|---|--|---------------------|--|----------------------------|
| | | <u>GKVK Main gate</u> | | | |
| 21 | Pumps of 7.5 HP capacity | 8 lakh GLR near railway track near GKVK main gate for supply | 3 | Kirlosker | 7.5 HP |
| | | <u>NCBS & CCAMP</u> | | | |
| 22 | Pumps of 7.5 Hp capacity | 4 lakh GLR for various OHTS | 4 | | |
| | | <u>NCBS STP</u> | | | |
| 23 | Pumps of 2 Hp capacity | STP for pumping sewage to oxidation ditch. | 3 | 2no's of Kirlosker, 1no of Crompton Creaves. | 2HP |
| 24 | Sludge pumps of 2 Hp capacity | settling tank for re-circulation of sewage to oxidation ditch/drying beds. | 2 | Kirlosker | 2HP |
| 25 | Pumps of 5 Hp capacity | Treated effluent sump at STP for pumping treated water for landscaping purpose | 2 | Kirlosker | 5HP |
| 26 | Aeration pump | Aeration tank | 3 | Aqua tornado | 3HP |
| | | <u>Substation</u> | | | |
| A | Domestic Pump | | | | |
| 27 | Softner plant pumps | New plant room near 4 Lakh litre sump | 4 | Kirlosker | 10HP |
| B | Plant | | | | |
| 28 | Softwater treatment plant- (Filtiter media, regeneration) | New plant room near 4 Lakh litre sump | 1 | Ion Exchange | 30000Lph |
| | | <u>Southern Lab Complex</u> | | | |
| A | Domestic Pumps | | | | |
| 29 | Submerciable Pumps | basement of SLC | 12 | 12 nos of Ground force | 10HP |
| 30 | Pumps | SLC pump room. (New pump house near 4.0lac GLR) | 6 | 6 nos of Kirlosker | 2nos of 7.5HP, 2nos of 5HP |
| B | Fire fighting Pumps | | | | |
| 31 | Electrical pump-Sprinkler | SLC pump room. (New pump house near 4.0lac GLR) | 1 | Kirloskar | 75HP |
| 32 | Electrical pump-Hydrant | SLC pump room. (New pump house near 4.0lac GLR) | 1 | Kirloskar | 75HP |



| Sl. No. | Equipment/pump/Machine/plant | Location | Quantity in numbers | Make | Capacity |
|---------|---------------------------------|---|---------------------|---------------|-----------------------|
| 33 | Jockey pump | SLC pump room. (New pump house near 4.0lac GLR) | 1 | Kirloskar | 25HP |
| 34 | Deisel pump | SLC pump room. (New pump house near 4.0lac GLR) | 1 | Cummins | 125HP |
| | | SCDC | | | |
| 35 | Submercible pump | SCDC Basement (one for STP) | 2 | KSB Amaportar | 5 |
| 36 | | SCDC Basement (One for rain water) | 2 | Ground fos | 5 |
| | | Eastern Laboratory building | | | |
| 37 | Pumps of rain harvesting system | Eastern Laboratory building | 7 | | |
| 38 | | CIFF | 4 | Kirlosker | 2 nos of 7.5HP, 2 nos |
| 39 | | Admin Basement | 2 | Kirlosker | 1.02 HP |
| | | DHRH Facility | | | |
| 40 | Submerciable Pumps | Basement sumps | 6 | Groundfos | 10HP |

NOTE:-

Maintenance of all equipments involves its accessories/attached component like Pressure guage, foot vlave
1 ,NRV's, Butter fly valve, rotameter, Gate valve, sluice valve etc.. Complete

2 For all equipments standard preventive maintenance to be carried out as per departmental procedures

3 Registrar for equipment maintenance ,repairs/services, must be maintained

Apart from above equipments if and when added new equipment / machinaries ,shall be treated as part of
4 maintenance contract .

Contractor shall ensure all mentioned equipment working in good condition throught the contarct period and if any
problem persists ,which can not be repaired at site ,contractor has to make arrangement for getting repaired from
5 outside and any extra payment towards repairs may be claimed.



| Sl. No. | Equipment/Pump/Machine/Plant | Location | Quantity in numbers | Make | Capacity |
|---------|--------------------------------|-----------------------------|---------------------|-----------|----------|
| | | <u>Instem Campus</u> | | | |
| 1 | Raw sewage relift pumps | STP | 2 | kirloskar | |
| 2 | Air Blower | STP | 2 | ABB | 5 HP |
| 3 | Sludge return/relift pump | STP | 2 | ABB | 2 HP |
| 4 | Sludge Loading / Disposal pump | STP | 2 | kirloskar | 2 HP |
| 5 | Filter feed pumps | STP | 2 | Xylem | 3 HP |
| 6 | Hydropneumatic pumps | STP | 2 | Grundfos | 5.4 HP |
| 7 | Sludge handling pumps | STP | 1 | Crompton | 3 HP |

Note:

1. Maintenance of all equipments involves its accessories / attached component like Pressure guage, foot valve, NRV's Butter fly valve, rotameter, gate valve, sluice valve etc., complete.
2. For all equipments standard preventive maintenave to be carried out as per departmental procedures
3. Register for equipment maintenance, repairs / services, must be maintained.
4. Apart from above equipments if and when added new equipment / machinaries shall be treated
5. Contractor shall ensure all mentioned equipment working in good condition through the contract period and if any problem persists, which cannot be repaired at site, contractor has to make arrangement for getting repaired from outside and any extra payment towards repairs may be claimed.

