

TENDER FOR

- (A) Operation & Comprehensive/Non-Comprehensive maintenance of (i) Water supply system & Water Pumps (ii) Garden Hydrant system & Submersible Pumps.
(B) Operation & comprehensive maintenance of Fire Fighting system (i) Fire Pumps (ii) Sprinkler system & Wet Riser system installed in the Laboratory & Animal House. (iii) Diesel Fire pumps installed in Pump House (iv) Fire safety
(C) Operation and comprehensive maintenance of Water Softening plant.
(D) Operation and comprehensive maintenance of Neutralization system & maintenance of 02 nos. fountains installed at infront of Lab & Animal House installed at NIB, NOIDA.

TENDER NO-S.1-337/2016/NIB/Engg(M)

1.	Date of start for issue of Tender Documents	25.07.2016 to 16.08.2016
2.	Last Date of submission of Tenders	17.08.2016 at 3:00 PM
3.	Pre Bid meeting	05.08.2016 at 3:30 P.M.
4.	Date of Opening of Technical Bids	17.08.2016 at 3.30 P.M.
5.	Opening of Price Bids	To be intimated separately only to technical qualified bidders
6.	Tender Fee	Rs. 525/- (Rs. five hundred seventy three only)

Name of bidder	
Address of Bidder	
Phone Nos.	
E-mail ID	
Contact Persons	i. ii.



NATIONAL INSTITUTE OF BIOLOGICALS
(Ministry of Health & Family Welfare)
A-32, SECTOR- 62 (INSTITUTIONAL AREA),
NOIDA-201 307 (U.P.)
Tel: 0120-2400022, 2400072, Fax: 0120-2400074, 2403014.
e-mail: info@nib.gov.in Website www.nib.gov.in.

NATIONAL INSTITUTE OF BIOLOGICALS
(Ministry of Health & Family Welfare, Government of India)
Plot No. A-32, SECTOR- 62 (INSTITUTIONAL AREA),
NOIDA-201 309 (U.P)
Tel: 0120-2400022, 2400072, Fax: 0120-2400074, 2403014

Tender for (A) Operation & Comprehensive/Non-Comprehensive maintenance of (i) Water supply system & water pumps (ii) Garden Hydrant System & Submersible pumps.(B) Operation & Comprehensive Maintenance of Fire Fighting System (i) Fire Pumps (ii) Sprinkler system & Wet Riser system in Laboratory & Animal House. (iii) Diesel Fire pumps installed in Pump House (C) Operation and comprehensive maintenance of Water Softening Plant.(D) Operation and Comprehensive Maintenance of Neutralization System.

The **NATIONAL INSTITUTE OF BIOLOGICALS (NIB)** is an autonomous Institute under the Ministry of Health & Family Welfare, Government of India and is a premier institution engaged in the evaluation and quality control of various biological products like blood, blood reagents, sera, immuno-diagnostic kits etc. The Institute is spread over an area of 18.4 acres of land with various buildings have already been constructed.

Sealed Tenders are invited from experienced Firms/ Agency/ Contractors in the prescribed format for Annual Operation and Comprehensive Maintenance Contract for Water supply system & Fire fighting system, Sprinkler system & Wet Riser system in Laboratory & Animal House, Diesel fire pumps in Pump House, and Neutralizer plant installed at NIB, NOIDA.

The bidders are required to visit these buildings of NIB to see the actual installations for themselves to assess the quantum of work involved before submitting the tender. Once the tender is submitted, it will be presumed that the bidder has seen and understood the complete work involved for each of the system.

1. FOR PRE-QUALIFICATION

1.1 The bidder shall be presently rendering their services for operation and routine/ comprehensive maintenance of similar type work in NIB or large, at least last three years in Government/ Semi-Govt./ PSU's or large reputed private organizations satisfactorily.

The Applicant should meet the following minimum criteria for pre-qualification:

(a) Average annual financial turnover for related works during the last three years, ending 31 March, 2016 should be more than Rs 80.00 lakhs.

- (b) Experience of having successfully completed similar works during last 07(seven) years ending last day of month previous to the one in which applications are invited i.e. March -31, 2016 should be either of the following;
- (i) Three similar completed works costing not less than the amount equal to Rs. 17.00 lakhs each **or**
 - (ii) Two similar completed works costing not less than the amount equal to Rs. 25.50 lakhs each **or**
 - (iii) One similar completed work costing not less than the amount equal to Rs. 34.00 lakhs.

1.2 Definition of "Similar Works" i. e. the firm/ Agency/ Contractor should have rendered their services for maintenance of similar works i. e. operation and comprehensive/ non-comprehensive maintenance of Water supply system & water pumps, Garden Hydrant System & Submersible pumps, Fire Fighting System & fire safety with Fire Pumps, Sprinkler system & Wet Riser system, Diesel Fire pumps installed in Pump House, Water Softening Plant and Neutralization System, during last seven years for any government sector or large reputed private sector/enterprises satisfactorily. Necessary relevant document to this effect to be enclosed (Fill enclosed APPENDIX-B).

2 Copy of PAN/TIN No., Service Tax No. and Income Tax clearance Certificate to be furnished/enclosed.(Fill in Appendix-C)

3. Earnest Money Deposit (EMD): -

The tenders are required to deposit Demand Draft of **Rs.84,000/-** (Eighty Four thousand only) in favour of the "**National Institute of Biologicals**, payable at **Noida/ New Delhi** as Earnest Money Deposit (EMD) along with original tender documents for this work. EMD will be returned to the unsuccessful tenderers after award of the contract. No interest shall be payable by NIB on EMD.

In the event of the contractor failing to comply with any provision of the contract, the security deposit/EMD shall stand forfeited.

4. Sale of Tender: -

Non transferable tender document containing terms conditions and technical specification etc. can be obtained from the Account Section of this Institute on all working days at schedule date and time as per advertisement on a written request on the letter head of the firm and on payment of amount mentioned in advertisement through crossed demand draft (non-refundable) in favour of

National Institute of Biologicals, payable at Noida/ New Delhi towards its cost. Before buying the tender documents, tenderer may see the document particularly pre-qualification criteria in their own interest.

The Tender document can also be downloaded from our web site www.nib.gov.in and Tender Fee can be deposited with the technical bid.

Tender/Bid received without tender fee is liable to be rejected.

5. The tender is to be submitted in two separate sealed envelopes as under:

5.1. **Technical Bid (Envelop No -1)**

a) All the pages of tender document in original including the unfilled PRICE-BID Performa (**ANNEXURE-V**) duly signed and stamped by the tenderer, as a token of acceptance, along with deviation sheet with deviation if any, from particular tender conditions in a separate sheet (**ANNEXURE -IV**). The following additional documents shall also be enclosed and sealed, superscript with name of the tender i. e., (A) Operation & Comprehensive/Non-Comprehensive maintenance of (i) Water supply system & water pumps (ii) Garden Hydrant System & Submersible pumps.(B) Operation & Comprehensive/Non-Comprehensive Maintenance of Fire Fighting System (i) Fire Pumps (ii) Sprinkler system & Wet Riser system in Laboratory & Animal House. (iii) Diesel Fire pumps installed in Pump House (C) Operation and comprehensive maintenance of Water Softening Plant.(D) Operation and Comprehensive Maintenance of Neutralization System.

i) The attested copies of Registration Certificate along with attested copies of experience certificates of carrying out similar nature of work as per pre-qualification criteria particularly annual maintenance contract of different type mechanical services in Government/ Semi Government/ PSU's or large reputed private organization etc. for at least last three years satisfactorily. They may also enclose work order copies to meet the experience criteria.

ii) The attested copies of the balance sheet/ audited statement of accounts or any other relevant document to prove the minimum average annual turnover required as per pre-qualification criteria in preceding last three financial years in maintenance and services.

5.2 **Price Bid (Envelop No. 2)**

The Price Bid as per Performa given in the tender documents as **ANNEXURE-V** shall be photo copied and then price filled up and submitted in Envelope No -2, duly sealed superscript with name of tender. Any conditions given in the Price Bid may cause rejection of Bid. Price must be quoted in both figures and words.

6. **Pre Bid Meeting and Clarification of Bids:**

- 6.1 A Pre Bid meeting will be organized by NIB before the last date for submission of bids at NIB Noida. **Bidders may seek any clarifications from NIB on their written request regarding the tender document and also physical see the site to understand the work required of the Institute.**
- 6.2 During evaluation of bids NIB may, at its discretion ask the bidder (s) for clarification of their bid. The request for clarification and the response shall be in writing and no change in prices or substance of the bid shall be sought, offered or permitted.

7. **Sub mission of Bids:**

The Envelop No. 1 & 2 shall be sealed separately and placed in a third Envelope which also shall be sealed and duly super scribed with the name of the tender.

Bid with all complete relevant documents must be addressed to the **Director, National Institute of Biologicals, A-32, Sector - 62, Noida** not later than **15:00 Hrs** on scheduled date as mentioned in the advertisement. Late bids will not be entertained.

8. **Bid Opening:**

(i) Bid shall be opened in the office of this Institute at Noida, an hour after the prescribed time for the bid submission in the presence of tenderer who may wish to be present at 16:00 Hrs. on a date as mentioned in the advertisement.

(ii) The technical bid shall be opened first. The Price Bid (Envelop No 2) will be opened only of those tenderers whose technical bid is found to be in order and for which they shall be intimated separately about date & time by fax/ telephone.

(iii) The bidder who has not submitted the documents as per tender conditions major deviations, proper EMD and experience certificate etc. their tender may be treated as non responsive and their Price Bid (Envelop No. 2) shall not be opened.

(iv) The successful firms/ agencies/ contractors will be intimated and contract agreement will be entered into initially for a period of one year. The preparation of the contract agreement with proper stamp etc. would be done by the bidder in consultation with NIB. If the firm's services/ performance is found to be satisfactorily in the sole opinion of NIB, the contract is be

extendable on the same terms & conditions for a further period of two years on yearly and performance basis.

(v) The firms/ agency/ contractor are required to submit their most competitive price offer in the format (ANNEXURE -V) Part A & B in concurrence with the list of major equipment, scope of work, technical specifications, terms & conditions and deviations sheet etc enclosed herewith as APPENDIX -A,B,C,D & ANNEXURE - I, II, III, & IV.

(vi) The firm is also required to submit the price break-up of manpower and other major work as mentioned in the tender along with price bid. The minimum rates of wages fixed by the Central Govt. from time to time respective category of employment are applicable in this Institute. The records of labours, wages payment as per the contract labour (Regulation & Abolition) Act 1970 read the central rule 1971 are subject to inspection & verification by NIB or Labour enforcement officer. **The Rate quoted below minimum wages, as notified by Labour Department, Govt. of India for NOIDA come under Category-'A', will not be accepted.**

9. Awards of Contract:

- (i) NIB will award the contract to the successful bidder whose quotation has been determined to be substantially responsive and determined as the lowest evaluated quotation, provided further that the bidder is determined to be qualified to perform the contract satisfactorily.
- (ii) **Period of Contract** - Initially the order will be placed for a period of one year and may be extended for another two years depending on the performance of the contractor.
- (iii) Foreclosure of contract due to abandonment or reduction in scope of work - If at any time after acceptance of the tender, National Institute of Biologicals shall decide to abandon or reduce the scope of the works of any reason whatsoever and hence not require the whole or any part of the works to be carried out, the NIB shall give notice in writing to that effect to the contractor and the contractor shall act accordingly in the matter. The contractor 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 works in full but which he did not derive in consequence of the foreclosure of the whole or part of the works.
- (iv) Subletting - The contract/work shall not be sublet in any degree or manner without the written approval of the NIB.

10. Right to accept any Quotation and to reject any or all Quotation:

The NIB reserves the right to accept or reject any quotation, and or to annul the bidding process and or reject all quotations at any time prior to award of contract, without thereby incurring any liability to the affected bidder or bidders or any obligation to inform the affected bidder or bidders of the grounds for NIB's action.

11. Notification of Award:

11.1 Prior to the expiration of the validity, NIB will notify the successful firm in writing by speed post/ registered letter or by fax, that his quotation has been accepted.

11.2 The notification of award will constitute the formation of the contract.

11.3 Upon furnishing of Performance Security by the successful bidder's, NIB will promptly notify each unsuccessful bidder/s and will release their EMD.

12. Signing of Contract:

NIB will notify the successful bidder that his quotation has been accepted and NIB will send a work order to the bidder describing the works to be carried out and the same shall be returned duly acknowledged affirmatively by the bidder, as a token of acceptance and a contract agreement will be signed between both the parties.

13. Performance Security:

13.1 Within 21 days of receipt of work order from NIB, the successful firm shall furnish the Performance Security equivalent to 10% of the contract value in the form of Bank Guarantee (from any Nationalized/Schedule Bank) valid for 60 days beyond expiry of the entire contract period i.e., including extendable period, in the format as per APPENDIX- A or in form of Demand Draft/Pay Order in favour of "National Institute of Biologicals" payable at "Noida/Delhi".

13.2 Failure of the contractor to comply with the requirement of contract shall constitute sufficient grounds for the annulment of the awards and forfeiture of the performance security, in which event NIB may get done the work at the risk cost of the Contractor.

14. Payment:

14.1 Contractor will submit monthly Pre Receipted (affixing the Revenue Stamp) bills dully supported with necessary check list, log sheets etc. along with the proof of deposit of ESI, PF and Service Tax (if applicable). NIB will make payment to the contractor within 15 days after receipt of the bills after deduction of applicable taxes/TDS etc.

The bill payment will be only released after the Submission of proof of disbursement of the labour payment up to 10th date of every month during the contract period and follow the Labour Act. The contractor shall have to submit the disbursement sheet alongwith the monthly bill. **It may kindly note that labour payment need to be disbursed by direct transfer of amount in their bank accounts.** If the contractor does not released the labour payment maximum up to 10th date of each month, in such event NIB will deduct an amount Rs. 1000/- per day for each day of delay after 10th of the month..

14.2 **Penalty Clause:** If check list, log sheets, service reports and instructions of the Institute do not shows proper compliance of works to be done by the contractor as per schedule; NIB will make suitable deduction from the contractor's bills. If the contractor fails to maintain the operation and maintenance of services as per contract, in such event NIB will deduct actual cost incurred on this work plus 10% extra for departmental service charges.

14.3 In case of short deployment of manpower as given in the contract Institute will makes suitable proportionate deduction from the bills on the basis of minimum wages as claimed for respective category of technical manpower as applicable.

14.4 **Liquidated damages:** In case of work is delayed beyond the specified completion/given time period for reasons attributable to the contractor, deduction on account of Liquidated damage @ Rs. 500/- per day subject to a maximum of 10% of the total contract value will be made from contractor's bill. The decision of NIB in this regard shall be final and binding on the contractor.

14.5 The contractor shall be responsible for proper maintenance of decorum, punctuality, discipline and work out put. The personnel so deployed should be in a proper neat & clean well-dressed uniform. Providing of uniform etc to deployed staff shall be the responsibility of the contractor. If the staffs are not present in uniform, a penalty @ Rs 50/per day/per person will be levied and deducted from the bill. All the employees/workers deployed by the contractor will have to carry valid gate passes which will be issued only after submission of their bio-date in desired format. Any negligence/offence on their part will attract immediate removal from site. It is mandatory for the entire contractor's employees to wear Identity cards with their company's name embossed on the same and display.

14.6 In case of any injury to the contractor's employee/worker at NIB campus due to any reason, the contractor shall be responsible for taking person to the hospital/nursing home/dispensary for treatment at his own cost. If in the case of

an emergency, NIB vehicle is used, NIB incurs any expenditure on the treatment of the person, the contractor will be suitably charged for the same.

14.7 Any intentional delay, or delay to improper mobilization of men and material for executing the work by the contractor or unprofessional attitude of the contractor/labour causing delay, the contractor shall penalize @ 5% of the contract value for each day of delay up to a maximum of 25% of the total contract value.

14.8 Levy/Taxes payable by contractor - Sales Tax/ VAT or any other tax on materials in respect of this contract shall be payable by the contractor and National Institute of Biologicals shall not entertain any claim whatsoever in this respect.

All tendered rates shall be inclusive of all taxes and levies payable under respective statutes but exclusive of service tax which will pay at the applicable rates. However, pursuant to the Constitution (46th Amendment Act, 1982, if any further tax or levy is imposed by Statute, after the last stipulated date for the receipt of tender including extensions if any and the contractor thereupon necessarily and properly pays such taxes/levies, the contractor shall be reimbursed the amount so paid.

14.9 **Intoxicants:** Smoking, drinking of alcoholic beverages is strictly prohibited in NIB premises.

15. Applicable Law:

15.1 The contract shall be interpreted in accordance with the Laws of the Union of India. Contractor shall be solely responsible for compliance of all labour laws, payment of fair wages/ salaries and allowances to his personnel that might become applicable under any new act, law or order of Government of Centre. NIB shall have no liability whatsoever in any manner. **The Contractor has to show the proof of payment of fair wages to his workers as and when asked for the same by NIB.**

15.2 Minimum wages Act to be complied with - The contractor shall comply with all the provisions of the Ministry Wages Act, 1948, and Contract Labour (Regulation and Abolition) Act, 1970, amended from time and rules framed hereunder and other labour laws affecting contract labour that may be brought into force from time to time. **It is clarified that the minimum rates of wages as fixed by the Ministry of Labour, Govt. of India from time to time for NOIDA comes under 'Ä' category to the respective category of employment, are applicable to NIB.**

15.3 **If there is any variation in minimum wages during the contract period, the monthly contract rates/value will be revised based on any increase/decrease of minimum**

wages for which documentary proof shall be furnished by the contractor.

16. Resolution of Dispute:

All disputes arising out of this contract shall be referred to the sole arbitration of a person selected by the contractor out of the panel of three persons nominated by the Director NIB, and his decision /award shall be final and binding on both parties. The Arbitration shall be governed under the Indian Arbitration Act 1996 or any statutory modifications or re-enactment thereof and rules made there under and for the time being in force shall apply to the arbitration proceeding under this contract.

17. Force Majeure

17.1 Notwithstanding the provisions stated above, the service provider shall not be liable for forfeiture of its performance security, penalty or termination for default, if and to the extent that, its delay in performance or other failure to perform its obligations under the contract is the result of an event of force majeure.

17.2 For purposes of this clause, "Force Majeure" means an event beyond the control of the service provider and not involving the contractor/service provider's fault or negligence and not foreseeable. Such events may include, but are not limited to, acts of the service provider either in its sovereign or contractual capacity, wars or revolutions fires, floods, epidemics, quarantine restrictions and freight embargoes.

17.3 If a Force Majeure situation arises, the contractor/ service provider shall promptly notify the NIB in writing of such conditions and the cause thereof. Unless otherwise directed by the employer in writing, the service provider shall continue to perform its obligations under the contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the force majeure event.

LETTER OF APPLICATION

[NOTE: On the letter head paper of the Applicant including full postal address, telephone no., fax no., and E-mail address]

To

The Director
National Institute of Biologicals,
Plot No. A-32, Sector-62(Institutional Area),
NOIDA -201 309(U.P)

Sirs,

1. Being duly authorized to represent and act on behalf of (hereinafter referred to as "the Applicant"). and having reviewed and fully understood all the Pre-qualification information provided, the undersigned hereby apply for the following scope of work:

“Operation & Comprehensive maintenance / Operation & non comprehensive maintenance (i) Water supply system & water pumps (ii) Garden Hydrant System & Submersible pumps.(B) Fire Fighting System (i) Fire Pumps (ii) Sprinkler system & Wet Riser system in Lab & Animal House. (iii) Diesel Fire pumps in pump house (C) Operation and routine maintenance of Water Softening Plant.(D) Neutralization System in NIB campus.

2. Attached to this letter are copies or original documents defining:
 - (a) The Applicant's legal status:
 - (b) The principle place of business; and
 - (c) The place of incorporation (for applicants who are corporations) or the place of registration and the nationality of the owners (for applicants who are partnerships or individually-owned firms).
3. Your office and its authorized representatives are hereby authorized to conduct any inquiries or investigations to verify the statements, documents and information submitted in connection with this application, and to seek clarification from our bankers and clients regarding any financial and technical aspects. This Letter of Application will also serve as authorization to any individual or authorized representative or any institution referred to in the supporting information, to provide such information deemed necessary and requested by yourselves to verify statements, and information provided in this application, or with regard to the resources, experience, and competence of the Applicant.

4. Your office and its authorized representatives may contact the following persons for further information.

General, Personnel, Technical and Financial Enquiries	
Contact 1	Telephone 1
Contact 2	Telephone 2

5. This application is made in the full understanding that:

(a) Bids by pre-qualified applicants will be subject to verification of all information submitted for Pre-qualification at the time of bidding:

(b) Your office reserves the right to:

Amend the scope and value of the contract/bid. In such event, bids will only be called from pre-qualified bidders who meet the revised requirements and reject or accept any application, cancel the Pre-qualification process, and reject all application without assigning any reason thereof; and

(c) Your office shall not be liable for any such action and shall be under no obligation to inform the Applicant.

6. Appended to this application, we give details of the participation of each party including capital contribution and profit/loss agreements, to the joint venture or association. We also specify the financial commitment in terms of the percentage of the value of the contract, and the responsibilities for execution of the contract.
7. The undersigned declare that statements made and the information provided in the duly completed application are complete, true, and correct in every detail.

Signed
Name
For and on behalf of

Application Form No. 1

GENERAL INFORMATION:

All individual firms applying for tender are requested to complete the information in this form. Information to be provided for all owners or applicants who are partnerships or individually-owned firms.

1.	Name of firm:
2.	Head office address:
3.	Registered office address:
4.	Telephone: Contact:
5.	Fax : E-mail:
6.	Place of incorporation/ Year of incorporation / registration Registration No.

STRUCTURE AND ORGANIZATION

1. The applicant is
 - (a) an individual
 - (b) a proprietary firm
 - (c) a firm in partnership
 - (d) a Limited Company or Corporation.

2. Attach the Organization Chart showing the structure of the organization, including the names of the Directors and position of officers.

3. Have you ever left the work awarded to you incomplete: (If so, give name of project and reasons for not completing the work.)

APPENDIX-A

ANNUAL TURN OVER

YEAR	ANNUAL TURNOVER AS PER AUDITED BALANCE SHEET(in Rs.)
2013-2014	
2014-2015	
2015-2016	
Average Annual Turnover	

NOTE: The above data is to be supported by Audited Balance Sheets. In case Audit accounts are not available, a certificate of CA may be submitted.

APPENDIX-B

**DETAILS OF COMPLETED WORKS OF SIMILAR NATURE AND COMPLEXITY
(During last seven year ending March-31, 2016);**

S.No.	Name of the contract	Name of the client	Brief Description of the contract	Date of Start	Date of completion as per contract	Date of actual completion	Value (Rs.)
1.							
2.							
3.							
4.							

NOTE: Please attach supporting documents for the above information.

APPENDIX-C

Details of Registration with State/Central/PSU Departments

Name of the Authority/Department with whom registered	Class in which registered	Amount for which eligible to work	Date of Registration	Validity period	Whether registration

PERSONNEL CAPABILITIES:

S.No.	Name & Address of the Employee	Technical Qualifications	Post Held	Date of Employment

LIST OF THE SYSTEMS UNDER THIS CONTRACT:

1.(A) Operation & Comprehensive Maintenance of

- (i) Water supply system consisting of distribution pipelines network, two nos. domestic water pumps (Kirloskar make) of 40H.P. Sump pump (Kirloskar make) 1 H .P. installed in pump house for draining out spilled water. Electrical panels of water pumps & sump pump. Cast iron (LA) pipe network (10" dia.-3" dia. Size) spread over entire campus. Sluice valves 80 mm dia to 200 mm dia about 28 Nos. Foot valves 200 & 250 mm dia 3 Nos. Ferrule connection about 10 Nos. Liquid level indicator of overhead water tank with its control panel. Pressure switches for fire fighting systems.
- (ii) Garden Hydrant system consisting of distribution pipelines network, Sluice valves 100 mm dia about 5 Nos. Cast iron (LA) pipe network having about 40 Nos outlets with 25 mm sluice valves for watering of plants in the campus.
- (iii) Three tube wells of 5 HP (Pump & motor) have been connected with existing underground water storage tank in the campus. Tube Wells having 200 mm dia MS well cap(03 Nos.), 200 mm dia MS clamp(03 Nos.), Submersible pump set 5 HP(KSB make), Junction box with TP MCB(03 Nos.), Pressure gauges(H.Guru make), 65 mm dia NRV(Zoloto make), 65 mm dia ball valve, Panel boards.
- (iv) Fire fighting system consisting of distribution pipelines network, two no. 120 H.P. Motorized pumps (Kirloskar make) & its Electrical panels. Jockey pumps 18 H.P. with its Electrical panel. Stand post type Fire hydrants 25 Nos. including sluice valves and landing valves with each hydrant. Cast iron (LA) pipe network connecting the hydrants with fire pumps installed in pump house. Fire hose cabinet with hose reels 24 Nos. approx.

(B)

- (i) Automatic Sprinkler system consisting of distribution pipelines network, (2450 Nos. Sprinklers with pendants/ upright, quardzoid bulb, above the false ceiling and below the false ceiling). M. S. pipes 40 mm dia & below, tapered screwed/ socket welded fittings network. Gate valves of sizes 100 mm to 200 mm about 15 Nos. Butter fly valve 80 mm to 200 mm 12 Nos. Check valve 200 mm to 200 mm about 7 Nos. Terrace pump 55 M³ / hour. Starter panel for terrace pump. Water flow swatches 8 Nos. Presser gauges. 24 KL terrace water tank. Alarm valve 150mm dia 2 Nos.
- (ii) Diesel engine driven pump 273 M³ / hour X 70 M head (Kirloskar make). with AMF panel. Diesel engine for pump (Kirloskar make)

- (iii) Wet riser cum down comer system comprising of distribution pipelines network, hydrant valves 63 mm dia 41 Nos., first aid hose reel drum with 19 mm dia X 36.5 mtr. Long hose 41 Nos., RRL hose 63 mm dia X 15 mtr. Long with instantaneous coupling 82 Nos., Short branch with nozzle 41 Nos., Spare sprinkler cabinet 2 Nos., 4 way fire brigade in let connection 2 Nos., fire hose cabinet 41 Nos and piping etc.

(C) Operation and Comprehensive maintenance of

Water Softening plant system consist of multi grade filter,activated carbon filter,brine tank, pumps (2x15hp), flow measurement meter etc. The capacity of softening plant is about 40 cubic meter per hour.

(D) Operation & Comprehensive maintenance of

Neutralization System which consists a automatic pH correction (dosing of acid/alkali as per requiremen) having 16 cubic meter capacity(for 8hours running) has been installed. The main components of the system are:

Effluent pumps capacity, 2m ³ per hour	:	2 Nos.
Reaction tank with sensor	:	1 No.
Agitator 0.5 HP	:	1 No.
Dozing metering Pump 6 Lph at 3 bar.	:	2 Nos.
Control Panel	:	1No.
PH controller etc.	:	1 No.

System Description:

2. Water Supply System:

- 2.1 Water is received in NIB underground water storage tank (150 KL) through two No. 100mm dia Noida connections at two different locations. Water from underground tank is fed to the centralized water softening plant by two nos, 15H.P pumps (one running one standby). After softening of water in the softening plant it is stored in the underground soft water storage tank, from where it is pumped in to overhead storage tank (500 KL) with the help of 2 nos. 40H.P. Pumps (one running one standby). From overhead storage tank water is supplied to different buildings (17 Nos) through cast iron (LA) pipe network (4" dia to 10" dia). In Lab & Animal House building incoming supply is fed to hydropneumatic system which keeps 3.5 Kg/ Cm² pressure in the internal supply lines of the building. In other buildings incoming lines are connected to individual building tanks on roof top. The limit of scope of work under this contract will be up to supply of water to the roof top tanks of various building

and feeding up to hydro pneumatic system in the Lab & Animal House. Three tube wells of 5 HP (Pump & motor) have been connected with existing underground water storage tank in the campus.

3. Garden Hydrant System:

- 3.1 Two bore wells of 7 H.P. Submersible pump & motor assembly (KSB make), 50 mm dia size discharge pipe have been installed at north-east and mid side (near pump house) of the campus for watering of lawns and plants. Each tub well is feeding approximately half of the campus area. The electrical panels of tube wells are installed in the sub stations #3 and pump house respectively. Water received from bore wells has been distributed in to garden areas through 3" dia cast iron (LA) pipe. Water outlets (about 40 Nos.) have been provided through 1" dia G.I. pipe with gate valves housed in Garden hydrant chambers.

4. Fire Fighting System:

The under ground water storage tank has been divided in two compartments, fire water storage and domestic water storage. The water from Noida is directly received in to fire compartment. When the fire-fighting compartment is full water starts flowing in to domestic compartment. The capacity of fire reservoir is about 300KL.

Main fire pump of 120 H.P. has been installed in the pump house adjacent to underground reservoir. Main fire pump suction line is connected with underground fire water storage compartment. The stand post type fire hydrants are connected with fire pumps installed in pump house. Four way fire brigade connection, fire hydrants and wet riser system and Lab. & Animal House are also connected with the main fire pumps.

Another pump of 120 H.P. has been installed for supplying water to sprinkler system in the Lab. & Animal House and it also feed water to terrace tank.

A jockey pump of 18 H.P. has been installed in the pumps house for maintaining the line pressure 6-7 Kg / cm² in external hydrant system and sprinkler system. Terrace tank of 24KL capacity with 15 H.P. pumps are installed for maintaining line pressure above 3.5 Kg/ cm².

In case of power failure standby arrangement has been made for feeding water in to hydrant lines and sprinkler system by diesel engine driven pump installed in pump house.

5. Wet Riser System:

5.1 Two no internal hydrant wet risers have been provided in the Lab. Animal House building. The risers are directly tapped from the under ground main header. The risers are also connected to the terrace tank/ pump at the terrace level. Total 41 No. first aid house reels and single outlet landing valves with fire house cabinet have been provided at each floor level by tapping from each riser. Each riser is connected with 4 way Siamese connections with non-return valve and sluice valve. In case there is no water in the pipeline and underground sump, service water can be used through 4- way Siamese connection.

5.2 Automatic Sprinkler System:

5.1 Automatic sprinkler system consists of sprinkles network of pipelines, main header fire pumps, Jockey pumps and underground sump. Network of pipelines have been laid above the false ceiling level in each floor. The pipe network has been tapped form the main sprinkler riser, which has been provided at each floor level which has been wired to the analogue addressable type fire detection and Alarm panel located at ground floor through the concerned fire alarm modules. The zone of sprinkler operation could be identified in the above said panel.

The system shall be normally charged with water, in case of fire the room temperature inside the protected area will rise due to the heat developed during fire when it reaches the pre -determined temperature, the heat sensitive glass bulb of the sprinkler will shatter. Since the sprinkler is connected to the water line, water will be discharged over the fire area to extinguish fire, since the water movement is monitored by flow switch it will activate the alarm at the analogue addressable fire Detection & Alarm panel to identify the locations of the fire. Each branch line of the sprinkler risers at respective floors are provided with a flow switch which in turn in connected with respective buildings analogue addressable fire alarm panel to annunciate which sprinkler zone is under fire.

Pipes for fire protection system (for both wet riser cum down comer system and automatic sprinkler system) are M.S. E.R.W Black sheet pipes including all relevant fitting like bends, elbows, tees, anchor fasteners, coupling etc

For M.S Pipes 40mm dia and blow, tapered screwed socket welded fitting have been used. For M.S Pipes above 40mm dia but weeded joint type fittings have been used.

6. Centralized Water Softening Plant:

The main source of water needed for daily usages, laboratory processes and running of A.C. plants is the supply received from Noida Authority through 2 nos. 100 mm dia water connections of the Institute. The water received from

Noida is very hard. This has about 300 ppm hardness. The same water was being used for all above purposes from the year 2000 to 2005. During the said period it was observed that the pipe lines, fittings and air-conditioning system are affected due to hard water. Therefore water softening plant was installed at source of water distribution network in the campus to bring down the hardness below 50 ppm before use. This will enhance the life of pipes, fittings, HVAC equipment, R. O Water Machine etc.

The system consists of Multi Grade Filter, Activated Carbon Filter, Brine tank, pumps (2X15 HP), flow meter etc. The capacity of softening plant is about 40 cubic meters per hour.

6.1 Maintenance(Water Supply line including valves) of 02 nos. fountains in front of Lab. & Animal House entrance.

Maintenance:

7. Pumps:

7.1.1 Contractor will carryout preventive maintenance and periodical checks of all pumps under his scope and take precautions by which possibilities of failure and breakdown are made very remote.

7.2 Daily Checks:

Pressure gauge reading.

Bearing temperature.

Leakage through stuffing box.

Noise and vibration.

Voltage and current.

Constant flow of external sealing liquid if provide.

7.3 Periodical Maintenance:

(i) Replenish the grease: By Indian oil or Hindustan grease petroleum change the stuffing packing.

(ii) Check the alignment of the pump set.

(iii) Calibrate the measuring instruments.

(iv) Check the sealing connections for leakage etc.

7.4 Overhauling:

(i) With normal daily operating spell, the pump will be due for overhaul after about 5,000 working hours. This work shall be done by skilled personnel.

(ii) Dismantling and reassembly: As per operation and maintenance manual of manufactures respective model.

7.5 Repairs:

(i) The contractor will promptly attend any breakdown fault informed to him or noticed by him in the Pump, repair or replace any part / parts of pumps so as to keep the pump in working condition

8.0 Domestic Water Lines/Fire fighting & Garden hydrant Lines:

8.1 The contractor will promptly attend any breakdown repair noticed by him or informed by NIB.

(i) Check for operation of sluice valves, Gate valves, foot valves etc.

(ii) Check for any leakage, wear and tear in the water lines.

The contractor will promptly attend any breakdown / complaint repair in the system, noticed by him or informed by NIB. He will make necessary arrangement for repair/ replacement of worn out pipes/ parts and restore the system in healthy working condition.

9. Garden Hydrant Systems:

(i) Check for operation of sluice valves, Gate valves etc.

(ii) Check for any leakage, wear and tear in the water lines.

The contractor will promptly attend any breakdown / repair / complaint in the system noticed by him or informed by NIB. He will make necessary arrangement for replacement/ repairs of defective / worn out parts and restore the system in healthy working condition if any pipe / piece of pipe is not repairable the same shall be replaced with new pipe of same specifications.

9.1. Fire Fighting System (Internal & External):

Maintenance of Fire Diesel Engine:

❖ Routine Maintenance Work:

- (i) Clean engine with cotton cloths.
- (ii) Check engine oil level. Top up if required.
- (iii) Check fuel level in the tank. Top up if required.
- (iv) Check coolant level in radiator. Top up if required.
- (v) Engine start 10 minutes and records various parameter readings in logbook.

❖ Weekly Maintenance Works:

- (i) Check rubber hose and clean dry type air cleaner.
- (ii) Check the restriction indicator.
- (iii) Check engine oil.
- (iv) Check lube oil filter element.
- (v) Check Battery & Lead connection.

❖ Monthly Maintenance Works:

- (i) Check engine oil.
- (ii) Check lube oil filter element.
- (iii) Check Battery & Lead connection.
- (iv) Check fuel pumps breather.
- (v) Check V. belt condition (Adjust / replace if required).
- (vi) Check radiator fins (Cleaning and washing if required).

❖ Quarterly Maintenance Works:

- (i) Check Battery & Lead connection.
- (ii) Check fuel pumps breather.
- (iii) Check V. belt condition (Adjust / replace if required).
- (iv) Check radiator fins. (Cleaning and washing if required).
- (v) Check & clean air filter.
- (vi) Checking of diesel engine for any unusual noise and vibration, cooling water temperature
Pressure gauge reading.

❖ Half yearly Maintenance Works: (B-Check: 6 month or 250 Hrs which is earlier)

- (i) Change air filter.
- (ii) Change fuel filter.
- (iii) Change oil filter.
- (iv) Change lube oil.
- (v) Servicing of engine.

❖ Yearly Maintenance Work:

- (i) Check thermostat element.

- (ii) Check valve clearance.
- (iii) Check injector.
- (iv) Fuel tank cleaning.
- (v) Check exhaust silencer.

❖ **Major Over Haul Period:**

After 3000 running Hours engine needs to over haul (Servicing of combustion chamber). After 9000 running Hours engine needs major over hauls by authorized service dealer.

Maintenance of Battery & Record:

- (i) Clean battery with cotton cloths.
- (ii) Check electrolyte level (top up if required).
- (iii) Check specific gravity of electrolyte, and record in register or logbook.
- (iv) The specific gravity of battery shall not be less than 1200
- (v) Battery shall be replaced after every 2 years.

11. Operation and Testing of Fire Fighting Systems:

➤ **Routine Maintenance checks: -**

- (i) Cleaning inside the pump house.
- (ii) Cleaning the Fire engine, Motors, Pumps, panels and other relative accessories.
- (iii) Cleaning and booming the Hose/FRC cabinets inside and outside.
- (iv) Check the points where the pressure drops.
- (v) Maintain the record of work whichever is done daily.
- (vi) Routine checking of all FHC boxes/Fire hose reel boxes.

➤ **Weekly Maintenance Works: -**

- (i) Carry out wet- drill at different points and note down in register.
- (ii) Check all the sectionalize valves are open.
- (iii) Check the sectionalize valves and pipes for non-settling of the mud.
- (iv) Fire Diesel engine check on load at least 10 minutes.
- (v) Cleaning the Hose pipe nozzles and hose reel nozzles with Brasso.

➤ **Monthly Maintenance Works:**

(Testing of all pumps pressure setting when jockey pump are in manual mode: -

- a) Terrace pump at : 3.5 kg/cm
- b) Diesel engine driven pump at : 4.0 kg/cm²
- c) Motor driven pump at : 5.0 kg/cm²

d) Jockey pump at : 6.0 kg/cm²

(Put all the pumps in auto mode after testing)

➤ **Quarterly Maintenance Works:**

- (i) Cleaning /servicing/ greasing of sluice valves.
 - (ii) Servicing /Greasing/ glen dori of pumps.
12. Painting of electrical panels, motors, pumps & foundation channel, pipelines (Water lines, External Fire fighting lines, Wet riser lines & Sprinkler lines, FHC boxes etc.) will be carried out once a year by the contractor.
- 12.1 The Contractor will keep ready a welding set and an experienced welder for NIB site for repairs/ welding of pipelines for any leakage (in stainless steel pipelines/ M S pipelines/ Cast iron pipe lines) informed to him by NIB or noticed by him. The contractor will ensure that such type of urgent repairs are carried out immediately so as to resume the supplies promptly. The contractor will supply all the materials required for such repairs/ welding works. No extra payment shall be made for these works.
- 12.2 If at any occasion additional resources are required for rectifying such type of Breakdowns the Contractor will promptly arrange additional manpower, T & P etc. for the same as per scope of this contract.
- 12.3 The firm will maintain the logbook for the maintenance works carried out as given under. i. After each maintenance / testing, the details will be entered in the log book (maintenance) register along with the of testing date and results achieved. The entry in the register will be countersigned by the departmental Engineer.
- 12.4 Without taking prior approval from the site Engineer, no fittings / materials will be removed for the purpose of repairs. It will be the contractor's responsibility to provide alternative serviced temporary arrangements for such items removed during the period of repair. The item will be repaired and into position so as ensure that the systems remains fully functional all the time.
- 12.5 The firm shall maintain all cables from main control panel to local control panel and to detectors for each zone.
- 12.6 The system shall be maintained in working condition all the time until completion of contract. The firm will hand over to NIB the total system in fully functional condition at the end of completion of contract.
- 12.7 The demonstration on the working of system shall be given, once in a fortnight, to the Engineer-in-charge.
- 12.8 The firm has to clean the all equipment like pumps, Water Softening Plant equipment/tanks, Hose Reel/FHC Boxes etc. on regular basis under this contract

MAIN DUTIES OF SUB-FIRE OFFICER(s) AND FIREMAN(s)

- 13.1 The check list and test requirements mentioned in the tender documents are of general nature and indicative only. In case specific checks and additional tests, under the overall guidelines of Delhi/ Noida Fire Safety department are considered necessary for efficient working of the equipment system towards ensuring its functioning all the time, whether included in the tender specification / bill of quantities or not will be brought out at tendering stage itself. No claim whatsoever shall be entertained for such reasons.
- 13.2 . In case of incident of fire, the contractors available on duty, will ensure adequate operation of system fire fighting immediately and will also simultaneously inform Local Fire Office and staff for vacating the area under fire.
- 13.3 The deployed Sub Fire Officer of the contractor will be function as nodal person on spot rescue operation and he will help & guide the fireman/staff to control the fire and evacuation of the person/staff during emergency.
- 13.4 The firm shall depute to site one qualified Engineer to check the whole system at least once every month. A proper record will be maintained duly signed by the Engineer and countersigned Engineer of the Employer concerning such visits. The firm shall submit a list of persons deployed for the work.
- 13.5 The firm will demonstrate on daily basis proper working of the complete fire fighting system by testing the system for a period of 45 minutes the firm will also carry out wet drill once in a month or as and when required by the department and maintained the Log-Book register for the same.
- 13.6 **A compressive firefighting mock drill will be done (including training), Twice (Two Times) in a year during the contract period. An experienced Fire Officer should be deputed for said compressive drill without any extra cost. Firm's Senior Engineer will also be present. The firm will provided the all equipment/tools, fire Extinguisher, hooter/buzzers etc. during the said compressive drill required.**
- 13.7 The firm shall be responsible for proper working condition of the fire system all the time and all parts found defective / damaged will have to be replaced free of cost by the firm under the comprehensive contract.. In the event of failure of fire fighting system at the hour of need, the firm shall be fully responsible lapses and will have to meet all the losses uncured due to failure of fire fighting system.
- 13.8 The firm shall be responsible for supplying and maintaining all accessories, equipment, and panels, installed and being operated any loss or damage to the system components, line valves etc, due to faulty operation or any other reason shall be the responsibility of contractor and he will have to either replace the same or make good of the damages as the case may be.

- 13.9 Maintaining liaison with the Fire Department in case of fire and tests to be conducted to check the operation / readiness of the system shall be contractor's responsibility.
- 13.10 The Sub-fire officer(s) check the all parameter of the firefighting system and note down the reading in log book. They will maintained the all record related to firefighting system for Audit etc.
- 13.11. Sub-fire officer will be In-charge of the shift and carry out Drills and other routine station work.
- 13.12. Sub-Fire officer and fireman will be attend all serious fire, house collapse and other emergency calls promptly.
- 13.12 They will be direct and guide the officers and staff at all emergency calls.
- 13.13 To get the work done from outside agencies like Fire Station/Police and other departments of Municipal Corporation at time of emergencies.
- 13.14. They will be assist in investigating cause of fire and implementation of fire safety Rules and regulations.
- 13.15. To ensure that all events area recorded in the registers maintained in the Control room by the staff in proper sequence and form.
- 13.16. The Sub-Fire Officer will be maintained the records and the control room occurrence books in the proper manner.
- 13.17. They will carry out special jobs /works assigned related to his duties by other superiors.
- 13.18. They will be conduct fire drills at various station regularly and recorded in Log-book
- 13.19. They will be maintain all the Records at station updated all the time
- 13.20. They will be Nodal person to attend fire and rescue calls and other service calls and get the work done as well at the scene of fire and rescue service calls.
- 13.21. Keep various records maintain at station level (Petrol and Diesel Account / hose records/Muster books etc. updated all the time.
- 13.22.To inspect any premises sites plans for suggesting fire fighting and fire precautionary measures before granting license of permits.
- 13.23. To inspect any premises on complaints regarding fire hazards and submits reports to NIB and Fire Control Room accordingly in stipulated time.
- 13.24. To take and practice, parade, drills, physical drills etc.
- 13.25. He will be responsible to maintain the firefighting appliance and equipment in order and keep them in perfect working condition.
- 13.26. Supervise day-to-day activities of the shift.
- 13.27. To deliver lecture on various subjects pertaining to fire prevention / precautions, and firefighting etc.
- 13.28. To impart practical as well as the theoretical training to lower rank employees and other Public members.
- 13.29. Any other duty may be assigned by the superiors/NIB in addition to duties specified above.
- 13.30. He will be responsible to maintain the firefighting equipment(s) in neat & clean and healthy conditions.

- 13.31. The Fireman will attend fire and other emergency call such as House Collapses, Rescue human's animals and birds in the jurisdiction.
- 13.32. Fireman will well acquainted with all the information regarding water facilities, communication and fire risks in the area / fire station jurisdictions.
- 13.33 To keep the station premises and station appliances neat and clean and keep the fire and rescue appliances and other equipments in good working condition.
- 13.34. To carry out duties that may be assigned to him by his superiors.
- 13.35. Report Officer -in-Charge through proper channel of unauthorized stay of person (s) in station premises.
- 13.36. To remain alert while on duty all the time and not to leave the place of duty assigned by the superiors without prior permission / reliever.
- 13.37. To assist the Driver operator / superiors in proper maintenance of the brigade appliances and equipments.
- 13.38. Any other duties that may be assigned by the superiors in addition to duties specified above.
14. Non-deployment of competent staff / engineer service / and undue unjustified delays in rectification of any faults noticed and unsatisfactory maintenance of the complete fire system shall be treated as breach of the contract. Such situations, NIB may consider imposing penalty or deduction of money from the payment to be made to the firm. The decision of NIB in this regard shall be final and binding on the part of contractor

Operations and Maintenance of Neutralization System:

The effluent from the Laboratories & Animal House has to be discharged in the municipal sewer after treatment. Presently the effluent is collected in an underground masonry tank in the Lab. & Animal House premises. The nature of the effluent can be acidic/ basic, which is to be neutralized as per norms before discharge to Noida sewer line. A neutralization System with automatic pH correction (dosing of acid/ alkali as per requirement) having 16m³ Capacity (for 8 hours running) has been installed.

Component of the System:

Effluent pumps capacity, 2m ³ per hour	:	2 Nos.
Reaction tank with sensor	:	1 No.
Agitator 0.5 HP	:	1 No.
Dozing metering Pump 6 Lph at 3 bar.	:	2 Nos.
Control Panel	:	1No.
PH controller etc.	:	1 No.

Scope of Work:

1. Operation and maintenance of Neutralizer plant as required.

2. Check the performance through the logbooks and compare with initial performance parameters.
3. Preventive maintenance schedule and if required carryout oiling / greasing required.
- 4 Check the dosing system for operation.
- 5 Safety interlocking checking & overhauling of the starter panels.
- 6 Neat and clean all the equipment.
- 7 Required caustic soda/chemical shall be provided by the firm.
- 8 All required consumables and spares would be scope of the contractor.
- 9 Painting of all items one time in a year will be carried out properly.
- 10 If any part of or pump/motor/panel box/pipe found damage the same will be rectified/changed at the earliest to bring the system in running & healthy conditions.

ANNEXURE- II

The General Terms & Conditions for Annual Operation and Comprehensive Maintenance Contract.

1. The tender is for comprehensive maintenance of whole equipments as per the lists of Major equipment with scope of work are given in **ANNEXURE - I**. The associated accessories shall be part of the scope.
2. The equipment shall be handled & operated through trained and qualified skilled and experienced staff having relevant experience. The firm will deployed the manpower as follow: -

S.N	Details	Category	Nos.	Minimum Qualification	Experience
1.	Supervisor	Highly-Skilled	03 (01 in each shift)	Diploma in Mechanical/ Electrical engg.	4 to 6 years in operation & maintenance of Pump House equipments, fire fighting equipments
2.	Mechanic-cum-Operator	Skilled	03(01 in each shift)	ITI certificate course in Elect./Mech.	3 to 5 years in relevant field
3.	Sub-Fire Officer	Highly-Skilled	03 (01 in each shift)	Diploma in Fire Service & Fire Safety from recognized Institute/ College	4 to 6 years experience in relevant field.
4.	Fireman and Emergency Rescuer	Skilled	03 (01 in each Shift)	Matric	2 to 03 years experience in relevant field.
5.	Technical Helper	Semi-Skilled	03 (01 in each Shift)	Matric	1 to 02 years experience in relevant field.

- (i) **Supervisor:** 01(one) qualified engineering diploma holder (Mech./Electrical) in each 08 hours shift including Saturday/Sunday/holidays.
- (ii) **Sub-Fire officer:** 01 (One) Sub-Fire officer in each shift for 08 hours, three shifts per day for the period of 365 days including Saturday/Sunday/holidays.
- (iii) **Mechanic/Operator:** 01 (One) in each shift for 8 Hours, three shifts per day for the period of 365 days including Saturday/Sunday/holidays.

- (iv) **Fireman and Emergency Rescuer:** 01 (one) in each shift for 08 hours, three shifts per day of 365 days including Saturday/Sunday/holidays.
- (v) **Helper:** 01 (one) in each shift for 08 hours, three shifts per day of 365 days including Saturday/Sunday/holidays

The contractor as and when needed for maintenance purpose shall also deploy requirement of other manpower at site without any cost of NIB. Proper supervision of firm / agency / contractor's senior engineers has to be provided to over see the whole work for smooth operation and maintenance services as and when necessary but at least twice a month and they will record their findings in the log-books.

3. Service Report, log-book and repair as well as spares changes reports shall be provided by Firm/ Agency/ Contractor showing the complete maintenance done on the equipment.
4. List and technical specifications as well as source of supply for all maintenance materials such as lube oil & consumables parts, chemicals etc shall be provided by the Firm/ Agency/ Contractor under the scope.
5. All routine/day to day maintenance material such as tool & tackles, measuring instruments, lube oil, oil filter, fuel filter, electric contractor, indicating lamp, HRC fuse, relays, nut bolts, grease, gland packing, gasket(different sizes), oil seal, o-ring, bush, insulation , cabling, earthing are covered under day to day/routine maintenance contract Pump house equipment ,fire fighting water supply, neutralization plant etc. shall be provided by the firm/agency/contractor and a minimum quantity of such material may be kept at NIB site to minimize time of maintenance with out any cost of NIB.
6. Care should be taken so that the system doesn't leads to major breakdown. In the event of any break down, the same will be rectified immediately failing which such rectification may be done at the risk and cost of the firm/agency/contractor and a suitable penalty may impose for such delay in rectification/maintenance. Similarity if any breakdown takes place due to negligence of the firm//agency/contractor, the whole component has to be replaced/rectified to bring the original condition immediately.
7. The contractor shall take all necessary safety precaution for his workers working inside the NIB premises and shall be responsible for any first aid/emergency treatment for his employees/workmen deployed by him. **First Aid box shall be arranged by the Contractor at the site of work. No extra payment shall be made by the account.**

8. Rates should be quoted in figure as well as in words as per ANNEXURE -V. Once the rates are quoted it shall not be withdrawn. **The price break-up based upon the central minimum (as per Govt.of India) applicable daily wages for the quoted rates to be enclosed with the Price-bid which will be taken as part of bid evaluation.**
9. The Director, NIB reserves the irrevocable authority to accept or reject tender without assigning any reasons.
10. No addition/alteration in the tender documents is allowed. The tenderer shall send the original tender documents duly signed by them in each page in token of acceptance of all the conditions of this tender, Deviation if any, or additional matters may be mentioned on the deviation sheet (Annexure -IV) enclosed with the offer. Each deviation from the conditions of tender document shall show the clause number of particular item of work, page no and the Annexure No. Major deviations may cause rejection of the offer. If certain clause is not accepted, deviation may be given on separate deviation sheet as per ANNEXURE - IV.
11. No advance payment will be made at any circumstances. However, on successful completion of every month, payment will be released within 15 days from submission of bill.
12. All pages of the tender document should be signed and stamped by the authorized signatory of the firm and enclosed in sealed Envelope No.1 in original along with deviation sheet (ANNEXURE-IV) if any. ANNEXURE-V, which is the Price-Bid(Part A & B) format shall be photocopied and after filling up the prices on the photocopy this shall be duly signed and stamped by the authorized signatory and enclosed in sealed *Envelope No.2*. The original *Annexure-V* shall remain part of tender document kept in Envelope no-1 duly signed and stamped without filling as a token of acceptance of the proforma.
13. Late tenders/ unsigned quotations may be rejected.
14. No correspondence will be entertained in this regard unless otherwise sought from tenderer by this office.
15. In case of a local firm/agency/ contractor, they may deliver/ submit the tender personally in NIB's **TENDER-BOX** on or before the due date and time. Postal delay for tender submitted by post shall also not be accepted and all tender submitted in time only would be considered.
16. The services required are for initial a period of one year. The contract may also be extended on mutual consent subsequently. The contract may be terminated at

any stage solely at the option of NIB with an advance notice of one month without assigning any reason.

17. Precaution against any fire hazards or other damages to Plant and equipment shall be arranged by the firm.
18. The firm/ agency/ contractor shall fulfill the requirement of various law enforcing agencies / local authorities etc by taking their approvals as and if required.
19. Electricity and Water for this work will be provided by NIB free of cost. The furniture for sitting purpose of their deputed staff if required should be provided by the firm/ agency contractor.
20. The firm/ agency/ contractor will be responsible for the safety of their deputed staff during the performance of their duty at site and NIB shall be identified in this request. The contractor shall be fully responsibility for any liability/compensation in case of any accident or otherwise or any incident for the staff deputed by firm and NIB shall not be required to give any compensation and NIB shall remain totally indemnified by the contractor. In case of short deployment, the correspondingly payment will deducted from billing amount.
21. In case any of staff is not found up to mark and not able to do work properly, he will have to be changed as per the instruction of NIB. The staff has to maintain good behavior at site. Any person found discourteous or misbehaving shall have to be replaced immediately. Decision of NIB shall be final and binding on the contractor/firm.
22. In case of any problem with the equipment the firm/ agency/contractor's deputed staff will keep NIB informed immediately.
23. All disputes are subject to DELHI Jurisdiction.
24. The tender shall be remain valid for acceptance for a period of 120 days from the date of opening.
25. The firm/agency/contractor shall keep all the equipments wall maintained, neat and clean including the Pump House itself and adhere to the maintenance schedule of various equipment.
26. If the contractor fails to supply the water for various purpose to NIB , a sum of Rs. 2000/- per hour of such failure will be deucted from the payable amount of the contractor/firm.

27. **In the event of any damage caused to the installation due to negligence, carelessness or inefficiency of the staff, the contractor shall be reasonable to make good the same. Decision of the NIB's shall be final and binding on the contractor for carrying out suitable recovery.**
28. The rates shall be inclusive of Sale Tax, Excise duty, and work contract Tax or any other taxes, duties, levies etc. Even if there are any variations in these during the contract period, the rate shall remain unchanged and no additional payment can be claimed.
29. Location where the work has to be executed at NIB Noida.
30. All welding equipments, materials etc will be provided by the contractor.
31. All the service will be required to run in General shift and three shift (round the clock including Saturday, Sunday & public holiday etc) depending upon requirement of services.
32. Contractor shall be solely responsible for payment of wages/salaries and allowances to his personnel that might become applicable under any new government's order. NIB shall have no liability whatsoever in any manner.
33. The attested copies of the balance sheet/audited statement of accounts or any other relevant document to prove the minimum average annual turn over in preceding last three financial years to be submitted with technical-bid. The same details also be filled in the proforma(**APPENDIX-A**).

LIST OF SPARE/CONSUMABLE WHICH ARE TO BE KEPT IN STOCK BY THE CONTRACTOR:

The following listed items of spare/consumable are minimum, and can be expended based on experience during operation and routine/comprehensive maintenance services, as per requirement.

1. HRC fuses of various ratings.
2. Re-wirable fuse wires, fuse holders and fuse base etc.
3. Grease and lubricating oil required for lubrication of the various mechanical parts of the equipments/motors/pumps etc.
4. Valves of different sizes and specifications as per site requirement.
5. Lugs/thimbles, brass compression gland of various sizes and specifications, as per site requirement.
6. LT Cable jointing kit of various sizes/specifications.
7. GI pipes and nipples of various sizes/specifications.
8. Bearings of various type and make etc as per site requirement.
9. Various types of MCBs/ELCBs of different ratings like 32/40/64/100 Amp and above ratings, as per site requirement.
10. Tools & tackles as per site requirement.
11. Nut-Bolt of various size, gasket, O-ring etc.
12. **Firefighting tools like ladder, safety belt, helmet, gloves, safety cloths, shoes,PPE etc. which are necessary for firefighting service shall be provided by the contractor/service agency, no extra payment shall be made in this regard.**

DEVIATION SHEET

(Deviation/ additions from tender conditions may be mentioned clearly giving clause no of items, page no and Annexure no. to co-relate. Major deviations may cause rejection of tender. More sheets can be added if required).

S.N.	Item No. & Page No.	Details of Departure	Reason for Departure

Seal & Signature of the Tenderer

NOTE: Where there is no deviation, the statement should be returned duly signed with an endorsement indicating **"No Deviations"**.

ANNEXURE-VI (A)

PRICE-BID

(This ANNEXURE -VI has to be photo copied, and then fill-up the rates/prices quoted on the photo copy only, and shall be duly signed and stamped by the authorized signatory, and enclosed in the sealed Envelope No.2). The original ANNEXURE-VI without filling the price shall be enclosed in Technical-bid(Envelope No.1) as a token of acceptance of this proforma.

PRICE OFFER FOR "OPERATION AND NON-COMPREHENSIVE MAINTENANCE FOR (A) Operation & Non-Comprehensive maintenance of (i) Water supply system & water pumps (ii) Garden Hydrant System & Submersible pumps.(B) Operation & Non-Comprehensive Maintenance of Fire Fighting System (i) Fire Pumps (ii) Sprinkler system & Wet Riser system in Lab & Animal House. (iii) Diesel Fire pumps in pump house (iv) Fire Safety (C) Operation and Non-Comprehensive maintenance of Water Softening Plant.(D) Operation and Non-Comprehensive Maintenance of Neutralization System & Maint. 02 nos. fountains in front of Lab & Animal House in NIB CAMPUS." as per aforesaid tender document including APPENDIX -A & B, ANNEXURE -I, II, III & IV.

(X) For Operation & Routine Maintenance Contract:

S.No.	Description of Work	Monthly Charges (in Rs.) with supply of spares/consumables to NIB's Account
1.	Operation & Non-Comprehensive Maintenance of following services:	
1(A)	(i) Water supply system & Water Pumps (ii) Garden hydrant system & Submersible Pumps for three Shift (round the clock) i.e., 24x7	Rs..... /per month
1(B)	Firefighting system i.e., (i) Fire Pumps (ii) Diesel Fire Pumps in Pump House (iii) Sprinkler system & Wet Riser system installed in Laboratory & Animal House for three Shift (round the clock) i.e., 24x7	Rs..... /per month
1(C)	Water Softening plant. (excluding supply of multi grade filter, activated carbon filter, salt & resin only) for three Shift (round the clock) i.e., 24x7	Rs..... /per month
1(D)	Neutralization system & Maintenance of 02 nos. fountain in front of Lab & Animal House for three Shift (round the clock) i.e., 24x7	Rs..... /per month

2.	Total Monthly Charges all above works (1A+1B+1C+1D) including all taxes and levies except Service Tax, for three shift (round the clock) i.e. 24x7 mode.	Rs...../per month
3.	% Overheads over the bill value to be charged by the bidder in case he needs to procure spares/consumable from the market on specific instructions of NIB. The bill value will not exceed the MRP of the item bought and supporting documents for MRP will need to be submitted for claiming re-imburement of the bill. [Please note that all charges like procurement cost, cartages, insurance etc. will be deemed to be covered under the % overheads to be charged by the contractor]. <i>Value of Overhead cost for Bid Evaluation purpose assuming annually spares consumption for ...% of Rs.4,00,000/- (inclusive all taxes)</i>	Rs.....
4.	Total of S. No. 2 + {S. No. 3 divided by 12} for evaluating the Lowest Bid	Rs..... per month
5.	Total of S. No. 2 + 4	Rs...../-per month
6.	Service Tax @.....	Rs...../-per month
7.	Total Value inclusive of Service Tax	Rs...../-per month

For Operation & Non-comprehensive Maintenance i.e. supply of spare/consumable to NIB's Account)

Total charges: (Rs in figures).....per month.

(Rs in words).....per month.

The total amount (Rs in figures).....per year.

The total amount(Rs in words).....per year.

NOTE: -

1. The quoted prices are valid for 120 days from the due date of opening of the tender.
2. The contract period will be initially one year period unless prematurely closed as per clause mentioned elsewhere in the NIT. The contract can be extended for a further period of 2 years based on satisfactory performance of the contractor.
3. **The tender not fulfilling the Central Minimum Wages criteria as per Ministry of Labour, Govt of India, for NOIDA- comes under 'A' Category, the submitted tender shall be rejected.**
4. Minimum wages to be complied with- the contractor shall comply with all the provisions of the Ministry Wages Act,1948, and contractor labour (Regulation and Abolition) Act, 1970, amended from time and rules framed hereunder and other labour laws affecting contract labour that may be brought into force from time to time as applicable in Ministry of labour, Govt. of India.
5. **If there is any variation in minimum wages during the contract period, the monthly contract price/rates will be revised based on any increase/decrease of minimum wages for which documentary proof will be furnished by the contractor.**
6. 24x7 mean 03 Shift per day, each shift for 08 hours. Rates to be quoted accordingly without any deviation.
7. **The contractor should submit the price break-up based upon the minimum daily wages for NOIDA- 'A' Category (as per Ministry of Labour, Govt. of India) for quoted rates to be enclosed with the price-bid, which will be taken as part of bid evaluation.**
8. The require consumable/spare to be arranged/supplied by the service agency. The cost of the consumable/spare plus % of over head cost will be reimbursed to the service agency subject to maximum MRP of the item bought, and the documents in support of MRP will be submitted alongwith bill/invoice by them.
9. It may here be noted specifically that the **discretion to award the works** as in Price Bid (X) for Operation & Routine Maintenance – Non-Comprehensive contract **OR** Price Bid (Y) for Operation and Comprehensive Maintenance – Comprehensive contract will **VEST ENTIRELY AT THE DISCRETION OF NIB** and the Bidder will have no say whatsoever in the matter.
10. In case of Non-Comprehensive Routine Maintenance contract all routine working consumables like Cleaning cloth, Cleaning consumables, Not Bolts, Gland packing, Gasket,grease, lubrication oil, Brushes, Emery Paper, Lapping

paste etc. and which are not going permanently into the installation will be deemed to be covered under the charges as quoted under Operation & Non-Comprehensive contract and will be supplied by the contractor to his workmen.

11. Director, NIB has the authority to periodically appoint Technical Auditor or some other agency to evaluate the maintenance work done by the contractor and recommendations made thereof for compliance in letter and spirit. This is primarily to ensure that the Reliability of the system is not compromised with due to lack of Maintenance.

*Signature of the Tenderer and seal
(Name & Designation of the authorized signatory)*

ANNEXURE-VI(B)

PRICE-BID

(This ANNEXURE -VI has to be photo copied, and then fill-up the rates/prices quoted on the photo copy only, and shall be duly signed and stamped by the authorized signatory, and enclosed in the sealed Envelope No.2). The original ANNEXURE-VI without filling the price shall be enclosed in Technical-bid(Envelope No.1) as a token of acceptance of this proforma.

PRICE OFFER FOR “OPERATION AND COMPREHENSIVE MAINTENANCE FOR (A) Operation & Comprehensive maintenance of (i) Water supply system & water pumps (ii) Garden Hydrant System & Submersible pumps.(B) Operation & Comprehensive Maintenance of Fire Fighting System (i) Fire Pumps (ii) Sprinkler system & Wet Riser system in Lab & Animal House. (iii) Diesel Fire pumps in pump house (iv) Fire Safety (C) Operation and Comprehensive Maintenance of Water Softening Plant.(D) Operation and Comprehensive Maintenance of Neutralization System & Maint. 02 nos. fountains in front of Lab & Animal House in NIB CAMPUS.” as per aforesaid tender document including APPENDIX -A & B, ANNEXURE -I, II, III & IV.

(Y) Operation and Comprehensive Maintenance Contract:

S.No.	Description of Work	Monthly Charges including Supply of spares/consumable to Contractor’s Account (in Rs.)
1.	Operation & Comprehensive Maintenance of following services:	
1 (A)	(i) Water supply system & Water Pumps (ii) Garden hydrant system & Submersible Pumps. (iii) Maintenance of 02 nos. fountains water supply piping system in front of Lab & Animal House for three Shift (round the clock) i.e., 24x7	Rs...../per month
1(B)	Firefighting system (i) Fire Pumps (ii) Diesel Fire Pumps in Pump House (iii) Sprinkler system & Wet Riser system installed in Laboratory & Animal House for three Shift (round the clock) i.e., 24x7	Rs...../per month
1(C)	Water Softening plant.(excluding supply of multi grade filter, activated carbon filter, salt & resin only) for three Shift (round the clock) i.e., 24x7	Rs...../per month

1(D)	Neutralization system and Maintenance of 02 Nos. Fountain in front of Lab. & Animal House Building for three Shift (round the clock) i.e., 24x7	Rs...../per month
2.	Monthly Charges all above works (1A+1B+1C+1D) including all taxes and levies except Service Tax, for three shift (round the clock) i.e. 24x7 mode.	Rs...../per month
3.	Service Tax @.....%	Rs...../per month
4.	TOTAL of S. No. 2 + 3	Rs...../per month

For Operation & Comprehensive Maintenance i.e. supply of spare/consumable to the Contractor's Account

Total Charges: (Rs in figures).....per month.

(Rs in words).....per month.

The total amount(Rs in figures).....per year.

The total amount(Rs in words).....per year.

NOTE: -

1. The quoted prices are valid for 120 days from the due date of opening of the tender.
2. The contract period will be initially one year period unless prematurely closed as per clause mentioned elsewhere in the NIT. The contract can be extended for a further period of 2 years based on satisfactory performance of the contractor.
3. **The tender not fulfilling the Central Minimum Wages criteria as per Ministry of Labour, Govt of India, for NOIDA- comes under 'A' Category, the submitted tender shall be rejected.**
4. Minimum wages to be complied with- the contractor shall comply with all the provisions of the Ministry Wages Act,1948, and contractor labour (Regulation and Abolition) Act, 1970, amended from time and rules framed hereunder and other labour laws affecting contract labour that may be brought into force from time to time as applicable in Ministry of labour, Govt. of India.

5. **If there is any variation in minimum wages during the contract period, the monthly contract price/rates will be revised based on any increase/decrease of minimum wages for which documentary proof will be furnished by the contractor.**
6. 24x7 mean 03 Shift per day, each shift for 08 hours. Rates to be quoted accordingly without any deviation.
7. **The contractor should submit the price break-up based upon the minimum daily wages for NOIDA- 'A' Category (as per Ministry of Labour, Govt. of India) for quoted rates to be enclosed with the price-bid, which will be taken as part of bid evaluation.**
8. The require consumable/spare to be arranged/supplied by the service agency. The cost of the consumable/spare plus % of over head cost will be reimbursed to the service agency subject to maximum MRP of the item bought, and the documents in support of MRP will be submitted alongwith bill/invoice by them.
9. It may here be noted specifically that the **discretion to award the works** as in Price Bid (X) for Operation & Routine Maintenance - Non-Comprehensive contract **OR** Price Bid (Y) for Operation and Comprehensive Maintenance - Comprehensive contract will **VEST ENTIRELY AT THE DISCRETION OF NIB** and the Bidder will have no say whatsoever in the matter.
10. In case of Non-Comprehensive Routine Maintenance contract all routine working consumables like Cleaning cloth, Cleaning consumables, Not Bolts, Gland packing, Gasket,grease, lubrication oil, Brushes, Emery Paper, Lapping paste etc. and which are not going permanently into the installation will be deemed to be covered under the charges as quoted under Operation & Non-Comprehensive contract and will be supplied by the contractor to his workmen.
11. Director, NIB has the authority to periodically appoint Technical Auditor or some other agency to evaluate the maintenance work done by the contractor and recommendations made thereof for compliance in letter and spirit. This is primarily to ensure that the Reliability of the system is not compromised with due to lack of Maintenance.

Signature of the Tenderer and seal
(Name & Designation of the authorized signatory)

PROFORMA FOR PERFORMANCE BANK GUARANTEE
(On stamp paper of appropriate value from any Nationalized Bank)

To,

M/s National Institute of Biologicals
Plot No. A-32, Sector- 62(Institutional Area),
NOIDA-201 309(U.P)

Dear Sir,

In consideration of National Institute of Biologicals (hereinafter called as the Employer which expression shall include his successor and assigns having awarded to

..... (here in after referred to as the said Contractor or Contractor' when expression shall wherever the subject of context so permits include its successors and assigns) a contract No. In terms inter alias, of the NIB's Letter No. dated. and the General Conditions of Contract and upon the condition of the contractor's furnishing security for the performance of the contractor's obligations and discharge of the contractor's liability under in connection with the said contract up to a sum of Rs..... (Rupees..... Only) amounting to 10 % (Ten) percent of the total contract value.

1. We. (here in after called "The Bank which expression shall include its successors and assigns) hereby jointly and severally undertake to guarantee the payment to The Employer in rupees forthwith on demand in writing and without protest of demur or any and all moneys anywise payable by the contractor to The Employer under in respect of or in connection with the side contract inclusive of all The Employer's losses and damages and costs, (inclusive between attorney and client) charges and expenses and other moneys anywise payable in respect of the above to this guarantee up to an aggregate limit of Rs. (Rupees.....only).

2. We Bank further agree that The Employer shall be sole judge of and as to whether the said contractor has committed any breach or breaches of any of the terms and conditions of the said contract and the extent of loss, damage, cost, charges and expenses caused to or suffered by or that may be caused to or suffered by The Employer on account

there of and the decisions of The Employer that the said Contractor has committed such breach or breaches and as to the amount or amounts of loss, damage, costs, charges and expenses caused to or suffered by The Employer from time to time shall be final and binding on us.

3. The Employer shall be at liberty without reference to the bank and without affecting the full liability of the bank hereunder to take any other security in respect of the Contractor's obligations and liabilities hereunder or to vary the contract or the work to be done there under vis-à-vis the Contractor or to grant time or indulgence to the Contractor or to reduce or to increase or otherwise vary the prices of the total contract value or to release or to forbear from enforcement of all or any of the security and/ or any other security (ies) now or hereafter held by the Employer and no such dealing (s) reduction (s) increase (s) or other indulgence (s) or arrangements with the Contractor or release or forbearance whatsoever shall absolve the Bank of the fail liability to The Employer hereunder or prejudice the rights of The Employer against the bank.
4. This guarantee shall not be determined or affected by the liquidation or winding up, dissolution, or change of constitution or insolvency of the Contractor but shall in all respect and for all purposes be binding and operative until payment of all monies payable to The Employer in terms thereof.
5. The bank hereby waives all rights at any time inconsistent with the terms of this guarantee and the obligations of the bank in terms hereof shall not be anywise affected or suspended by reason of any dispute or dispute having been raised by the Contractor stopping or preventing or purporting to stop or prevent any payment by the bank to The Employer in terms hereof.
6. The amount started in any notice of demand addressed by the Employer to the bank as liable to be paid to the Employer by the Contractor or as suffered or incurred by The Employer on account of any losses or damages of cost, costs, charges and / or expenses shall be conclusive evidence of the amount so liable to be paid to The Employer of suffered or incurred by The Employer as the case may be and shall be payable by the bank to The Employer in terms hereof.
7. This guarantee shall be a continuing guarantee and shall remain valid and irrevocable for all claims of the Employer and liabilities of the contractor arising up to and until midnight of.....
8. This guarantee shall be addition to any other guarantee or security whatsoever that The Employer may now or at any tome anywise may have in relation to the contractor's obligations/ or liabilities under and/ or in connection with the said contract, and The Employer shall have full authority to have recourse to or enforce this security in preference to any other guarantee or security which The

Employer may have or obtain and no forbearance on the part of The Employer in enforcing or requiring enforcement of any other security shall have the effect or releasing the Bank from its full liability hereunder.

9. It shall not be necessary for the Employer to proceed against the said Contractor before proceeding against the Bank and the Guarantee herein contained shall be enforceable against the bank notwithstanding that any security which the Employer may have obtained or obtain from the contractor shall at the time when proceedings are taken against the said bank hereunder be outstanding or unrealized.
10. We the said Bank undertake not to revoke this guarantee during its currency except with the consent of the Employer in writing and agree that any change in the constitution of the said contractor or the said Bank shall not discharge our liability hereunder.
11. We.the said Bank further that we shall pay forthwith the amount stated in the notice of demand notwithstanding any dispute/ difference pending between the parties before the arbitrator and/ or that any dispute is being referred to arbitration.
12. Notwithstanding anything contained herein above, our liability under this guarantee shall be restricted to Rs. (Rupees.....) and this guarantee shall remain in force tilland unless a claim is made on us within 3 months from that date, that is before all the claims under this guarantee shall be forfeited and we shall be relieved of and discharged from our liabilities thereunder.

Datedday of2016.

For and on behalf of Bank.

Issued
Under