TENDER DOCUMENT

TENDER No.: EPI/ERSite/685/STP/063

FOR

“Design, Supply, Installation, Testing & Commissioning of Sewage Treatment Plant and other related works on turnkey basis for the construction of Bihar police Academy Project at Rajgir, Nalanda, Bihar”.

VOLUME – II

(Additional Conditions of Conditions (ACC), Memorandum, Technical Specification)

ENGINEERING PROJECTS (INDIA) LIMITED
(A GOVT. OF INDIA ENTERPRISE)
Core-3, SCOPE Complex,
7, Lodhi Road, New Delhi – 110003
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MEMORANDUM
(ENCLOSURE TO FORM OF TENDER)

Ref. : Tender For “Design, Supply, Installation, Testing & Commissioning of Sewage Treatment Plant and other related works and other related works on turnkey basis for Construction of Bihar Police Academy Project, Rajgir, Nalanda

NIT No. : EPI/ERSite/685/STP/063

Dated:………………

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Signature of Contractor

EPI
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SIGNATURE OF TENDERER:

NAME (CAPITAL LETTERS):

OCCUPATION:

ADDRESS:

SEAL OF TENDERER
The following Additional Conditions of Contract shall be read in conjunction with General Conditions of Contract. If there are any provisions in these Additional Conditions of Contract, which are at variance with the provisions of General Conditions of Contract, the provisions in these Additional Conditions of Contract shall take precedence.

1.0 INTRODUCTION

Bihar Police Building Construction Corporation has decided to Construct Bihar Police Academy at Rajgir, Nalanda.

2.0 Description of the Project and scope of work:

The project site is located at Rajgir and the scope of works includes design, supply, installation, testing & commissioning of Sewage Treatment Plant and other related works on turnkey basis as per BOQ (enclosed).

Scope of Work:

The brief scope of work included in this tender shall include (but not limited to) Design, Supply, Installation, Testing & Commissioning of Sewage Treatment Plant on turnkey basis (Effluent from Domestic Sewage from toilets/bathrooms/ and kitchen wastes) and other related works as per BOQ enclosed for construction of Bihar Police Academy Project at Rajgir, Nalanda. The Vendor shall start fabrication after approval of shop drawings and getting manufacturing clearance from Client/Consultant.

Apart from above, any other services not covered above but required as per direction of EPI/BPBCC are deemed to be included in the scope of work.

The work to be carried out on Item rate basis as per bill of quantities and tender conditions.

3.0 ORDER OF PRECEDENCE OF DOCUMENTS

i. LOI / Work Order
ii. Approved BOQ by Client/Consultant
iii. Approved Drawings
iv. Indian standard specifications of BIS codes
v. ACC.
vi. GCC
4.0 DISQUALIFICATION

The tenderers may note that they are liable to be disqualified and not considered for the opening of Price Bid if;

a) Representation in the forms, statements and attachments submitted in the pre-qualification document are proved to be incorrect, false and misleading.

b) They have record of poor performance during the past 10 (ten) years such as abandoning the work, rescinding of contract for which the reasons are attributable to the non-performance of the VENDOR, inordinate delay in completion, consistent history of litigation / arbitration awarded against the VENDOR or any of its constituents or financial failures due to bankruptcy etc. in their ongoing / past projects.

c) They have submitted incompletely filled in formats without attaching certified supporting documents and credentials to establish their eligibility to participate in the Tender.

d) If the tenderers attempt to influence any member of the selection committee.

EPI reserves its right to take appropriate action including disqualification of tenderer(s) as may be deemed fit and proper by EPI at any time without giving any notice to the VENDOR in this regard. The decision of EPI in the matter of disqualification shall be final and binding on the Tenderers.

5.0 SET OF TENDER DOCUMENTS- Clause no. 6.0 of EPI’s GCC shall be modified as under:-

The set of tender documents shall contain one set of hard copy of tender drawings. The original hard copy of tender drawings shall be returned along with the tender documents duly signed and stamped by the tenderer and shall form part of agreement. The following documents will complete a set of Tender Documents

A) Volume-I:
   i) Notice Inviting Tender,
   ii) Addendum to ITT
   iii) ITT & EPI’s General Conditions of Contract (GCC) (soft copy)

B) Volume-II:
   i) Additional Conditions of Contract (ACC)
   ii) Memorandum
   iii) Technical Specification

C) Volume-III:
   Un-Price Bid and Bill of Quantities

D) Volume-IV
   i) Drawing
6.0 Prior approval shall be obtained from the Engineer-In-Charge of EPI/BPBCC/consultant for all drawings & designs, specifications, finishes and all materials to be used for the works. All materials to be used for this work shall conform to relevant Bihar PWD specification/IS code or CPWD Specifications applicable in the contract. All brought out material shall be of BIS approved manufacturer. Engineer-In-Charge of EPI/BPBCC shall be entitled to get any material, procured for the works, tested in any laboratory other than site testing laboratory and the cost for such testing including the cost of delivery of the material to the laboratory are to be borne by the Tenderer.

7.0 **RETENTION MONEY** - Clause no. 10.0 of EPI's GCC shall be modified as under:

The retention money shall be deducted from each running bill of the VENDOR at 8% (eight percent only) of the gross value of the Running Account. The Earnest Money Deposited by the tenderer in the form of Demand Draft will be adjusted as part of the Retention Money. The Retention Money shall be refunded to the Contactor after expiry of defects liability period.

8.0 **SECURITY DEPOSIT CUM PERFORMANCE GUARANTEE**:–

The contractor is required to furnish security-cum-performance guarantee equal to 5 % (Five percent) of total order value within 10 (Ten) days from the date of receipt of LOI/Work Order for due and proper fulfillment of the contract. The Security cum Performance Guarantee is to be deposited in the form of an unconditional irrevocable Bank Guarantee from a Scheduled Bank in EPI's Proforma, valid up to sixty months after expiry of defect liability period or issue of handing over certificate whichever is later.

9.0 **TAXES AND DUTIES** – Sub-clause no. 13.1 of Clause 13.0 of GCC shall be modified as under. Sub-clauses no. 13.2, 13.3, 13.4 & 13.5 of clause no.13.0 stand good.

“The VENDOR shall be responsible for the payment, wherever payable, at his own cost of all taxes such as excise duty, custom duty, sales tax, including the purchase tax, consignment tax, work contract tax, service tax, VAT or any other similar tax in the state concerned, turnover tax, entry tax, toll tax, octroi charges, royalty, cess, labour cess, professional taxes, levy and other tax (es) or duty (ies) which may be specified by Local / State / Central Government from time to time on all materials, articles which may be used for this work. The rates quoted by him in the Tender in Bill of Quantities shall be inclusive of all such taxes, duties, etc. The imposition of any new and / or increase in the aforesaid taxes, duties, levies (including fresh imposition of work contract tax, turnover tax, sales tax on work contract, VAT or any other similar tax) etc. during the currency of the contract shall be borne by VENDOR and shall not be paid or reimbursed to the VENDOR by EPI. In the event of non-payment / default in payment of all the above taxes and duties etc. by VENDOR, EPI reserves the right to with-hold the amount form due / payments of VENDOR and make payment to the concerned Local / State / Central Government authorities or to labourers as may be applicable. The VENDOR should submit along with the Tender Registration Certificates of Sales Tax, Sales Tax / VAT on works contract
VAT, Service Tax etc. otherwise appropriate recovery shall be made from his bills”. While raising Invoice, contractor has to provide proper tax invoice to EPI showing therein the taxes/duties involved separately along with applicable changes.

10.0 EXTRA OR DEVIATION ITEMS

Rate for extra or deviation items are to be derived from PWD (BIHAR) current schedule of rates or DSR or MES or item rate analysis. If not possible, to be derived as per market analysis. After rates are approved and payment is received from client, 90% payment as per the approved rates shall be paid to the vendor and 10% shall be retained by EPI towards its overhead & profit.

11.0 COMPLETION AND TAKING OVER

As soon as the project is finally completed, the VENDOR shall inform EPI and EPI shall in turn inform to BPBCC. BPBCC shall nominate a Board of Officers for checking/verification of completed work as per the scope of work for final taking over the project.

12.0 A final certificate of rectification of all defects pointed out by the handing over taking over board detailed by BPBCC /EPI and / or during defect liability period shall be obtained from the nominated officer of BPBCC /EPI prior to releasing of the Security deposit by EPI.

13.0 Clause No. 72.4.1 of GCC stands modified as under

Within 10 (Ten) days of date of Letter of Intent, the VENDOR shall submit a Time and Progress Chart (CPM/PERT/Quantified Bar Chart) and get it approved by the Engineer-in-Charge/ project Incharge of EPI. The Chart shall be prepared in direct relation to the time stated in the contract documents for completion of items / scope of the works. It shall indicate the forecast (milestones) of the dates of commencement and completion of various items trades, sections of the work and may be amended as necessary by agreement between the Engineer-in-Charge/ project Incharge of EPI and the VENDOR within the limitations of time imposed in the contract documents, to ensure good progress during the execution of the work. The physical report including photographs shall be submitted by the VENDOR on the prescribed format & the intervals (not later than a month) as decided by the Engineer-in-Charge of EPI/BPBCC. The compensation for delay as per clause 72.1 of EPI’s GCC (revised as per ACC) shall be leviable at intermediate stages also, in case the required progress is not achieved to meet the time deadlines of the completion period and / or milestones of time and progress chart provided always that the total amount of compensation for delay to be paid under this condition shall not exceed 10% of the tendered value of work.

14.0 COMPLETION SCHEDULE

Work shall be completed within 6 months from the date of LOI/Work Order.

15.0 PLANT & MACHINERY
All plant & machinery required for execution of work shall have to be arranged by the vendor at his own cost.

16.0 The final bill will be submitted by the VENDOR within 90 days from the date of acceptance of completion of work accompanied by the following documents, if applicable:

a) Completion certificate issued by the Engineer-in-Charge/ project Incharge of EPI specifying the handing over of the work including list of inventories (fittings & fixtures).
b) Computerized stage wise payment schedule.
c) No claim certificate by the vendor.
d) No claim certificate from the sub-agencies / vendors engaged by the PARTY.
e) 'As built' drawings.
f) Periodical services and measurement books.
g) Drawings for layout of underground cables and details showing location of sluice valves, electric cable joints etc.
h) All operation and maintenance manuals, if applicable
i) All statutory approvals from various state / central govt. local bodies, if required for completion & handing over of the work as included in scope of VENDOR.
j) Manufacture’s guarantee of various machines / equipments installed as part of works.

17.0 SITE REQUIREMENTS

The vendor shall bear all expenses for installing, running and maintenance of their fabrication yard/office/store etc.

18.0 The Tenderers must understand that the items marked in schedule of work are actual items to be executed. Alteration, omission, deduction or addition from / to these items is at the discretion of the EPI/BPBCC without effecting the terms of the contract.

19.0 ENVIRONMENTAL CONSIDERATIONS

The VENDOR shall be concerned with the impact of his work upon the Environment. This applies to the effect upon the residential community, adjacent industrial facilities and upon the area outside the site boundary. Areas of concern will include but are not limited to:

a) Use of clean fuels to minimize air polluting emissions.
b) Control of other air pollutants.
c) Recovery and recycling of usable materials.
d) Control of vehicle noise
e) Control of noise from power facilities.
f) Limitation of vibrations.
g) Preservation of natural land to the extent possible.
h) Preservation of archaeological features.

20.0 Custody of Drawings
All the approved Drawings shall remain in the sole custody of the Engineer-in-Charge of EPI, but one copy thereof shall be furnished to the VENDOR free of charge. The VENDOR shall provide and make at his own expenses any further copies required by him. At the completion of Contract the VENDOR shall return to the EPI’s Engineer-in-Charge, all drawings provided under the Contract.

One copy of the Drawings, furnished to the VENDOR as aforesaid, shall be kept by him on the site and the same shall at all reasonable times be available for inspection and use by the Engineer-in-Charge of EPI and his Representatives and by any other person authorized by the Engineer-in-Charge of EPI.

21.0 Disruption of Progress

The VENDOR shall give written notice to the Engineer-in-Charge of EPI on progress of the works likely to be delayed or disrupted unless any further approval of drawing or order, including a direction, instruction or approval, is issued by the Engineer-in-Charge of EPI within a reasonable time. The notice shall include details of the drawing or order required and of why and by whom it is required and of any delay or disruption likely to be suffered if it is late.

22.0 Delays and Cost of Delay for Drawings

If, by reason of any failure or inability of the Engineer-in-Charge of EPI to issue within a time reasonable in all the circumstances any approval of drawing or order requested by the VENDOR in accordance with relevant clause of ACC of this section, the work remains suspended or delayed then the VENDOR shall be granted necessary extension of time only. But he shall have no claim to extra payment or compensation whatsoever on the grounds of above delay.

23.0 Delay in Getting Site of Work

If at any time after the issue of work order, the work, and/or any part thereof cannot be started or shall remain suspended due to public opposition, non-availability of site, delay in shifting public utilities or for any other reason whatsoever within the period of completion of work, the VENDOR shall be granted necessary extension of time. But he shall have no claim to extra payment or compensation whatsoever on the grounds of above delay.

If, however, the above hindrances are not removed within the schedule time and the VENDOR is not agreeable to execute further works in the extended time, the Contract may be terminated and the VENDOR shall have no claim to any payment on account of idle labour, establishment etc. or compensation whatsoever on account of any profit or advantage which he might have derived from the execution of the aforesaid work in full or in part. The above is in addition to EPI’s GCC Clause No. 2.2

24.0 Survey : Layout and Access
The VENDOR shall satisfy himself regarding the correctness of the site Layouts, levels etc. as shown in the drawings or given in the specifications. Before starting the work he shall also carry out at his own cost survey of the whole work site jointly with the Department. Discrepancies noticed between Departmental drawing and the joint survey shall be informed in writing to the Engineer-in-Charge of EPI/Client and got corrected by the Engineer-in-Charge of EPI/Client. Such deviations as may arise out of the joint survey shall not vitiate the provisions of contracts and shall not entitle the VENDOR to any extra payment of claim in any way.

The VENDOR shall provide for all arrangements labour, equipments and materials needed for carrying out survey, setting out, layout checking, inspections measurements, testing at his own cost for which no separate payment will be made.

The VENDOR shall also provide proper approach and access to all the works and stores including clearance of sites at his own cost. The above is in addition to EPI’s GCC Clause No. 62.0

25.0 Arrangement of Land

If on account of restriction of space within the project site, the VENDOR experiences difficulties on installation of plant and machinery and also in stacking construction materials within the project site, he may have to arrange for lands Road side flank, private land etc. adjacent to the project site on his own and at his cost. The VENDOR will not be entitled to any payment or any other incidental charges caused due to such arrangement.

26.0 Fire Fighting Arrangement

The VENDOR shall provide at his own cost suitable arrangement for fire fighting. For this purpose he shall provide requisite number of Fire Extinguishers and adequate number of buckets, some of which are to be always filled with sand and some with water. These equipments shall be provided at suitable prominent and easily accessible places and shall be properly maintained.

27.0 Time of Completion

The entire work as per offer shall be completed within 6 (Six) months from the date of issue of LOI/Work Order. The time of completion is firm and final and supersedes any other time mentioned elsewhere in any clause(s) of tender document.

The period of completion given includes the time required for mobilization and testing as well, rectifications, if any, re-testing and completion in all respects to the entire satisfaction of the Engineer-in-Charge including the monsoon season.

The VENDOR shall scrupulously adhere to the targets/program as envisaged in his micro-plan of work program by deploying adequate personnel and construction tools and tackles and he shall also supply all materials of his scope of supply in time to achieve the targets.
set out.

The VENDOR shall give every day a report on category-wise labour and equipment deployed along with the progress of work done on previous day. The progress of work shall be proportionate to completion time.

Time is the essence of this contract and the allotted work must be completed within the specified time. Extension of time may be granted in very exceptional circumstances if the work gets delayed due to the reasons beyond the control of the successful bidder. This clause of extension of time will have precedence over any other similar clauses if they are at variance with this clause. There will be penalty for non-completion of the work in time as indicated elsewhere.

28.0 A standard benchmark with reference to which the whole work is to be carried out shall be constructed by the VENDOR. The level shown on the outline drawings are with reference to standard benchmark. The VENDOR shall establish reference benchmark at suitable spots. The construction and maintenance of the benchmark shall be the responsibility of the VENDOR. No payments shall be made for this work.

29.0 INFORMATION TO BE SUPPLIED BY THE VENDOR DURING THE CONSTRUCTION PERIOD.

A senior representative of the VENDOR shall attend weekly meetings at the site and in addition, meetings as arranged by the EPI/BPBCC to discuss the progress of work and sort out problems if any and ensure that the work is completed in the stipulated time. The VENDOR shall submit to the Project in-Charge of EPI, every fortnightly:

a. Detailed industrial statistics regarding the labour employed by him daily.
b. A fortnightly progress report along with requisite photographs.
c. Special incident at site.
d. Whether the work is progressing according to schedule, or not. If not, what are the problems and the remedial measures to be taken to regain schedule.
e. Record of the approvals by EMPLOYER
f. Record of the discussions by EMPLOYER
g. Fortnightly Construction Schedule
h. Monthly Construction Schedule
i. Detailed Schedule indicating when the REPRESENTATIVE’S presence is required at site.

30.0 The VENDOR shall comply with all the provisions of the following statutory acts or any modifications thereto and the rules made there under from time to time.

- Indian Factories Act 1948
- Payment of Wages Act 1936
- Minimum Wages Act 1948
- Employers Liability Act 1938
- Apprentices Act 1961
- Workmen’s Compensation Act 1923
- Industrial Disputes Act 1947
- The Maternity Benefits Act 1961
- Contract Labour (Regulation and Abolition) Act 1970
- Employment of Children Act 1933
- Provident Funds and Miscellaneous Provisions Act 1952
- The Employee’s Pension Scheme 1995

**Duties of Contractor:**

Contractor shall, within seven days of the close of every month, submit to the principle employer a Statement in the enclosed Format support by ECR and TRRN of respective month showing the recoveries of contributions in respect of employees employed by or through him at project site and shall also furnish to him such information as the principle employer is required to furnish under the provisions of Scheme to the Commissioner. Payment of the progress bills shall not be made unless it is accompanied with ECR (Electronic Chalan Receipt) for provident fund. ESIC contribution for the labour/work force engaged by the contractor of Rajgir Project site is submitted to EPI.

31.0 Should a report be made by an Inspecting Officer, as defined in the Contract Labour (Regulation and Abolition) Act 1970, the Developer shall have the right to deduct from any money due to the VENDOR any sum required, or estimated to be required, for making good the loss(es) suffered by a worker or workers by the reason of non-fulfillment of the Conditions of the Contract relating to the benefits of workers, non-payment of wages or of deduction made from their wages which are not justified by the terms of the Contract or non-observance.

32.0 The VENDOR shall indemnify the employer against any payments to be made as hereunder and for the observance of the provisions of the aforesaid Acts.

33.0 In the event of the VENDOR committing a default or breach of any of the provisions of the aforementioned Acts, as amended from time to time, of furnishing any information or submitting or filling in any Form/Register/Slip under the provision of these Acts which is materially incorrect, then on the report of the Inspecting officers, the VENDOR shall, without prejudice to any other liability, pay to the employer a sum not exceeding Rs. 1000.00 as Liquidated Damages. This shall be applied to each incident for every default, breach or furnishing of, submitting, making and/or filling-in materially incorrect statements, the exact amount shall be fixed by the Engg. in Charge.

34.0 In the event of the VENDOR’s default continuing in this respect, the Liquidated Damages may be increased to Rs 100.00 per day for each day that default occurs up to a maximum of one percent (1%) of the Contract Amount of which EPI decision will be binding on the contractor.

35.0 The Project in-charge of EPI shall deduct such amounts from the interim application for Payment or the Security Deposit of the VENDOR and credit the same to the Welfare Fund constituted under these Acts. The decision of the Employer in this respect shall be final and binding.
36.0 The following documents shall be submitted by Contractor:

i. Design of STP including civil, electrical, mechanical etc. work (construction of civil work to be done by EPI)

ii. P & I Diagram, Basic Drawing, Scheme Drawing, Shop Drawing & BOQ

These documents should be furnished within one month from the date of LOI and contractor shall get these drawings approved from EPI/BPBCC/consultant.

Manufacturing clearance shall be given after approval of above document.

37.0 ALTERATION IN SPECIFICATION, DESIGN & DRAWING:

The first two para for clause no. 69.1 of EPI’s General Conditions of contract (GCC) shall be read as under:

The Project-In-Charge of EPI shall have power to make any alterations in, omissions from, additions to or substitutions for, the original Specifications, Drawings, Designs Quantity and Instructions that may appear to him to be necessary during the progress of the work, and the VENDOR shall carry out the work in accordance with any instructions which may be given to him in writing signed by the Project-In-Charge of EPI and such alterations, omissions, additions, or substitutions shall not invalidate the contract and any altered, additional or substituted work which the VENDOR may be directed to do in the manner above specified as part of the work shall be carried out by the VENDOR on the same conditions in all respects including Rate on which he agreed to do the main work.

The time for the completion of the work shall not be extended in the proportion that the altered, additional or substituted work price bears to the original contract work price, and the certificate of the Project-In-Charge of EPI shall be conclusive as to such proportion. Over and above this, a further period to the extent of 25 percent of such extension shall be allowed to the VENDOR.

38.0 Liquidated Damages for delay and remedies

If the contractor fails to maintain the required progress as mentioned in contract data or to complete the work and clear the site on or before the contractual or extended date of completion, he shall, without prejudice to any other right or remedy available under the contract to EPI on account of such breach, pay as agreed compensation the amount calculated at the rates stipulated below as EPI may decide (whose decision in writing shall be final and binding) on the amount of contract value of the work that the progress remains below that specified in contract data or that the work remains incomplete.

i) Liquidated Damages for delay of work – at the rate of 1/2% per week of delay or part thereof provided always that the total amount of Liquidated Damages for delay to be paid under this contract shall not exceed 10% of the contract value.

39.0 PRICE ESCALATION:

No Escalation shall be allowed in any case.

40.0 Specifications of Works:
The work shall be done as per details specification of work and as per PWD/RCD/BCD/PHD/Electrical department, Govt. of Bihar.

41.0 Water and Electricity:

The vendor shall make his own arrangement for water and electricity.

42.0 Defect Liability Period:

Clause no. 74.0 of EPI's GCC shall be modified as under:-

The Contractor shall be responsible for the rectification of defects in the works for a period of thirty six months from the date of taking over of the works by the Owner/Client. Any defects discovered and brought to the notice of the Contractor forthwith shall be attended to and rectified by him at his own cost and expense. In case the Contractor fails to carry out these rectifications, the same may without prejudice to any other right or remedy available, be got rectified by EPI at the cost and expense of the Contractor.

43.0 All Product/items makes and product/items specifications shall be subjected to approval of Client/Consultant.

44.0 Payment Terms: Clause no. 37.0 of EPI’s GCC shall be modified as under:-

Design, Supply, Testing & Commissioning

1. 2.5% of the order value (Sl. No A+B) specified in the Price Schedule (Sl. No A+B) shall be released on submission of the documents (Design, All Drawing etc.) as mentioned in ACC clause no 40.
2. 2.5% of the order value (Sl. No A+B) specified in the Price Schedule (Sl. No A+B) shall be released after getting approval of Design, drawings and shop drawing from Client/Consultant.
3. 70% of the order value (Sl. No A+B) specified in the Price Schedule (Sl. No A+B) shall be released after completing the supply of Equipment to site and getting MRC (Material Received Certificate) from Client site office on pro-rate basis.
4. 25% of the order value (Sl. No A+B) specified in the Price Schedule (Sl. No A+B) shall be released after Erection, Testing & Commissioning of the work.

Maintenance

5. Maintenance amount as mentioned in the price schedule (Sl. No. C) will be paid monthly i.e order value mentioned in price schedule (Sl. No. C) Divided by 24.

45.0 Work Schedule:

1. Vendor shall submit documents as mentioned in ACC Clause no 40 and get approval of these documents from client/consultant within 1 month from date of issue of LOI.
2. Vendor shall get manufacturing clearance from Client/Consultant after approval of all drawings.

3. Vendor shall supply Equipment within 4 months from the date of issue of manufacturing clearance.

4. Vendor should complete erection, testing & commissioning within one month after handing over of the civil & allied works to the vendor.

46. Arbitration

Both EPI and the VENDOR shall make efforts to settle disputes, if any amicably. Only if amicable settlement is not possible, the same shall be referred to the Sole Arbitration of the Chairman & Managing Director (CMD) of EPI or the person appointed by the CMD, EPI and the decision of the arbitrator shall be final and binding on the “VENDOR”. Arbitration will be according to “Conciliation” and Arbitration clause, which is enclosed at Annexure - I.
ANNEXURE – I

CONCILIATION AND ARBITRATION

Before resorting to arbitration as per the clause given below, the parties if they so agree may explore the possibility of conciliation as per the provisions of Part – III of the Arbitration Conciliation and Act. 1996. When such conciliation has failed, the parties shall adopt the following procedure for arbitration:-

1. Except where otherwise provided for in the contract, any disputes and differences relating to the meaning of the specifications, designs, drawings and instructions herein before mentioned and so to the quality of workmanship or materials used in the work or as to any other question, claim, right, matter or thing whatsoever in any way arising out of or relating to the contract, designs, drawings, specifications, estimates, instructions or these conditions or otherwise concerning the works or the execution or failure to execute the same whether arising during the progress of the work or after the completion or abandonment thereof shall be referred to the Sole Arbitration of the Chairman and Managing Director (CMD) of Engineering Projects (India) Limited (EPI), or any other person discharging the functions of CMD of EPI, or any other person discharging the functions of CMD of EPI is unable to act, to the Sole Arbitration of some other person appointed by the CMD of EPI or such other person discharging the functions of CMD of EPI. There will be no objection if the arbitrator so appointed is an employee of EPI. However, such an employee shall not have directly dealt with the said contract or the works there under on behalf of EPI. Such Arbitrator shall be appointed within 30 days of the receipt of letter of invocation of arbitration duly satisfying the requirements of this clause.

2. If the arbitrator so appointed resigns his appointment, is unable or unwilling to act due to any reason whatsoever, or dies the Chairman & Managing Director aforesaid or in his absence the person discharging the duties of the CMD of EPI may appoint a new arbitrator in accordance with these terms and conditions of the contract, to act in his place and the new arbitrator so appointed may proceed from the stage at which it was left by his predecessor.

3. It is a terms of the contract that the party invoking the arbitration shall specify the dispute/differences or questions to be referred to the arbitrator under this clause together with the amounts claimed in respect of each dispute.

4. The arbitrator may proceed with the arbitration ex-parte, if either party, in spite of a notice from the arbitrator, fails to take part in the proceeding

5. The work under the contract shall continue, if required, during the arbitration proceedings

6. The Arbitrator shall make speaking Award and give reasons for his decision in respect of each dispute/claim along with the sums awarded separately on each individual item of dispute or difference or claims. The Arbitrator shall make separate award on each reference made to him.

7. The award of the arbitrator shall be final, conclusive and binding on both the parties.
8. Subject to the aforesaid, the provisions of the Arbitration and Conciliation Act, 1996 or any statutory modifications or re-enactment thereof and the Rules made there under and for the time being in force shall apply to the arbitration proceedings and arbitrator shall publish his award accordingly.

Note: Notwithstanding anything contained here in above, this clause shall not be applicable where the dispute is between EPI and another Public Sector Enterprise or Govt. Department for which a separate Arbitration Clause is provided vide Clause No. A given below :-

A. ARBRATION BETWEEN PUBLIC SECTOR ENTERPRISE INTERSEandGOVERNMENT DEPARTMENTS.

1. In the event of any dispute or difference relating to the Interpretation and application of the provisions of the contract, such dispute or difference shall be referred by either party to the arbitration as per the Instructions (Office Memorandums/circulars) issued by Govt. Deptt. and another, one Govt. Deptt. and a Public Sector Enterprise and Public Sector Enterprises interse.

2. Subject to any amendment that may be carried out by the Government of India from time to time, the procedure to be followed in arbitration shall be as is contained in D.O. No. DPE/4 (10)/2001 –PMA – GLI dated 22/01/2004 of Department of Public Enterprise Ministry of Heavy Industries and Public Enterprise or any modification issued in this regard.
PERFORMA STATEMENT TO BE OBTAINED FROM CONTRACTOR ON MONTHLY BASIS

NAME & ADDRESS OF PRINCIPAL EMPLOYER: DL/

NAME & ADDRESS OF CONTRACTOR:

PF CODE OF CONTRACTOR:

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Name of Employee</th>
<th>Father's name</th>
<th>Date of Joining</th>
<th>PF A/c No.</th>
<th>No. of days worked</th>
<th>Total wages paid (Rs.)</th>
<th>Wages for PF</th>
<th>Contribution</th>
</tr>
</thead>
</table>

I/we hereby certify that all the above employees who were actually deployed in your establishment during________________________ have been covered under EPF & MP Act, 1952 and the contribution in r/o them for the month of____ have been remitted by me/us under PF code No. DL/_________________________ maintained at RO/SRO__________

Date: __________________________
Signature & Seal of Contractor
TECNICAL SPECIFICATION

INTRODUCTION

Bihar Police Building Construction Corporation has decided to Construct Bihar Police Academy at Rajgir, Nalanda

Description of the Project and scope of work:

The project site is located at Rajgir and the scope of works include design, basic and detail engineering submission of drawing for approval, manufacture supply, installation, testing & commissioning of Sewage Treatment Plant with other related works as per BOQ (enclosed).

Technical specification of Sewage Treatment Plant:

Contractor shall ensure submission of detail civil GA, Structural Drawing, P & I diagrams, schematic diagrams, for below mentioned component & additional component if so required for the complete working of the STP. Design, supply installation testing & commissioning of Sewage treatment Plant (excluding excavation, backfilling & disposal of surplus earth civil construction work) for the following duty Nature of effluent - Domestic Sewage from toilets/bathrooms & kitchen waste
Daily average flow - 410 m$^3$/day
pH - 7.5 - 8.5
BOD5 - 250 - 350mg/l
COD - 500 - 700 mg/l
S.Solid - 200 - 450mg/l
Oil & Grease - 50mg/l

Sewage discharge after treatment
pH - 6.0 - 8.5
BOD5 - less than 20mg/l
COD - less than 60mg/l
S.Solid - less than 10mg/l
Oil & Grease - less than 5mg/l

Sewage Treatment Plant shall include the following items:

- Screen Chamber
- Sewage equalization tank/sump
- SAFF Tank
- Secondary Tube Settler
- Filter Press
- Sludge holding tank
- Chlorine contact tank
- Air Blower, Pumps & equipment
- Piping Valves etc
- Electrical Panel, cabling
- Irrigation storage tank
- Soft water tank
- Pump Room
- 2 nos stainless steel 304 perforated corrugated bar screen with suitable lifting arrangement (size 500 x 600 mm approx)
- MS hot dip galvanized puddle flange in accordance to BS to table D as required to be provided (in the structural slab & wall) of various diameter. Puddle flanges shall be provided for all the structural component of the STP. The installation of the puddle flanges shall be carried out by the civil contractor in accordance to civil GA drawing (to be prepared by the STP contractor) at the required levels & position under the supervision of STP contractor.
- electronic type level indicator & controller for automatic operation of the system with high/low level alarm complete with auxiliary NO/NC contacts for BMS connectivity/compatibility.
- sight tube (of 3.5 to 4.5 mtr length) with isolation valve at top/bottom, demarcation on tube & for making the installation complete
- non clogging type pumps capable of handling solids up to 35mm having SS casing & SS impeller complete with all accessories, motor of required capacity. Pressure gauge on delivery line with isolation cock, level controller (with wiring) to control the level of sump automatically. Pumps shall have following duty.
  - Submersible Sump Pump (3 Nos - 2 working & 1 Stand by)
    - Flow rate(each) - 30 KL/Hr
    - Head - 15 mtr
  - Sludge transfer/recirculation Pump (1W+1S)
    - Flow rate(each) - 8 KL/Hr
    - Head - 12-15mtr
  - Plant Room Sump Pump with SS body & SS impeller pump (2 Nos - 1 working & 1 stand by)
    - Flow rate(each) - 20 KL/Hr
    - Head - 25 mtr
    - (Solid handling size for this pump shall be 30mm)

The above rate for pumps with CI casing & SS impeller, material of construction

**Air diffusion system shall include the following:**
3 Nos. twin lobe rotary air blowers for SAFF Tank (Two working & one standby) capable of delivering 350 m³/hr of free air at 0.6 kg/cm² driven through "V" belt or directly coupled through flexible coupling to a TEF Cmotor of suitable HP Suitable for 415 ± 10% volts, 3 phase, 50 cycles A/C supply.

Air piping shall comprise of pipes droppers/laterals with MS (epoxy coated) Header complete with all fitting such as tees, crosses, plugs, sockets, Elbows, reducer, supporters & clamps, Puddle flange etc cutting chases and making good. Contractor to submit detailed P& I indicating there proposal.

Non clog type air dispersion system capable of handling 3-5 cfm of air with oxygen transfer efficiency of 3-4% per/meter water depth. Air dispersion grid shall be assembled in modular form so that they can be replaced / repaired easily from plat form at the top. (Imported fine bubble membrane diffusers for SAFF Tank and coarse diffusers for SHT.

Note:- Air dispersion system shall be provided for Equalization tank, Tube Settler, Sludge holding tank & Aeration Tank

SAFF media to be installed in SAFF Tank and PVC tube deck settling media to be installed in Secondary settling tank along with suitable sludge removal arrangement either by pumps or air lifting pumps

Providing & fixing all piping (as described below) with isolation control valves for making system complete.

SS 304 : Submerged air piping
MS Epoxy : Air piping
PVC Piping : Pumped effluent & tank overflow pipe line
CPVC : Interconnecting pipe line after delivery header of pump/filter

Poly electro type dosing system comprising of 100 ltrs HDPE/FRP tank with 0-12 lph electronic metering pump.

Horizontal/ vertical centrifugal filter feed water pumps CI casing & Bronze impeller along with motor for the pump. Pressure guage with isolation cock, Isolation valve, NRV on delivery line. Isolation valve, strainer (with by pass) at suction. Mechanical seal, suitable vibration elimination pad of approved designed, drain pipe with valve (25mm dia). The pump shall be suitable for 415+10% volts, 3 phase AC Supply.

Capacity : 30 KL/Hr
Head : 30 mtr
RPM : 2900

Centrifugal horizontal/vertical water supply pumps CI casing & Bronze impeller along with motor, pressure guage with isolation cock, Isolation valve, NRV on delivery line. Isolation valve, strainer (with by pass) at suction. Mechanical seal, suitable vibration elimination pad of approved designed, drain pipe with valve (25mm dia). The pump shall be suitable for 415+ 10% volts, 3 phase AC Supply.

Capacity : 10 KL/Hr (1 working + 1 standby)
Head : .... mtr
RPM :2900
MSEP vessel filter. Filter shall be suitable for working pressure of 4.0 kg / cm2 and shall include media, standard fittings like pressure gauges, sampling cock, rinse drain, vacuum breaker, 1no water flow meter at outlet complete (flow meter shall be of approved by department of weights & measures). Including frontal piping and multi port valves.
Multigrade pressure sand filter
Dia : 1000 mm x 2000 mm height
Filtration velocity : 20 m³/hr/m²
Valve dia : 65 mm

Activated Carbon Filter
Dia : 1100 mm x 1300 mm height
Filtration velocity : 20 m³/hr/m²
Valve dia : 65mm

Water softening plant (MS) for making up of water for cooling tower comprising of multiport valve with brine ejection and plastic piping complete with brine tank with fitting & brine fitting filtering media and complete charge of cation exchange resine as given below.
Water Flow : 20 KL/Hr
(Incomming Hardness 500mg/lit (Approx))
Working Pressure 3.0 kg/m³
Outgoing hardness less than 50 ppm
Water Softening plant as described above

Ultraviolet dis-infection unit. The unit shall have over 99.9 % bacterial reduction from inlet to outlet. The dis-infection chamber shall be constructed of SS 316L on all welded parts. The UV lamp shall be of low pressure mercury vapour type with hard glass enclosure, the sockets shall be water tight & vibration resistant. The lamp life shall be rated for 9000 hours. The unit shall be complete with temperature safety control, lamp out alert circuit & UV radiometer with 4 – 20 mA output.
The UV unit shall have with reactor, cabinet housing, cabinet cooling, treatment chamber, electrical panel, temperature safety control, lampout alert, UV radiometer along with UV monitoring system and UV monitoring readout panel. The UV Dosage should be > 60,000 uW – Sec / sq.cm. The lamps should be selected based upon the flow requirement of respective unit.
Capacity : 25 KL/Hr

NOTE:
Contractor shall ensure submission of detail civil GA drawings, P&I diagrams, schematic diagram for the above mention component & additional component if so required for the complete working of the STP

Work Schedule:
1. Party shall submit documents as mentioned in ACC Clause no 40 and get approval of these documents from client /consultant within 1 month from date of issue of LOI.
2. Party shall get manufacturing clearance from Client/Consultant within 1 month.
3. Party shall supply Equipment within 4 months from the date of issue of manufacturing clearance.
4. Party should complete erection, testing & commissioning within one month after handing over of the civil & allied works to the party.