

PUNJABI UNIVERSITY PATIALA

E-Tender Notice

E-Tenders on through electronic tendering process are invited by the undersigned from the eligible Contractors enlisted in Central/ State Government Departments / PSUs/ Department dealing with Public Health Engineering works for the appropriate class and category on the prescribed forms obtainable fulfilling the eligibility criteria mentioned herein which shall be uploaded & received on <https://tenderwizard.com/PUNJAB>

1. Last date and Time for receipt of Tender online : Date 27-01-2021 17:00
2. Time and date of opening Technical bid : Date 28-01-2021 11:30 AM
3. Time and date of opening Financial bid : Date 29-01-2021 11:30 AM

Sr. No.	Description of work.	Earnest Money	Tenders fees	Bid processing Fee.	Completion period in months.
1.	Contract for Operation & Maintenance of Sewerage Treatment plant based on MBBR Technology 1.40 MLD capacity at Punjabi University Patiala.	40,000/-	Fee 2,000/- 12% GST 240/- 2240/-	2360/-	36 Months (3 Years)

Aspiring Tenderer who has not obtained the User ID and password for participating in e- tendering may obtain the same by registering in the e- procurement portal www.tenderwizard.com/PUNJAB. The Tenderers once registered can participate in any of the department tenders. For any clarification contact 9257209340, 0172-5035985, 8146699866 or E-mail : etenderhelpdeskp@gmail.com, pavitar.s@etenderwizard.com

All other details can be seen in the bidding document.

Terms and conditions:-

1. The Tender Fees & Earnest Money (separately) should be paid through e- payment only. (Internet Payment Gateway (Debit & Credit), Net banking & National Electronic Funds Transfer/OTC only).
2. Tender Processing fee should be paid through e- payment (Internet Payment Gateway (Debit & Credit), Net banking & National Electronic Funds Transfer/OTC only).
3. The Tender documents shall be uploaded in 2 folders.
 - (i) **Folder-A:** Shall contain pre qualification documents such as Registration, G.S.T, PAN No., ESI & EPF registration certificate, Experience, Turn Over, Income Tax Return, Solvency certificate and Black list Self attested certificate etc uploaded on website. Tenders will be opened in the office of Dean Academic Affairs.
 - (ii) **Folder-B:** shall contain financial bid on the prescribed form.
5. In case earnest money of the required value is not deposited, the bids will not be considered and rejected straightaway.
6. The folder-A shall be opened only of those Tenderers whose earnest money is found to be in order.
7. The folder –B: shall be opened only of those Tenderers whose technically bid is found fit.
8. Corrigendum /Addendum/Corrections, if any will be published in the web site only. Firm shall have to continue check the website.

PRE-QUALIFICATION REQUIREMENTS:-

1. The bidder should have a valid PAN number and GST No.
2. The bidder should have a valid Registration Certificate of the firm / agency / Company.
3. The bidder should have valid ESI & PF registration certificate.
4. Solvency certificate. A solvency certificate from the Bankers for an amount 50 lac last two financial years.
5. The Tenderers whose minimum Annual Turnover during the preceding two financial years has been Rupees 50 Lacs are only eligible. Balance Sheets of Annual Turnover duly Certified by the Chartered Accountant must be attached. In case any wrong statement is attached, action under law will be taken against the bidder.
6. Certificate of the firm /agency/Company and proof of 2 years' experience in providing Operation and Maintenance of STP 1.40 MLD in reputed organizations/ Autonomous bodies Public Sector Company & Govt Department.
7. The Tenderers/firms shall submit copies of income tax return for the last 2 years.
8. The Tenderers/firms shall also submit Self certification that they have not been debarred/blacklisted by any Govt./ Semi Govt. Organization or any Corporation at any stage. The persons deployed by the agency should NOT have any adverse police records/ criminal cases against them.

Terms and Conditions:-

1. Bids shall be opened in the presence of attending tenderers. The financial bids of the bidders who meet all the Technical NIT Stipulations only will be considered for further process.
2. The EMD amount is liable to be forfeited, if the successful bidder fails to accept the Work Order or withdraws, or amends, impairs or derogates from the tender in any respect within the period of validity of this tender. The EMD shall be refunded to the unsuccessful bidders once the order is released on the successful bidder.
3. The quoted rate shall be valid for full time limit mentioned in the tender / order.
4. The University shall be under no obligation to accept the lowest or any tender received in response to this tender notice and shall be entitled to reject **any or all** tenders without assigning any reason whatsoever.
5. If there is holiday on the receipt/opening day of the tender, the tender shall be received / opened on the next working day at the same time and at the same place.
6. An agreement will have to be signed with the Registrar, Punjabi University Patiala within 7 days of issue of allotment.
7. In case of failure of power (Electricity) to generate the STP plant contractor shall store at least 50 Litres Diesel at STP site, However diesel will be provided by the contractor and payment of the same will be made by the University after submitting bills by contractor.
8. The persons deployed by the agency should NOT have any adverse police records/ criminal cases against them. The agency should make adequate enquiries about the character and antecedents of the persons whom they are deploying.
10. In case of any dispute, the jurisdiction will be Patiala (Punjab) only.
11. The power shall be supplied by the department free of cost for running the plant.
12. The contractor should have all tools and plants and all consumable items to keep the plant neat and clean.
13. The contractor will be responsible for smooth and trouble free running of the system.

14. The period mentioned above for running of the plant can be increased or decreased by the department and no claim for increase in rates on this account shall be entertained from the contractor.
15. The firm will supply the roster of employed staff to the deptt. and will paste the same at the plant.
16. Only authorised persons of the contractor will be allowed to enter the plant. For this purpose contractor will provide badges to his workers.
17. With each bill for payment, the contractor shall submit bills of materials brought at site along with detail of consumption of each material during the month and bills for repairs got done at site.
18. The plant operator will work on all the 365 days of year (including Sundays and Gazetted holidays).
19. Number of staff at site may be increase or decrease according to requirement of the University.
20. Contractor shall be submitted bill for Payment on quarterly basis.
21. All the equipments, material, spare parts, oil, grease etc. whatever required is to be provided by the contractor's own cost.
The Contractor should submit the preventive maintenance schedule for University approval and its implementation.
23. The contractor shall maintain proper and detailed record for the job carried out by their employees in a Log book and shall also maintain all records and returns as necessary for carrying out the work smoothly and as provided under the Contract Labour Act, Minimum Wages Act, ESI Act, PF Act, etc., as relevant and applicable from time to time.
24. Dismantled / replaced parts should be handed over to University Engineer in-charge or its representative.
25. The contract employees should be covered under all statutory requirements like ESI, PF, etc. by the contractor and the contractor shall comply with all the formalities in this regard. Copy of challan and Schedule of Contract Employees for payment of ESI/PF etc. (whether running/monthly or final) bills.
26. The contractor should provide PF A/c number, ESI Card and Photo Identity Card to the contract employees posted at University. This should be done immediately but not later than one month from the date of signing joint agreement.
27. The Contractor shall take necessary insurance to cover the entire workmen's compensation act and also in respect of any other person on account of accident at site.
28. The contractor shall have to make own arrangements for the accommodation of his staff outside the premise of University.
29. Work involves operation and maintenance of pumping station, Sewage Treatment Plant, filtration Plant, Pump Set, spare and Electric Driven Pump Set, etc.
30. The tenderers are required to visit the plant site to see the actual installations themselves to assess the quantum of work involved before submitting the tender. Once the tender is submitted, it will be presumed that the tenderer has seen and understood the complete work involved for each of the system.
31. Subletting - contract shall not be assigned or sublet to any other party by contractor.
32. The firm shall rectify any breakdown within 24 hours failing which penalty for non- performance @ 0.5 % per week of delay subject to a maximum of 10% of the contract price will be imposed and in the event of any damage to the property or life or any machinery and installation in the Pumping station & STP arising out of non-performance or negligence of the workers, contractor will be solely responsible. The contractor shall be responsible for proper maintenance of decorum, punctuality, discipline and work out put etc.
33. The contractor will immediately replace any employee found to be unfit in any manner immediately or on receipt of advice from any authorized person in University.
34. The contractor shall be solely responsible to comply with all legal and statutory requirements that arise out of this tender agreement and in respect of the employees engaged by the contractor in fulfillment of the contractual obligations.
35. It is understood and agreed that the contractor will provide decent uniforms, badges/ID cards with photos and safety equipment and shoes to their employees.

36. It is Contractor's responsibility to have them periodically checked medically so as to ensure that medically fit staff only is deployed for the work.
37. The contractor shall maintain a muster roll, wages register of all men employed by them and all other documents and submit it to the University on the 1st of every month for the previous month or as necessary for inspection. The contractor shall provide all facilities for inspection/books/personnel on demand by University or any Statutory Employer.
38. At any point of time, there must be a minimum of 90% attendance in each shift. Any absence or shortage beyond this may be managed by giving over time; shortage or absenteeism less than 90% in shift shall be penalized including termination of the contract. All the posts should be filled at any given point of time. No post should be kept vacant due to absenteeism.
39. It is clearly understood and agreed upon that neither the contractor nor contract employees shall have any claim on employment with University at any point of time nor this arrangement is purely between the contractor and the University for specific services for the period specified.
40. The contractor shall follow all rules as may be existing or may be framed from time to time at University on all aspects covering this tender. Material movement, entry/exit of personnel, identity card, safety, etc. shall be according to procedures existing in University as amended from time to time.

1. A. Termination

Except as provided in the Contract could be terminated by either side by giving three month's notice in writing. If the notice period is not given or if a shorter notice is given by the contractor, the entire security deposit shall be forfeited. Any other costs and or damages incurred by the University to maintain the services contracted to the contractor, on account of such short notice will be deducted from the dues payable to the contractor, or shall be paid by the contractor on demand if such dues fall short of such costs.

In the case of failure to complete the contract in terms of such contracts within the contract period specified in the tender and incorporated in the contract and if such work is got done by the University from any party at a higher rate, the contractor shall be liable to pay the University the difference between existing rate and the rate of the new contract.

Risk Clause: Notwithstanding the other terms herein, the University at its option will be entitled to terminate the contract and to avail from elsewhere at the risk and cost of contractor either the whole of the contract or any part which the contractor has failed to perform in the opinion of the University within the time stipulated or if the same performance is not available, the best and the nearest available substitute thereof as deemed so by the University. The contractor shall be liable for any loss which the University may sustain by reason of such risk contract in addition to penalty.

Insolvency and breach of contract: The University may, at any time, by notice in writing summarily terminate the contract without compensation to the Contractor in any of the following events, i.e. to say:

- a. If the contractor being an individual or a firm any partner in the contractor's firm shall be adjudged insolvent or shall have a receiving order to order for administration of his estate made against him or shall take any proceedings for liquidation or composition under any insolvency act for the time being in force or make any conveyance or assignment of his effects or enter into any arrangement or composition with his creditors or suspend payment, or if the firm be dissolved under the Partnership Act, or
- b. If the contractor being a company shall pass a resolution or the court shall make an order for the liquidation of its affairs, a receiver or manager on behalf of the debenture holders shall be appointed or circumstance shall have arisen which entitle

the court or debenture holders to appoint a receiver or manager, or

c. If the contractor commits any breach of contract not herein specifically provided always that such determination shall not prejudice any right of action or remedy which shall have then accrued or shall accrue thereafter to the University for any extra expenditure he is thereby put to but shall not be entitled to any gain on re-tender.

d. In the event of inadequate or unsatisfactory performance of duties by the contractor, the University shall have the right to bring to the notice of the contractor the default(s) on their part and the contractor shall ensure that the said default(s) is /are not repeated and /or are duly remedied, within a period of three days, from the receipt of the said notice. Failing such remedial action, or in the event of the said default(s) being inadequately corrected, the University shall have the right to immediately terminate the agreement.

Notwithstanding any other clause herein, if there is any act of omission by the contractor or the contract employees which jeopardizes the safety/security of the University including, but not limited to:

- a) Theft or pilferage of property of University.
- b) Fire, flooding, breakage or damage
- c) Violence or physical attack on the Campus
- d) Any act or incident which may prove detrimental to the interests of University

the contract would be terminated without any notice. Further, the Contractor would be levied penalties, as appropriate as deemed by University. The decision of the University Vice Chancellor shall be final in such matters.

2. DAMAGES AND LOSSES

All the equipment and the items at site stands at the risk and sole charge of the contractor who shall deliver in proper condition at the time of stock taking to be done by University. Any damages caused by the Contractor in existing facilities while carrying out the work shall be made good by the contractor to the entire satisfaction of the University at their own risk and cost. Any shortfall shall be immediately made good by the contractor by replacement. If the same is not replaced within one month of stock taking, the amount shall be recovered from the dues/bills of the contractor. The contractor or his representative shall be present during the stock taking. If the contractor or his representative does not make themselves available, the stock taking shall be conducted in their absence, which will be binding on them. For losses, if any due to natural calamity or any other act of god, beyond the control of either party, University will replenish the same, as per obligation mentioned above.

3. COMPLAINTS

The contractor shall keep a suggestion box to record any suggestion/complaints on performance of services, by the University members & guests and produce to University or its representatives for perusal during their visit to ensure that prompt action has been taken on such complaints and measures taken to avoid their re-occurrence. The contractor shall attend to all the complaints and address as early as possible to the satisfaction of University. The contractor is to sit for monthly meetings with Engineer-in-Charge.

4. MISBEHAVIOR OF EMPLOYEES

The employees of the contractor shall maintain strict discipline and not use any violent, abusive or offensive languages while inside the premises. Smoking and consuming alcohol inside the premises is strictly prohibited. In the case of misbehavior, University has the right to terminate the contract. It will be mandatory for the conducting agency to brief their personnel in advance and apprise them of the conduct, expected for them, while working in an institution of national importance. Nothing prevents University to advise the contractor about any such issue, or any erring personnel engaged by the contractor, which warrant urgent action, in the interest of work and its fast disposal.

The selected agency shall not involve in any bribery or other unethical activities with anyone employed at the Institute. Involvement in any such activity shall entail a penalty of Rs. 10,000/- for the first incident. Subsequent occurrence of such incidents will entail in termination of the contract without any notice.

Any personnel deployed by the agency, who refuses work or creates indiscipline would have to be immediately replaced with the consent of the Executive Engineer of the University. University reserves the right, to ask the Agency to terminate the services of any of the Agency's employees immediately on grounds of noncompliance of duties or if found guilty of misconduct. University will in no way be held responsible or liable for any loss, caused by negligence or any other harmful action on the part of the employee of the Agency.

In case, the person employed by the successful bidder commits any act of omission / commission that amounts to misconduct /indiscipline/ incompetence / security risks, the successful bidder will be liable to take appropriate disciplinary action against such persons, including their removal from work, immediately after being brought to notice, failing which it would be assumed as breach of contract which may lead to cancellation of contract.

5. BREAKAGE

All damages/breakage to the equipment/inventory in the charge of the contractor, if caused due to negligence of the contractor's employee, the cost or repair/replacement of the equipment will be borne by the contractor. Whether the damage/breakage has been caused due to negligence or normal wear and tear shall be heard and will be decided at sole discretion of Registrar of the University.

6. REPLACEMENT

Replacement of articles which have been lost will be done after proper assessment by the competent Employer and as per decision/mutual discussion and shall be borne by the contractor.

7. Security Deposit: Security shall be deducted 5% from running bills.

- a. It is important for the contractor to note that the rate quoted shall be inclusive of all taxes and duties/escalation and shall remain valid for the period of the agreement, i.e. 3 years from the date of issuance of Work Order.
- b. At any point of time, there must be a minimum of 90% attendance in each shift. Any absence or shortage beyond this may be managed by giving over time; All the posts should be filled at any given point of time. No post should be kept vacant due to absenteeism.

8. **Suggestions Register:**

The contractor will maintain a complaints/suggestions register prominently displayed and take immediate action on every complaint in consultation with the Officer-in-Charge. This register will be open to any authorized person of the University for inspection and supervision at all times.

9. **Safety, Security and Insurance**

The contractor shall follow all security rules of the University and instructions received from time to time regarding issue of identity cards, all material movements (incoming and outgoing).

During the pendency of the agreement, the contractor shall be liable fully to compensate all concerned for any loss, damage of construction of works, construction, plant and machinery, person, property, etc. including third party risks arising due to causes attributable to the agreement. The decision of the University Vice Chancellor shall be final and will be binding on both parties.

10. **Miscellaneous**

The work mentioned in the schedule is not exhaustive, but only indicative. The University reserves the right to increase or decrease the quantum of work. The contractor shall execute the work on the same terms and conditions and rates throughout the period of the contract.

The contractor shall meet the designated Officer-in-Charge of the University everyday, to receive the details of issues/complaints to be attended and after attending to these complaints, a report on the same has to be submitted to the concerned Officer-in-Charge.

The contractor shall provide the name and details of his personnel. A list of all the names shall be submitted at the beginning of the contract, along with a copy of each appointment order and whenever there is a change. No personnel will be changed unless University has asked for it or without advance approval of University.

The contractor shall ensure that no contract employees nor anyone from his side use University transport to come to the work spot or return. The contractor shall use emergency services like medical help and emergency vehicles of University in the event of any accident or emergency to his employees, though all responsibility for such accidents and any injury/death and or loss/damage

will fully rest with the contractor.

11. Dispute and Resolution

Any dispute or differences that may arise between the parties shall be referred for sole arbitration to the University Registrar or his nominee. The decision of the Arbitrator shall be final and binding on the parties. The venue for arbitration shall be Patiala.

12. Amendments to Work order/Agreement

Any amendment to the Work order/agreement shall be valid only if both parties have agreed to such amendment(s) in writing duly authenticated by authorised representatives of both parties.

**OPERATION OF MAINTENANCE FOR SEWAGE TREATMENT PLANT
AT
PUNJABI UNIVERSITY PATIALA.**

Quality and Scope of Services

1. SCOPE OF SERVICES TO BE PROVIDED BY THE CONTRACTOR.

There is a main pumping station & Sewage Treatment Plant of 1.40 MLD capacity which includes Sewage Treatment Plant on MBBR technology along with primary unit, Secondary unit and tertiary treatment .

Total No. of pumps **13 Nos.**

The supporting electrical installation include Electric Panel Board , Cables, Earthing System, etc.

2. Sewage Treatment plant:

Collection of sample Sewage from individual units at the point of discharge to final disposal point , conducting tests on them to ascertain that these are within the standards fixed by PPCB (Punjab Pollution control board) informing University of the results and initiating remedial action.

The treated wastewater should comply with the standards given in consent order by PPCB / CPCB / IS standards with (not limited to) following parameters:

a) pH Value	6.0 to 9.0
b) BOD	250mg/l
c) COD	500mg/l
d) Total Suspended solids	400mg/l
e) Total nitrogen as N	20 to 30 mg/l
f) Total Phosphates as P	4 to 8 mg/l and etc.,

Terms & Conditions:

Operation:

(a) Daily operations of Sewage treatment plant

The contractor shall carry out all the facility operation and waste water disposal operations indicated below; in accordance with good operating practices as set out in this contract. The facility operation and waste water disposal operations shall include, but not limited to following:

- (i) Operating sewage treatment plant to maintain the quality of treated sewage within the standards prescribed in the tender, operate electrical equipment during power

failures by operating generators, and treat incoming sewage at prescribed standards through optimal dosing.

- (ii) Carrying out daily cleaning of grit channels and removal of screenings (including of pumping station) and disposal of floating matter in grit dewatered sludge out as directed.
- (iii) Carrying out continuous flow measurements of treated and untreated sewage and recording the same offline/online.
- (iv) Collecting samples of influent and effluent and analyzing them daily to determine the quality of sewage and performance of the treatment plant.
- (v) Providing security for facilities and system at all times.
- (vi) Operation & maintenance of pumps installed at pumping station including electrical & mechanical appliance.

B) Contingency plan

Developing and implementing contingency plans in respect of response to natural disasters, periods of power failure, storm water inflow into sewers during monsoon, de-silting of units of treatments plants, constraint operations or other similar emergencies to maintain the quality of treated sewage.

C) Energy Audit

The operator shall take all necessary measures to minimize the power consumption in carrying out its operation. The energy audit operations shall include, but not limited to following:

- Reducing electricity consumption by regulating pumping through suitable modifications to the operating procedures.
- Maintaining power factor and demand to avoid penalty.
- Installing more efficient pumping equipment and following better maintenance practices for electrical installation.

D) Repairs and Maintenance (In STP and pumping station)

The contractor shall carry out preventive, routine maintenance and break down maintenance operations for proper upkeep of plant in accordance with good operating practices. The following items shall be included in such maintenances:

i) Pumping station:

- De-silting of wet well at least twice a year and disposing silt.
- Replacing damaged pipes, fittings and valves.
- Replacing damaged level indicator.
- Replacing damaged lighting conductor.
- Replacing ladders and
- Waterproofing of leaking roof/dry well.

ii) Pumping machinery and treatment plant equipment

- Dewatering and de-silting of sludge sump, chlorination tank, chemical dosing tanks at least twice a year as per approved programs and disposal of silt.
- Cleaning and maintaining all rising mains/ sewers in the plant area at least four times a year.
- Repairing and replacing damaged pipes, fittings and valves for suction and delivery pipe.

- Repairing and replacing pump impellers, body, bearings, and shaft column pipes.
- Repairing and replacing motors
- Repairing and replacing starters, circuit breakers, capacitors
- Repairing and replacing valves and or gears of agitators.
- Repairing and replacing transformers
- Repairing and replacing of blowers, diffusers, chlorinator, chemical dosing equipment etc; etc.

iii) Building and Civil structures

- Water proofing leaking roofs of the buildings.
- The preventive and routing maintenance shall include all repairs and provision of spares material and tools required for these repairs. The contractors shall also carry out breakdown maintenance and repairs. The labour, tools and plant, spares shall be arranged by the contractor. The following spares shall be the respective responsibility of the contractor and the Employer during preventive routine and breakdown maintenance.
- Repairing and replacing damaged pipes, fittings and valves for suction and delivery pipe.
- Repairing and replacing pump impellers, body, bearings, and shaft column pipes.

2. Advice Early warning:

The contractor is to warn the Engineer at the earliest opportunity of specific likely future events or circumstances that may adversely affect the operations or the condition of the facilities and or system. The contractor shall cooperate with the Engineer in making and considering proposals for how the effect of such an event or circumstances can be avoided or reduced and in carrying out any resulting instruction of the Engineer.

The contractor shall also advise the Employer from time to time, on improving the quality of operations, reduction in water/energy losses and betterment practices.

3. Reporting:

The contractor shall carry out all reporting indicated below and as set out in this contract. The reporting shall include, but not limited to the following :

- Daily summary of operations at pumping station---A daily report providing information at pumping station on the hours of pumping quantity of sewage pumped and energy consumed during the day.
- Daily summary of operations of sewage treatment plant---A daily report of operation of the air blowers and other equipment at the sewage treatment plants providing

information on the quantity of sewage treated, hours operation of equipment, energy consumed and use of chemicals.

- Sewage quality monitoring ----A daily report monitoring the quality of raw and treated sewage through the analysis of samples.
- Sewer/Storm water drains/wet well and other units etc---- Monthly cleaning report sewer/storm water drain de-silted and record of silt disposed at disposal sites.

4. Employer's Responsibilities

The Employer shall be responsible for procuring obtaining and maintaining Employer clearances required, however that the contractor shall be responsible for maintaining the conditionality of any such clearance, if such maintenance falls within the preview of the contractor. University shall supervise the contractors operations at all times and notify the contractor to search for a defect and to uncover and test any work that University considers may have a defect.

The Employer shall be responsible for

- Energy charges and treated effluent testing charges from state PPCB if required
- Maintaining administrative control over the personnel, facilities and system.

5. Contractors Responsibilities

The contractor shall maintain properly and keep intact all assets/work facilities/system of the Employer throughout the contract period and shall hand over the same in good working condition at the end of the Contract. The contractor shall not modify or alter any operations regarding the facilities and or system without prior written permission of the University or its representatives.

The contractor shall procure all spare parts required for the maintenance of the equipment. The contractor shall warrant to the effect that all the spares shall be procured from the authorized sources and be of the best quality and fit for the purpose for which it is being used.

The contractor is expected to carry out the work in such a manner so as not to cause any damage to University property on account of negligence or otherwise. The contractor shall be fully responsible for making good the damages so caused by him entirely at his own cost.

The assets/works/facilities/systems of Employer shall be at risk and in the sole charge of the contractor and it shall be responsible for making good any loss or damage there to arising from any cause whatever including that due to a theft or robbery.

The contractor shall carry out its operations, so far as compliance with the requirement of the contract permits, so as not to interfere unnecessarily or improperly with:

- The convenience of the University employees and students
- The access to use and occupation of roads.

Permissions: The contractor shall obtain all required permissions, sanctions clearances and permits for carrying out its operations, including contractor clearances and shall be fully responsible for carrying out the operations in a safe and secure manner, consistent with the law of the land, laws and regulations regarding such facilities and or system and directives of any Employer and planning permissions.

Safety: The contractor shall be responsible for the safety of all the activities on the site and shall be absolutely and solely responsible for any and all kinds of injuries or damages to persons and property of any description whatever may be caused by or result from the operations carried out, whether these may have been carried out skillfully and carefully and strictly in conformity with the provision of the specifications or not.

Liquidated damages and penalties for O/M works:

The basis for applying penalties is to restrict Contractor from deviating from disposing all raw/treated waste water efficiently from the service area-as per fixed schedule and as per stipulations prescribed in the tender.

The contractor is also expected to carry out the instructions of the Engineer or its representatives from time to time, maintain the system in accordance with good operating practices attend to customer complaints refrain from offering operations without due authorization where so required and follow other requirements under this contract.

The contractor shall be subject to the following liquidated damages and penalties for its failure to carry out its operation as indicated below:

Basis of penalty	Penalty Benchmark	Penalty value
Failure to maintain BOD/COD/SS/pH level within prescribed limits. Detected as per reports of daily samples sent to PPCB by the Employer and outlet quality to be achieved as per tender provisions.	Up to 2 occurrences/ month	-----
	2 to 5 occurrences/month	Rs 1000/- per occurrence
	5 to10 occurrences/month	Rs 10,000/- per occurrence
	Above10 occurrences/month	Termination
Increasing power consumed: The contractor has to establish and get approved from the Engineer the maximum guarantee power consumption for entire operations When a generator is used the electricity consumption shall be determined as follows: Electricity consumption 9KWH+1.10 times the Electricity Equivalent of diesel consumed (KWH)	For power increased beyond current base level based on wastewater discharge schedules and persisting over a two-month billing period.	Rs 5.5/ KWH on additional power consumption. Or prevailing billing tariffs rates applied by PPCL whichever is higher.
Inadequate maintenance of facilities/system	For each case detected	-----
Inappropriate de-silting of sewers and clearing of silt in Prenges.	Per Occurrence	Rs 1000/-Per occurrence
Inadequate contingency plan.	For each case submitted	-----
Delay in recording wet well levels, energy meter reading power failure time of diesel consumption.	Per occurrence	Rs 100/-per occurrence

Qualification of Staff:

Qualification for Technicians (Skilled): - Minimum 3-year experience in handling STP plant operational and maintenance work. Having ITI (electrician , Diesel mechanic) will be given preference.

Qualification for Helper (Semi skilled): - Minimum 2-year experience in handling STP plant operational and maintenance work.

Currently, to maintain the STP facility, the following work force is envisaged.

Skilled Technician - 3 Nos.

Unskilled Technician - 3 Nos.

Executive Engineer-II
Punjabi University,
Patiala.