

Rajkot Municipal Corporation

Rajkot – 360 005

Tender No.RMC/DRN/STP/O&M/2019-20/01



VOLUME- I

(TECHNICAL BID)
PRE-QUALIFICATION &
TECHNICAL SPECIFICATIONS

Operation, Maintenance & repair of Civil, Electro-Mech works, Civil structures, Pipelines, Storage Structure of Sewerage Treatment Plant of 51 MLD capacity located at Raiya for period of Three Years.

ESTIMATED COST : Rs. 202.03 Lacs (For Three Years)

Milestone dates for e-tendering are as under	
1. Downloading of e-Tender documents	10.02.2020 to 20.02.2020 up to 17:00 Hrs.
2. Online submission of e - Tender	20.02.2020 up to 18:00 Hrs.
3. Physical submission of EMD, Tender fee and other documents	25.02.2020 up to 18:00 Hrs.
4. Opening of online tender tech bid	26.02.2020 at 10:30 Hrs. (If Possible)
5. Verification of submitted documents (EMD, e - Tender fee, etc.)	29.02.2020 Onwards. (If Possible)
6. Opening of Price Bid (If possible)	02.03.2020 at 10:30 Hrs. onwards (If Possible)
7. Bid Validity	180 (One Hundred Eighty) Day's
For further particulars, visit us on " https://rmc.nprocure.com "	

**City Engineer (Drainage Project)
Rajkot Municipal Corporation
Room No – 3, West Zone
Shree Harisinhji Gohil Bhavan
150' Ring Road, Rajkot - 360 005**

TABLE OF CONTENTS:-

Sr. No.	Section	Title
1.	-	Invitation of Tender
2.	Section A	Introduction
3.	Section B	Important Provisions
4.	Section C	General instruction for the tenderers
5.	Section D	Special instruction to Tenderer
6.	Section E	Financial & Technical (Qualification) Criteria with formats
7.	Section F	Condition of Contract & Schedule of Guarantee
8.	Section G	Special Terms & Condition
9.	Section H	Technical Specification & Scope of Services
10.	Section I	Technical Details of Plant

Rajkot Municipal Corporation
Drainage Department
e-Tender Notice

The e-tenders are invited with two bid system (Technical bid-physical and Price bid-Online) by City Engineer, Drainage Project, Rajkot Municipal Corporation, Shree Harisinhji Gohil Bhavan, 150' Ring Road Rajkot-360005, from the experienced & financially sound contractors registered in appropriate class & possessing necessary equipments and having trained personals for the below mentioned work:

Sr No	Name of Work	Estimated Cost		1. EMD 2. Tender fee 3. Time limit of work
		Year	In Rupees	
01	Operation, Maintenance and repair of Civil, Electro-Mech works, Civil structures, Pipelines, Storage Structure of Sewerage Treatment Plant of 51MLD capacity located at Raiya for period of Three Years.	1 st	61,03,635/-	1. 6,06,100/- 2. 4500/- 3. 03 Years
		2 nd	67,13,988/-	
		3 rd	73,85,377/-	
		Total	2,02,03,000/-	

Milestone dates for e-tendering are as under	
1. Downloading of e-Tender documents	10.02.2020 to 20.02.2020 up to 17:00 Hrs.
2. Online submission of e - Tender	20.02.2020 up to 18:00 Hrs.
3. Physical submission of EMD, Tender fee and other documents	25.02.2020 up to 18:00 Hrs.
4. Opening of online tender tech bid	26.02.2020 at 10:30 Hrs. (If Possible)
5. Verification of submitted documents (EMD, e - Tender fee, etc.)	29.02.2020 Onwards. (If Possible)
6. Opening of Price Bid (If possible)	02.03.2020 at 10:30 Hrs. onwards (If Possible)
7. Bid Validity	180 (One Hundred Eighty) Day's
For further particulars, visit us on " https://rmc.nprocure.com "	

The e-Tender fee (Non Refundable) & bid security (EMD) will be accepted in form of Demand Draft only, in favor of "Rajkot Municipal Corporation", Rajkot, from any Nationalize or Scheduled bank (except Co-operative Bank) in India. If bidder submits FDR instead of DD for EMD, he will be outrightly rejected from the bid participation.

Financial Pre-Qualification for this work should be match with value of estimate for 1st year of work & relevant required other certificates as bellow.

01. Financial capacity of the agency.

1. Average annual turnover of last seven years should not be less than 50% of the estimated cost of 1st year tender cost.
(i.e. 30.52 lakh Enhancement factor shall be apply as per RMC rules)
2. The working capital should not be less than 25% of the estimated cost of 1st year tender cost. (i e 15.26 lakh.)
3. Minimum amount of Solvency Certificate shall be Rs.12 lakhs.

02. Experience Criteria.

1. Bidder should have successfully completed atleast one work of similar nature (i.e. Municipal services like Comprehensive Operation & Maintenance works of Water supply pumping station, Drainage Pumping station, Sewage Treatment Plant, Water treatment plant, Swimming Pool, Head works having electro-mechanical equipments) of 50% magnitude or two works of 40% magnitude of 1st year's tender amount in either government or semi-government dept. in last seven years.
2. Bidder should have enough machinery and experienced personnel to supervise the work.

Note :

1. Enhancement factor at 10 % per year for last seven years will be applicable to arrive average annual turnover and finalize the magnitude of work done in last seven years.
2. Available Bid Capacity-ABC shall be find out by the following method.
ABC is calculated as $ABC=2*A*N-B$
Where,
A=Maximum value of works executed in any one year during the last seven years (updated to present price level by applying enhancement factor) taking into account the completed as well as works in progress.
N=Number of years prescribed for completion of the works for which tenders are invited.
B=Value (present price level by applying enhancement factor) of existing commitments and on-going works to be completed during that next N year (period of completion of the works for which the tenders are invited.)

Available Bid Capacity-ABC must be more than the Rs.61.10 lakhs

03. Availability of tools, plant, & manpower.

1. The agency should have adequate number of tools, safety kits & plant along with adequate numbers of experienced staff for carrying out the work.
(Details of staff & tools with agency must be submitted in tech bid.)
2. Joint venture is not permitted.

04. Notarized copy of certificates/Documents as followed must be physically submit with authorized sign & stamp on each page of tech bid document

1. The bidder / firm must have Electrical Contractor License and have registration in Class "D" with Electrical Division of R&B of Gujarat state or in equal class of any State Government /Central Government authority.
2. Valid Electrical contractor licence.
3. Provident Fund registration certificate.
4. Employee State Insurance (ESI) registration.
5. GST Registration certificate.
6. The Chartered Accountant's audited financial reports of last seven years for supporting financial strength of the bidder.
7. Solvency certificate from any Nationalize or Schedule bank of current financial year (Except co-op bank)
8. Work Experience certificates in 3-A form only regarding this work issued by competent authority not below the rank of Executive Engineer.
9. Power of Attorney, if any, authorizing the person for signing the Tender and give any clarification asked by department.
10. The agency should not be Black Listed anywhere in India, for which, agency will have to submit fresh Notarized Affidavit.
11. Bidders must visit the Site & fully aware and get acquainted with nature of work and should submit the undertaking/confirmation letter for the same.

The agency shall also have to submit the documentary evidence for possessing the all other required documents during the physical submission within the stipulated date and time. The physical submission of Technical bid shall be made in Sealed Envelope by Reg AD / Speed Post and the name of work and e-tender ID shall be superscribed on the top of the envelope.

If the agency fails to submit the documents specified in pre qualification criteria in the tech bid tender document, their tender will be treated as non-responsive and price bid will not be opened.

After opening of online technical bid with physical submission, the procedure for the pre-qualification shall be adopted and the e-Price-Bid of only successful qualified bidder(s) shall be opened for final evaluation o the contract. The decision of Muniapial Commissioner regarding the pre-qualification shall be final and binding to all the bidder.

Conditional tender in any manner will be outrightly rejected.

Commissioner, Rajkot Municipal Corporation, Rajkot, reserves the right to accept / reject any or all e-Tender(s) without assigning any reasons thereof.

City Engineer
Drainage Project
Rajkot Municipal Corporation

SECTION – "A"

INTRODUCTION

RAJKOT MUNICIPAL CORPORATION RAJKOT

Introductory Note

RMC is the implementing agency for Underground Drainage Project of Rajkot city. The project is already implemented. The maintenance responsibility of the executed works is also rested with RMC.

For scientific and smooth maintenance of the Sewerage Treatment Plant RMC intent to engage experienced and resourceful agencies. The scope of agencies for package will be to operate, maintain, repairs all the assets created by RMC, for the period of 3 years and the same could be extended by mutual understanding. The tenders have been asked on turn key basis wherein contractors shall have to provide all the labour required for the maintenance as well as equipment, vehicles etc. RMC will supply raw sewage as well as HT power & consumable supply as Diesel for power generator ser, Chlorine etc for running the plant free of cost. Chemicals for laboratory, Oil, Grease, Kerosine, or any other required consumable shall be in the scope of contractor & its required quantity stock shall be maintained by contractor at his own cost.

The e-tenders have been invited with two bid system i.e. the technical bid and the financial bid. The technical bid will be opened first and the financial bid of responsive offer will be opened at later stage.

Authorized Signature with seal of Agency..

SECTION - "B"

IMPORTANT PROVISIONS

- 1.1 Name of work : Operation, Maintenance & repair of Civil & Electro-Mech. work, Civil structures, Pipelines, Storage Structure of 51 MLD Sewerage treatment plant located at Raiya for period of three years.
- 1.2 Amount of Earnest Money Deposit : The Bid Security will be **Rs. 6,06,100/-**.
The Bid Security shall have to be submitted alongwith the Bid - Document, in form of D.D. of any Nationalized Bank or Schedule Bank (except Co-operative Bank) having Branch office in Rajkot.
- 1.3 Amount of Security Deposit : Total 5% of the total value of work will have to be paid as security deposit in the form of CPBG (Contract cum Performance Bank Guarantee).
- 1.4 Time of Operation & Maintenance : 36 months from the date of work order. It can be extended for further period by mutual understanding.
- 1.5 Validity of Tender : 180 days from date of opening of Technical bids.

Authorized Signature with seal of Agency..

SECTION - "C"

GENERAL INSTRUCTIONS FOR THE TENDERERS

1. INVITATION

e-Tenders under two bid system are invited on behalf of the Rajkot Municipal Corporation, Rajkot, Gujarat for the works mentioned in the scope of work below. However no tender will be considered for only part of the items within a schedule or for any lesser quantity of an item than that specified.

2. WORK SCHEDULE

All tenderers are cautioned that e-tenders containing any deviation from the contractual terms and conditions, specifications or other requirements may be rejected as non-responsive.

Contractors will be pre qualified after opening and evaluating the pre qualification bids as mentioned in the notice inviting tender, Price bid of only such pre qualified tenderers will be opened for evaluation of price and further decision of accepting the tender will be taken.

3. PHYSICAL SUBMISSION OF DOCUMENTS :

Required Documents should be submitted physically to :
Office of the Deputy Executive Engineer.(Mechanical/Electrical)
Drainage Project-Room No - 3
Rajkot Municipal Corporation
Shree Harisinhji Gohil Bhavan
150' Ring road. Rajkot - 360 005

3. DOWNLOADING OF E-TENDER DOCUMENTS AT (<https://rmc.nprocure.com>)

: The tender document shall comprises the following :

VOLUME- I PRE QUALIFICATION BID & TECHNICAL BID

- I. Notice inviting tender
 - A) Introduction
 - B) Important provision of tender
 - C) General Instructions to tenderer
 - D) Special Instructions to tenderer
 - E) Financial & Technical (Qualification) Criteria with Formats
 - F) Conditions of Contract for Operation & Maintenance & Schedule of Guarantees
 - G) Special Terms and Conditions
 - H) Technical Specifications and scope of services and Annexures
 - I) Schematic diagram

VOLUME - II : PRICE BID

- 1. Tender form
- 2. Preamble to price schedules.
- 3. Price scheduled for Sewage Treatment Plant.
- 4. Schedule for operation and maintenance.
- 5. Schedule of salary of personnel.

5. LANGUAGE OF TENDER :

e-Tender shall be submitted in the prescribed form in English. All literature and correspondence in connection with tender shall be in English or in Gujarati.

6. SUBMISSION OF TENDER :

Tenderers should go through all instructions eligibility criteria and specification in tendering documents carefully, visit and inspect site and submit tenders accordingly. RMC shall presume that the tenderer who submits his tender has properly understood the tender and is fully aware of the site conditions.

7. WHOM TO CONTACT:

The following officers may be contacted for any further information on the tender.

1) Shri K. L. JOSHI (Mo: 97235 55216) Deputy Executive Engineer(Mechanical)	Rajkot Municipal Corporation Shri Harisinhji Gohel Bhavan Drainage Project Department.
2) Shri N. S. Pateliya (Mo: 99249 72277) Deputy Executive Engineer(Electrical)	Room- 03, West Zone Office, 150' Ring Road, B/h Big Bazaar, Rajkot-360001

8. METHOD OF TENDERING :

- If an individual submits the tender the individual with his full name and current address shall sign it.
- If the tender is submitted by a Proprietary concern, it shall be signed by the Proprietor with his full name and the full name of his firm with its current address.
- If the tender is submitted by a partnership firm, it shall be signed by all Partners of the firm with their full name and current address, or by a partner holding the Power of attorney. The partnership deed of the firm and a certified copy of power of attorney shall accompany the tender.
- A certified copy of the Partnership Deed, Current Address of the firm and the full names and the current address of all the Partners of the firms shall also accompany the tender.
- If the tender is submitted by a limited company or a limited corporation the tender shall be signed by an authorised signatory having such power of attorney to sign on behalf of the company or corporation and in which case a Certified copy of the Power of Attorney with evidence of its currency shall accompany the tender. Such limited company or Corporation may be required to furnish satisfactory evidence of its existence before the contract is awarded.

- All witnesses and sureties shall be persons of status and probity and their full names, occupation and addresses shall be stated below their signatures.

All signatures in the tender document shall be dated.

1. Tenderers must submit tender's detailed Statements of facts as to :
 - i) Financial, Business and Technical organisation in attached form.
 - ii) Capabilities with respect to personnel, equipment, plant Licenses / Certificates and past performance as per attached form.

9. PREPARATION OF TENDERS :

Tenderer must submit :

- a) Tender shall be considered only if accompanied by full information as required under this tender.
- b) The tender will not be considered if complete information as called for in this tender is not given, or if particulars asked for in the Annexures of the Tender form are not fully furnished.
- c) The tenderer must sign the tender pages at bottom of each page unless otherwise specified.
- d) Any tender containing vague and indefinite expressions, which are against the terms and conditions laid down by RMC, will be considered as non-responsive.
- e) Tenderer shall physically submitted in stipulated time as mentioned in NIT with certified copies of all necessary documents.
- f) Tenderers are requested to furnish all the technical data, description literature, leaflet and supplementary description and relevant specification, in English Wherever required, the tenderers, to supplement may furnish additional information and data, amplify or clarify the information required in the specification.
- g) The tenders shall indicate in a summary form :
 1. Accessories/fitments which are standard with the equipment which though not specified in the tender are included in the scope of supply and are included in tender price.
 2. Accessories/fitments which may occasionally or frequently be required, but have been specifically excluded by the tenderers from the scope of supply and which are not included in tender price.
- h) No page should be removed from the tender documents.

10. SUFFICIENCY OF TENDERS :

The tenderer shall be entirely responsible for the sufficiency of the rates quoted by him in this tender. Conditional tender will be out rightly rejected.

11. STATING OF RATES :

The total tender price shall be quoted both in words and in figures at online e-tender only.

12. STAMP DUTY CHARGES :

Stamp Duty charges, if applicable, as per prevailing rates shall be borne by the Contractor. The contract agreement will be executed on non-judicial stamp paper of appropriate amount.

13. ADDENDA AND CORRIGENDUM :

Addenda and corrigendum will form, a part of the contract documents, and full consideration shall be given to all addenda and corrigenda in the preparation of tenders.

Tenderers shall verify the number of addendum and corrigendum issued. if any and acknowledge the receipt of all addendum and corrigendum to the Engineer and failure to do so may cause the tender to be rejected.

The owner or the Engineer may issue. addendum /corrigendum and advise tenderers of the changed, requirements such addendum/ corrigendum may modify previously issued addendum and corrigendum.

All addendum, corrigendum issued by RMC shall be a part of the contract.

14. PROCESS TO BE CONFIDENTIAL :

Information relating to the examination, clarification, evaluation and comparison of bids, and recommendations for the award of a contract shall not be disclosed to bidders or any other persons not officially concerned with such process until the award to the successful bidder has been announced. Any effort by a bidder to influence the Employer's processing of bids or award decisions may result in the rejection of the bidder's bid.

15. CLARIFICATION OF BIDS

To assist in the examination, evaluation and comparison of bids, the Employer may, at his discretion, ask any bidder for clarification of bid, including breakdowns of unit rates. The request for clarification and the response shall be in writing but no change in the price or substance of the bid shall be sought, offered, or permitted

16. EXAMINATION OF BIDS AND DETERMINATION OF RESPONSIVENESS

16.1 Prior to the detailed evaluation of bids, the Employer will determine whether

each bid (a) meets the eligibility criteria (b) has been properly signed (c) is accompanied by the required securities (d) is substantially responsive to the requirements of the bidding documents and (e) provides any clarification and/or substantiation that the Employer may require to determine responsiveness pursuant.

- 16.2 A substantially responsive bid is one that conforms to all the terms, conditions, and specifications of the bidding documents without material deviation or reservation. A material deviation or reservation is one (a) which affects in any substantial way the scope, quality, or performance of the Works (b) which limits in any substantial way, inconsistent with the bidding documents, the Employer's rights or the bidder's obligations under the contract or (c) whose rectification would affect unfairly the competitive position of other bidders presenting substantially responsive bids.
- 16.3 If a bid is not substantially responsive, it will be rejected by the Employer, and can not subsequently be made responsive by correction or withdrawal of the non-conforming deviation or reservation.

NOTE :-

Tenderer is requested to follow all above instructions. Deviation in any one of them may cause rejection of tender.

**Authorized Signature
with seal of Agency**

**Dy.Ex.Engineer
R.M.C.**

**City Engineer
R.M.C.**

SECTION - "D"

SPECIAL INSTRUCTIONS TO THE TENDERERS.

1. The intending tenderer should visit the site, examine the site details, including geological and geo hydrological conditions and verify the technical details given in the tender collect additional or supplementary data as may be required and formulate their offer accordingly.
2. **Intending tenderers can obtain Technical clarification relating to the work and the Tender Document by asking on phone No. (DEE-Mech-Mo: 97235 55216, DEE-Ele.- Mo: 99249 72277)**
 - 2.1 All Tenderers are cautioned that tenders containing any deviation from the contractual terms and conditions, specifications or other requirements will be treated as non-responsive and rejected outright.
 - 2.2 Conditional tenders shall be treated as non-responsive and rejected outrightly.
 - 2.3 Contractors will have to quote for the entire work and all items mentioned in the schedules containing bill of quantities and scope of work. Alternative offer is not acceptable and such offers will be considered non-responsive and outrightly rejected.
3. Contractors should invariably give elaborate and correct information in Schedules enclosed with this Post qualification Bid. They should also give whatever additional information in support of their claim for qualifying them as technically competent and financially sound agency to carry out the work under this contract and for evaluation of Post qualification Bid and selection of contractors for opening of the Technical Bid.
 - 3.1 Technical Bid shall be opened by City Engineer, Rajkot Municipal Corporation at Rajkot as per the prescribed date and time.
 - 3.2 After opening the Technical Bid, the procedure of Pre-qualification will be adopted and Price Bid of only such Pre qualified contractors will be opened.

CRITERIA FOR PRE QUALIFICATION

Tenderers who have submitted the tenders will be evaluated for Pre qualification on the basis of information supplied by them in Proformas provided in this volume of the tender and on the basis of any additional informations they may have submitted with the tender.

Pre qualification will be based on assessing the contractor's ability to carry out the M & R work of the projects put to tender, and within the stipulated time. the weightage of different criteria is given in this bid.

The factors affecting the contractors Pre qualification will be the contractor's experience of carrying out similar works, his financial soundness, equipment and personnel available with him and which he intends to spare for the project put to tender quality of works carried out and performance of similar works carried out by him in the past.

- 5 The contractor should invariably give a brief note on their methodology and work plan for operation and maintenance of the work. This should include:
- a) Plan for deployment of machinery
 - b) Quantity planning.
 - c) Details of manpower

The total tendered cost including prices for all materials and labour will be firm and fixed. No escalation/variation shall be allowed under any circumstances.

- 6 Physical submission of e-Tenders arriving later than prescribed date and time shall not be accepted.
7. Pre qualification details and Price-bid should be filled online and required documents shall have to be submitted physically in separate cover.
8. Tenderers who are partnership firms should attach certified copy of partnership deed. Tenderers who are limited companies should enclose the certified copies of the certificate of incorporation, Memorandum and Articles of association and Resolution of company authorising the person who shall sign and submit the tender documents.
9. RMC reserves right to allot all the works for O & M work to the lowest tenderer or any of the tenderers at the approved rate.
10. No part of this contract or any share or interest therein shall be in any manner or extent be transferred or assigned or sublet, directly or indirectly to any persons / firms or organisation what so ever.

Authorized Signature with seal of Agency.

SECTION - "E"

FINANCIAL AND TECHNICAL CRITERIA

1. JOINT VENTURE

Joint venture is not permitted for this tender.

1.0 OTHER SPECIAL INSTRUCTIONS :

1.1 The operation and maintenance of Sewerage Treatment Plant is in one package only. Bidder shall have to provide separate staff, tools & plants, vehicles etc. for the same as approved by client.

01. Financial capacity of the agency.

1. Average annual turnover of last seven years should not be less than 50% of the estimated cost of 1st year tender cost.
(i.e. 30.52 lakh Enhancement factor shall be apply as per RMC rules)
2. The working capital should not be less than 25% of the estimated cost of work. (i.e. 15.30 lakh.)
3. Minimum amount of Solavancy certificate shall be Rs.12 lakhs.

02. Experience Criteria.

1. Bidder should have successfully completed atleast one work of similar nature (i.e. Municipal services like Comprehensive Operation & Maintenance works of Water supply pumping station, Drainage Pumping station, Sewage Treatment Plant, Water treatment plant, Swimming Pool, Head works having electro-mechanical equipments) of 50% magnitude or two works of 40% magnitude of 1st year's tender amount in either government or semi-government dept. in last seven years.
2. Bidder should have enough machinery and experienced personnel to supervise the work.

Note :

1. Enhancement factor at 10 % per year for last seven years will be applicable to arrive average annual turnover and finalize the magnitude of work done in last five years.
2. Available Bid Capacity-ABC shall be find out by the following method.

ABC is calculated as $ABC=2*A*N-B$

Where,

A=Maximum value of works executed in any one year during the last seven years (updated to present price level by applying enhancement factor) taking into account the completed as well as works in progress.

N=Number of years prescribed for completion of the works for which tenders are invited.

B=Value (present price level by applying enhancement factor) of existing commitments and on-going works to be completed during that next N year (period of completion of the works for which the tenders are invited.)

Available Bid Capacity-ABC must be more than the Rs.61.10 lakhs

Note :

1. The bidders should state in detail about the contracts where delay has occurred, the period of delay and the reasons thereof. Details of works under litigation must also be furnished. Details of works that have been abandoned for reasons whatsoever should also be furnished.
2. Even though the bidder meets the above qualifying criteria, he shall be disqualified if **he has made misleading or false representation in the forms, statements and attachments submitted in proof of the qualification requirements** and / or record of poor performance such as abandoning the works, not properly completing the contract, inordinate delays in completion, litigation history or financial failures etc.
3. The above experience will be taken into consideration only for completed works carried out for Central / State Government Agencies as a main agency.
4. The evaluation will be done only on the basis of information submitted with the tender.
5. The bidder are requested to furnish their Technical & Financial details in the prescribed format given in this bid by the department.
6. All certificates & reports regarding financial & technical capacity & experience shall be Notarized only..
7. If required Original Certificate / Balance sheet shall have to be produced by the Contractor at the time of evaluation of tender.
9. Tenderers shall have minimum "Key Personnel" on their employment roll ("The key personnel") shall mean as defined in category of manpower schedule.
10. Any organization or firm interested to quote the tender **must have registration of their firm – organization in appropriate class.**
11. Experience of an individual person will not be considered as an experience of firm or organization. **Only organization / firm's experience will be considered.**

12. EXAMINATION BY TENDERERS

12.1 Prior to submitting the tender, each tenderer shall

- (a) Examine all instructions, eligibility criteria, and specifications in the tendering document.
- (b) Visit the site & determine local conditions which may effect the work including prevailing wages & other pertinent cost factors.
- (c) Familiarise himself with all central, state & local laws, ordinance, rules, regulations & codes affecting the material supply & services including the cost of permits & licenses required for the work at site.

- (d) Co-relate his observations, investigations & determinations with the requirement of the tender documents.

No additional claim, discrepancy etc shall be entertained after opening of tender.

13. TENDER PRICES

The Tenderer shall fill in the prices in the schedules provided online for this tender. On acceptance, the prices shall be valid throughout the period of contract i.e. **Thirty Six (36) months**.

14. DOCUMENTS COMPRISING THE TENDER:

14.1 The Tender documents prepared by the Tenderer shall be in two parts comprise the following components:

Part I : Technical and Part –II Financial, contents of Part I and Part II shall be as follows:

(A) PART – I: TECHNICAL

- (i) Vol. I of the Tender Documents with all schedules filled in
- (ii) EMD /Tender fee
- (iii) Certified Photocopies of audited Balance Sheets for preceding five financial years.
- (iv) Fresh Bank Solvency certificate
- (v) Power of Attorney authorizing the person for signing the Tender.
- (vi) Tenderer's Provident Fund (PF) registration number.

(B) PART – II : Financial

Vol – II of the Tender document with duly filled in price schedules.

15. EARNEST MONEY DEPOSIT

The Tenderer shall furnish, as part of its Tender, Earnest Money Deposit for the amount as indicated in the invitation for tender.

15.1 The EMD shall be denominated in Indian rupees and shall be in form of:

- (A) A demand draft payable to "Rajkot Municipal Corporation", Rajkot" of any Nationalized Bank or schedule bank except Co-operative bank having branch in Rajkot.

15.2 Any Tender without EMD will be rejected by the RMC as non-responsive.

15.3 Unsuccessful Tenderer's Earnest Money will be discharged / returned only after work is awarded to successful bidder.

The successful Tenderer's Earnest Money will be discharged upon the Tenderer signing the Contract and furnishing the performance / security deposit.

15.4 No interest will be paid on Earnest Money Deposit.

15.5 Within the stipulated days from the date of issue of the letter accepting his tender, the successful Bidder shall furnish the required Security Deposit for performance and plus additional security if any for unbalanced bids in accordance with the condition of the contract and attend the office of the Engineer In-charge for execution of the contract documents. If he fails to furnish the Security Deposit for performance or to execute the contract for the work offered to him, his EMD shall be forfeited and the Bidder may be Black Listed / Debarred from tendering for further works for three years.

16. TENDER VALIDITY

Tender shall remain valid for 180 days after the opening of Technical Bid Tender opening prescribed by the RMC. A Tender valid for a shorter period may be rejected by the RMC as non-responsive.

17. FORMAT AND SIGNING OF TENDER

Tenders signed by the Tenderer or a person or persons duly authorised to sign the Tender. The power of Attorney in favour of the person authorised to sign the Tender shall accompany the Tender. All pages of the Tender, shall be initiated by the person or persons signing the Tender.

18. OPENING OF TENDERS:

The online tender will be opened online .

19. EMPLOYER'S RIGHT TO VARY QUANTITIES AT TIME OF AWARD:

The employer reserves the right at the time of award of contract to increase or decrease the "Scope of Work" without any change in price or other terms and conditions.

20. EMPLOYER'S RIGHT TO ACCEPT ANY TENDER AND TO REJECT ANY OR ALL TENDERS.

The employer reserves the right to accept or reject any tender. The employer reserves the right to annul the e-Tendering process and reject all tenders at any time prior to award of Contract, without thereby incurring any liability to the affected Tenderer or Tenderers of any obligations to inform the affected Tenderer or Tenderers of the grounds for the Employer's action.

21. SIGNING OF CONTRACT

Within 10 days of receipt of the notification of Award/order the successful tenderer has to execute the necessary agreement with the RMC as per the prevailing rules & regulation of RMC.

22. PERFORMANCE / SECURITY DEPOSIT

Within 10 days of receipt of the notification of award from the RMC, the Successful Tenderer shall furnish the performance security in accordance with the Conditions of Contract, in the form acceptable to the RMC.

- 23 Failure of the successful Tenderer to comply with requirement of above clause shall constitute sufficient grounds for the annulment of the award and forfeiture of the EMD, in which event the RMC may make the award to the next lowest evaluated Tenderer or call for new Tenders.
24. The Contractor will not be entitled to subcontract any part of his obligation to any third party.

**Authorized Signature
with seal of Agency**

**Dy.Ex.Engineer
R.M.C.**

**City Engineer
R.M.C.**

PROFILE OF THE TENDERER

1. Name of the Company :
2. Type of the tenderer's firm:
3. Date of incorporation of firm:
4. Nature of main business of the firm:
5. Since when dealing the business of O&M
of water/waste water plant Monthyears.
6. Total No of employees on the (who can act as "key personnel")
7. Name and address and designation of contact person.

At head office/main office :

Telephone No.

Fax No.

E-mail

SEAL OF THE COMPANY

SIGNATURE:

DESIGNATION:

DATE :

Note: This form must be submitted duly filled-in by the Tenderer.

APPENDIX – A

STATEMENT OF FINANCIAL PARAMETERS

1. Annual turnover for last financial seven years

Sr No.	Financial Year	Turnover in Rupees.	Enhance factor	Turnover after applying Enhance factor.
01	2012-13		1.95	
02	2013-14		1.77	
03	2014-15		1.61	
04	2015-16		1.46	
05	2016-17		1.33	
06	2017-18		1.21	
07	2018-19		1.10	

2. Working Capital

Working Capital As on date :- 31-03-2019	Rs. _____
---	-----------

Note :- The bidder shall have to submit the copies of Audited Report of last seven Financial Years. The bidder shall also have to submit the Certificate regarding Turnover and Working Capital from the registered Chartered Accountant

Authorized Signature with
seal of Agency.

APPENDIX : B
DETAILS OF EQUIPMENT - OWNED/HIRED

Sr. No.	Name of the equipments	Name and number of equipment	Make and year of Manufacturing	Working Condition

* The above formats are indicative. Bidder can submit detailed information with supporting Annexures

Authorized Signature with seal of Agency.

APPENDIX : C**Details of Personnel to be deployed**

Sr. No.	Name of the Person	Qualification	Designation	Age	Experience	Date of appointment

* The above formats are indicative. Bidder can submit detailed information with supporting Annexures

Authorized Signature with seal of Agency.

APPENDIX D

O&M Experience of Electro - Mechanical Plant Machineries in last 7 (seven) years

Sr. No.	Name of Project	Owner/ Client	Installed Capacity of machinery in KW	No.of units	Type of machineries	Total Power/Electrical Capacity
1	2	3	4	6	7	9

* The above formats are indicative. Bidder can submit detailed information with supporting Annexures

Authorized Signature with seal of Agency.

APPENDIX : E

Maintenance Experience of Civil Structure (including waste water) during last seven years

Sr. No.	Name of Contractor	Name of Client	Year	Name of Civil Structures (waste water)	Capacity in Litres	Contract period	Certificate from client attached (Yes/ No)	Weather job is under litigation Yes / No	Remarks
1	2	3	4	5	6	7	8	9	10

* The above formats are indicative. Bidder can submit detailed information with supporting Annexures

Authorized Signature with seal of Agency.

APPENDIX : F

Operation & Maintenance Experience of Electro-Mechanical Plant in last 7 (seven) Years

Sr. No.	Name of Project	Name of plant with location & address	Value of contract in Rs.	Estimated Cost	Duration of Operation of Contract of		Whether project under litigation (Yes/No) & reasons thereof	Capacity
					Date of Start	Date of completion		
1	2	3	4	5	6	7	8	9

* The above formats are indicative. Bidder can submit detailed information with supporting Annexures

Authorized Signature with seal of Agency.

Section : F

**CONDITIONS OF CONTRACT
FOR
OPERATION & MAINTENANCE**

SECTION : F

CONTENTS

Particulars

- 1. I - ADMINISTRATIVE AND LEGAL PROVISIONS**
 - 1.1 Definitions
 - 1.2 Interpretations
 - 1.3 Commencement and duration of Operation and Maintenance contract
 - 1.4 Applicable Law
 - 1.5 Assignment
 - 1.6 Safety
 - 1.7 Notification
 - 1.8 Inspections

- 2 OPERATION OF THE FACILITIES**
 - 2.1 Operation of the facilities
 - 2.2 Responsibility of the Contractor
- 3 DUTY OF CARE BY THE OPERATOR AND PERFORMANCE STANDARDS**
 - 3.1 Duty of care
- 4 OBLIGATIONS AND RESPONSIBILITIES OF THE EMPLOYER**
- 5 REPRESENTATIONS AND WARRANTIES OF THE CONTRACTOR**
 - 5.1 Performance of O & M Services
 - 5.2 Knowledge of Adverse Information
 - 5.3 Organization, Standing and Qualification
 - 5.4 Due Authorization
 - 5.5 Litigation
- 6 INSURANCE**
- 7 INDEMNIFICATION**
 - 7.1 Loss or Damage to Facilities
 - 7.2 Other Loss or Damage
 - 7.3 Accidents or Injury to Workmen
- 8 INSPECTION**
 - 8.1 General Provisions
 - 8.2 Measurement and Analysis
 - 8.3 Plant Complex Visits
- 9 RECORDS AND REPORTS**
 - 9.1 Operating Records and Data
 - 9.2 Reports
 - 9.4 Procurement
- 10. Payment**
- 11 DELAY DAMAGES**
- 12 TERMINATION**
- 13 Settlement Of Disputes**
- 14 Disputes Of Differences To Be Referred To**
- 15 Interpretation Related To Tender Conditions Or Contract Agreement**
- 16 Governing Law and Jurisdiction**

CONDITIONS OF CONTRACT
FOR OPERATION AND MAINTENANCE
I - ADMINISTRATIVE PROVISIONS

1 DEFINITIONS AND INTERPRETATION

1.1 Definitions

In these Conditions of Contract (“Conditions”) the following words and expressions shall have the meanings hereby assigned to them, except where the context otherwise requires:

1. “Applicable Law” means all national (or State) legislation, statutes, ordinances and other Laws and regulations and by laws of any legally constituted public authority.
2. “Contract” means the contract agreement, these conditions, the employer’s requirements, the Tender and the further documents (if any) which are listed in the contract agreement..
3. “Contractor’s Equipment” shall mean all equipment, instruments, tools, machinery and other appliances and things of the Contractor at the Site required for the fulfillment of the obligations of the Contractor under these Conditions.
4. “Contractor’s Personnel” means the contractor’s representative and all personal whom the contractor utilizes on site, who may include the staff, labour, & other employees of the contractor and of each sub contractor & any other personal assisting the contractor in the execution of the work.
5. “Dispute” shall have the meaning given to it in Clause 13 of these Conditions.
6. “Defects Liability Period” means the defect liability period of two (2) years for all works commencing on and from of taking over during which contractor shall under take the responsibilities and have the liability for the facility.
7. “Employer’s Risk” shall include the risks mentioned as employers risks in the General Conditions and shall include any negligence or wilful misconduct on the part of the Employer and also any event of Force Majuere as provided in Clause 12 of these Conditions.
8. “Employer’s Personnel” means the Employer’s Representative,

the assistants and all other staff, labour and other employees of the employer and of the Employer's representative, and any other personnel notified to the contractor, by the employer or the employer's representative, as employer's personnel.

9. "Employer's Requirements" means the document entitled employer's requirements, as included in the contract, and any additions and modifications to such document in accordance with the contract. Such document specifies the purpose, scope, and / or design and / or other technical criteria, for the works.
10. "Facility" shall mean the entire system constructed including the buildings, structures, ramps, pits, pipes, fencing, lighting, testing and analysis equipment, tools, computers, software programs, safety equipment, plant machinery, supplies, instruments and inventory incorporated therein, as well as all open areas within the Site, and including any additions, modifications, alterations, replacement and repairs as may be made thereto from time to time.
11. "General Conditions" shall mean the conditions of tender issued by RMC for O&M works of projects.
12. "Good Operating Practices" means the standards, practices, methods and procedures as practiced internationally and in India conforming to all Applicable Law and that degree of skill, diligence, prudence and foresight which would reasonably be expected from a skilled and experienced contractor engaged in India in the same type of undertaking under the same or similar circumstances as the Contractor pursuant to these Conditions.
13. "O & M Contract" shall mean the contract entered in between the Employer and the Contractor pursuant to these Conditions.
14. "O & M Completion Certificate" shall mean the certificate to be issued by the Employer on the fulfillment of all the obligations of the Contractor under these Conditions.
15. "O & M Services" shall mean those services specified in Schedule [1] which the Contractor is obligated to perform under these Conditions.
16. "O & M Standard" shall mean the standards:
 - a) As set forth in the O & M Manual as accepted by the Employer;

- b) As required pursuant to Applicable Law;
- c) Set out in the Performance Guarantee; and
- d) For the functioning of the Facility as required in accordance with the Contract including such requirements as may be mentioned in the Employer's Requirements.
- e) For the functioning of the Facilities set forth in these Conditions.

- 17 "O & M Manual" shall have the meaning for manual of Operation and Maintenance.
- 18 "O & M Period" shall have the meaning set out in Clause.
- 19 "O & M Price" shall mean the amount stated in Price Schedule.
- 20 "Party" shall mean each of the Contractor and the Employer and Parties shall mean both of them together.
- 21 "Performance Guarantees" shall mean the guarantee that the Facility shall be operated satisfying the minimum performance parameters set out in Schedule.
- 22 "Successor Contractor" shall have the meaning given to it in Clause.
- 23 "Site" shall means that specific area specified in the bid documents & shall include any other places as may be specifically designed by the employer from the time to time as forming part of the site.
- 24 "Taking Over Date" shall means the date of issue of the taking over certificate under the construct phase.
- 25 "Taking Over Certificate" means the certificate to be issued when the whole of the works or any sections or parts of the permanent works have been substantially completed & satisfactorily parts of the test on completion in accordance with the provision of the contract.
- 26 "Termination" shall have the meaning given to it in Clause [12] of these Conditions.

1.2 Interpretation

In these Conditions, except where the context requires otherwise:

- (a) words indicating one gender include all genders;

- (b) words indicating the singular also include the plural and words indicating the plural also include the singular;
- (c) Provisions including the word "agree", "agreed" or "agreement" require the agreement to be recorded in writing;
- (d) "written" or "in writing" means hand-written, type-written, printed or electronically made, and resulting in a permanent record;
- (e) The marginal words and other headings shall not be taken into consideration in the interpretation of these Conditions;
- (f) The words "include," "includes" and "including" are not limiting;
- (g) As used in these Conditions, all defined terms include the plural as well as the singular;
- (h) Any agreement, document or drawing defined or referred to in these Conditions shall include each amendment, modification and supplement thereto and waiver thereof as may become effective from time to time, except where otherwise indicated;
- (i) Any reference to any Clause or Sub – Clause shall unless specified otherwise mean a Clause or Sub- Clause of these Conditions; and
- (j) Any rights of the Employer to make any inspections or to review any document shall not create any obligation on the Employer to conduct such inspections or reviews to detect any errors, inaccuracies, ambiguities or other potential problems. No inspection or approval by or on behalf of the Employer shall operate as a waiver of any provision of these Conditions, any obligation of Contractor under these Conditions, or any of the rights of the Employer hereunder, except as expressly agreed in writing by the Employer.

1.3 Commencement and Duration of O & M Contract

1.3.1 “The O & M Period” shall commence upon issuing of work order and shall continue for a period of three (3) years. **The Employer may propose an extension to the O & M Period by giving prior notice to the Contractor**

1.3.2 **The O & M period may then be extended subject to mutual consent and on terms and conditions agreed to by both the Parties.**

1.4 Applicable Law

- 1.4.1 The Contractor shall comply with all Applicable Law relevant to the Contractor's Personnel, including Applicable Law relating to their employment, health, safety, welfare, immigration and emigration, and shall allow them all their legal rights.
- 1.4.2 The Contractor shall require his employees to obey all Applicable Laws, including those concerning safety at work.
- 1.4.3 In the event Employer becomes liable to any Employers Personnel, any governmental authority (including but not limited to any fines or penalties levied by or payable to such authority) or any other third party under the provisions of any Applicable Law resulting from Contractor's failure to comply with such Applicable Law, Contractor shall reimburse Employer for all payments required to be made by Employer to such Employers Personnel, governmental authority or any other third party, plus the actual expenses that Employer may incur in investigating, settling or defending any litigation or threatened litigation.

1.5 Assignment

The Contractor will not be entitled to sub-contract any part of his obligation under these Conditions to any third party without prior approval of the Employer. Neither party may assign their rights and obligations under these Conditions without the consent of the other Party. However the Employer may assign any rights under these Conditions to any financial institution from whom any financial assistance/credit facilities have been availed by the Employer.

1.6 Safety

1.6.1 Emergencies

In the event of an emergency endangering life or property, the Contractor shall take such action as may be necessary to prevent, avoid or mitigate injury, damage or loss and shall, as soon as possible, report any such incidents, including his response thereto to the Employer.

1.6.2 Contractor Action

The Contractor shall utilize his personnel to take such action as may be necessary in accordance with Good Operating Practices in the event of an emergency. Notwithstanding anything to the contrary herein, the Contractor may incur any expenditure or take any other operating actions as the

Contractor deems to be necessary (in accordance with Good Operating Practices) in the case of emergencies affecting the Facilities or the operation of the Facilities to counteract the effects where the Contractor considers immediate action is required to safeguard lives or property. In case such emergency was caused due to an Employer's Risk then the Employer shall reimburse such reasonable expenses that might have been incurred by the Contractor in relation thereto acting in accordance with Good Industry Practices.

1.7 Notification

1.7.1 In the event of an emergency the Contractor shall forthwith notify the Employer of the emergency, the expenditures made and the operating actions taken.

1.7.2 If the Employer considers that an emergency has arisen in relation to the Facilities, the Employer may give written notice to the Contractor specifying the nature of the emergency which it has identified and the manner in which it requests such emergency to be rectified. The Contractor shall rectify such defect with all due diligence. If such emergency is on account of an Employer's Risk then the Contractor shall be reimbursed all costs and expenses reasonably incurred by the Contractor for any actions taken by it pursuant to such direction or notice. If the Contractor fails to comply with such direction or notice promptly, the Employer shall be entitled to procure that it or any third party takes such actions as may be necessary to remedy such breach by the Contractor. Any costs that may be incurred by the Employer in this regard shall be reimbursed to him in full by the Contractor and shall be a debt due to him from the Contractor.

1.8 Inspections

Notwithstanding any provisions of these Conditions and without prejudice to any of the other rights vested by the Contractor under these Conditions, the Employer shall have the right at all times to inspect the Facilities and the Contractor shall co-operate in every manner with the representatives of the Employer inspecting the Facilities and allow them access to every part of the Facilities and produce any records requested.

2 OPERATION OF THE FACILITIES

2.1 Operation of the Facilities

- 2.1.1 The Employer appoints the Contractor to perform and undertake the O & M Services and all other obligations set out and in accordance with these Conditions during the O&M Period. The Contractor accepts the appointment and acknowledges a duty to perform such obligations.
- 2.1.2 The Contractor shall be in complete charge of and have custody and control over and responsibility for the Facilities, and the Contractor shall perform or cause to be performed on behalf of the Employer all O & M Services for the Facilities and shall supply or cause to be supplied all materials required therefore in accordance with the O & M Standard.
- 2.1.3 The Contractor shall also acknowledge that the Employer and the Employer's Personnel and other contractors may be carrying out work at the Facilities and shall endeavor to fully co-operate and work in a manner so as not to cause any obstruction or hindrance to them.
- 2.1.4 The Contractor is an independent Contractor and not an agent, employee and nothing in these Conditions or the O & M Contract shall be deemed to create a joint venture between the Employer and the Contractor.

2.2 Responsibility of the Contractor

The Contractor shall be solely and exclusively responsible for:

- 2.2.1 obtaining all necessary permits and consents required by Applicable Law or any governmental authority for the Contractor to carry out the O & M Services;
 - a) Whole online/correspondence Procedure to obtain CC&A (Consolidated consent & Authorisation) from GPCB-GUJARAT POLLUTION CONTROL BOARD to operate plant shall be in scope of agency. How ever, RMC will cooperate with agency same in relative correspondence/documentation with GPCB.
 - b) All necessary CCA- application fee/charges shall be borne by agency. RMC will reimbursed CCA fee/chrges amount back to agency on submission of valid receipt/evidence.
- 2.2.2 making available suitably qualified and trained personnel to perform the O & M Services;
- 2.2.3 perform the O & M Services in accordance with the O & M Manuals and maintain the Facilities in good repair and condition and ensure that the Facilities are well and suitably

maintained at all times in accordance with Good Operating Practices and in accordance with these Conditions;

2.2.4 procuring and administering all chemicals and other consumables, tools, equipment, spare parts and other materials (which shall be of good quality and unused) necessary for the operation and maintenance of the Facilities;

2.2.5 maintaining a system of records to identify all inventories related to the Facilities and preparing and providing to the Employer a complete accounting of such inventory for every fiscal quarter;

2.2.6 arranging for the testing and recalibration of all scales, meters, gauges and other measuring devices at the Facilities on an annual basis unless otherwise stated in the O & M Contract;

2.2.7 for providing any and all relevant information required by the Employer.

3.0 DUTY OF CARE BY THE OPERATOR AND PERFORMANCE STANDARDS

3.1 Duty of Care

3.1.1 The Contractor shall manage, operate and maintain the Facilities in accordance with Good Operating Practices and in accordance with the O & M Standard so that the Facilities are capable of meeting the outputs and specifications set out in the Contract.

3.1.2 The Contractor shall take full responsibility for the care of the Facility from the date of issue of the Taking-Over Certificate, till the end of the O & M Period.

3.1.3 If any loss or damage happens to the Facility, during the O & M Period due to any breach by the Contractor of any of his obligations under these Conditions including any willful misconduct, negligence and non conformity with Good Operating Practices than the Contractor shall, at his own cost, rectify such loss or damage so that the Facility conforms in every respect with the provisions of these Conditions.

3.1.4 The Employer shall be liable only in case of any damage caused due to any Employer's Risk.

4 OBLIGATIONS AND RESPONSIBILITIES OF THE EMPLOYER

The Employer shall employ the Contractor to provide the O & M Services and shall:

- 4.1 following the issue of work order, hand-over the custody of the Facilities to the Contractor for its use during the O & M Period; and
- 4.2 pay the Contractor all sums required to be paid in accordance with the terms of these Conditions.

Notwithstanding anything else herein contained the Employer may set off any sums owed by the Contractor under the Contract for monies owed to the Contractor by the Employer under these Conditions or as a debt due from the Contractor.

- 4.3 No advance payment or Down payment shall be made.

5 REPRESENTATIONS AND WARRANTIES OF THE CONTRACTOR

The Contractor hereby represents for the benefit of the Employer as follows:

5.1 Performance of O & M Services

5.1.1 that the Contractor has the required skills and capability to perform, and shall diligently perform, the O & M Services in a high-quality, timely and professional manner utilizing sound engineering principles and project management procedures in accordance with Good Industry Practices;

5.1.2 that the Contractor shall perform its obligations hereunder in accordance with the requirements of these Conditions and shall meet the Performance Guarantee; and

5.1.3 that it shall not use any spare parts or material that are not new and which shall be of a quality that is in accordance with Good Industry Practices.

5.2 Knowledge of Adverse Information

5.2.1 As of the Commencement Date, Contractor is not aware of any facts, conditions or events which would affect the ability of Contractor to provide the O & M Services in accordance with these Conditions.

5.2.2 Contractor has familiarized itself with the nature and extent of the O & M Services required to be provided under these Conditions and with all other requirements under Applicable Law.

5.3 Organization, Standing and Qualification

Contractor is validly existing and in good standing under Applicable Law and has all necessary power and authority to carry on its

business as presently conducted and to perform its obligations under these Conditions. Contractor is, or will be prior to the date on which the O & M Services are to be commenced duly qualified or licensed to provide these services.

5.4 Due Authorization

5.4.1 Each of the execution, delivery and performance by the Contractor of all contracts entered into pursuant to these Conditions shall be duly authorized by all necessary action on the part of Contractor.

5.4.2 Neither the execution and delivery by Contractor of the O&M Contract, nor the consummation by Contractor of any of the transactions contemplated hereby, requires the consent or approval of, the giving of notice to, the registration with, the recording or filing of any document with, or the taking of any other action in respect of, any governmental authority or agency, except:

- (a) Such as have been duly obtained, given, registered, recorded, filed or taken and are in full force and effect or are not yet required; and
- (b) Filings and recordings expressly required pursuant to the O & M Contract. Contractor holds, or will obtain, any and all licenses, permits and approvals on a timely basis. Contractor has no reason to believe that any of those not yet required will not be readily obtainable or done in the ordinary course of business upon due application there for.

5.5 Litigation

In the aggregate, there are no pending or, to the knowledge of Contractor, threatened actions, investigations or proceedings before any court, governmental authority or arbitrator, which would have material adverse effect on the ability of Contractor to perform its obligations under these Conditions.

6 INSURANCE

6.1 The equipment being operated and maintained in this Contract shall be fully insured against loss or damage by the contractor. The Goods supplied under the Contract shall be fully insured against loss or damage incidental to manufacture or acquisition, transportation, storage and delivery in the manner specified in the Special Conditions of Contract.

- 6.2 The Contractor shall, without limiting his or the Employer's obligations and responsibilities will insure equipment and other things brought, onto the Site by the Contract, for a sum sufficient to provide for their replacement at the Site.
- 6.3 Any amounts not insured or not recovered from the insurers shall be borne by the Contractor in accordance with their responsibilities under the agreement.
- 6.4 The Contract shall indemnify the Employer against all losses and claims in respect of -
- a) Death of or injury to any person, or,
 - b) Loss of or damage to any property (other than the Works)
 - c) Which may arise out of -iii consequent of the Operations and Maintenance of the Facility and the rectifying of any defects therein, and against all claims proceedings, damages, costs, charges and expenses whatsoever in respect thereof or in relation thereto.
- 6.5 The Employer shall not be liable for or in respect of any damages or compensation payable to any workman or other person in the employment of the Contractor or any Sub-contractor, resulting from any act or default of the Contract, his agents or servants.
- 6.6 The Contractor shall insure all the personnel against damage, health hazard, loss of life, safety requirements and other obligations over and above that is considered under labour laws, factory act and prevalent statutory laws in the region. The certificates of the workman's insurance shall form part of the agreement and in absence of such insurance, work or O & M shall not commence.

7 INDEMNIFICATION

7.1 Loss or Damage to Facilities

The Contractor shall at its own expense make good any physical loss or damage to the Facilities occasioned by it in the course of the performance of its obligations under these Conditions if and to the extent such loss or damage is caused by the negligence, wilful default or breach of statutory duty or failure to follow Good Industry Practices by the Contractor.

7.2 Other Loss or Damage

7.2.1 Except as otherwise stated in this Clause 7.2 or covered by

Clause 7.3, the Contractor shall indemnify, defend and hold harmless the Employer against any and all liabilities, losses, damages and claims of whatever kind and nature, including all related costs and expenses incurred in connection therewith, in respect of personal injury to or death of third parties or any employee of the Employer or the in respect of loss of or damage to any third party property or property belonging to employee of the Employer by:

- (i) any breach by the Contractor of its obligations hereunder; and
- (ii) any negligence, willful default or breach of statutory duty on the part of Contractor.

7.2.2 Except as otherwise stated in this Clause 7.2 or covered by Clause 7.3, the Employer shall indemnify, defend and hold harmless the Contractor for all claims and losses of whatever kind and nature, including all related costs and expenses incurred in connection therewith, in respect of personal injury to or death of third parties or of any person employed by the Contractor in respect of loss of or damage to any third party property or property belonging to any person employed by the Contractor to the extent that the same arises out of any Employer's Risk.

7.3 Accidents or Injury to Workmen

7.3.1 The Contractor shall indemnify, defend and hold harmless the Employer or any Employer's Personnel against any and all claims for loss, damage and expense of whatever kind and nature (including all related costs and expenses) in respect of the death of or injury to any person employed by the Contractor in connection with the performance of the O&M Services and and obligations hereunder except to the extent that such death or injury is caused by an Employer's Risk.

7.3.2 Neither Party shall be liable to the other Party for loss of use of the Facilities, loss of profit, loss of any contract or for any indirect or consequential loss or damage which may be suffered by the other Party in connection with the Contract, other than under Sub-Clause [13] and this Clause [7].

7.3.3 The total liability of the Contractor to the Employer, under or in connection with these Conditions other than as provided in Clause 7.3.1 & 14 shall not exceed the sum of the O & M Price and the Delay Damages payable under the these Conditions.

This Sub-Clause shall not limit liability of the Contractor in case of fraud, willful default, gross negligence and liabilities arising due to breach of Applicable Law and the liability under any other Clause of these Conditions that might impose a greater liability on the Contractor.

8 INSPECTION

8.1 General Provisions

The Employer may check the operation of the Facilities or designate an organization of his choice to carry out inspections regularly. The Employer or the organization appointed by him shall check that the Contractor is performing the tasks for which he is responsible with due diligence. The Contractor shall at his cost provide all the assistance the Employer requires to complete these inspections.

8.2 Measurement and Analysis

8.2.1 The Employer has the right to perform any analysis or inspection he deems necessary.

8.2.2 The sewage quantity, for any such test, analysis or inspection shall be measured by flow-meters installed at the Facility, which are acceptable to the Employer.

8.2.3 The Contractor shall be responsible for the security and protection of flow-meters at the designated point. If there is any malfunctioning of the meters, it should be replaced at the Contractor's cost.

8.3 Plant Complex Visits

8.3.1 A report shall be drawn up to record the opinions of both Parties. The Employer reserves the right to call in equipment manufacturers or specialized technicians for these visits.

8.3.2 These visits shall provide an opportunity for examining maintenance programs and operating procedures and improvements requiring additional investments.

8.3.3 Any test, visit, analysis or inspection and any approval thereof shall not in any way alter/modify or dilute the responsibility of the Contractor to fulfill his obligations under these Conditions.

9 RECORDS AND REPORTS

9.1 Operating Records and Data

The Contractor shall:

9.1.1 Prepare and maintain, on a current basis and in accordance with generally accepted Indian accounting principles, proper, accurate and complete books and records and accounts of all transactions related to the Facilities including a log book at the site which shall contain inter alia the following details:

- (a) Reading from the different meters, indicators and recorders (including but not limited to consumption of energy, volume of sewage conveyed, operating times of the different items of equipment etc which may be updated on a daily basis); and
- (b) Report of visits by persons other than those of the Employer and the Contractor to the Facility.

9.1.2 Establish and maintain a weekly and monthly reporting system to provide storage and ready retrieval of operating data relating to the Facilities, including such information necessary to verify calculations made pursuant to these Conditions or the O & M Contract and provide the same to the Employer on a monthly basis.

9.1.3 Provide to the Employer or such persons notified by it access to the Facilities and to data in relation to the Facilities, at all times.

9.1.4 At the Employer's request, at the end of every month, make a copy of the system performance data for that month as recorded by the instrument and control system on floppy diskettes and printed document therefrom and deliver the same to the Employer with one week.

9.1.5 Provide support to the Employer to meet the data requirements of all competent authorities and under Applicable Law.

9.2 Reports

9.2.1 The Contractor shall submit the reports mentioned in Schedule [4] at times indicated in the said Schedule (Hard copy as well as Soft copy).

9.2.2 The Contractor shall also provide the Employer with such reports as are required by the Employer and shall comply with all reporting requirements prescribed under these Conditions and the O & M Contract. In addition the Contractor shall submit the following information to the Employer:

9.2.3 Upon obtaining knowledge thereof, shall submit prompt written notice of:

- (i) any litigation or material claims, disputes or actions, threatened or filed, concerning the Facilities or the services to be performed hereunder;
- (ii) any refusal or threatened refusal to grant, renew or extend or any action pending or threatened that might affect the granting, renewal or extension of any clearance, permit or license;
- (iii) Notwithstanding the aforementioned materiality, all penalties or notices of violation issued by any authority under Applicable Law;

9.3 the Contractor shall promptly submit to the Employer any material information concerning new or significant aspects of the operations of the Facilities, any material complaint about the Facilities from any person or entity with a bona fide complaint who complains directly to the Contractor and, upon Employer's request, shall promptly submit any other information concerning the Facilities or the services performed by the Contractor.

9.3.1 The Employer may from time to time specify any changes to be made to any of the format of any report or plan required hereunder.

9.3.2 If the Contractor is required by any Applicable Law to produce any projection, report or any other document relating to the provision of the O & M Services of the Facilities or the Employer requests a report regarding other information relating to the Facilities, the Contractor shall prepare a draft of such document at the request of the Employer, as soon as practicable and in any event within any time limit prescribed by Applicable Law.

9.3.3 If the Contractor is required by any Applicable Law to produce any projection, report or any other document, it shall prepare such report diligently and submit the same to the Employer as soon as possible thereafter. Wherever practicable, such reports shall be submitted to the Employer for review [3] days before the same is issued. The Contractor shall take into account any comments or revisions proposed by the Employer thereon.

9.4 Procurement

9.4.1 The Contractor is responsible for the procurement of all goods and services necessary to ensure compliance with its obligations under these Conditions.

9.4.2 The Contractor shall procure spare parts, materials, supplies and other consumable items, and maintains an adequate inventory thereof Facilities.

10. Payment

10.1 The Contractors request(s) for payment shall be made to the RMC in writing, accompanied by invoice(s) along with presence sheet of personnels of particular month duly certified by our Engineer on site, claims etc. as appropriate.

10.2 Payment shall be made by RMC as per procedure subsequent to the submission of such invoice(s)/ claim(s) by the Contractor.

10.3 The RMC will deduct from the amount payable to the Contractor, any amount paid by RMC on behalf of the Contractor e.g. (telephone bills, PGVCL penalty for Power factor or any other dues and liquidated damages as per clause and, as per tender terms and condition. Any telephone bills submitted by telephone department, the cost of bills will be borne by Contractor.)

10.4 Contractor will provide Security Guards services for all assets in plant premises for 24 hours of a day and 365 days of the year for the whole contract period.

11 DELAY DAMAGES

Performance Guarantees and Delay Damages

The Contractor shall operate and maintain the Facilities in accordance with:

11.1 The O & M Standard; and

11.2 the Good Industry Practices.

In case of the failure of the Contractor to achieve each of the requirements mentioned in Price Schedule, he shall be liable to pay Liquidity Damages for each unit of shortfall.

12 TERMINATION

Termination shall mean the termination of the O&M Contract by the Employer or the Contractor in accordance with Clause 12.1 or 12.2 respectively.

12.1 Termination by Employer may be in case of:

The Employer may terminate the O & M Contract by notice on:

- (a) the dissolution or insolvency of the Contractor, pursuant to an order of a court or the bankruptcy of the Contractor; or
- (b) if 45 days having passed since the Contractor is in material breach of his obligations under these Conditions, or
- (c) if the Contractor ceases to carry on its business; or
- (d) abandonment; or
- (e) If penalty amount exceeds to 10% of one year tender amount.

12.2 Payments upon Termination

12.2.1 Upon termination or as soon as practicable thereafter an account shall be taken of the net amount owing from the Employer to the Contractor or from the Contractor to the Employer (as the case may be). The Employer shall forthwith pay to the Contractor (if the balance is due to the Contractor) all moneys due to the Contractor. If the account shows a balance due to the Employer from the Contractor, the Contractor shall forthwith pay any such balance to the Employer;

12.2.2 As part of the calculation made pursuant to clause 12.1 of the amounts due to the Contractor on Termination, the following amount shall be taken into account:

12.2.2.1 the portion of the O & M Price outstanding and payable by the Employer for the period prior to the Termination;

12.2.2.2 any Delay Damages or indemnities for which the Contractor would be liable under these Conditions upto the date of Termination;

12.2.2.3 any other amounts due to the Employer under these Conditions by the Employer including return of any amount of the O & M Price paid in advance by the Employer to the Contractor under Clause [10].

12.3.3 In case of a Termination by the Employer in accordance with Clause 12.1 the Employer may recover other than the amounts due to him under Clause 12.2.2, any costs incurred by him in finding any replacement contractor.

12.4 Successor to the Contractor

Upon Termination: -

- 12.4.1 The Contractor shall use all endeavors to facilitate the appointment and commencement of duties of any person to be appointed by the Employer to operate and maintain the facilities (the "Successor Contractor") so as not to disrupt the normal Operation & Maintenance of the Facilities and shall provide full access to the Facilities and to all relevant information, data and records relating thereto by the Successor Contractor and its representatives and accede to all reasonable requests made by such persons in connection with preparing for taking over the Operation & Maintenance of the Facilities,
- 12.4.2 Promptly after Termination, the Contractor, shall deliver to (and shall, with effect from Termination, hold on trust for and to the order of) the Employer or (if so required by the Employer by written notice) to the Successor Contractor all property in its possession or under its control owned by the Employer or leased or licensed to the Employer;
- 12.4.3 The Contractor shall transfer to the Successor Contractor, as from the date of Termination, its rights as the Contractor under all contracts entered into by it in the performance of its obligations under these Conditions or relating to the Operation & Maintenance of its obligations under these Conditions or relating to the Operation & Maintenance of the Facilities. Pending such transfer, the Contractor shall hold its rights and interests thereunder for the account and to the order of the Successor Contractor.
- 12.4.4 The Employer shall be reimbursed any cost and expenses incurred by the Employer due to default of the Contractor in discharging its obligations under this Clause [12].
- 12.4.5 The Contractor shall, upon Termination of the O & M Contract, co-operate with the Employer and the Successor Contractor and comply with all reasonable requests thereof, including the execution of documents etc.
- 12.4.6 Upon Termination of the O & M Contract on expiry of the terms of the O & M Contract, the Parties agree that:-
- 12.4.7 The Contractor will use reasonable efforts to ensure a transition to the next Contractor that will avoid operating difficulties for the Facilities.

12.4.8 For a six (6) month period after Termination or six (6) months prior to the expiration of the O & M Contract, the Contractor shall, at his expense, provide sufficient assistance to the Employer in the hiring and training of replacement personnel for those Facilities.

12.5 Notwithstanding anything else herein contained the Employer shall be entitled to terminate the O & M Contract, at any time at the Employer's convenience, by giving notice of such termination to the Contractor. The termination shall take effect 28 days after issuance of the notice of termination.

12.5.1 On the expiry of the O & M Contract or Termination of the O & M Contract, all the installations, works and equipment placed under the Contractor's responsibility shall be handed over to the Employer, at no cost, in good working order, except for normal wear and tear. The Employer may perform any inspections, tests or expert appraisals he shall consider necessary with a view to checking that the property is in good working order. The Contractor shall also hand over any unutilized spares, consumables etc. purchased for the Facilities.

12.5.2 At the end of successful O & M Period, the Contractor shall be entitled to receive an O & M Completion Certificate.

12.5.3 The delivery of such O & M Completion Certificate will relieve the Contractor from his responsibility as regard to the operation & maintenance of the Facilities and confirm that the Contractor has fulfilled all of his obligations under these Conditions.

13 Settlement Of Disputes :

Except as otherwise specifically provided in the contract, all disputes concerning questions of fact arising under the contract shall be decided by the Engineer-In-Charge subject to a written appeal by the Contractor to the Engineer-In-Charge and those decisions shall be final and binding on the parties hereto. Any disputes or differences including those considered as such by only one of the parties arising out of or in connection with this contract shall be to the extent possible settled amicably between the parties. If amicable settlement cannot be reached then all disputed issues shall be settled as provided in Article GC-48 (Disputes or differences to be referred to) and Article No.GC-49 (Interpretation Related To Tender Conditions or Contract Agreement).

14 Disputes Of Differences To Be Referred To :

If at any time, any question, disputes or differences of any kind whatsoever shall arise between the Engineer-In-Charge and the contractor upon or in relation to or in connection with this contract either party may forthwith give to the other, notice in writing of the existence of such question, dispute or difference as to any decision, opinion, instruction, direction, certificate or evaluation of the Engineer-In-Charge. The question, dispute or differences shall be settled by the Municipal Commissioner, Rajkot Municipal Corporation, who shall state his decision in writing and give notice of same to the Engineer-In-Charge and to the Contractor. Such decision shall be final and binding upon both parties.

15 Interpretation Related To Tender Conditions Or Contract Agreement_:

For any interpretation related to tender conditions or contract agreement conditions, the decision of Municipal Commissioner, Rajkot Municipal Corporation shall be considered as final and binding and in the event of any dispute arising pertaining to tender conditions or contract agreement conditions the jurisdiction shall be Rajkot Civil Court /Commercial Court of Rajkot City.

16 Governing Law And Jurisdiction

These Conditions and the O & M Contract shall be governed in accordance with Indian Law.

The Contractor agrees that any legal action or proceedings arising out of these Conditions may be brought in the courts or tribunals at Rajkot in India and irrevocably submits themselves to the jurisdiction of such courts or tribunals. The Employer may, however, in its absolute discretion commence any legal action or proceedings arising out of these Conditions in any other court, tribunal or other appropriate forum, and the Contractor hereby consents to such jurisdiction.

SECTION - "F"

SCHEDULE 1

Operation and Maintenance Services

1. The Contractor shall be required to perform the following services under these Conditions¹:
2. The Contractor shall be responsible for corrective maintenance of civil, hydraulic, mechanical, electrical and computing equipment as well as miscellaneous equipment.
3. The Contractor shall be responsible for carrying out regular servicing and lubrication of rotary machines, complying with maintenance instructions as defined in the Operation and Maintenance Manual, and ensuring that electromechanical equipment and motors operate correctly at all times.
4. The Contractor shall ensure that measurement systems operate correctly at all times.
5. The Contractor is responsible for the maintenance of the landscaped areas inside the Employer existing plant only.
6. The Contractor shall be responsible for maintenance of all the components of the plant including laboratory and administrative building, garden, road etc.
7. The Contractor will operate and maintain in a state of continuous operational readiness all plant and systems to meet the laid down standards. It shall remain the Contractor's responsibility to ensure that plant systems are at all times able to operate to the maximum capacity of the installed duty plant.
8. The sewage conveyed from main pumping station shall be measured by the meter installed at the inlet of the plant. The meters shall be inspected and calibrated.
9. For the duration of the O & M period, the Contractor will be responsible for the supply and control of lubricants, spare parts and consumable materials excluding electrical power, necessary for the continuous operation of the works.

¹ Provided here are certain standard services that RMC could require. However RMC may wish to review this and make changes depending on the exact nature of services they require from the Contractor.

10. The Contractor will manage the consumables and utilities services to ensure their most economic consumption and to minimize wastage.
11. The quantities of all the unutilized spare parts and consumable materials will be fully handed-over to the Employer at the end of the O&M period.
12. The Contractor will make all necessary arrangements to ensure the continuous supply of spare parts and material for the works, and the rate of supply of these materials shall be in such quantities and amounts as would ensure uninterrupted operation.
13. All the furniture and administrative office equipment etc. required shall be furnished by the Contractor. Costs of operating administrative office and supplies shall be borne by the Contractor.
14. Cost of operation and maintenance and house keeping of housing complexes including roads, gardens, electrical installations, etc. will be borne by the contractor.
15. The replacement of major electrical and mechanical equipment if found necessary will be done by Rajkot Municipal Corporation.
16. Maintenance / repairing of all electrical / mechanical equipment, rewinding of all type of motors, repairing of all types of pumps, motors, electrical starters, repairing of transformer, cable jointing shall be done by the contractor.
17. Major repairing of civil structure / mechanism / electrical accessories in case of earthquake, heavy flood, heavy cyclone, riot, theft, fire, any kind of accident etc. shall be in the scope of contractor

SCHEDULE 2

Specific Conditions for Operation and Maintenance of Electrical Equipment/Services

- The Contractor shall be required to perform necessary O&M, lubrication and alignment services of HT DP Structure at a regular interval of 6 months with all required consumables.
- The contractor shall be required to perform Oil BDV Test and Oil Filtration of Transformers once in a year and to make top up of required oil quantity.
- The bidder shall be required to perform HT Breaker maintenance and servicing as well as to perform necessary testing and calibration of relay and breaker once in a year.
- The contractor shall be required to perform maintenance of LT Panel, APFC Panels, Equipment Panels, Starter Panels, VFD Panels, Electrical Motors etc. once in every 4 months with necessary tightening, blowring, fitment, proper termination and other necessary maintenance activities.
- The contractor shall be required to perform Earth Measurement of each earth station once in every 6 months.
- The contractor shall be required to submit necessary data, test reports, drawings etc and get the clearance of Electrical Inspector for Annual Inspection of HT Installations.
- The contractor shall be required to perform necessary repairs of all area lighting and internal/external building lighting and should keep all lighting in ON condition during night hours.
- The contractor shall be required to display Electrical Shock Treatment Chart (Wooden/Laminated Framing) in Vernacular Language in Elect. Panel Room
- The contractor shall be required to install First Aid Box with necessary medicines in Elect. Panel Room
- The contractor shall be required to keep sufficient quantity of necessary Safety Tools and Tackles like 11KV Rubber Hand Gloves, 11kV FRP DO Fuse Rods, 11KV Earth Rods, Helmets, Aprons, Safety Belts, Safety Shoes etc.
- The contractor shall be required to install necessary quantity of Fire Extinguishers in Elect. Panel Room as per instructions of EIC.
- The contractor shall be required to provide Sand Buckets with necessary stand/support in HT Switchyard as per instructions of EIC.
- The contractor shall be required to replace damaged Insulation Mats in Elect. Panel Room and other electrical installations as per instructions of EIC.
- The contractor shall be required to co-ordinate with PGVCL for power failures, interruption and planned shut down.

The above are certain standard services that RMC could require. However RMC may wish to review this and make changes depending on the exact nature of services they require from the Contractor. The contractor has to submit necessary maintenance reports as per EIC instructions.

SCHEDULE - 2

Performance Guarantees

This Schedule may contain certain minimum performance that the Contractor must guarantee in terms of quality of treated water and maximum permissible parameter as per the standard prescribed by Gujarat Pollution Control Board – Central Pollution Control Board.

SCHEDULE - 3

O & M Price

The Contractor shall be paid a fixed lumpsum amount for O & M.

SCHEDULE - 4

REPORTS

DOCUMENTATION / REPORTS

- i) The Contractor will be responsible for keeping and updating, record of documents for equipment and maintaining every day logbook. The contractor shall maintain and update logbook and details of operational parameters are recorded in every shift at regular interval (e/g/ hourly or as agreed mutually by the Engineer):
- ii) Printing of log sheets, registers and all necessary stationery required for maintaining records of operation and maintenance has to be arranged, by site Contractor at his cost.
- iii) The Contractor shall submit to the Engineer within first seven days of every week, copy of the monthly O & M report. This report must include the following:
 - a) Plant input each hour and total for the day in MLD.
 - b) Power consumed by plant per day.
 - c) Plant output and total for the day in MLD.
 - d) Preventive maintenance work carried out in tile previous week.
 - e) Preventive maintenance work that will be carried out in the next week.
 - f) Maintenance carried out due to fault / breakdown of equipment.
 - g) Details of repairs carried out.
 - h) Details of parts and Consumable replaced.
 - l) Details of quantity of sludge removal gas burning.

MONTHLY REPORT

The monthly report shall include but not be limited to:

Volume of water treated with quality,

All the problem areas in the facility,

Total Electricity Cosumption

(Including G-7 card).

SCHEDULE - 5

Insurances

Insurance against Injury to Persons and Damage to Property

The Contractor shall insure against each liability for any loss, damage, death or bodily injury which may occur to any physical property (mechanical, electrical, automation work pipe line, other civil work, storage) or to any person which may arise out of the Contractor's performance of his obligations under these Conditions during the O & M Period.

This insurance shall be for a limit of per occurrence of not less than the amount , with no limit on the number of occurrences.

Insurance for Contractor's Personnel

The Contractor shall effect and maintain insurance against liability for arising from injury, sickness, disease or death of any person employed by the Contractor or any other of the Contractor's Personnel.

The Employer shall also be indemnified under the policy of insurance, except that this insurance may exclude losses and claims to the extent that they arise from any act or neglect of the Employer or of the Employer's Personnel.

SECTION - "G"
SPECIAL TERMS AND CONDITIONS
(PART – I)

Technical Conditions

- 1) The operation and maintenance of all the works included in this tender as per details given should be carried out by contractor at his own cost.
- 2) All the units of the plant should be kept in fill-up condition as per requirement during the full day period. (24 Hours)
- 3) A weekly report for quality and quantity of treated waste water should be submitted to the office of the City Engineer concern.
- 4) Electricity bill for running the plant at head works site will be paid by RMC, bill should be submitted to office for payment as soon as received at site. Penalty if any for delay will have to be paid by contractor.
- 5) All the required electrical goods like bulb, tube light, chock, starter, fuse, wire etc. required for operation and maintenance shall be procured by contractor at his own cost and lighting arrangement should be kept in good condition.
- 6) At the time of breakage in pipeline or valves for repairing purpose contractor has to make arrangement at his risk and cost for labours, fitter, required all materials like rubber packing, nut bolts, gland, all required parts of valves in Plant & transmission main including pickup van, Jeep, welding machine, welding rods, Tractor etc. should be provided by contractor at his own cost. All consumable material should be of standard quality as approved by Engineer-in-charge of work.
- 7) All type of pipeline including chambers, open channels, gates should be maintained and repaired by contractor at his own cost.
- 8) At the time of repairing or replacement of any type of Pipes and valves required for repairing or replacement after verification by concerned engineer or his representative, fitting work of pipe or valves shall be carried out by contractor at his own cost including, labour, excavation cutting, fitting, welding, testing, refilling etc. complete. Repairing work shall be started within one hour after breakage or leakage come into notice.
- 9) Any type of valve or gate or part of the valve or gate not working properly after repairing and requires replacement, as per opinion of City Engineer or his representative, then required valve gate will be supplied to the contractor free of cost from departmental store if available. Replacement shall be done by the contractor and old valve gate should be shifted to department store and entered in concerned register including cost of loading,

unloading, carting stacking etc. complete.

- 10) During the period of contract a person other than responsible representative of contractor or persons employed by him should not enter into the premises of the plant. Every care should be taken by contractor to prevent such type of unauthorised entry or interruption in the premises or surrounding the property of RMC.
- 11) At any time during the visit of Engineer in charge or his representative if it is observed that the operation and maintenance is not carried out properly, that work liable to be terminated or rejected for compliance.
- 12) Operation and maintenance of metres installed at plant sites should be carried out by contractor and entry shall be made in the register at every one hours. If any metre is not working properly it should be properly repaired by contractor from any technician of such type of repairing work.If It is not repairable replacement will be done by Rajkot municipal corporation.
- 13) After issue of work order contractor or his responsible representative should joint visit the site of every work accompany with officer concern. A list and position of works and all valves with dia and nos. a report will be prepared and should be jointly signed by contractor and department. A copy of same report shall be issued to contractor. At the time of completion of contract period same type of report should be prepared and possession of all the works and components should be handed over to department. If repairing & maintenance work is not done properly by contractor, the cost of repairing work will be recovered by department from contractor.
- 14) All the works executed under this project & covers in the scope of this tender shall be handed over to contractor from the date of work order. Proper operation and maintenance of the same works/components shall be carried out by contractor and at the time of completion of contract period or termination of contract, contractor should have to give possession of all the work and components to the department in good condition. Before handing over the possession to the department account of contract will not be finalized and deposit will not be refunded to contractor. For all type of legal activities and expenditure for the same, contractor will be fully responsible.
- 15) During the period of contract for any type of dispute, decision of Municipal Commissioner will be final and binding to both the parties.
- 16) Prescribed registers as maintained by agency during the period of operation and maintenance period shall be submitted to the department. All the material received during repairing and replacement shall be deposited in departmental store at the cost of contractor. All repairing work should be carried by

contractor at his own cost during the period of contract contractor should be fully responsible for injury to any public person or men engaged by contractor for work and contractor shall be fully responsible for compensation for it.

- 17) Servicing of all the valves and gates cleaning of all civil works and maintenance shall be carried out regularly by contractor and entered into the concerned registers.
- 18) Work sheet shall be maintained by contractor for replacement of material in pipeline, or valves, spare parts of Electro -mechanical equipments.
- 19) All the works included in the scope of work shall be oil / snowcem painted once in the three years contract period (i.e. at the end of second year or as suggested by engineer-in-charge) at the cost of contractor.
- 20) All the gardens and plants situated at plant sites shall be supplied water and maintained properly by contractor. No any extra payment will be made on account of this work.
- 21) All the information regarding labours, staff, vehicles etc. is incorporated in this tender for preparation of estimate. As per list staff having proper qualification / labours shall be deployed by contractor for smooth running of plant, failing which, RMC will deploy required personnel at the risk and cost of contractor and recovery for such expenditure will be made from the bill of contractor.
- 22) The contractor has to make all the arrangements required for the proper operation, maintenance smooth running of plant and safety of all the works included in this contract at his own cost during the whole contract period.
- 23) List of all the assets, pipeline appurtenance plants & machineries, all types of valves, gates, chambers, pump houses, security cabin, office building and lab, hydraulic civil structures, spare parts, store, telephone, electric panels etc. will be handed over to contractor for M&R purpose & same should be returned to RMC in working condition as soon as the plant is taken over by RMC for further M&R period to any other party.
- 24) Any damage / breakage found from mischievous element found in the system, the contractor should lodge police case immediately under intimation to concern Manager/City Engineer.
- 25) Material consumption register in prescribed format should be maintained by the contractor. During the visit of Engineer - in - charge if required it should be produced.
- 26) "The Contractor" shall operate and utilize all the control and monitoring systems, provided and if found to be necessary and if approved by the engineer, shall make adjustments within the operating range of the control system and equipment so that the plant operation matches the requirement.

- 27) "RMC" shall directly pay all the power bill to PGVCL but the Contractor will be required to furnished Electricity Consumption in the Schedules provided.
- a) Telephone bills, if any, will have to be paid by the successful bidder. No reimbursement shall be made.
 - b) Electric/Battery operated flow meter has to maintain by successful bidder. In case failure of batteries, same has to be replaced by successful bidder at his own cost.
- 28) All miscellaneous items, for example, vehicles, tools, testing equipment, cleaning or green keeping equipment, security and safety equipment, electrical fixtures, etc shall be provided by the Contractor at his expense.
- 29) **a)** The Contractor shall provide experienced managerial, technical, supervisory, administrative and non-technical personnel and labour necessary to operate and maintain the plant in a scientific way.
- b)** The qualification and capability of the Contractor's personnel shall be appropriate for the task they are assigned to perform. The staff provided shall be fully trained in the operation of the Sewage Treatment Plant before being given responsibility for operating any part of the plant. If in the opinion of the Engineer, any member of the Contractors staff is considered to be insufficiently skilled or otherwise inappropriate for the task he is required to perform, he shall be replaced by the Contract with a person with the appropriate skills and experience for the task, to the approval of the Engineer.
- c)** The Curriculum Vite(CV) /Resumes of the Contractors key personnel shall be submitted to the Engineer for acceptance at least 7 days before the anticipated commencement of the O & M period. Any change of personnel shall be promptly informed to the Engineer within a day's time. Normal time duty hours for the contractors' operation & maintenance personnel may be modified/changed as necessary and agreed by the Engineer. A rotating shift schedule shall be established by the Contractor and agreed by the Engineer which will ensure that an adequate number of the Contractor's staff, is on duty at Plants 24 hours per day, 7 days per Week, including all holidays.
- d)** The engineer-in-charge is authorized to make changes in shift arrangement and number of personnel according to O&M requirement.
- 30) **a)** The Contractor shall be responsible for safety on Site during the O & M of the Works by the Contractor.
- b)** The Contractor's duties with respect to Safety shall include the following:
- i) Utilize safety awareness procedures in every element of operation and

maintenance.

ii) Give emphasis to site including:

- * Safe working and safety procedures as per rules and regulations of Governments regarding use of protective clothing, gloves, boots and helmet etc.
- * Cleanliness of the plants as a whole.
- * Awareness of hazardous conditions and accident reporting and necessary compliance.
- * Safe practice

31) The Contractor shall adhere to the manufacturers' recommendations with respect to equipment maintenance, the type and grades of lubricants to be used. Frequency of lubrication, adjustments to be made regularly and recommended spares to be held in store.

32) The Contractor shall be responsible for:

- a)** The maintenance of electrical, mechanical instrument civil work, plumbing and drainage installations.
- b)** General Building Maintenance and housekeeping
- c)** Full maintenance of the site services, cabling and earthing systems, together with the site road lighting system. Painting of all mechanical structures which are open to sky once in 3 Years of contract period (i.e. at the end of second year) at contractor's own cost.
- d)** Site maintenance including the upkeep of landscaped areas.

The building services and house keeping maintenance shall be undertaken on all building and services installation.

The Contractor shall ensure that all unwanted or redundant items are removed from the building and sites. Depending on their condition such items shall either be placed into storage or disposed off site.

33) The Employer reserves the right to arrange the visits of VIP's dignitaries, public representatives and other persons of Social or Political repute, any organization as and when necessary, to the Sewerage Treatment Plant. The Contractor shall offer full cooperation to the RMC on the occasions of such visits.

34) On the date of Contract Completion or if the Contract is terminated, all the installations, works and equipment placed under the Contractor's responsibility shall be handed over to the Employer, at no cost, in good working order. The Employer may perform any inspections, tests or expert appraisals he shall consider necessary with a view to checking that the

property is in good working order and will certify to that effect to the Contractor while taking over.

- 35) For smooth & efficient O & M of the plant, and in case of emergency just like fire, fault, accidents, or other rescues operation, the contractor must keep one two wheeler vehicle (Motorcycle / Scooter) with seating arrangement at Sewerage Treatment Plant in working condition for 24 hours of a day & 365 days of the year for the whole contract period.
- 36) While handing over the spares to the contractor, Contractor should maintain the record of spares of inventory of utilize the spares.
- 37) In the event of any dispute or difference arising, the Jurisdiction of the court shall be Rajkot (Gujarat) only.

**Authorized Signature
with seal of Agency**

**Dy.Ex.Engineer
R.M.C.**

**City Engineer
R.M.C.**

PART – 2

TERMS AND CONDITIONS FOR PAYMENT

- 1) Amount shown in Price scheduled is for the period of 36 months. The payment shall be made on equal monthly instalment basis subject to terms & conditions mentioned in Price bid.
- 2) If supply of raw sewage is disturb for want of electricity, breakage of line or machinery being out of order or due to some other reasons, contractor shall be paid for all days.
- 3) The maximum period of non-supply of raw sewage will be 15 days beyond that contractor shall have to demobilize the some personnel and accordingly the payment will be reduced.
- 4) Payment to person engaged (at fixed rate by the contractor) for work shall be made according to grade of work. If any court case is filed or administrative problem arises for short payment, the contractor shall be entirely responsible for it.
- 6) Contractor shall be vigilant as under for constant operation of supply and distribution ;
 - a) Supervision of repairing work shall be done by contractor himself or some experience person shall be engaged for it, and site shall be visited once a day to see that proper operation is done. And for general repairs, skilled persons shall be engaged for it.
 - b) Before starting the work at the site and undertaking operation of work, verification of persons engaged for it shall be made by officer-in-charge, whether they have required experience for it. Even after entrusting responsibility of operation of scheme to contractor, officer of RMC shall have absolute right for such verification.
 - c) For recovery of compensation for absence of operator;
 - i) Contractor shall verify whether operation work done vigilantly or not, and for that he will keep continuous awareness. In case of any sabotage, break down during operation or unavoidable circumstances arise immediate report shall be made to engineer in-charge, so that immediate action can be taken to maintain continuous supply of water. If it is necessary, department shall take action.
 - ii) Operator engaged for the work shall not leave premise. and shall remain constantly present during repairing work until repair work is completed.
 - iii) If any employee is found absent by any officer of RMC and if wastage of water is noticed, necessary action shall be taken accordingly.
 - iv) Contractor shall repair the system damaged due to faulty operation or ordinary maintenance, at his cost.
 - v) This work involves operation of valve, repairing, servicing etc.
 - d) Operator shall prepare shift duty register and shall obtain permission from in-charge Engineer before implementing the same. If any change is required in any kind of shift duty it may be done with permission of engineer-in-charge. Operation shall be shifted to other place as per written instructions of Engineer-in-charge. There shall be no dispute about it.
 - e) Details of daily work load entrusted to operators and his assistants engaged shall be kept ready at the site of plant for scrutiny of engineer-in-charge.

- 7) Instructions for operation :
- Contractor shall ensure that operator engaged by him holds know how about operating valves and aerators as well as electrical and mechanical component.
- 8) For any default noticed it may be mentioned on notice board at head works site. Contractor shall bring necessary material, manpower, T&P and vehicles for repairs. If power supply fails operator shall immediately inform the engineer-in-charge or his representative by telephone and file a complaint about it with persons concerned of PGVCL on Telephone. No unauthorised person shall be allowed in the premises of department. Contractor shall be responsible for the security of all the materials on distribution system and machinery under head work. During the charge of contractor, he shall be responsible for any theft or accident, and no compensation shall be paid by the department. During charge of contractor if any default to any implement has occurred contractor shall get it repaired and for that no extra payment shall be made.

**Authorized Signature
with seal of Agency**

**Dy.Ex.Engineer
R.M.C.**

**City Engineer
R.M.C.**

SCHEDULE - H

TECHNICAL SPECIFICATIONS AND SCOPE OF SERVICES

General:

Operation and Maintenance of following works for the period of 36 months from the date of work order for Sewerage Treatment Plant at Raiya.

The contractor would be responsible for smooth, efficient & satisfactory operation & maintenance and repairing, replacement of spares, any works related to Sewerage Treatment Plant and pipeline on the round clock basis for the period of 36 calendar months from the date of contract of plant shortly described as above.

- The scope of the contractor includes operation, maintenance & replacement of spares.
- The scope of work also includes to provide necessary tools and tackles for day-to-day O&M routine maintenance, preventive maintenance and break down maintenance.
- Also minor and major repairs to the equipment involved in the plant have to be carried out by the contractors during O&M period.
- The scope also includes cleaning of inlet chamber and aeration tank , sludge drying beds, clarifier, removing of foreign materials like debris, sand, fish, frogs or any other dead or live animals and also cleaning of strainers of each pump so that 24 hrs. required quantity of sewage is treated properly.
- The disposal of the foreign particles like sand, dead or alive animals etc. from all the units of the plant to suitable place as shown by RMC will be in the scope of contractor.
- The scope of works also includes the calibration of all meters and laboratory equipments e.g. pressure gauge, Ammeter, voltmeter, relay, trivector meter, DO meter, PH meter, Energy meters, temp scanners, flow meters etc. for measurement of accurate readings.
- The scope of work of contractor includes operation & maintenance of 11 KV PGVCL incoming line, Lighting Arrestars, D.O. fuse, earthing works, or any other maintenance required on our D P structure and transformer.

All these capacitor panel must be kept in working condition to keep PGVCL power factor more than 0.95 by the contractor. Any spares required to keep capacitor panel in working condition is in the scope of the contractor. The spares required for LT capacitor panel must be procured and replaced immediately, if required. No spares for capacitor panel & LT capacitor panel in any circumstances will be provided by RMC. Any penalty levied by PGVCL on account of poor power factor (i.e. less than 0.9) will be recovered from the contractor from his monthly O&M bill.

The scope of work includes attending of all types of cable faults for pump motor set,
Page 65 of 98

street light etc.

- 1) Drawl of raw sewage and its treatment and transfer of treated water by means of system, control and operation of plant.
- 2) Routine maintenance of all buildings, transmission main, installation and equipments and area lighting, gardening.
- 3) Management of the plant in administrative and financial operations connected to the plant management.
- 4) All sluice valve/B.F. Valves/Air Valves/gates, Bypass valve open Channel etc., to be kept under working condition.
- 5) Area lighting – The premises of various works are provided with mercury/sodium vapour lamps, fluorescent tubes and also ceiling fans/exhaust fans inside the various structures. Daily on/off operation and routine cleaning of all type of electric fixtures. Replacement of lamps/Tubes/Fans in case of failure at contractors cost.
- 6) Maintenance of garden – Normally watering the trees once a day or more if required. Grass cutting, removal of shrubs, weeds, around tree to be done as directed. Remarking the ponds around the tree after loosening with soil with supply of additional earth, if required. Cutting of branches, if required for straight growth of tree/plant and development of garden.
- 7) Roads to be kept neat and clean.
- 8) All buildings, bathroom, toilet to be kept swepted, cleaned washed daily. Consumable requirement for cleaning such as acid, harpic, phenyl, air freshner, washing powder, brooms, wire brushes, duster, bamboos, toilet shop, lotion waste, kharata shall be provided and used as required. All ventilators, windows/doors to be clean and good condition.
- 9) To keep watch on overflowing of sump, degestor unit, If such overflow take place the agency shall have to bear the damages caused to surrounding properties.
- 10) Maintaining laboratory and its all equipments. All materials equipments and labours shall have to be employed by the agency to maintain the same.
- 11) The contractor will be held responsible for the following:
 - (i) Operate and maintain all units and equipments of the Sewage Treatment Plant as per the requirement of the process to meet continuously and consistently desired treated sewage characteristics in conformity with GPCB guidelines;
 - (ii) Attend breakdown of civil, mechanical, electrical, piping and instrumentation works and maintain the plant and equipment good repair through out the Contract Period;

- (iii) Maintain the STP and the premises as per the standards detailed by the owner;
- (iv) Carry out regular and frequent sampling, analysis and result recording of raw and treated sewage as per the procedures laid out by the Owner and in conformity with standard methods; and
- (v) Employ appropriate and skilled manpower, provide all tools, tackles, glassware and chemicals required for effective implementation of the Services detailed above. Agency shall be responsible for repairs of laboratory equipments / instruments.
- (vi) To Operate and maintain the Sewage Treatment Plants in accordance with the aim and purpose of treatment . The plant & equipments covered under the above contract will be totally attended to, by the Contractor including any "Trouble Shooting" to ensure smooth and trouble free operation.
- (vii) The contractor shall monitor the performance of the Sewage Treatment Plant conduct the analysis of the influent as well as effluent quality after treatment. As per table given below. Contractor shall initiate and take adequate actions to ensure smooth and satisfactory performance/ running of the plants on a 24 hours/ round the clock basis.

No .	Sampling Point	Type of Sampling	Frequency of Sampling	Parameters to be tested at RMC lab in Plant
1.	Raw Sewage at inlet chamber	Composite	Daily	PH,SS,TDS, BOD,COD O&G, Chloride
2.	Treated Sewage	Composite	Daily	PH,SS,TDS, BOD,COD O&G, Chloride, Residual chlorine
3.	Treated Sewage after	Composite	Once a week	PH,SS,TDS, BOD,COD
4.	Aeration tank Extended	Grab	Twice a week	D.O & MLSS/ ML VSS SVI

For the smooth running of the plant all the required equipment, machineries, units accessories, major and minor spares consumables including chemicals, Chlorine supply for chlorination of treated water, greases, lubricating all cleaning agents, packing, rubber sheet, laboratory reagents, all hardware, required quantity of white wash, oil paint color, all types of epoxy paint, material required for houses keeping and cleaning etc. are to be brought by the contractor. The quality of all consumable and spare etc. i.e. technical requirements as per manufacture recommendation shall remain unchanged.

To remove dewatered sludge from sludge drying beds screen and grit

deteritor etc. and loading the same into vehicle and conveying and unloading the same at required place as suggested by RMC.

The contractor shall carryout cement paint/ enamel paint/ white wash for exterior finish of civil units once in a period of three years at the end of second year of O & M of the plant and shall carry out painting on mechanical equipments/above ground pipe lines/ hand railing/electrical poles/DP Structures/lighting brackets/Elect. Panels/Elect. DBs etc for once at the end of second year of O & M of the plant or as instructed by EIC.

12. The contractor shall provide necessary tools and tackles for day to day routine maintenance, preventive maintenance and break down maintenance. Also minor and major repairs to the equipment involved in the plant have to be carried out by the contractor during the O & M period. Contractor to submit report, on the major repairs required to be carried out and how these repairs will be undertaken, to the Engineer and obtain written approval from the Engineer before carrying out any major repairs.
13. The contractor shall hand over the plant back to RMC on expiry of his contract in fully working condition satisfying the requirement of treated sewage. All the electrical, mechanical and instrumentation including standby shall be in perfect working condition.
14. The prices entered in the Price schedule shall, except in so far as it is otherwise provide, be deemed to cover all the Contractor's obligations under the contract and all matters and things necessary for the operation and maintenance of the plant. Particular requirements set forth in the Specification are given without prejudice to the aforementioned general obligations of the contractor.
15. The qualifications and capability of the Contractor's personnel shall be appropriate for the task they are assigned to perform. The staff provided shall be fully trained in the operation of the Plant before being given responsibility for operating any part of the plant. If in the opinion of the Engineer, any member of the Contractors staff is considered to be insufficiently skilled or otherwise inappropriate for the task he is required to perform, he shall be replaced by the contractor with a person with the appropriate skills and experience for the task, to the approval of the Engineer.
16. Contractor shall employ minimum manpower as per qualification and experience mentioned in schedule for establishment.
17. The staff of Contractor will always remain in contact with Engineer and follow his instruction.
18. The Contractor shall employ all the required staff (and in no case less than the number specified in the tender) within 07 days of award of the contract, otherwise payment will not be made. In such case, the commencement of the Contract Period and payment thereof shall be reckoned only from the date of employment of full numbers of staff.
19. The Contractor will comply with all safety rules and regulations and all

interdisciplinary measures as followed by the Corporation. The Corporation will not be responsible for any accident/ injury to the staff of the Contractor. Further, the Corporation will not provide any insurance or medical facility to the staff of Contractor.

20. All Central/ State Government/ Semi-Government/ Local Body's rules regulation pertaining to this contract, all legal formalities pertaining to provident fund, factory act, all legal formalities shall be followed and observed by the contractor without any extra cost to the Corporation.

Please note that failure in complying so, all liabilities arising as per laws will be to the contractor's account.

21. Due to strike by the Contractor's employees, the operation and maintenance of plan must not be affected and the property of RMC should not be damaged. In such case an dispute / discrepancy occurs the decision of City Engineer will be final and will be binding to the contractor. Also if any expense will be made by RMC, it will be deducted from Contractor's bill/ SD.
22. The duration of the contract shall be for 03 years. However, Corporation reserves the right to terminate the contract at any time by giving 03 months notice to the Contractor.
23. Guilty person or indiscipline person shall not be employed by the Contractor.
24. The contractor shall carryout the maintenance of the plant installations in accordance with the requirements of the O & M Manual and also to the approved maintenance plan as mutually agreed.
25. To operate and maintain the sewage treatment plant and equipment in accordance with the aim and purpose of treatment. The plant and equipment covered under the above contract will be promptly attended by the contractor including any "Trouble shooting" to ensure smooth and trouble free operation. The contractor will be responsible for smooth and satisfactory operation and maintenance of the Sewage Treatment Plant on the round the clock basis for a Accounting year period from the date of taking over the plant.
26. The employer shall check the operation of the plant or designate an organization of his choice to carryout inspections. The employer or the organization appointed by him shall check that the Contractor is performing the tasks for which he is responsible with due diligence.
27. Before any inspection, the employer shall give prior notice of three days to the contractor, indicating the names(s) of the person(s) empowered to carryout such inspection in the name of the employer.
28. This work is also inclusive of painting of plants as per following schedule and paint shall be of the same specification as described in respective unit/ mechanism as per original specification of the executed work.

Sr. No.	Item	Duration
1.	Civil work	Once in three years i.e at the end of 2 nd year of
2.	Doors and windows	---do---
3.	Shutters, grills, collapsible gate etc	---do---
4.	All H.T./ L.T. panels	---do---
5.	All process equipment with its accessories and GI railings etc.	---do---
6.	Street / flood light pole	---do---
7.	Pump sets, valves, C.I. fittings, sluice gate, etc.	---do---

Note : However, if any unit mechanism will found to have some defect in paint work at any time, the Contractor has to repaint the same under the instruction of City Engineer / Deputy Executive Engineer.

Additional Scope of Service/Work for Raiya Treated Water Pumping Station

Raiya Treated Water Pumping Station (Located in the same premises of Raiya STP) is at present under Comprehensive O&M till date 31.10.2022.

The successful bidder will have to undertake comprehensive O&M of the same from Dt. 01.11.2022 as an Additional Scope of Work as per terms and conditions of this tender till the closure of this contract.

The successful bidder has to deploy following manpower for O&M of this PS:

Sr No	Description	Manpower/Shift	Total per Day
1	Plant / Pump Operator - Skilled person. (1 person x 3 Shift = 3 Person per day)	1	3
2	Helper / Mali / Sweeper - Semi Skilled. (1 person x 3 Shift = 3 Person per day)	1	3
A	Total Manpower per day		6

Note: 1) RMC will pay bill for this additional service/work as per approved tender rates.

2) Engineer Incharge is fully authorized to decrease/increase/cancel this additional scope of work as per their requirement.

PENALTY

Failing the execution of the operation, maintenance, servicing & comprehensive repairing work as per the tender document, the penalty will be applicable as per the mention in the tender.

If the penalty occurs frequently, which is spoiling smooth running of STP, then the contract shall be liable to scrutiny for termination and security deposit shall be forfeited. The decision of the Municipal Commissioner in this regard will be final and binding to the agency.

- 1) Due to negligence, forget ness, irresponsibility of contractor's staff, Pumpsets, and Machinery or any operational unit remains in non usable condition / idle for more than Two day then in such a case penalty as mention below shall be recoverable from contractor's O & M bill. If such incidents occur three or more times in one month, then RMC can terminate the O & M Service and Comprehensive repairing work contract.

Idleness up to 7 days	Rs. 100/- per day per pump/Machinery/Elect. Equipments
Idleness for 8 days & above	Rs. 300/- per day per pump/Machinery

Maximum ceiling of penalty shall be Rs. 30,000/- per month subject to 10 % of monthly O & M charges, whichever is higher.

Further for any breach of contract conditions during O&M penalty shall be levied on contractor as deemed fit by City Engineer and contractor shall be bound to accept the same.

- 2) Spare pumps shall also be kept ready for operation. If spare pump is not ready for operation for work more than five days RMC will deduct Rs.200/- per day per pump as penalty from their monthly bill.
- 3) If fault occurs in transformer, H.T. breaker or any electrical machineries that should be rectified or faulty parts should be replaced within 48 hours, failing which penalty of Rs.5000/- Per day will be deducted from the contractor's bill.
- 4) Contractor shall maintain a minimum power factor of 0.95 or higher at any point of time. In case of non-maintenance of power factor, if any penalty levied by power supply company in Electricity Bill, the same will be recovered from the agency from its monthly running bill.

DOCUMENTS RECORDS / LOG BOOK

- The contractor will be responsible for keeping up to date records of documents and maintaining every day log book relating to various analysis performed and to prepare and submit a daily report of Sewage

Treatment Plant performance. The contractor shall maintain and updated log book and details of operational parameters like pumping hours, Amperes, Flow meter reading, H.T. Voltage, Power Factor, energy meter reading, pressure and other reading required are recorded in every shift at regular interval e.g. hourly or as agreed mutually (by RMC).

- Printing of log sheets, registers and all necessary stationery required for maintaining records of operations and maintenances has to be arranged by the Contractor at his cost. Format of log sheets, registers will be made available to the successful tenderer by the RMC.
- The scope of work also includes attending of all HT & LT cable faults including end terminations of cables, changing of lugs or changing HT/LT cables repairing and maintenance of transformer including oil filtration.

ADDITIONAL SCOPE OF WORK

- For additional work, if any, which is not included in the scope at present shall be executed by the contractor on authorization in writing from the RMC.
- The rate of such additional work will be worked out by the Contractor based on the cost of materials and labour and shall be furnished to the RMC. The contractor shall be entitled for full cost of materials, direct labour and cost of operation of equipment/machinery etc. required to execute the work.

GENERAL ROUTINE MAINTENANCE

General routine preventive maintenance schedule for various equipments shall be adopted from O&M Manual. However the general routine maintenance to be carried out by the Contractor's personnel will include but not limited to the following:

- a) If it is observed that power consumption per MLD of water treated is increased, the contractor has to trace out the fault and rectify the same to bring to the standard Value.
- b) De-weeding and cleaning of the Transformer yard and other places.
- c) Drying and refilling of silica gel in the breather of the transformer
- d) Regular watering on the earth-pits.
- e) Check for any oil leak in the transformer and intimating and repairing of the same.
- f) Air blowing of motors, H.T & L.T. panel etc.
- g) Check for any loose connection in all electrical equipment and rectification of the same.
- h) Replacement of gland packing for the pump, sluice valves etc.

whenever required.

- i) Greasing of bearing and lubricating all moving parts as per the schedule.
- j) Tightening of all loose nut-bolts and other fasteners.
- k) Cleaning of sump and strainer of each pump at regular intervals.
- l) Lubricating and test operation of the valves.
- m) General cleaning of all equipments and building.
- n) Checking and replacement of bulbs, tubes, chokes, starters, switches, control etc. thorough out plant and including street and head lights.
- o) Watering of plants and tree.

PREVENTIVE MAINTENANCE CHECKS:

The contractor shall adopt a preventive maintenance check's schedule as agreed mutually between the Contractor and the Employer. The preventive maintenance checks and their tasks frequencies will not be limited to the following:

Checks to be performed daily

- a) Vibration in the pump sets, moving assemblies etc.
- b) Tighteners
- c) Rise in temperature of bearings in motor, in moving parts and other units etc.
- d) Working of gauges and other measuring devices.
- e) Observations on water quality.

Checks to be performed weekly

- a) Pipeline leakages
- b) Tightness of all electrical connections
- c) Tightness of all cable connections
- d) Temperature rise due t loose connections
- e) Watering of earthing pits
- f) Operation of all sluice and butterfly valves, scour and pressure relief valves, gates and air valves.bypass valve.
- g) Current and voltages in all electrical equipments.

Checks to be performed monthly

- a) Gland packing
- b) Wear and tear of moving parts
- c) Adoption of electrical energy conservation method and energy consumption.
- d) Electrical contacts
- e) Motors
- f) Metering of electrical equipments

Checks to be performed quarterly

- a) Relay testing and calibration if possible of meters, gauges, instruments, flow meters and temperature scanner panel and flow indicator unit. DO meter, PH meter.
- b) Speed of motors
- c) Level gauges and flow meters signals.

Checks to be performed bi-annually

- a) Cleaning, checking/tightening of HT and LT circuit/panel
- b) Tightening of RTCC
- c) Auxiliary DB, Capacitor bank
- d) Battery and Battery charger

Checks to be performed annually

- a) Overhauling requirement of all equipment
- b) Improvement required if any in operation of plant
- c) Testing and calibration of all instruments
- d) 11 KV VCB cleaning, testing.
- f) Transformer cleaning, checking silica gel, oil checking filtering/replacing.

MINOR REPAIR GENERALLY ENCOUNTERED IN THE PLANT

Electrical works

- a) For H.T. Installations
 - i) Replacement of jumpers
 - ii) Replacement of insulator (Porcelain)
 - iii) Replacement of Air-Break Switch

- b) For Both H.T. & L.T. Installations
 - i) Replacement of no-volt coil for VCB
 - ii) Replacement of Cable lugs including terminations
 - iii) Replacement of burnt out HRC fuses
 - iv) Replacement of moving and fixed contacts or contractors
 - v) Repairs to isolators and switch fuse units and replacement of it and fuse base units.

Pump sets

- a) Replacement of coupling bolt and nuts including rubber bushes
- b) Replacement of worn out impeller nut
- c) Replacement of spindle nut in the sluice valve.
- d) Replacement of terminal plate in the motor
- e) Replacement of faulty/dead spares in the battery charger and battery control panel.
- f) Replacement of gland packing, graphite packing from the pump sets.

COMPUTER FACILITY

The contractor has to provide at site one computer with printer to keep all the records, data maintenance schedules, spare available for the plant. Monthly statements for electricity consumed, total hours of pump operation, total qty. of pumping in MLD, average power factor, monthly consumable and repair maintenance during the month shall be furnished by the contractor.

ANNEXURE - I

SCHEDULE FOR ESTABLISHMENT

The contractor shall employ the minimum staff for Sewerage Treatment Plant as under with qualification and experience stated below, Contractor may employ additional staff over and above minimum prescribed as per his requirement in order to run the system efficiently. The staff mention below its obligatory.

Sr. No.	Designation	Qualification	Experience	No. of Persons
1	Plant Incharge	B.E.(Environment) or B.E. (Civil)	Min. 1 - 2 years experience of related work.	01
2	Lab technician	B.Sc, Microbiology	-do-	01
3	Mechanical Engineer	D.M.E. or B.E. (Mech./Production/Industrial Engg.)	2 years experience of pumping machi-	01
4	Electrical Engineer	Diploma (Elect.) or B.E. (Elect.)	-do-	01
5	Electrician	ITI Electrician/Wireman or Elect. Supervisory Certificate Holder having experience of HT installation of 3 years	2 years experience of relevant electrical equipments for O & M.	03
6	Technician Instrumentation	I.T.I (Instrumentation) or skilled person having 03 years of related work experience.	Well experienced person having relavant knowledge of instrumentation for O&M, Process Plant	01
7	Plant/Pump Operator	ITI Wireman/Electrician or Xth Std. Pass	2 years experience of operating pumping machinery	03
8	Helper / Mali / Sweeper	Unskilled, physically fit and healthy	--	12
9	Security	Unskilled, physically fit and healthy, Literate	--	06
			Total	29

Note:-

The above staff shall be distributed in three shift as per instructions of officer in-charge. The arrangement of reliever for weekly off/all holidays etc. shall be made by the contractor separately.

The preferable shift timing will be as under ;

General shift: 09.00 Hrs to 18.00 Hrs
1st Shift: 08:00 Hrs to 16:00 Hrs
2nd Shift: 16:00 Hrs to 12:00 Hrs (Night)
3rd Shift: 12:00 Hrs to 08:00 Hrs

Proposed Shift Matrix

Sr No	Deployment of Manpower	General Shift	1 st Shift	2 nd Shift	3 rd Shift	TOTAL
1	Plant Incharge	01				01
2	Lab technician	01				01
3	Mechanical Engineer	01				01
4	Electrical Engineer	01				01
5	Electrician		01	01	01	03
6	Technician Instrumentation	01				01
7	Plant/Pump Operator		01	01	01	03
8	Helper / Mali / Sweeper	03	03	03	03	12
9	Security		02	02	02	06
	TOTAL	08	07	07	07	29

Authorized Signature with seal of Agency.

**City Engineer
Rajkot Municipal Corporation**

ANNEXURE - II

SCHEDULE OF ROUTINE CHECKING OF PUMPS AND VALVES, AERATORS, GEAR BOX ETC.

A) Daily in each shift :

- 1) Leakages through gland packing and tightening, loosening to ensure that extent of leakages is in drip form.
- 2) Bearing temperature : If highly check up cause and take remedial action.
- 3) Noise & Vibration : If undue check up cause and take remedial action.
- 4) Pressure : If high or low, check up cause.
- 5) Check oil level for bearing lubricant and topping up if necessary.

Clean and remove dust from pumps, piping and valves etc.

B) Weekly :

Greasing to the stuffing boxes.
Greasing to valve actuator gear.

C) Monthly :

Check tightness of all nut bolts.
Check coupling bushes for wear.
Checking and replacing gland packing if necessary (Pump & valve)
Check oil in air compressor.
Check valve actuator bushes.

D) Quarterly :

Inspection of gland packing and replacing if necessary.
Cleaning and oiling of gland bolts.
Checking and lubrication of all bearings.

E) Half Yearly :

Removing plant packing and checking wear on line shaft at gland portion.
Replacing gland packing.
Cleaning and examination of all bearings for flaws and checking and play.
Replace oil/grease of bearing.
Replacing gland packing of sluice valves.

Authorized Signature with seal of Agency

ANNEXURE - III

LIST OF THE TOOLS AND TACKLES TO BE PROVIDED AT S.T.P. SITE FOR OPERATION AND MAINTENANCE.

Sr. No.	Item	Quantity
1.	For spanner set size 6 mm to 22 mm	1 set.
2.	Fix Spanner set size 6 mm to 52 mm	1 set
3.	Ring spanner set size 6 mm to 22 mm	1 set
4.	Ring Spanner set size 7 mm to 52 mm	1 set
5.	Box spanner set size 6 mm to 38 mm	1 set
6.	Pipe wrench size 36"	1 No.
7.	Pipe wrench size 24"	2 Nos.
8.	Screw driver size 6", 9" and 12" (2 Nos. of each size)	6 Nos.
9.	Insulated plier size 12"	6 Nos.
10.	Long Nose Plier 8"	6 Nos.
11.	Adjustable screw spanner size 12"	6 Nos.
12.	Hammer 1 Lb x 2 Lb	2 Nos.
13.	Testers	6 Nos.
14.	Chisels 12" x 6" (2 Nos. of each size)	4 Nos.
15.	Hack Saw Frame	6 Nos.
16.	Hack saw Blade	6 packets.
17.	Hand gloves suitable for 11 KV	4 Pairs.
18.	Phawada	6 Nos.
19.	Ghamela	4 Nos.
20.	Tikam	4 Nos.
21.	Kaichin (For Gardening)	2 Nos.
22.	Vile (For Gardening)	3 Nos.
23.	Plastic Bucket 10 Litres	4 Nos.
24.	Rope 1/2"	30 meter
25.	Torch/Battery	6 Nos.
26.	Crimping tool	1 No.
27.	Puller	1 No.
28.	Cliponmeter	2 No.
29.	Megar	1 No.
30.	Multimeter	1 No
31.	Helmet	20 No

Authorized Signature with seal of Agency.

SECTION - I

TECHNICAL DETAILS OF PLANT

Silent Features of Raiya Sewage Treatment Plant of Rajkot Municipal Corporation

1. Capacity : 51 MLD (i.e. 51000 m³/d)
2. Peack flow : 114.75 MLD (HT Connection: 550KVA)
3. Plant type :- Conventional Activated sludge process type (without power generation)
4. Expected Characteristics:-

Sr no.	Parameters	Raw sewage	Treated Sewage
1	Temperature	26 ⁰ C	40 ⁰
2	Colour	25	100 Unit
3	Ph	7.52	6.5 to 8.5
4	Total suspended solid	346	30 mg/L
5	Total dissolved solids	992	2100 mg/L
6	Biochemical oxygen demand	148	20 mg/L
7	Chemical oxygen demand	456	100 mg/L
8	Chloride	175	600 mg/L
9	Sulphate	143	1000 mg/L
11	Residual chlorine	N.D.	1 mg/L

If above parameters for treated sewage not maintained by contractor, in such case for that particular day penalty @ 10% of payable amount of that particular one day shall be deducted from running bill payable to contractor.

General standard for discharge of effluent into inland surface water laid by Gujarat Pollution Control Board, Gandhinagar, in Notification dated 14-8-97 and it's subsequent amendment are to be followed in treatment of sewage.

4. Disposal of Treated Sewage:-
Treated Sewage is to be discharged in Nyari River or seperatly pumped by treated sewage pumping station.
5. Sewage Receipt :
Sewage pumped to the plant Inlet chamber from last pumping station ("Raiya pumping station") which is situated at 1.0 KM away .
6. Units of the Plant :-

Sr no.	Plant unit	No of unit
1	Inlet chamber	1
2	Screen chamber	2
3	Grit chamber	3
4	Parshall flume	1
5	Primary settling tank	2
6	Aeration tank	2
7	Secondary settling tank	2
8	Sludge digester	2
9	Gas holder	2
10	Sludge drying beds	1

11	Raw sludge pump house	14
12	Return sludge pump house	1
13	Filter pump house	1
14	All contoll room/L.T/H.T/ transformer yard	1
15	Compressor system & cooling arrangement	2
16	Gas burner	1
17	Treated Water Pumping Station (Additional Scope of Work as per tender)	1

7. Electric Drive Motors Installed :-

<u>Sr no</u>	<u>Unit</u>	<u>H.P.of drive motor</u>	<u>Numbers of motor</u>
1	Screen mechanisam	2	2
2	Conveyer belt	1.5	1
3	Grit scrapper mechanisam	1	3
4	Rack mechanisam	2	3
5	Oraganic pump	1	3
6	Primary settling tank	1	2
7	Raw sludge pump house	15	2
8	Aerator	25	16
9	Secondary settling tank	1	2
10	De-foaming pump	7.5	1
11	Return sludge pump house	30	4
12	Sludge digestor	55	2
13	Filter pump	1	2
14	Transformer	725 kva	2
15	D.G.set	125 kva	1
16	Dewatering pump	1.5	2
17	Compressor cooling pump	1.5	2
18	Borewell submersible	7.5	2
19	Horizontal Submersible in Well	7.5	1
Raiya STP Treated Water PS			
20	Treated Water Pump Set	100	6
21	Dewatering Pump Set	10	1
22	Portable Dewatering Pumpset (Mono Block)	3	2
23	EOT Crane with 2 Ton Ele. Hoist.	2	1
24	Transformer	400 kva	2

8. 51 MLD Raiya sewage treatment plant

Laboratory Equipment list.

Sr no.	Name of equipment	No of equipment
1	Ph meter	2
2	Balance	2
3	Digital flame photometer	1
4	Digital colorimeter	1
5	Vaccum pump	2
6	Oven	2
7	Digital spectrometer	1
8	Muffle furnace	1
9	Lab heating plate	5
10	Distillation unit	3
11	Extraction unit	4
12	Incubator	2
13	B.O.D.incubator	3
14	Autoclave	2
15	Refrigerator	1
16	Fire extinguisher	1

UNITS OF RAIYA STP (51 MLD)

- 01 Inlet chamber
- 02 Main plant by-pass pipeline from inlet chamber to effluent disposal point
- 03 Screen chamber
- 04 Grit chamber
- 05 Flow measuring channel - Parshall flume
- 06 Distribution chamber for Primary Settling Tank (PST)
- 07 By pass pipeline from Distribution chamber to main plant bypass pipeline
- 08 Primary Settling Tank (PST)
- 09 Outlet pipeline from PST up to the distribution chamber of Aeration Tank
- 10 Distribution chamber of aeration tanks
- 11 By pass pipeline from the distribution chamber of aeration tank to effluent disposal point
- 12 Aeration tanks
- 13 Distribution chamber at outlet of aeration tank for secondary Settling Tank (SST)
- 14 Pipeline from chamber to each SST
- 15 Secondary Settling Tank (SST)
- 16 Final effluent pipe / channels from settling tanks to treated sewage chamber
- 17 Pipe/Channel from treated sewage chamber to final disposal point
- 18 Digesters with gas mixing devices
- 19 Compressors for gas mixing
- 20 Gas holders (single stage bell)
- 21 Sludge drying beds
- 22 Raw sludge pumping station including control room for Primary Treatment Units (PTU)
- 23 Return sludge pumping station including control room to pump the Return sludge and Excess Sludge
- 24 Control room for Aeration tank
- 25 Control room for Digesters, Gas holders and Gas Mixing arrangement
- 26 Filtrate pumping station
- 27 Gas burner for excess gas
- 28 Treated Water Pumping Station
- 29 Chlorine Safety Kit. (100 Kg cylinders)

1 Inlet Chamber

Inlet chamber is to receive sewage from pumping main and to provide plant.

2 Main Plant Bypass Pipeline

Bye pass having peak hydraulic carrying capacity of 114.75 MLD plant by pass to attain 0.9 m/sec velocity at peak flow hydraulic detention time shall be 60 seconds minimum at peak flow.

3 Screen chamber

a)	Peak flow (Design flow)	114.75	Mld
b)	Average flow	51	Mld
c)	Number of Screens	Two screen in parallel, each to deal with peak flow and incline at 60° to horizontal and mechanically cleaned / raked.	
d)	Number of channels	Two screen channels, each designed for peak flow	
e)	Velocity in approach channel during average flow (minimum)	0.4	m/sec
f)	Max velocity through screen at peak flow	1.2	m/sec
g)	Flats of screen tapered in the direction of flow (front x back x depth)	10 mm x 8 mm x 75 mm	
h)	Clear opening between two flats at back	12 mm	
i)	Free board above TWL	0.5 m	

4 Grit Chamber

a)	Peak flow	114.75	Mld
b)	Average flow	51	Mld
c)	Number of grit chambers	Three grit chambers to be designed for handling the 1.5 times the peak flow and (two working and one standby unit of similar size)	2 + 1 nos each for half of peak flow

5 Parchall Flume

To measure sewage quantity

d)	Specific gravity of grit	2.45	
e)	Size of particles equal to and above which are to be removed 100%	0.15	mm
f)	Quantity of grit in sewage	0.1	m ³ /m1
g)	Horizontal velocity in grit chamber	0.30	m/sec
h)	Temperature of sewage	18	°C
i)	Filed correction factor for surface loading	0.80	
j)	Detention time (minimum)	60	sec
k)	Minimum depth of wall in grit chamber at outlet weir excluding corner filling of 300 mm)	0.9	m
l)	Organic matter in washed grit not to exceed	3	%
m)	Free board above - TWL	0.5	m

6 Primary Setting tank

a)	Peak flow	114.75	Mld
b)	Average frow	51	Mld
c)	Excess sludge, filtrate and supernatant shall be added in distribution chamber of primary settling tank as per layout plan and grease and oil will be separately desposed off		
d)	Number of circular tanks	Two unit each to deal with 25.50 mld flow (excess sludge, filtrate, sludge, filterate, supernatant)	

e)	Surface loading (effective) at average flow + other flow	35	m ³ /day/m ²
f)	Surface loading at peak flow	80	m ³ /day/m ²
g)	Detention time at average flow excluding Hopper bottom volume, but including other flows	2.25	hours
h)	Side water depth minimum (up to top of weir)	3.0	m
i)	Slope of hopper bottom	1 V to 12 H	
j)	Weir loading at avg. flow + other flows (not to exceed)	150	m ³ /day/m
k)	Weir loading at peak flow + other flows (not to exceed)	370	m ³ /day/m
l)	BOD 3 @ 27°C removal in PST (min)	40	%
m)	Suspended solids removal in primary settling tank (min)	60	%
n)	Solids concentration in primary sludge	5	%

7 Aeration Tank

a)	Peak flow	114.75	Mld
b)	Average flow	51	Mld
c)	Number of tanks	One tank with two compartments to deal with avg. flow plus all other flow as per layout plan	
d)	Detention time at average flow + 25% of avg. flow return sludge + all other flows as per layout plan	Six hours minimum	
f)	KG BOD 3 27 C loading / m ³ of tank volume (check)	0.3 - 0.6	
g)	MLSS in aeration tank	2000 mg/l	

h)	MLVSS in aeration tank	80% of MLSS	
i)	Food to micro-organism ratio (F/M) (i.e. kg BOD ₅ @ 27°C / kg MLVSS)	0.2-0.4	
j)	Sludge age (c) minimum	10 days	
k)	Free board above TWL	1.0 m	
l)	Oxygen requirement	1 kg O ₂ / kg of BOD 3 @ 27°C removed	
m)	Oxygen transfer required at standard condition (min)	2.0	kg/kw. Hr.
n)	Dissoved oxygen to be maintained in the aeration park (minimum)	1.5	mg/1
o)	Field transfer rate of aerators (minimum) FTR	1.22	kg O ₂ /KWhr
p)	Mixing requirement of KW	0.015-0.026	KW/m ³

8 Secondary Settling Tank

a)	Peak flow	114.75	Mld
b)	Average frow	51	Mld
c)	Number of circular tanks & their capacity requirement	Two units each to deal with 25.5 mld flow + return sludge + filtrate + supernatant + excess sludge. (as per layout plan)	
d)	Surface loading (effective) at average flow + all other flows + return sludge.	28	m ³ /day/m ²
e)	Detention time excluding hopper bottom volume but including other flows (minimum)	2	Hours
f)	Side water depth (minimum) up to top of weir	3.5	m

g)	Hopper bottom slope	1 V to 12 H	
h)	Weir loading at avg. flow + other flows (by providing weirs as required).	185-370	m ³ /day/m
	upflow velocity near weir at average flow (not to exceed)	7	m ³ /hour/m
i)	Solids concentration in secondary sludge	1%	
j)	Solids loading rate at average flow based on MLSS	70-140	kg/day/m ²
k)	Solids loading rate at peak flow based on MLSS (not to exceed)	210	kg/day/m ²
l)	Free board (minimum)	0.50 m	
m)	Free fall in peripheral launder / trough with respect to weir crest (bottom-most portion of V Notch).	0.05 m	

9 Digesters

a)	Raw sludge (primary + secondary) solids concentration	4	%
b)	Volatile solids	60%	
c)	Specific gravity of raw sludge	1.07	
d)	Volatile solids destroyed during digestion (min)	60	%
e)	Temperature of digestion	30	°C
f)	Detention time for digestion @ stated Temperatures	30	days
	Addl. HRT monsoon period		days
g)	Solids concentration in digested sludge	8	%
h)	Numbers of units required	2	nos.
i)	Solids loading	0.75	kg VSS/day/m ³

j)	Bottom hopper slope	1 V to 4 H	
k)	Mixing system	Gas mixing unconfined	
l)	Gas flow required for gas mixing Compressor operating capacity	0.005 1	m ³ /m ³ .min (min) m ³ /hr. m ² (min)
m)	Velocity gradient	50-80	Sec ⁻¹
n)	Sludge circulation velocity	0.05-0.10	m/sec
o)	Power level to be maintained	5	Watts/m ³ (min.)
p)	Gas lances required	15-35	Sq. mt/No.

10 Gas Holders

a)	Gas production in sludge digester	0.09	m ³ /kg of VSS destroyed
b)	Gas is to be utilized in plant.	Fugure (not in present contract)	
c)	Storage capacity of gas	1	day
d)	Gas to be burnt	100%	
e)	Number of units required	2	nos

11 Sludge Drying Beds

a)	Preferred size of each bed.	20 m x 20 m	
b)	Depth of digested sludge application on the drying beds.	0.03	m
c)	Cycle time of drying including restoring to original state of original state of bed.	12	days
d)	Solids concentration of dried sludge prior to application on bad.	8	%

e)	Moisture concentration of dried sludge amenable for spading and carting away.	40	% at 40°C
f)	Standby beds required	2	nos.

12 Raw sludge pumping station

a)	Sludge concentration	5	%
b)	Specific gravity of sludge	1.07	
c)	Actual pumping hours for sludge pumping per day	As required	hrs/day
d)	Minimum diameter of pumping main to avoid chock age.	200	mm
e)	Hydraulic Retention Time for raw sludge during maximum concentration of 2000 mg/l at peak flow	2	hour
f)	SWD for storage sump below pipe invert level	2	m

13 Return sludge pumping station

a)	Quantity of return sludge	Up to 75% of avg. Flow + excess sludge	
b)	Concentration of solids in return sludge	1	%
c)	Hydraulic Retention Time for return sludge during normal rate of pumping (25%)	1	hour
d)	Specific gravity of return sludge	1.02	
e)	Minimum diameter of pumping main to avoid chock age.	200	mm
f)	SWD for storage sump below pipe invert level	2	m

14 Filtrate pumping station

a)	Solid concentration in filtrate	200-300	mg/l
----	---------------------------------	---------	------

b)	Minimum diameter of pumping main	150	mm
c)	SWD for storage sump below pipe invert level	2	m

15 Pipeline

- a) Pipeline for Main plant by pass from inlet chamber to final disposal point
- b) Pipeline from distribution chamber ahead of PST to main plant bypass
- c) Pipeline from distribution chamber ahead of aeration tank to main plant bypass
- d) Treated effluent pipeline from SST to common collection chamber and pipeline from common collection chamber to final disposal point
- e) Channel From inlet chamber to screen chamber
- f) Channel from Screen chamber to grit chamber.
- g) Channel from Grit chamber to parashall flume.
- h) Pipeline from distribution chamber of PST to PST Central feed well
- i) Pipeline from PST outlet to distribution chamber of aeration tank
- j) Pipeline from outlet of Aeration Tank to of central feed well SST
- k) Washout for aeration tank shall be provided and connected to bypass line for emptying the unit by gravity with a minimum size of 450 mm dia DI, K-9 class pipeline with valve of same size

All Above channels / pipeline should be designed for peak flow Maximum velocity shall be limited to 1.5 m/sec for bypass. Velocity at average flow should not be less than 0.6 m/sec for interconnecting units / chambers and shall not exceed 1.35 m/sec at peak flows. Minimum velocity of 1.5 m/sec to be maintained to prevent solids deposition and clogging of pipeline for sludge carrying / conveying pumping mains.

**Authorized Signature
with seal of Agency**

**Dy.Ex.Engineer
R.M.C.**

**City Engineer
R.M.C.**

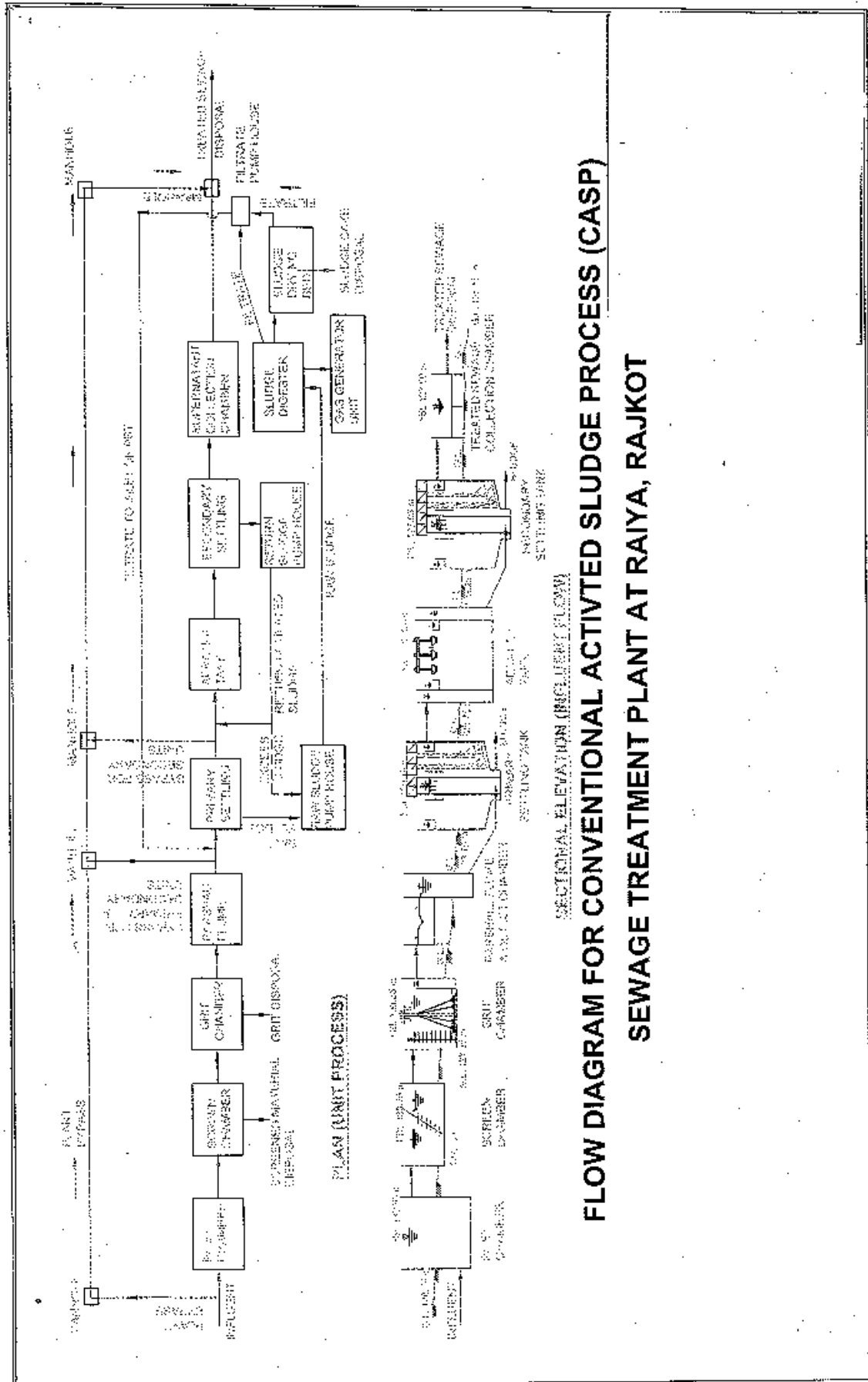
Special Conditions of Contract

1. If Contractor fails to carry out the work in timely manner as mentioned in GC-20, Rajkot Municipal Corporation may give notice in writing to the Contractor to expedite the progress of work, so that the work can be completed as per time schedule. If Contractor fails to expedite the progress of work within 14 days, Rajkot Municipal Corporation will forfeit the security deposit and may terminate the contract and put the Contractor in Black List/debar for three years and the remaining work will be executed through other agency at the risk and cost of the Contractor.
2. **"Notice in writing or written Notice"** shall mean a notice written, typed or in printed form delivered personally or sent by Registered Post to the last known private or business address or Registered Office / Email / SMS on the Mobile of the Contractor and shall be deemed to have been received in the ordinary course of post it would have been delivered.

**Authorized Signature
with seal of Agency**

**Dy.Ex.Engineer
R.M.C.**

**City Engineer
R.M.C.**

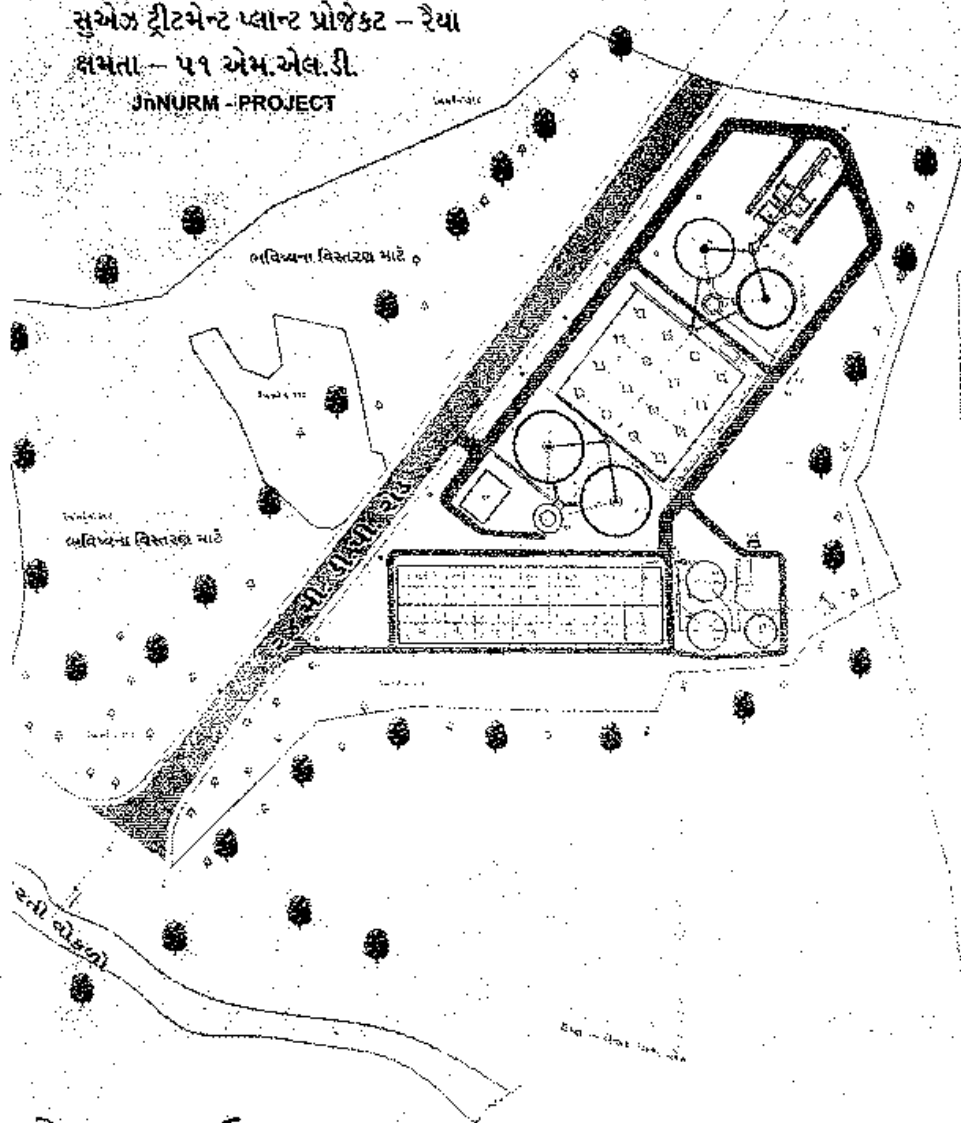


જાકોટ મહાનગરપાલિકા

સુએઝ ટ્રીટમેન્ટ પ્લાન્ટ પ્રોજેક્ટ - રેયા

ક્ષમતા - ૫૧ એમ.એલ.ડી.

JnNURM - PROJECT



સુએઝ ટ્રીટમેન્ટ પ્લાન્ટના ભાગો

ક્ર. નં.	વિવરણ	કામગીરી	ક્ર. નં.
1	ભૂમિ	પ્રાથમિક ડ્રેનેજ સ્તર	1
2	કોલેક્ટર	કોલેક્ટર	2
3	કોલેક્ટર	કોલેક્ટર	3
4	કોલેક્ટર	કોલેક્ટર	4
5	કોલેક્ટર	કોલેક્ટર	5
6	કોલેક્ટર	કોલેક્ટર	6
7	કોલેક્ટર	કોલેક્ટર	7
8	કોલેક્ટર	કોલેક્ટર	8
9	કોલેક્ટર	કોલેક્ટર	9
10	કોલેક્ટર	કોલેક્ટર	10
11	કોલેક્ટર	કોલેક્ટર	11
12	કોલેક્ટર	કોલેક્ટર	12
13	કોલેક્ટર	કોલેક્ટર	13
14	કોલેક્ટર	કોલેક્ટર	14
15	કોલેક્ટર	કોલેક્ટર	15
16	કોલેક્ટર	કોલેક્ટર	16
17	કોલેક્ટર	કોલેક્ટર	17
18	કોલેક્ટર	કોલેક્ટર	18
19	કોલેક્ટર	કોલેક્ટર	19
20	કોલેક્ટર	કોલેક્ટર	20
21	કોલેક્ટર	કોલેક્ટર	21
22	કોલેક્ટર	કોલેક્ટર	22
23	કોલેક્ટર	કોલેક્ટર	23
24	કોલેક્ટર	કોલેક્ટર	24
25	કોલેક્ટર	કોલેક્ટર	25
26	કોલેક્ટર	કોલેક્ટર	26
27	કોલેક્ટર	કોલેક્ટર	27
28	કોલેક્ટર	કોલેક્ટર	28
29	કોલેક્ટર	કોલેક્ટર	29
30	કોલેક્ટર	કોલેક્ટર	30
31	કોલેક્ટર	કોલેક્ટર	31
32	કોલેક્ટર	કોલેક્ટર	32
33	કોલેક્ટર	કોલેક્ટર	33
34	કોલેક્ટર	કોલેક્ટર	34
35	કોલેક્ટર	કોલેક્ટર	35
36	કોલેક્ટર	કોલેક્ટર	36
37	કોલેક્ટર	કોલેક્ટર	37
38	કોલેક્ટર	કોલેક્ટર	38
39	કોલેક્ટર	કોલેક્ટર	39
40	કોલેક્ટર	કોલેક્ટર	40
41	કોલેક્ટર	કોલેક્ટર	41
42	કોલેક્ટર	કોલેક્ટર	42
43	કોલેક્ટર	કોલેક્ટર	43
44	કોલેક્ટર	કોલેક્ટર	44
45	કોલેક્ટર	કોલેક્ટર	45
46	કોલેક્ટર	કોલેક્ટર	46
47	કોલેક્ટર	કોલેક્ટર	47
48	કોલેક્ટર	કોલેક્ટર	48
49	કોલેક્ટર	કોલેક્ટર	49
50	કોલેક્ટર	કોલેક્ટર	50

લે - આઉટ પ્લાન

R.M.C./C./ ૧૩૨

કમિશ્નર વિભાગ,
રાજકોટ મહાનગર સેવાસદન
તા. ૧૦/૬/૨૦૧૩

હુકમ :-

વિષય:- ઈ-ટેન્ડર / ઓપન ટેન્ડર પદ્ધતિથી મંગાવવામાં આવતી તમામ પ્રકારની ઓફરો સાથે બિનઅધિકૃત રજુ થતાં ડોક્યુમેન્ટ્સ સામે કડક કાર્યવાહી હાથ ધરવા બાબત.

સંદર્ભ :- આ અગાઉનાં પરીપત્ર નં. આર.એમ.સી./સી./૩૨૯, તા.૨૨/૧૨/૨૦૧૨.

રાજકોટ મહાનગર સેવાસદનના ત્રણ જોનનાં તમામ વોર્ડમાં શહેરનાં વિકાસ તથા જાળવણી માટે વિવિધ કામગીરી કરાવવા ઈ-ટેન્ડર / ઓપન ટેન્ડર પદ્ધતિથી અલગ-અલગ એજન્સીઓ પાસેથી સ્પર્ધાત્મક ધોરણે અખબારી પ્રતિસ્પ્ધિથી ભાવો ટુ બીડ સીસ્ટમ (૧) ટેકનીકલ બીડ (૨) પ્રાઈઝ બીડ થી મંગાવવામાં આવે છે.

સંદર્ભના પ્રતિષ્ઠ કરેલ પરીપત્ર મુજબ તમામ ઈ-ટેન્ડર / ઓપન ટેન્ડરથી મંગાવવામાં આવતાં ભાવો સાથે ભાવ ભરનાર એજન્સીઓ / બીડરો દ્વારા ટેન્ડર બીડ માટે રજુ કરવાનાં થતાં તમામ ડોક્યુમેન્ટ્સ ફરજિયાતપણે ખરી નકલમાં અથવા સેલ્ફ એટેસ્ટેડ રજુ કરવા આદેશ કરવામાં આવેલ છે. જે સંબંધે નીચે મુજબનાં હુકમની અમલવારી તાત્કાલીક અસરથી કરવા આદેશ કરવામાં આવે છે.

(૧) તમામ ટેન્ડરકામોના ટેકનીકલ બીડ ઓપન કરતી વખતે જે ટેન્ડર બીડ ભરનાર એજન્સીઓ દ્વારા તમામ ડોક્યુમેન્ટ્સ કે તે પૈકી કોઈપણ એક ડોક્યુમેન્ટ્સ ખરી નકલમાં અથવા સેલ્ફ એટેસ્ટેડ રજુ કરેલ ન હોય તો રજુ થયેલ ટેકનીકલ બીડ ઓપન કરવાની કાર્યવાહી દરમ્યાન ટેકનીકલ બીડ ઓપન કરનાર સંબંધીત અધિકારીશ્રી / કર્મચારીશ્રીએ Disqualify પ્રકારનો રબ્બર સ્ટેમ્પ બિનઅધિકૃત રજુ થયેલ ટેન્ડરનાં તમામ પાને લગાવી ટેકનીકલ બીડમાં ટેન્ડર Disqualify ફરજિયાતપણે કરવાનું રહેશે.

જે ટેન્ડર ખરી નકલ કે સેલ્ફ એટેસ્ટેડ સાથે રજુ થયેલ નથી, તેવું ટેકનીકલ બીડમાં ધ્યાને આવ્યેથી રજુ થયેલ ટેન્ડરને Disqualify ન કરી, તે બીડરનું જો પ્રાઈઝ બીડ ખોલવામાં આવશે તો આવા પ્રાઈઝ બીડ ખોલનાર તમામ સંબંધીત અધિકારીશ્રી / કર્મચારીશ્રી સામે સખત શિક્ષાત્મક પગલાં લેવાની ફરજ પડશે.


(૨) તમામ ટેન્ડરોનાં કિસ્સાઓમાં સંબંધીત ખરી નકલમાં રજુ થયેલ તમામ ડોક્યુમેન્ટ્સની મુળ (ઓરીજીનલ) નકલ મંગાવી તેની ખરી નકલની ચકાસણી ફરજિયાતપણે સંબંધીત ડી.ઈ.ઈ.શ્રી તથા મ.ઈ.શ્રી / અ.મ.ઈ.શ્રીએ કરવાની રહેશે. જે મુળ નકલ સાથે વેરીફાય કર્યાની સહી ફરજિયાતપણે દરેક ખરી નકલમાં સંબંધીત ડી.ઈ.ઈ.શ્રી / મ.ઈ.શ્રી / અ.મ.ઈ.શ્રીએ કરવાની રહેશે. તે પહેલાં તે ટેન્ડરની પ્રાઈઝ બીડ ઓપન કરી શકાશે નહીં. જેમાં ફરજિયાત થયેથી સંબંધીત જવાબદાર ડી.ઈ.ઈ.શ્રી / મ.ઈ.શ્રી / અ.મ.ઈ.શ્રી ની સામે કડક ખાતાકીય પગલાં લેવાની ફરજ પડશે.

(૩) ક્રમ નં.(૧) તથા (૨) મુજબની ચકાસણી કરવા છતાં જે કિસ્સામાં ટેકનીકલ બીડ ઓપન કરતાં બીડર દ્વારા કોઈપણ પ્રકારનાં ફોડ ડોક્યુમેન્ટ્સ રજુ કરી કામ મેળવવા માટે પ્રયાસ કર્યાનું સાબિત થશે, તેવા કિસ્સામાં બીડર / એજન્સીને બ્લેકલીસ્ટ કરી, આવા બીડર સામે ફરજિયાતપણે ફોજદારી કાર્યવાહી સંબંધીત શાખાના વડા તથા વીજીલન્સ અધિકારીશ્રી (પ્રોટેક્શન) દ્વારા જોઈન્ટલી ટિન-૭ માં કરવા આદેશ કરવામાં આવે છે. જેની લેખિતમાં

જાણ તાત્કાલીક અગ્રે કરવાની રહેશે. જેમાં ચૂક થયેથી સંબંધીત તમામ અધિકારીશ્રી / કર્મચારીશ્રી સામે કડક પગલાં લેવા ફરજ પડશે.

- (૪) સંદર્ભનો પરીપત્ર તથા આ હુકમ તમામ પ્રકારનાં ટેકનીકલ કામના દરેક ટેન્ડર પ્રસિધ્ધ કરતી વખતે ટેન્ડરનો હિસ્સો ગણી ટેન્ડરના ભાગ તરીકે પ્રસિધ્ધ કરવાનું ફરજિયાત રહેશે, તથા બીડર દ્વારા ટેન્ડરમાં પ્રસિધ્ધ થતાં સંદર્ભનાં પરીપત્ર તથા આ હુકમનાં દરેક પાને સહી સિક્કા સાથે ભરેલ ટેન્ડરની ટેકનીકલ બીડ ફરજિયાત રજૂ કરવાની રહેશે.

ઉપરોક્ત હુકમનો તાત્કાલીક અસરથી ચુસ્તપણે અમલ કરવા આદેશ કરવામાં આવે છે.


કમિશ્નર 10/6.
રાજકોટ મહાનગર સેવાસદન

નકલ રવાના (જાણ અર્થે):-
નાયબ કમિશ્નરશ્રીઓ (તમામ)

નકલ જાણ તથા અમલવારી અર્થે :-
(૧) સહાયક કમિશ્નરશ્રીઓ (તમામ)
(૨) શાખાધિકારીશ્રીઓ (તમામ)