RAJKOT MUNICIPAL CORPORATION

Water Works Department

Technical Bid

: Name of work :

Supply, Installation, Testing and Commissioning of Submerged Centrifugal Pump Sets, Floating Barge, Floating Bridge, vertical turbine pumps with other Mechanical Accessories & Electrical Equipments etc with Comprehensive Maintenance of Five Years at Nyari-1 DAM of RMC.

Milestone dates of e-Tendering are as under:		
1.	Downloading of e-Tender documents	Dt.:01/10/2020to Dt.:21/10/2020 up to 18:00 Hrs.
2.	Online submission of e-Tender	Dt.:21/10/2020 up to 18:00 Hrs.
3.	Physical submission of EMD, Tender fee and technical qualifications documents.	Dt.:22/10/2020 to Dt.:27/10/2020 up to 18:00 Hrs
4.	Opening of online tender (Technical bid)	Dt.:28/10/2020 at 12:00 Noon onwards
5.	Opening of Price Bid (if possible)	Dt.:04/11/2020 at 12:30 Hours onwards
6.	Tender Validity Period	180 Days

Add. City Engineer
Water Works Department
Rajkot Municipal Corporation
RAJKOT - 360 001
Phone no. 9723451964
E mail- jlshingala@rmc.gov.in

RAJKOT MUNICIPAL CORPORATION
Water Works

CONTENT

RAJKOT MUNICIPAL CORPORATION
Water Works, West Zone

***e*-TENDER NOTICE**

The e-Tenders are again invited with two bid system (Technical & Price bid) through e-Tendering by Add. City Engineer (Water Works), Room No. 12, Shree Harishihji Gohil Bhavan, West Zone Office, Rajkot Municipal Corporation, B/h. Big Bazaar, 150' Ring road, Rajkot-360005, from the reputed and experience contractors or Pump set manufacturers, who have a following eligible criteria for following works.

Sr. No.	**Name of Work**	**a) Estimated Cost** **b) EMD** **c) Tender Fee** **d) Time Limit for Completion of Work**
1.	Supply, Installation, Testing and commissioning of Submerged Centrifugal Pump Sets, Floating Barge, Floating Bridge, vertical turbine pumps with other Mechanical Accessories & Electrical Equipments etc with Comprehensive Maintenance of Five Years at Nyari-1 DAM of RMC.	a) 89,23,940/- b) 89,300/- c) 3,000/- d) 180 days

Milestone dates of e-Tendering are as under:		
1.	Downloading of e-Tender documents	Dt.:01/10/2020to Dt.:21/10/2020 up to 18:00 Hrs.
2.	Online submission of e-Tender	Dt.:21/10/2020 up to 18:00 Hrs.
3.	Physical submission of EMD, Tender fee and technical qualifications documents.	Dt.:22/10/2020 to Dt.:27/10/2020 up to 18:00 Hrs
4.	Opening of online tender (Technical bid)	Dt.:28/10/2020 at 12:00 Noon onwards
5.	Opening of Price Bid (if possible)	Dt.:04/11/2020 at 12:30 Hours onwards
6.	Tender Validity Period	180 Days

- An Earnest Money Deposit of Rs.89,300/- and Tender fee of Rs. 3000/- (Non-refundable) in form of Demand Draft in favour of RAJKOT MUNICIPAL CORPORATION, Rajkot, of any Nationalized or Schedule Bank Payble at Rajkot shall accompany along with the qualification's documents on Dt.:22/10/2020 to Dt.:27/10/2020 during office hours at Deputy Executive Engineer, Water works (Mech.) Room No. 12, Shree Harishihji Gohil Bhavan, West Zone Office, Rajkot Municipal Corporation, B/h. Big Bazaar, 150' Ring road, Rajkot-360005.

- Tender shall be submitted online through e-tendering up to 18.00 hours IST on or before Dt.:21/10/2020 and e-tendered Technical Bid will be opened on Date Dt.:28/10/2020 at 12:00 Hours IST onwards on web site http://www.nprocure.com

- All above criteria must be fulfilled by the Agency & its copy of supporting documents certified by himself must be submit with tech bid documents in physical, failing which bid evaluation committee evaluate the bid as per the documents submitted, Without necessary such documents, bid will be considered as non-responsive & treated as cancelled & price bid of such agency will not be opened. The Technical Bid should be downloaded on a white plain A4 size paper and it should be submitted with all technical details with quoted models and leaflet, duly filled and every page should be signed and sealed and should be submitted along with the qualification documents.

- If any queries send mail jlshingla@rmc.gov.in before Dt.-12.10.2020.

- **Evaluation Criteria :-**

1. Annual turnover average of last seven years should not be less than Rs. 44.62 lakh.

2. The agency should be the authorized by Pump manufacturer for this work only and full guarantee letter for a period of 60 months as per GC-62.

3. Amount of Solvency Rs. 12 lakh. A letter from any nationalized or scheduled bank (As per GR).

4. An experience as main contractor at least one work of similar nature costing not less than 44.62 lakh or two work of 35.70 lakh.(Similar nature work will be considered as SITC of HSCF, VT, SCF pumps, Non Clog Sewage Submersible pumps, Floating Pump etc.) in last seven years.

5. Experience certificate of competent authorities required to be submitted.

6. The agency should not be Black Listed anywhere in India, for which, agency will have to submit fresh Notarized Affidavit on Rs. 300 nonjudicial stamp paper.

7. Agency should have min. working capital of Rs. 22.31 lakh.

8. Agency should have P.F. and ESIC registration certificate.

- Enhancement factor at 10% per year for last seven years will be applicable to arrive and finalize the magnitude of work done, average turnover in last seven years.

- All required documents to be submitted in technical bid, for verification, should be duly certified by self. The experience of either government or semi govt. only be considered.

- Joint Venture is not permitted for this tender.

- Municipal Commissioner, Rajkot Municipal Corporation, Rajkot, reserves the right to accept or reject any or all tender(s) without assigning any reason thereof.

Add. City Engineer
Water Works
Rajkot Municipal Corporation

E.M.D. SCHEDULE

Name of work:- Supply, Installation, Testing and Commissioning of Submerged Centrifugal Pump Sets, Floating Barge, Floating Bridge, vertical turbine pumps with other Mechanical Accessories & Electrical Equipments etc with Comprehensive Maintenance of Five Years at Nyari-1 DAM of RMC.

Estimated Cost in Rs.	:-	Rs. 8923940/-
Tender Fee	:-	Rs. 3000/- (Non-refundable)
Earnest Money Deposit	:-	Rs. 89,300/-

An Earnest Money Deposit of Rs.89,300/- and Tender fee of Rs.3000/- (Non-refundable) in form of Demand Draft in favour of Municipal Commissioner, Rajkot Municipal Corporation, Rajkot of any Nationalized or Schedule Bank payable at Rajkot shall accompany along with the qualification's documents on Milestone date during office hours at Dy. Executive Engineer, Room No. 12, Shree Harishihji Gohil Bhavan, West Zone Office, Rajkot Municipal Corporation, B/h. Big Bazaar, 150' Ring road, Rajkot-360005.

:: DETAILS TO BE FILLED BY TENDERER ::

Name of e-Tenderer :_____

Address of e-Tenderer :_____

_____

Nature of Business :_____

:: DETAILS OF E.M.D. ::

Name of Bank & Branch : _____

D.D. No. & Date : _____

Amount in Rupees : _____

Sign of e-Tenderer

TENDER DECLARATION FORM

To,
The Add. City Engineer,
Water Works Branch,
Rajkot Municipal Corporation,
Rajkot.

Name of work: Supply, Installation, Testing commissioning of Submerged Centrifugal Pump Sets, Floating Barge, Floating Bridge, vertical turbine pumps with other Mechanical Accessories & Electrical Equipments etc with Comprehensive Maintenance of Five Years at Nyari-1 DAM of RMC.

Dear Sir,

I/We the undersigned have carefully gone through and clearly understood the Tender documents comprising Notice Inviting Tender, Articles of Agreement, Definition of Terms, Instructions to Tenderer, Conditions of Contract, Special Conditions of Contract, Appendixes, Specifications, Schedule of Quantities and Drawings furnished by RAJKOT MUNICIPAL CORPORATION, RAJKOT. I/We have satisfied myself / ourselves as to the location of site, the existing condition of structure and examined drawings.

I/We do hereby offer to execute and complete the whole of the work within the time specified all in accordance with the specifications, designs, drawings and instructions in writing referred to in the said documents and with such materials as are provided for at the respective rates which I/We have quoted in the Schedule of Quantities, or at such other rates as may be fixed under the provisions of these conditions, including supplying and testing etc.

In the event of this tender being accepted, I/We agree to enter into an agreement as and when required and execute the contract, according to your Form of Agreement or in default where of I/We bind myself / ourselves to forfeit the Earnest Money Deposit.

I/We understand that if I/We shall enter in agreement within ten days from the date of receipt of Letter of Acceptance, you will forfeit the Earnest Money paid by me/us and take necessary action as deemed fit.

I/We have enclosed a Draft as an "Earnest Money Deposit" for the sum of **Rs.89,300/-** the full value of which is to the absolutely forfeited to the Employer should I/We fail to commence the works specified. Otherwise the said sum shall be retained, by the Employer, as on account of such Security Deposit as provided for in the aforesaid documents.

I/We agree not to employ sub-contractors other than those that may be approved in accordance with conditions in the aforesaid documents.

I/We understand that you are not bound to accept the lowest of any tender, which you may receive.

I/We understand that all the pages of the Tender documents are to be signed by me / us.

I/We shall refer all disputes arising out of or relating to the agreement to the arbitration in accordance with conditions of contract.

I/We am/are bound to execute the job if the work order is issued within 60 days from the date of opening of the tender.

I/We agree to pay the Income Tax, GST(Central and State), etc., and other taxes prevailing from time to time on such items the same are leviable and the rates quoted by me/us are inclusive of the same.

Date:……..

Yours faithfully,

_____
Signature of the Contractor.

Address :_____
_____
_____
_____
_____.

RAJKOT MUNICIPAL CORPORATION
Water Works Branch

:: Tender Bond Letter ::

I/ We _____ undersigned and sealed,
(address of tenderer)
_____
_____

To,
The Commissioner,
Rajkot Municipal Corporation,
Rajkot.

Name of Work : Supply, Installation, Testing commissioning of Submerged Centrifugal Pump Sets, Floating Barge, Floating Bridge, vertical turbine pumps with other Mechanical Accessories & Electrical Equipments etc with Comprehensive Maintenance of Five Years at Nyari-1 DAM of RMC.

Dear Sirs,

I / We hereby offer to supply the items listed in tender schedule.

Our quotations are shown in price schedule. We will supply the designated items and complete the contract work at the firm price quoted in full compliance with all terms condition mentioned in the tender documents.

Very Truly Yours,

Signature and seal of contractor.

Date:

Place:

INFORMATION TO THE TENDERER

1	Tender validity period	180 days (One Hundred eighty Days)
2	Amount of tender security bond (Earnest Money)	Rs. 89,300/- (Rupees Seventy Five Thousand only) with insufficient earnest money will not be opened
3	Minimum amount of security deposit cum Performance security.	10% of awarded price in form of either FDR or Bank Guarantee of any nationalized or Schedule Bank (As per GR) which are located in Rajkot City for a period of 70 months.
4	Time of completion	180 Days from the date of issue of confirm work order from Rajkot Municipal Corporation
5	Period of Liability for defect	60 (Sixty) months after issuance of the completion certificate.
6	Compensation for delay	0.1% percent of the contract price per day subject to a maximum up to Ten percent of the contract price or as decided by the Municipal Commissioner.
7	Guarantee	The agency should be submitted full guarantee letter for a period of 60 months as per GC-62 for this work.
8	R e m a r k s	The Commissioner of Rajkot Municipal Corporation, Rajkot, reserves the right to reject any or all tenders without assigning any reasons thereof.

Dy. Executive Engineer
Water Works, WZ
Rajkot Municipal Corporation

Add. City Engineer
Water Works
Rajkot Municipal Corporation

CHECK LIST

1. Technical bid of Tender to be submitted along with the Qualifications documents which are certified by self with separate demand draft of EMD & Tender Fees with stipulated time limit.

2. Tenderers to note last date and time of online submission of price bid. The prices shall have to be quoted online whereas the draft of tender fee as well as bid security and other technical documents are to be submitted in hard copy within 3 days from the date of online submission of price bid. The documents to be submitted either by Speed Post or Registered Post or Hand Delivery at address- **Deputy Executive Engineer, Water Works Department (West Zone), Room No.-12, Shree Harisinhji Gohil Bhavan, Behind Big Bazaar, 150' Ring road, Rajkot Municipal Corporation, RAJKOT - 360 005.**

3. The cover of the technical bid documents shall be duly sealed and is to be duly super scribed the name of work and opening date.

4. Tender security Bond for earnest money deposit shall be submitted as per specified in tender document (Earnest Money Deposit).

5. Variations to specifications, if any, make the tender liable to be rejected.

6. The technical bid of tender shall be filled completely in every respect and signed in ink and sealed every page of technical bid of tender.

7. Information regarding capability etc., (General Performance Data) shall have to be submitted.

8. Qualification Data sheet should be filled properly and it's mandatory.

9. Technical Data sheet should be filled properly with its model and specifications.

INSTRUCTIONS

TO

TENDERER

INSTRUCTIONS TO TENDERER

IT-01 GENERAL:

The contract documents may be secured in accordance with the Notice Inviting Tender for the work called. The work shall include supply of materials / equipments and labour work necessary for SITC and dismantling of pumping machineries & associated electro mechanical accessories & subsequent comprehensive operation & maintenance.

IT-02 INVITATION TO TENDER:

The Rajkot Municipal Corporation hereinafter referred so as the Corporation will receive tenders for the work of as per the specifications and schedule of prices in the tender document. The tenders shall be opened in the office of the Executive Engineer in the presence of tenderers or their representatives who are present. The Corporation reserves the right to reject the lowest or any other or all tenders or part of it which in the opinion of the Corporation does not appear to be in its best interest, and the tenderer shall have no cause of action or claim against the Corporation or its officers, employees, successors or assignees for rejection of his tender.

IT-03 LANGUAGE OF TENDER:

Tenders shall be submitted in English and all information in the tender shall also be in English.

IT-04 QUALIFICATIONS OF TENDERERS:

1. Annual turnover average of last seven years should not be less than Rs.44.62 lakh.
2. The agency should be submitted full guarantee letter for a period of 60 months as per GC-62 for this work.
3. Amount of Solvency Rs. 12 lakh. A letter from Any nationalized or scheduled bank (As per GR).
4. An experience as main contractor at least one work of similar nature costing not less than 44.62 lakh or two work of 35.70 lakh. (Similar nature work will be considered as SITC of HSCF, VT, SCF pumps, Non Clog Sewage Submersible, Floating pumps etc.) in last seven years.
5. Experience certificate of competent authorities required to be submitted.
6. The agency should not be Black Listed anywhere in India, for which, agency will have to submit fresh Notarized Affidavit on Rs. 300 nonjudicial stamp paper.
7. Agency should have min. working capital of Rs.22.31 lakh.
8. Agency should have PF & ESIC resigtration certificate submitted.

- ❖ Enhance factor at 10% per year for last seven years will be applicable to arrive and finalize the magnitude of work done in last seven years.

- ❖ All required documents to be submitted in technical bid, for verification, should be duly certified by self. The experience of either government or semi govt. only be considered.

- ❖ Joint Venture is not permitted for this tender.

- ❖ If manufacturer is submitting the bid, the authorized dealer of manufacturer cannot submit the bid, only either manufacturer or authorized contractor can be submitted bid as per CVC guide line and manufacturer can give authority to one contractor only. More then one authorization from manufacturer is liable to reject.

IT-05 TENDER DOCUMENTS:

Tenderers to note last date and time of submission of Tenders. The prices shall have to be quoted online whereas the draft of tender fee as well as bid security and other technical documents are to be certified by self which are to be submitted in hard copy within 3(three) Days from the date of online submission of price bid. The documents to be submitted either by Speed Post or Registered Post at address mentioned in check list in the document.

IT-06 EXAMINATION BY TENDERERS:

A. At his own expense and prior to submitting his tender, each tenderer shall (a) examine the Contract Documents, (b) visit the site and determine local conditions which may affect the work including the prevailing wages and other pertinent cost factors, (c) familiarize himself with all central, state and local laws, ordinance, rules, regulations and codes affecting the material supply including the cost of permits and licenses required for the work and (d) correlate his observations, investigations, and determinations with the requirements of the Tender Documents.

B. The tender quantity is approximate and may increase or decrease. Any increase in quantity will not entitle tenderer to claim any extra over the quoted price.

C. Tender documents be completed legible in ink, checked in a responsible manner, signed, stamped and returned together with the tender security Bond by the stipulated date, which shall form the Tender.

The tenderer is required to complete:

The form of tender, including the Appendices thereto Tender Security Bond and the Tender summary duly signed and stamped.

All the pages in which entries are required to be made by the tenderer are contained in the tender documents and the tenderer shall not take out or add to or amend the text of any of the documents except in so far as may be necessary to comply with any addenda issued pursuant to thereof.

IT-07 EARNEST MONEY DEPOSIT:

A. Each tender must be accompanied by a receipt of deposit as tender guarantee in the form of Earnest Money of **Rs.89,300/-** in the form of crossed Demand Draft of any any nationalized or Schedule Bank except co-operative banks acceptable to owner drawn in favor of the **Rajkot Municipal Corporation**, payable at Rajkot. The tender Bond shall be valid for a period of not less than 180 days from the date the tenders are opened and shall comply with the requirements for Bond as stipulated in the General Conditions of Contract. The tender guarantee Bond will be held by the owner as a guarantee that the tenderer, if awarded the contract, will enter into the contract agreement in good faith and furnish the required bonds. Any tender not accompanied by a tender guarantee in the form of Earnest Money Deposit by Bank Draft for the sum stipulated in the tender document will be summarily rejected.

B. The Earnest Money Deposit will be refunded to the unsuccessful tenderers except L1, L2 and L3 whose deposit will be refunded after award of the work.

C. The Earnest Money Deposit (Tender Guarantee) will be forfeited in the event, the successful tenderer fails to accept the contract and fails to submit the "Performance Guarantee Bonds" to the Owner as stipulated in this tender documents within Fifteen (15) days after receipt of Notice of award of contract.

D. The Earnest Money Deposit of the successful tenderer shall be returned after the performance guarantee bond, as required, is furnished by the contractor.

E. No interest shall be paid by the owner on any tender guarantee.

IT-08 PREPARATION OF TENDER DOCUMENTS:

Tenderers are required to note the following while preparing the tender documents:

A. Tender shall be submitted online in English. All appendixes and statements shall be properly filled in. Numbers shall be stated both in words and in figures where so indicated, and the signature of all persons signing shall be in longhand.

B. Percentage, prices, wordings and notations must be properly uploaded. All entries or prices and arithmetic shall be checked before submission of the Tenders. If there is discrepancy between the rates quoted in figures and in words, the rates expressed in words shall be considered as binding.

C. Hard copies of technical bid shall be accompanied by the prescribed tender security bond and other required documents and drawings. All witnesses and sureties shall be persons of status and probity and their full names, occupations and addresses shall be stated below their signature.

D. Variation to the contract documents requested by the tenderer may be affixed and duly signed and stamped. Such variations may be approved or refused by the Commissioner only he is not obliged to give reason for his decision.

E. Submission of tenders shall be online and will comply with the Notice Inviting Tenders as to place, date and time. Tenders and tender security shall be enclosed with the original copy of tender documents and shall be put in a sealed envelope.

IT-9 SUBMISSION OF TENDER DOCUMENTS:

Tenderers are requested to submit the Tender Documents on following lines:

The price bid shall be submitted online on due date and hard copies of technical bid and original DD of EMD and tender fee etc. shall have to be submitted within 3 (three) days from the last date of submission of the price bid.

The hard copies of documents should be submitted either by registered post/Speed Post only within 3 days from uploading the price bid.

The time limit for receipt of tender shall strictly apply in all cases. The tenderers should therefore ensure that their tender is received by the competent authority (Rajkot Municipal Corporation) at the required place before expiry of the time limit. No delay on account of any cause for receipt of tender shall be entertained. Tenders received after the time limit is over will not be accepted and inadvertently accepted, will not be opened and will be returned unopened. Tenders which may get opened before the due date with no indication, having been given on the outside of the envelopes of containing a tender is liable to be rejected.

The tender must contain the name address and residence and place of business of the person or persons submitting the tender and must be signed and sealed by the tenderer with his usual signature.

Tenders by partnership firm must be furnished with the full names and addresses of all partners and be signed by one of the members of the partnership or by a legally authorized representative holding power of attorney followed by a signature and designation of the person of person signing.

Tenders by Corporation / Companies must be signed with the legal names of the Corporation / Companies by the President / or by the Secretary or other person or person legally authorized to bind the Corporation / Company in the matter.

IT-10 TENDER VALIDITY PERIOD:

The validity period of the tender submitted for this work shall be of **180** Calendar days from the date of opening of the tender and that the tenderer shall not be allowed to withdraw or modify the tender offer on his own during the validity period. The tenderer will not be allowed to withdraw the tender or make any modifications or additions in the terms and conditions on his own tender. If this is done then the owner shall, without prejudice to any other right or remedy, be at liberty to reject the tender and forfeit the Earnest Money Deposit in full.

IT-11 GENERAL PERFORMANCE DATA:

Tenderers shall present all the information which sought for in the tender document in form of various schedules. Tenders may not be considered if every 'Blank' and the schedules are not property filled in before submission of the tender.

IT-12 SIGNING OF TENDER DOCUMENTS:

If the tender is made by an individual, it shall be signed with his full name above his current address. If the tender is made by a proprietary firm it shall be signed by the proprietor above his name and the name of his firm with his current address.

If the tender is made by a firm in partnership, it shall be signed by all the partners of the firm above their full names and current address, or by a partner holding the power of attorney for the firm, in which case a certified copy of the power of attorney shall accompany the Tender. A certified copy of the partnership deed, current addresses of all the partners of the firm shall also accompany the Tender.

If the tender is made by a Limited Company or a Limited Corporation, it shall be signed by a duly authorized person holding the power of attorney, shall accompany the tender. Such Limited Company or Corporation may be required to furnish satisfactory evidence of its existence before the contract is awarded.

Joint Venture is not permitted.

All witnesses and sureties shall be persons of status and probity and their full names, occupations and addresses shall be stated below their signatures. All signatures in the tender document shall be dated.

IT-13 WITHDRAWAL OF TENDERS:

If during the tender validity period, the Tenderer withdraws his tender, the tender security (Earnest Money) shall be forfeited.

IT-14 INTERPRETATIONS OF TENDER DOCUMENTS:

Tenderers shall carefully examine the Tender Document and fully inform themselves as to all the conditions and matters which may in any way affect the work or the cost thereof. Should a tenderer find discrepancies or omission from the specifications or other documents or should be in doubt as to their meaning, he should at once address query to the Deputy Engineer / Executive Engineer, Rajkot Municipal Corporation. Any resulting interpretation of the Tender will be issued to all Tenderers as Addendum.

IT-15 ERRORS AND DISCREPANCIES IN TENDERS:

In case of conflict between the figures and words in the rates, the rate expressed in words shall prevail and apply in such cases.

IT-16 MODIFICATION OF DOCUMENTS:

Modification of specifications and extension of the closing date of the tender, if required, will be made by an Addendum. Copy of each Addendum will be uploaded on the website www.rmc.nprocure.com. These shall be signed and shall form a part of tender. The tenderer shall not add to or amend the text of any of the documents except in so far as may be necessary to comply with any Addendum.

ADDENDA:

Addenda form part of the Contract Documents, and full consideration shall be given to all Addenda in the preparation of tender. Tenderers shall verify the number of Addenda issued, if any and acknowledge the receipt of all Addenda in the Tender. Failure to so acknowledge may cause the tender to be rejected.

A. The owner of the in charge may issue Addenda to advise Tenderers of changed requirements. Such Addenda may modify previously issued Addenda.
B. No Addendum may be issued after the time started in the Notice Inviting Tenders.

IT-17 TAX AND DUTIES ON MATERIALS:

All charge on account of GST and other duties etc., on materials obtained for the works from any source shall be borne by the contractors. No (P) or 'C' or 'D' form shall be supplied.

IT-18 EVALUATION OF TENDERS:

In comparing tenders the Corporation shall consider such factors as the time of completion, efficiency and reliability of construction method proposed, compliance with the specifications, relative quality, the operation, maintenance and replacement cost of structure and plant. Evaluation criteria specifically mentioned in the specification will also be taken into consideration in the evaluation of tenders.

IT-19 TIME REQUIRED FOR COMPLETION:

The completion period mentioned in this schedule is to be reckoned from the date of from work order to proceed. Total completion period is **180 Days** from the date of issue of from work order to proceed and contractor should adhere to this completion time.

IT-20 POLICY FOR TENDER UNDER CONSIDERATION:

Tender shall be termed under consideration from the opening of the tender until such time any official announcement or award is made.

While tenders are under consideration, tenderers and their representative or other interested parties are advised to refrain from contacting by any means any Corporation's personnel or representatives on matters related to the tenders under study. The Corporation representatives if necessary will obtain clarification on tenders by requesting such information from any or all the tenderers, either in writing or through personal contact, as may be necessary. The tenderer will not be permitted to change the substance of his tender after tenders have been opened. This includes any post tender price revision. Non-compliance with his provision shall make the tender liable for rejection.

IT-21 PRICES AND PAYMENTS:

The tenderer must understand clearly that the prices quoted are for the total works or the part of the total works quoted for an include all costs due to materials labour, equipments, supervision, other services, royalties, taxes, etc., and to include all extra to cover the cost. No claim for additional payment beyond the prices quoted will be entertained and the tenderer will not be entitled subsequently to make any claim on any ground.

IT-22 PAYMENT TERMS:

The terms of payment are defined in the General Conditions of Contract. The Corporation shall not under any circumstances relax these terms of payment and will not consider any alternative payment terms. Tenderers should therefore in their own interest note this provision to avoid rejection of their tenders.

Schedule of Payment:

65%	-	On supply of equipment
25%	-	After completion and testing of work
10%	-	After 15 Days successes full trial
100%	**-**	**Total**

IT-23 AWARD:

Award of the contract or the rejection or tenders will be made during the tender validity period stated in the Notice Inviting Tenders.

A. After all contract contingencies are satisfied and the Notice of Award is issued, the successful Tenderer shall execute the Contract Agreement within the time stated in the Notice Inviting Tenders and shall furnish the Bond as required herein. The contract Agreement shall be executed in form stipulated by the Owner.

B. If the Tenderer receiving the Notice of Award fails or refuses to execute the Contract Agreement within the stated time limit or fails or refuses to furnish the Bond as required herein, the owner may annual his award and declare the tender security forfeited and will take action as deemed fit.

C. A Corporation, Partnership firm or other consortium acting as the Tenderer and receiving the award shall furnish evidence of its existence and evidence that the officer signing the contract agreement and Bonds for the Corporation, Partnership firm or other consortium acting as the Tenderer is duly authorized to do so.

IT-24 SIGNING OF CONTRACT:

The successful tenderer shall be required to execute the contract agreement within 15 days of receipt of intimation to execute the contract, failing which the R.M.C. will be entitled to annual the award and forfeit the Earnest Money Deposit.

IT-25 DISQUALIFICATIONS:

A. Tender shall be disqualified and will not be taken for consideration if -

a. The envelope does not show on the outside the reference of bid and thus gets opened before the due date of opening.
b. The tender Security Deposit and tender fee is not deposited in full and in the manner as specified.
c. The tender documents are not signed by an authorized person.
d. The general performance data for qualification is not submitted fully.
e. Tenderer does not agree to payment terms defined as specified in tender document.
f. Authorization from approved Valve Manufacturer is not provided.

B. A tender may further be disqualified if,

a. Price variation is proposed by the Tenderer on any principle other than those provided in the Tender Documents.
b. Completion schedule offered is not consistent with the completion schedule defined and specified in tender document.
c. The validity of tender is less than that mentioned in Tender document.
d. Any of the page or pages of tender is / are removed or replaced.
e. All corrections or posted slips are not initiated by tenderer.
f. Any condition which affect the cost.
g. After opening of the Technical Bid till final evaluation, if any agency will try to pressurize the evaluation committee through various mean. The offer of such bidder will be found non-responsive and he will not be entitled to quote their prices in any of the tender of Rajkot Municipal Corporation for the period of 3 years.

IT-26 PERFORMANCE GUARANTEE (SECURITY DEPOSIT):

As a contract security the tenderer to whom the award is made shall furnish a performance guarantee (Security Deposit) for the amount of 10% of the contract price to guarantee the faithful performance, completion and maintenance of the works of the contract in accordance with all conditions and terms specified herein and to the satisfaction of the Engineer-in-charge and ensuring the discharge of all obligations arising from the execution of contract in one of the forms mentioned below:

a. In cash or by demand draft of the RAJKOT Branch of any Nationalized or Scheduled Bank in favour of RAJKOT MUNICIPAL CORPORATION.
b. A fixed deposit receipt or Bank Guarantee of any Nationalized or Scheduled Bank other than Co-operative Bank or Government securities duly endorsed in favour of the "Rajkot Municipal Corporation".

The performance guarantee shall be delivered to the Corporation within Fifteen (15) days of the notice of award and at least three (3) days before the contract agreement is signed unless otherwise specified by the Engineer-in-charge.

On due performance and completion of the contract in all respects, THE PERFORMANCE GUARANTEE WILL BE RETURNED TO THE CONTRACTOR WITHOUT ANY INTEREST AFTER THE DEFECT LIABILITY PERIOD IS OVER.

IT-27 STAMP DUTY:

The successful tenderer shall have to enter into an agreement on a non-judicial stamp paper of **Rs. (as specified by prevailing norms of the government)** as per the form of agreement approved by the Corporation. And enter into an agreement on stamp paper of appropriate value as per Government norms in favor of Rajkot Municipal Corporation in prescribed format of Rajkot Municipal Corporation.

IT-28 BRAND NAMES:

Specific reference in the specifications to any material by manufacturer's name, or catalogue shall be constructed as establishing a standard or quality and performance and not as limiting competition and the tenderer in such cases, may at his option freely use only other product, provided that it ensures an equal of higher quality than the standard mentioned and meets Corporation approval.

IT-29 NON-TRANSFERABLE:

Tender documents are not transferable.

IT-30 COST OF TENDERING:

The owner will not defray expense incurred by tenderers in tendering.

IT-31 EFFECT OF TENDER:

The tender for the work shall remain in force for a period of 180 calendar days from the date of opening of the tenders for this work and that the tenderer shall not be allowed to withdraw or modify the offer in his own during the period. If any tenderer withdraws or makes any modifications or additions in the terms and conditions of his own tender, then the Corporation shall, without prejudice to any other right or remedy, be at liberty to reject the tender and forfeit the earnest money in full.

IT-32 CHANGE IN QUANTITY:

The Corporation reserves the right to waive any information in any tender and to reject one or all tenders without assigning any reasons for such rejection and also to vary the quantities of items or groups as specified in the schedule of prices as may be necessary.

IT-33 NEW EQUIPMENT AND MATERIAL:

All materials, equipment and spare parts thereof shall be new, unused and originally coming from manufacturer's plant to the Corporation. The rebuilt or overhauled equipment / materials will not be allowed to be used on works.

IT-34 RIGHTS RESERVED:

The owner further reserves the right to reject any or all tenders, to waive any information or irregularity in any tender without assigning any reason.

The owner further reserves the right to withhold issue of work order even after agreement and no additional payment will be made to the successful tenderer on

account of such withholding. The owner is not obliged to give reasons for any such action.

IT-35 Municipal Commissioner reserve right to reduce the scope of work and split the tender on two or more parts without assigning any reason even after the awards of contract.

IT-36 No mobilization advance or advance on machinery will be given.

IT-37 The scope of work is clearly mentioned in the tender documents. The contractor shall have to carry out the work in accordance with the details specifications. No condition will be accepted. The conditional tender will liable to be rejected.

-x-x-x-x-x-x-

GENERAL CONDITIONS

FOR

CONTRACT

GC-01 DEFINITIONS AND INTERPRETATIONS:

1.0 In the contract (as hereinafter defined) the following words and expressions shall, unless repugnant to the subject or context thereof, have the following means assigned to them.

1.1 The "Owner / Corporation" shall mean Rajkot Municipal Corporation and shall include its Municipal Commissioner or other Officers authorized by the Corporation and also include owner's successors and assignees.

1.2 The "Contractor" shall mean the person or the persons, firm or Company whose tender has been accepted by the Owner and includes the Contractors legal representative, his successors and permitted assigned.

1.3 The "Engineer-In-Charge" shall mean the person designated as such by the owner from time to time and shall include those who are expressly authorized by the Corporation to act for and on its behalf for all functions pertaining to the operation of this contract.

1.4 Engineer-In-Charge's Representative shall mean any resident Engineer or Assistant to the Engineer-In-Charge appointed from time to time by the owner to perform duties set forth in the Tender Document whose authority shall be notified in writing to the Contractor by the Engineer-In-Charge.

1.5 "Tender" – the offer or proposal of the Tenderer submitted in the prescribed form setting for the prices for the work to be performed, and the details thereof.

1.6 "Contract Price" shall mean total money payable to the Contractor under the contract.

1.7 "Addenda" shall mean the written or graphic notices issued prior to submission of tender which modify or interpret the contract documents.

1.8 "Contract Time" – the time specified for the completion of work.

1.9 "Contract" shall mean agreement between the parties for the execution of works including therein all contract documents.

1.10 "Contract Document" shall mean collectively the tender documents, designs, drawings, specifications, agreed variations, if any and such other documents constituting the tender and acceptance thereof.

1.11 "The Sub-Contractor" shall mean any person, firm or company (other than the Contractor) to whom any part of the work has been entrusted by the Contractor with the written consent of the Engineer-In-Charge and the legal representative successors and permitted assignee of such person, firm or company.

1.12 The "Specifications" shall mean all directions, the various Technical Specifications, provisions and requirements attached to the contract which pertains to the method and manner of performing the work, to the quantities and qualities of the work and the materials to be furnished under the contract for the work and any order(s) or instruction(s) there under. It shall also mean the latest Indian Standard Institute Specification relative to the particular work or part thereof, so far as they are not contrary to the Tender specifications and in absence of any other Country applied in Indian as a matter of standard engineering practice and approved in writing by the Engineer-In-Charge with or without modification.

1.13 The "Drawings" shall include maps, plans, tracings, or prints thereof with any modification approved in writing by the Engineer-In-Charge and as such other drawings as may, from time to time, be furnished or approved in writing by the Engineer-In-Charge in connection with the work.

1.14 The "Work" shall mean the works to be executed in accordance with the contract or the part thereof as the case may be and shall include extra, additional, altered or substituted works as required for the purpose of the contract. It shall mean the totality of the work by expression or implication envisaged in the contract and shall include all materials, equipment and labour required for or relative or incidental to or in connection with the commencement, performance and completion of any work and / or incorporation in the work.

1.15 The "Permanent Work" shall mean works which will be incorporated in and form part of the work to be handed over to the owner by the Contractor on completion of the contract.

1.16 The "Temporary Work" shall mean all temporary works of every kind required in or about the execution, completion and maintenance of the work.

1.17 "Site" shall mean the land and other places, on, under, in or through which the permanent works are to be carried out and any other lands or places provided by the Corporation for the purpose of the contract together with any other places designated in the contract as forming part of the site.

1.18 The "Construction Equipment" shall mean all appliances / equipment of whatever nature required in or for execution, completion or maintenance of works or temporary works (as herein before defined) but does not include materials or other things intended to form or forming part of the permanent work.

1.19 "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 of the Contractor and shall be

deemed to have been received in the ordinary course of post it would have been delivered.

1.20 The "Alteration / variation order" shall mean an order given in writing by the Engineer-In-Charge to effect additions or deletions from or alterations in the work.

1.21 "Final Test Certificate" shall mean the final test certificate issued by the owner within the provisions of the contract.

1.22 The "Completion Certificate" shall mean the certificate to be issued by the Engineer-In-Charge when the work has been completed and tested to his satisfaction.

1.23 The "Final Certificate" shall mean the final certificate issued by the Engineer-In-Charge after the period of defects liability is over and the work is finally accepted by the owner.

1.24 "Defects Liability Period" shall mean the specified period between the issue of Completion Certificate and the issue of final certificate during which the Contractor is responsible for rectifying all defects that may appear in the works.

1.25 "Approved" shall mean approved in writing including subsequent confirmation in writing of previous verbal approval and "Approval" means approved in writing including as aforesaid.

1.26 "Letter of Acceptance" shall mean an intimation by a letter to tenderer that his tender has been accepted in accordance with the provisions contained therein.

1.27 "Order" and "Instructions" shall respectively mean any written order or instruction given by the Engineer-In-Charge within the scope of his powers in terms of the contract.

1.28 "Running Account Bill" shall mean a bill for the payment of "On Account" money to the Contractor during the progress of work on the basis of work done and the supply of non-perishable materials to be incorporated in the work.

1.29 "Security Deposit" shall mean the deposit to be held by the owner as security for the due performance of the contractual obligations.

1.30 The "Appointing Authority" for the purpose of Arbitration shall be the Municipal Commissioner, Rajkot Municipal Corporation.

1.31 "Retention Money" shall mean the money retained from R.A.Bills for the due completion of the "LET WORS".

1.32 Unless otherwise specifically stated, the masculine gender shall include the feminine and neuter genders and vice-versa and the singular shall include the plural and vice-versa.

GC-02 LOCATION OF SITE AND ACCESSIBILITY:

The site of Tendered work is in city one at Nyari-1 Dam Site. The intending tenderers should inspect the site and make himself familiar with site conditions and available communication facilities. Non-availability of access roads shall in no case be the cause to condone delay in the execution of the work and no claim or extra compensation will be paid.

GC-03 SCOPE OF WORK:

The scope of work is defined broadly in the special conditions of contract and specifications. The Contractor shall provide all necessary materials, equipment and labour etc. for the execution and maintenance of the work. All material that go with the work shall be approved by the Engineer-In-Charge prior to procurement and use.

GC-04 RULING LANGUAGE:

The language according to which the contract shall be construed and interpreted shall be English. All entries in the contract document and all correspondence between the contractor and the Corporation or the Engineer-In-Charge shall be in English. All dimensions for the materials shall be given in metric units only.

GC-05 INTERPRETATION OF CONTRACT DOCUMENT :

1. The provision of the General Conditions of Contract and Special Conditions of Contract shall prevail over those of any other documents of the contract unless specifically provided otherwise, should have there be any discrepancy, inconsistency, error or omission in the several documents forming the contract, the matter may be referred to the Engineer-In-Charge for his instructions and decision. The Engineer-In-Charge's decision in such case shall be final and binding to the Contractor.

2. Works shown upon the drawings but not described in the specifications or described in the specifications without showing on the drawings shall be taken as described in the specifications and shown on the drawings.

3. The headings and the marginal notes to the clause of these General Conditions of Contract or to the specifications or to any other part of tender documents are solely for the purpose of giving a concise indication and not a summary of contents thereof. They shall never be deemed to be part thereof or be used in the interpretation or construction of the contract.

4. Unless otherwise states specifically, in this contract documents the singular shall include the plural and vice-versa wherever the context so requires. Works imparting persons shall include relevant Corporations / Body of individual / firm of partnership.

5. Notwithstanding the sub-division of the documents into separate section and volumes every part of each shall be supplementary to and complementary of every other part and shall be read with and into the context so far as it may be practicable to do so.

6. Where any portion of the General Conditions of Contract is repugnant to or at variance with any provisions of the Special Conditions of Contract, then, unless a different intention appears, the provisions of the special conditions of contract shall be deemed to over ride the provisions of General Conditions of Contract to the extent of each repugnancy of variance.

7. The materials, design, and workmanship shall satisfy the relevant ISS, and codes referred to. If additional requirements are shown in the specifications, the same shall be satisfied over and above ISS and other codes.

8. If the specifications mention that the Contractor shall perform certain work or provide certain facilities, it shall mean that the Contractor shall do so at his own cost.

GC-06 ERRORS IN SUBMISSIONS:

The Contractor shall be responsible for any errors or omissions in the particulars supplied by him, whether such particulars have been approved by the Engineer-In-Charge or not.

GC-07 PERFORMANCE GUARANTEE (SECURITY DEPOSIT):

1. A sum of 10% of the accepted value of the tender shall be deposited by the tenderer (hereinafter called the contractor when tender is accepted) as security deposit with the owner for the faithful performance, completion and maintenance of the works in accordance with the contract documents and to the satisfaction of the Engineer-In-Charge and assuring the payment of all obligations arising from the execution of the contract. This shall be deposited in one of the forms mentioned below:

   a. By a Demand Draft of the Rajkot Branch of any Nationalized or Scheduled Bank except co-operative bank in favor of Rajkot municipal corporation.

b. A Fixed Deposit Receipt or Bank Guarantee of a any Nationalized or Schedule Bank duly endorsed in favor of the "**RAJKOT MUNICIPAL CORPORATION**", Rajkot.

2. If the Contractor, sub-contractor or their employees shall break, deface or destroy any property belonging to the owner or other agency during the execution of the contract, the same shall be made good by the contractor at his own expense and in default thereof, the Engineer-In-Charge may cause the same to be made good by other agencies and recover expense from the Contractor (for which the certificate of the Engineer-In-Charge shall be final). These expenses can be recovered from the security deposit if recovery from other sources is not possible. The amount as reduced in security deposit will be made good by deduction from the next R A Bill of the Contractor.

GC-08 INSPECTION OF WORK:

The Engineer-In-Charge shall have full power and authority to inspect the work at any time wherever in progress either on the site or at the Contractor's or any other manufacturer's workshop or factories wherever situated and the Contractor shall afford to Engineer-In-Charge every facility and assistance to carry out such inspection, Contractor or his authorized representative shall, at all time during the usual working hours and all times when so notified, remain present to receive orders and instructions.

GC-09 DEFECT LIABILITY:

1. Contractor shall guarantee the work for a period of **60 (Sixty)** months from the date of issue of Completion Certificate. Any damage or defect that may arise or that may remain undiscovered at the time of issue of Completion Certificate connected in any way with the equipment or materials supplied by him or in the workmanship shall be rectified or replaced by Contractor at his own expense as desired by Engineer-In-Charge or in default Engineer-In-Charge may cause the same to be made good by other agency and deduct expenses of which the certificate of Engineer-In-Charge shall be final from any sums that may then or any time thereafter become due to Contractor or from his security deposit or the proceeds of sale thereof or of a sufficient portion thereof.

2. From the commencement to completion of work Contractor shall take full responsibility for the care of the work including all temporary works and in case any damages, occur from any cause whatsoever he shall at his own cost, repair and make good the same so that on completion, work shall be in good order and in conformity, in every respect, with the requirements of contract and as per the instructions of the Engineer-In-Charge.

3. If at any time before the work is taken over, the Engineer-In-Charge -

a) Decide that any work done or materials used by the Contractor are defective or not in accordance with the contract or that work or any portion thereof is defective or do not fulfill the requirements of contract (all such materials being herein after called defects in this clause) he shall, as soon as reasonably practicably, give notice to Contractor in writing of the said defect specifying particulars of the same then Contractor shall at his own expense and with all speed make good the defects so specified.

b) In case Contractor fails to do so, owner may take, at the cost of the Contractor, such stops as may in all circumstances be responsible to make good such defects. The expenditure so incurred by owner will be recovered from the amount due to Contractor. The decision of Engineer-In-Charge with regard to the amount to be recovered from Contractor will be final and binding on the Contractor.

GC-10 <u>POWER OF ENGINEER-IN-CHARGE TO GIVE FURTHER INSTRUCTIONS</u>:

The Engineer-In-Charge shall have the power and authority from time to time and at all times to give further instructions and directions as may appear to him necessary or proper for the guidance of the Contractor and the works and efficient execution of the works according to the terms of the specifications, and the Contractor shall receive, execute, obey and be bound by the same, according to the true intent and meaning thereof, as fully and effectively as though the same had accompanied or had been mentioned or referred to in the specifications. No work which radically changes the original nature of the contract shall be ordered by the Engineer-In-Charge and in the event of any deviation being ordered, which in the opinion of the Contractor changes the original nature of the contract, he shall nevertheless carry it out and any disagreement as to the nature of the work and the rate to be paid to thereof shall be resolved.

The time of completion of works shall, in the event of any deviations being ordered resulting in additional cost or reduction in cost over the contract sum, be extended or reduced reasonably by the Engineer-In-Charge. The Engineer-In-Charge's decision in the case shall be final and binding.

GC-11 <u>PROGRAMME</u>:

The time allowed for execution of works shall be the essence of the contract. The contract period shall commence from the date of notice of intimation to proceed. The tenderer at the time of submitting his tender shall indicate in the construction schedule his programme of execution of work commencement with the total time specified. The Contractor shall provide the Engineer-In-Charge a

detailed programme of time schedule for execution of the works in accordance with the specifications and the completion date. The entire programme to be finalized by the Contractor, has to conform to the execution period mentioned along with the Bill of Quantities in the tender documents. The Engineer-In-Charge upon scrutiny of such submitted programme by Contractor, shall examine suitability of it to the requirement of contract and suggest modifications, if found necessary.

GC-12 SUB-LETTING OF WORK :

No part of the contract nor any share of interest thereon shall in any manner or degree be transferred, assigned or sublet by the Contractor directly or indirectly to any person, firm or Corporation whosoever except as provided for in the succeeding sub-clause, without the consent in writing of the owner.

GC-13 SUB-CONTRACTS FOR TEMPORARY WORKS ETC. :

The owner may give written consent to sub-contractors for execution of any part of the works at the site, being entered upon the contractor provided each individual contract is submitted to the Engineer-In-Charge before being entered into and is approved by him. List of sub-contractors to be supplied.
Not-withstanding any subletting with such approval as aforesaid and notwithstanding the Engineer-In-Charge shall have received of any sub-contractors, the Contractor shall be and shall remain solely responsible for the quality and proper and expeditious execution of the works and the performance of all the conditions of contract in all respects as if such subletting or subcontracting had not taken place and as if such works had been done directly by the Contractor.

GC-14 TIME FOR COMPLETION:

1. The work covered under this contract shall be commenced from the date the Contractor is served with a notice to proceed with the work and shall be completed before the date as mentioned in the time schedule of work. The time is the essence of the contract and unless the same is extended as mentioned in Clause GC-18 "Extension of Time", the Contractor shall pay liquidated damages for the delay.

2. The general time schedule for construction is given in the tender document. Contractor shall prepare a detailed weekly or monthly construction programme in consultation with the Engineer-In-Charge soon after the agreement and the work shall be strictly executed accordingly.

   The time for construction includes, the time required for testing, rectifications, if any, retesting and completion of the work in all respects to the entire satisfaction

of the Engineer-In-Charge except the items which are not coming in the way to commission the project.

Since work is to be carried without any disturbance of city supply the time limit of the work is splited as under:

Supply Installation, commissioning and testing 180 days

GC-15 EXTENSION OF TIME :

Time shall be considered as the essence of the contract. If, however, the failure of the Contractor to complete the work as per the stipulated dates referred to above arises from delays on the part of Corporation in supplying the materials or equipment, it has undertaken to supply under the contract or from delays on the quantity of work to be done under the contract, or force majeure an appropriate extension of time will be given by the Corporation. The Contractor shall request for such extension within one month of the cause of such delay and in any case before expiry of the contract period.

GC-16 CONTRACT AGREEMENT:

The successful tenderer shall enter into and execute the contract agreement within 15 (Fifteen) days of the notice of award, in the form shown in tender documents with such modifications as may be necessary in the opinion of the Corporation. It shall be incumbent on the Contractor to pay the stamp duty and the legal charges for the preparation of the contract agreement.

GC-17 LIQUIDATED DAMAGES :

If the Contractor fails to complete the work or designated part thereof within the stipulated completion date for the work or for the part, he shall pay liquidated damages at **0.1 percent** of contract value **per day** of delay subject to maximum of 10% of the contract value or as decided by Municipal Commissioner.

GC-18 FORFEITURE OF SECUEITY DEPOSIT:

Whenever any claim against the Contractor for the payment of a sum of money out of or under the contract arises, the Corporation shall be entitled to recover such sum by appropriating in part or whole, the security deposit of the Contractor. In case the security deposit is insufficient, the balance recoverable shall be deducted from any sum then due or which at any time thereafter may become due to the Contractor. The Contractor shall pay to the owner on demand any balance remaining due.

GC-19 ACTION OF FORFEITURE OF SECURITY DEPOSIT:

In any case in which under any Clause or Clauses of the contract, the Contractor shall have forfeited the whole of his security deposit or have committed a breach of any of the terms contained in this contract, the owner shall have power to adopt any of the following courses as he may deem best suited to his interest.

1. To rescind the contract (of which recession notice in writing to the contractor under the hand of the owner shall be conclusive evidence) in which case the security deposit of the Contractor shall stand forfeited and be absolutely at the disposal of the owner.

2. To employ labour and to supply materials to carry out the balance work debiting Contractor with the cost of labour employed and the cost of materials supplied for which a certificate of the Engineer-In-Charge shall be final and conclusive against the Contractor and 10% of costs on above to cover all departmental charges and crediting him with the value of work done at the same rates as if it has been carried out by the Contractor under the terms of his contract. The certificate of Engineer-In-Charge as to the value of the work done shall be final and conclusive against the Contractor.

3. To measure up the work of the contractor and to take such part thereof as shall be unexecuted out of his hand and give it to another Contractor to complete, the same. in this case the excess expenditure incurred than what would have been paid to the original Contractor, if the whole work had been executed by him, shall be borne and paid by the original Contractor and shall be deducted from any money due to him by the owner under the contract or otherwise and for the excess expenditure, the certificate of the Engineer-In-Charge shall be final and conclusive.

In the event any of the above courses being adopted by the owner, the Contractor shall have no claims for compensation for any loss sustained by him by reason of his having purchased or procured any materials or entered into any agreements or made any advance on account of or with a view to the execution of the work or the performance of the contract.

In purchase the Contractor shall not be entitled to recover or be paid any sum for any work actually performed under this contract unless the Engineer-In-Charge will certify in writing the performance of such work and the value payable in respect thereof and he shall only be entitled to be paid the value so certified.

In the event of the owner putting in force the powers as stated in a, b, c, above vested in him under the proceeding clause, he may, if he so desires, take possession of all or any tools and plant, materials and stores in or upon the works or the site thereof belonging to the Contractor, or procured by him and intended to be used for the execution of the work or any part thereof paying or

allowing for the same in account at the contract rates to be certified by the Engineer-In-Charge. The Engineer-In-Charge may give notice in writing to the Contractor or his representative requiring him to remove such tools, plant, materials or stores from the premises within the time specified in the notice and in the event of the Contractor failing to comply with any such notice, the Engineer-In-Charge may remove them at the Contractor's expenses or sell them by auction or private sale on account of the Contractor and his risks in all respects without any further notice as to the date, time or place of the sale and the certificate of Engineer-In-Charge as to the expense of any such removal and the amount of the proceeds and the expenses of any such sale shall be final and conclusive against the Contractor.

GC-20 IN THE EVENT OF DEATH OF THE CONTRACTOR :

Without prejudice to any of the rights or remedies under the contract, if the Contractor dies, the owner shall have the option of terminating the contract without compensation to the Contractor.

GC-21 MEMBERS OF THE OWNER NOT INDIVIDUALLY LIABLE :

No official or employee of the owner shall in any way be personally bound or liable for the acts or obligation of the owner under the contract, or answerable for any default or omission in the observance or performance of any acts, matters or things, which are herein, contained.

GC-22 OWNER NOT BOUND BY PERSONAL REPRESENTATIONS :

The Contractor shall not be entitled to any increase on the schedule of rates or any other rights or claims whatsoever by reason of representation, promise or guarantees given or alleged to have been given to him by any person.

GC-23 TERMINATION OF SUB-CONTRACT BY OWNER :

If any sub-contractor engaged upon the works at the site execute any work which in the opinion of Engineer-In-Charge is not accordance with the contract documents, the owner may by written notice to the Contractor request him to terminate such sub-contract and the Contractor upon the receipt of such notice shall terminate such sub-contracts and the latter shall forthwith leave the works, failing which, the owner shall have the right to remove such sub-contractors from the site.

No action taken by the owner under the above clause shall relieve the Contractor of his liabilities under the contract or give rise to any right to compensation, extension of time or otherwise.

GC-24 POWER OF ENTRY :

If the Contractor shall not commence the work in the manner previously described in the contract documents or if he shall at any time, in the opinion of Engineer-In-Charge –

i) Fail to carry out works in conformity with the contract documents, or
ii) Fail to carry out the works in accordance with the time schedule, or
iii) Substantially suspend work or the works for a period of seven days without authority from Engineer-In-Charge, or
iv) Fail to carry out and execute the work to the satisfaction of the Engineer-In-Charge, or
v) Fail to supply sufficient or suitable construction plant, temporary works, labour, materials or things, or
vi) Commit breach of any other provisions of the contract on his part to be performed or observed or persists in any of the above mentioned breaches of the contract for seven days after notice in writing shall have been given to the Contractor by the Engineer-In-Charge requiring such breach to be remedied, or
vii) Abandon the work, or
viii) During the continuance of the contract becomes bankrupt, make any arrangement or compromise with his creditors, or permit any execution to be levied or go into liquidation whether compulsory or voluntary not being merely a voluntary liquidation for the purpose of amalgamation or reconstruction then in any such case.

The owner shall have the power to enter upon the works and take possession thereof and of the materials, temporary works, constructional plant and stores therein and to revoke the Contractor's license to use the same and to complete the works by his agents, other Contractor or workmen, to relate the same upon any terms to such other person firm or Corporation as the owner in his absolute discretion may think proper to employ, and for the purpose aforesaid to use or authorize the use of any materials, temporary works, constructional plant, and stores as aforesaid with making payments or allowance to the Contractor for the said materials other than such as may be certified in writing by the Engineer-In-Charge to be reasonable and without making any payment or allowance to the Contractor for the use of said temporary works, constructional plant and stock or being liable for loss or damage thereto. If the owner shall be reason of his taking possession of the works or of the work being got completed by other Contractor incurred excess expenditure be deducted from any money which may be due for the work done by the Contractor under the contract and not paid for. Any deficiency shall forthwith be made good and paid to the owner by the Contractor and the owner shall have power to sell in such manner and for such price as he may think fit all or any of the constructional plant, materials etc., consist constructed by or belonging to and to recoup and retain the said deficiency or any part thereof out of the proceeds of the sale.

GC-25 OTHER AGENCIES AT SITE:

The Contractor shall have to execute the work in such place and condition where other agencies will also be engaged for other works, such as site grading, filling and leveling, electrical and mechanical engineering works etc. No claim shall be entertained for works being executed in the above circumstances.

GC-26 NOTICES:

Any notice under this contract may be served on the Contractor or his duly authorized representative at the job site or may be served by Registered Post direct to the official address of the Contractor. Proof of issue of any such notice could be conclusive of the Contractor having been duly informed of all contents therein.

GC-27 RIGHTS OF VARIOUS INTERESTS :

The owner reserves the right to distribute the work between more than one Contractor. Contractor shall co-operate and afford reasonable opportunity to other Contractor s for access to the works, for the carriage and storage of materials and execution of their works. Whenever the work being done by department of the owner or by other Contractor employed by the owner is contingent upon work covered by this contract, the respective rights of the various interests shall be determined by the Engineer-In-Charge to secure the completion of various portions of the work in general harmony.

GC-28 PRICE ADJUSTMENTS :

No adjustment in price shall be allowed and no price escalation will be allowed.

GC-29 PAYMENTS DUE FROM THE CONTRACTOR :

All costs, damages or expenses, for which under the contract, Contractor is liable to the Corporation, may be deducted by the Corporation from any money due or becoming due to the Contractor under the contract or from any other contract with the Corporation or may be recovered by action at law or otherwise from the Contractor.

GC-30 BREACH OF CONTRACT BY CONTRACTOR :

If the Contractor fails to perform the work under the contract with due diligence or shall refuse or neglect to comply with instructions given to him in writing by the Engineer-In-Charge in accordance with the contract, or shall contravene the provisions of the contract, the Corporation may give notice in writing to the Contractor to make good such failure, neglect, or contravention. Should the Contractor fail to comply with such written notice within 14 (fourteen) days of

receipt, it shall be lawful for the Corporation, without prejudice to any other rights the Corporation may have under the contract, to terminate the contract for all or part of the works, and make any other arrangements it shall deem necessary to complete the work outstanding under the contract at the time of termination. In this event, the performance Bond shall immediately become due and payable to the Corporation. The value of the work done on the date of termination and not paid for shall be kept as deposit for adjustment of excess expenditure incurred in getting the remaining work completed and the Corporation shall have free use of any works which the Contractor may have at the site at the time of termination of the contract.

GC-31 LAWS GOVERNING THE CONTRACT :

This contract shall be construed according to and subject to the laws of India and the State of Gujarat and under the jurisdiction of the Courts of Gujarat at Rajkot.

GC-32 OVER PAYMENT AND UNDER PAYMENT :

No over or under payment will be paid by RMC except penalty.

GC-33 EXECUTION OF WORK :

The whole work shall be carried out in strict conformity with the provisions of the contract document, detailed drawings, specifications and the instructions of the Engineer-In-Charge from time to time. The Contractor shall ensure that the whole work is executed in the most substantial, and proper manner with best workmanship using materials of best quality in strict accordance with the specifications to the entire satisfaction of the Engineer-In-Charge.

The erection work is required to be carried out without disturbing the city supply and as such pumping sets shall have to be erected one by one depending upon the time available. Under the circumstances, the erection work is required to be carried out in a phase manner. If there will be delay in the work due to Rajkot Municipal Corporation, the extension of time limit up to that extent will be given and for which no penalty will be imposed.

GC-34 DRAWINGS TO BE SUPPLIED BY THE CONTRACTOR:

Where drawings, data are to be furnished by the Contractor they shall be as enumerated in special conditions of contract and shall be furnished within the specified time. Where approval of drawings has been specified it shall be Contractor's responsibility to have these drawings got approved before any work is taken up with regard to the same. Any changes becoming necessary in those drawings during the execution of the work shall have to be carried out by the Contractor at no extra cost. All final drawings shall bear the certification stamp as indicated below duly signed by both the Contractor and Engineer-In-Charge.

Drawings will be approved within three (3 weeks of the receipt of the same by the Engineer-In-Charge.

GC-35 RESPONSIBILITIES OF CONTRACTOR FOR CORRECTNESS OF THE WORK :

The Contractor shall be entirely and exclusively responsible for the correctness of every part of the work and shall rectify completely any errors therein at his own cost when so instructed by Engineer-In-Charge. If any error has crept in the work due to non-observance of this clause, the Contractor will be responsible for the error and bear the cost of corrective work.

GC-36 ASSISTANCE TO ENGINEER-IN-CHARGE:

Contractor shall make available to Engineer-In-Charge free of cost all necessary instruments and assistance in checking of any work made by the Contractor setting out for taking measurement of work etc.

GC-37 ACCIDENTS :

It shall be Contractor's responsibility to protect against accidents on the works. He shall indemnify the owner against any claim for damage or for injury to person or property resulting from, and in the course of work and also under the provisions of the workman's compensation Act. On the occurrence of an accident arising out of the works which results in death or which is so serious as to be likely to result in death, the Contractor shall within twenty-four hours of such accident, report in writing to the Engineer-In-Charge, the facts stating clearly and in sufficient details the circumstances of such accident and the subsequent action. All other accidents on the works involving injuries to person or damage to property other than that of the Contractor shall be promptly reported to the Engineer-In-Charge, stating clearly and in sufficient details the facts and circumstances of the accidents and the action taken. In all cases, the Contractor shall indemnity the owner against all loss or damage resulting directly or indirectly from the Contractor's failure to report in the manner aforesaid. This includes penalties or fines, if any, payable by the owner as a consequence of failure to give notice under the Workman's Compensation Act, or failure to conform to the provisions of the said act in regard to such accidents.

In the event of an accident in respect of which compensation may become payable under the Workman's Compensation Act VIII of 1923 including all modification thereof, the Engineer-In-Charge may retain out of money due and payable to the Contractor such sum of sums of money as may in the opinion of Engineer-In-Charge be sufficient to meet such liability. On receipt of award from the Labour Commissioner in regard to quantum of compensation, the difference in amount will be adjusted.

GC-38. Prices should be written clearly in Figure and in Words proper space in "Price Schedule" of e-tender Price Bid of the e-Tender.

GC-39. Quoted price should be inclusive of all taxes and duties like GST, entry taxes, other applicable levies, and F.O.R. at Rajkot Municipal Corporation, Rajkot.

GC-40. An Earnest Money Deposit of Rs.89,300/- and Tender fee of Rs.3000/- (Non-refundable) in form of Demand Draft in favour of Rajkot Municipal Corporation, Rajkot, of any Nationalized or Schedule Bank located at Rajkot shall accompany along with the qualification's documents on Milestone date during office hours at Dy. Executive Engineer, Room no.12, West Zone, Rajkot Municipal Corporation, 150' Ring Road, Rajkot-360005. Without E.M.D. and tender fee in form of Demand Draft, e-tender will be rejected.

GC-41. e-Tender shall be valid for a period of not less than 180 days after the date of opening e-Tender Price Bid.

GC-42. The award of contract will normally be made within 180 days after the date of opening e-Tender Price Bid.

GC-43. e-Tender will be submitted online through e-tendering upto 18:00 hours IST on Milestone date and e-tendered Technical Bid will be opened on Milestone datge

GC-44. e-Tenderer should have to offer the firm prices in e-tender Price Bid for the prescribed item as per given in Technical Specification. Offer for the other item will not be considered and tender will be rejected.

GC-45. The inspection of all materials will be carried out at manufacturer premises by TPI in witness of RMC engineer.

GC-46. Successful e-tenderer shall have to pay the Security Deposit @ 10% of the awarded contract value in form of Fixed Deposit Receipt or Bank Guarantee of any Scheduled Bank or Nationalized Bank located in Rajkot, for a period of 70 (sevanty) months in the name of **Rajkot Municipal Corporation, Rajkot**, and shall have to enter into an agreement on a stamp paper of Rs. Prevailing norms of Government in favor of Rajkot Municipal Corporation in prescribed format of Rajkot Municipal Corporation.

GC-47. e-Tenderer shall have to complete contract within 180 days after getting firm Work Order otherwise penalty will be charged as per norms of Rajkot Municipal Corporation.

GC-48. Insurance shall be the responsibility of e-Tenderer. e-Tenderer shall provide coverage for all items against transits risk, Accident to acquisition, Transport delivery upto destination and accident in trial and testing.

GC-49. Any modification or any changes in work or technical specifications done by RMC's Engineer-In-Charge and e-tenderer have to follow these changes without any dispute and argument. (No extra cost will be given for the modifications or changes).

GC-50. e-Tenderer have to furnish all Drawings and Certificates and Xerox copies of bills those are required and demanded by Engineer of Rajkot Municipal Corporation.

GC-51. e-Tenderer can contact for more information and details regarding tender to the Deputy Executive Engineer, West zone, Room No.-12, Shree Harisinhji Gohil Bhavan,Rajkot Municipal Corporation, 150' Ring Road, Rajkot-360005. Mobile No. 9723451964.

GC-52. **TAXES:**

No concessional 'P' or 'C' form shall be issued by Rajkot Municipal Corporation. Rate of GST applicable should be mentioned. If the firm is exempted from the payment of GST the certificate for the same should be attached. All the transit losses and breakage shall be suppliers risk and cost.

GC-53. **TENDER EVALUTION:**

Tender will be evaluated according to total price of all items of submitted price bid of qualified bidders. The tender quantity is approximate; payment will be made of actual consummated quantity.

GC-54. **PRICE PREFEENCE:**

No price preference will be given to SSI units or Khadi Gramudhyog Units.

GC-55. **JURISDICTION:**

In the event of any dispute or difference arising out of this e-tender / contract, the jurisdiction of the Court shall be Rajkot (Gujarat) only. While executing the agreement, the supplier shall be governed at all times by all laws, regulations etc., in force in Gujarat State.

GC-56. **DISPUTE:**

In the event of any problem, dispute or difference arising out of or under this contract, the decision of the Municipal Commissioner, Rajkot Municipal Corporation, Rajkot, will be final and binding to the parties to this contract.

GC-57. STATUTORY VARIATIONS:

The price of the work quoted by the e-tenderer will be on the basis of current taxes and levies. If there will be any increase / decrease in the statutory tax / levies Govt. on the finished products that will be to the account of consignee i.e. **Rajkot Municipal Corporation**, and same will be paid by **Rajkot Municipal Corporation** on receipt of necessary documentary evidence from the supplier.

GC-58. NON-BLACK LISTING BOND:

The manufacturer has to furnish the undertaking on the non-judicial stamp paper of Rs.300/- duly Notarized regarding his firm is not black listed in anywhere in India at the time of e-tendering. This undertaking should be submitted online as well as hard copy.

GC-59. Conditional offer will not be accepted and same will be treated as non-responsive.

GC-60. LIQUIDATED DAMAGES:

In the event of the failure of the supplier to offer the material for inspection under the supply order in the stipulated time limit and also in case of the said material not reaching at the destination in the time limit as stipulated in clause 14 above. Rajkot Municipal Corporation will charge liquidated damages at the rate not exceeding 1% of the cost of delayed material per week for the period of the delay in causing the delivery there of at the destination in accordance with the stipulations under this contract. The maximum amount of liquidated damages so recoverable shall not exceed 10% of the cost of material under the supply order.

GC-61. e-TENDER AGREEMENT:

The e-tenderer shall be required to enter into an agreement for due performance of the contract. The stamp duty on all documents to be executed in connection with this rate contract to be entered into shall be borne by supplier. The security deposit (SD) in form of FDR / Bank Guarantee shall be deposited for required value. The contract agreement will have to be executed on a stamp paper of appropriate value as per value orders in force for the time being.

(i) EMD of the first lowest firm/company will be forfeited if they fail to enter into agreement within prescribed time limit for entering into agreement.

GC-62. **GUARANTEE:**

The supplier at the time of entering into contract shall give a full guarantee against all technical and manufacturing defects in all materials supplied and operational defects, free replacement of defective materials at his own cost up to a period of 60 months from the date of Completion of work. Guarantee also includes any problem in Pump set with all Ele–Mech accessories supply by contractor should attend and repair, rectify such problem within 3 (three) Days on site after intimation. If contractor wants to take the pump set at his own workshop or Manufacturer's workshop, all dismantling of pump set, to and fro transportation, installation, parts replacement and repairing should be carry out by contractors at his own cost. No any payment will be made by RMC. If repairing time will take more than 15 days, Contractor have to make the arrangement for same capacity of pump set. Failing which penalty will be charge Rs. 2000/- per day per pump set.

GC-63. **EXTENSION OF DELAY:**

If the supply is delayed by (1) Force Majeure, (2) Serious losser damage by fire, (3) Strike, Lockdown, Bandh, Curfew, Rally, Heavy rains, Flood, Cyclone, Earthquake or Natural Calamities occurs, (4) Electricity staggering, (5) Any other case, which is beyond the control of contractor. Municipal Commissioner will decide period of delay extension.

GC-64. Municipal Commissioner, Rajkot Municipal Corporation, Rajkot, reserves the right to accept or reject any or all the e-tender(s) without assigning any reasons thereof.

GC-65. e-Technical Bid will be opened online on Mile stone date onwards and after evaluation of e-Technical Bid, e-Price Bid will be opened only of those e-tenderers who will be qualified in e-Technical Bid evaluation. E-Price bid will be open those e-tenderers who will be qualified in e-technical bid evaluation.

GC-66. **GUARANTEE:**

Supplier shall provide a guarantee of 60 (Sixty) months from the date of Completion of work.

Dy. Executive Engineer
Water Works, West Zone
Rajkot Municipal Corporation

Add. City Engineer
Water Works
Rajkot Municipal Corporation

TECHNICAL

SPECIFICATIONS

& TERMS

GENERAL TECHNICAL CONDITIONS & REQUIREMENTS

1 SCOPE OF CONTRACT:

1.1 This specification covers the manufacturing, testing at manufacturer's site, delivery at site, unloading, handling and storage at site, complete erection, final checkup painting, testing and commissioning of pumping machineries on floating barge with electrical & mechanical equipment's like motor control center with other panel etc. with valves, suction and discharge pipe, expansion bellow, power and control cable wiring and grounding (earthing) systems and MS structure, and associated accessories to be supplied under this contract and subsequent maintenance of Five years to achieve a guaranteed performance coordinated with commercial conditions of the contract to the entire satisfaction of RMC.

1.2 Any minor / hidden item of work either supply and / or erection of materials / equipment which have not been specifically mentioned in the specifications but are necessary to complete the work for trouble free and efficient operation and guaranteed performance of the entire plant / system / equipment offered shall deemed to be included within the scope of this contract and shall be provided by contractor without any extra price to the RMC.

1.3 The project information is indicated in the enclosed specification. It is advisable that the bidder should visit the site and apprise himself of all the site conditions prior to preparing the bid.

2 EQUIPMENT AND SERVICES TO BE INCLUDED BY CONTRACTOR UNDER THESE SPECIFICATIONS:

2.1 Mechanical and electrical works required at various pumping stations under regional water supply scheme.

2.2 Pumping machineries, floating barge/pontoon, flexible hose pipe, panel room with all the accessories as per specifications and data sheets. Suction and discharge MS pipe work, flexible hose pipe including fittings from outlet is in to the vendor's scope as indicated by the RMC with necessary pipe support etc shall be included in the offer.

2.3 C.I. Sluice Valves, butterfly valves, DPC Valves, Air valves, expansion bellows etc. as per specifications.

2.4 Panel with Soft starter Panel, MCC panel as per specifications.

2.5 Power and panel cables, cable trays etc as per specifications and requirement for the pumping stations.

2.6 Earthing systems for the pumping station as per specification and requirement.

2.7 L. T. electrical wiring with XLPE cable etc.

2.8 The contractor shall take the responsibility for all the testing and inspections at manufacturer's works to be conducted in manner as specified in this specification in the presence of RMC's representative. The inspection will be at the cost of contractor. The third party inspection shall also be carried out in the presence of the RMC representative i.e. jointly and inspection charges of third party agency shall initially be born by RMC.

2.9 Transportation of all equipments packed in the specified way from the manufacturer’s works to the project site inclusive of all intermediate handling.

2.10 Unloading of equipments from railway wagons / trucks at site handling and proper storing at site in the approved way under security.

2.11 Opening of package, checking, tallying, sorting out and inspection of equipment received at the site and lodging of insurance claims if any.

2.12 Taking delivery of equipments / materials from contractor’s site stores, transportation to erection site. If erection is delayed arrange for proper storage of the equipment / material in approval ways.

2.13 Erection inspection testing start up and running of the equipment and complete plant at guaranteed performance.

2.14 Erection of pipe and valves including all necessary hot deep GI bolts, nuts sleeves insert plate etc to complete the piping system.

2.15 Furnishing all erection and commissioning supervision service. The contractor shall also arrange for maintenance of equipment during guarantee and commissioning period.

2.16 The contractor shall also arrange technical expert of equipment from proprietary supplier to site as and when felt necessary until the commissioning guarantee run of the plant is completed.

2.17 In case of range in the motor rating depending on the efficiency of the rating of the associated electrical equipment shall be modified accordingly.

2.18 Initial filling of oil lubricants, grease etc for the equipment.

2.19 Require Nos. of all relevant drawings, Data and instruction manuals.

2.20 All ancillary work as per price bid.

2.21 Routine maintenance, break down maintenance inclusive of cost of replacement spares & materials of pumping station by qualified technicians, operators and electricians for Five years from the date of commissioning.

2.22 Any item of work either supply and / or erection of material equipment which have not been specifically mentioned in the specification but if necessary to complete the work for trouble free and efficient operation and performance of the entire plant / system / equipment offered, shall deemed to be included within the scope of his contract and shall be provided by contractor without any extra cost to the RMC.

3. THIRD PARTY INSPECTION:

Inspection and testing of the major electro - mechanical equipments such as SCF/V.T. pumping machineries, Induction Motors, Cubicle control panel, LVDB, Valves, shall be carried out by third party inspection agency in the presence of RMC's representative (i.e. jointly) at manufacturers' works. QAPs along with manufacturers' cross sectional drawings, characteristic curves (if any), material (s) of construction etc. for expansion bellows, motorized chain pulley blocks etc. shall have to be submitted by the bidder & get them approved prior to their procurement invariably.

3.1 That the equipment installed complies with specification in all particulars and is of the correct rating for the duty and site conditions.

3.2 That all items operate efficiently and quietly to meet the specified requirements.

3.3 That all non current carrying metal work is properly and safely grounded in accordance with the specifications. The contractor shall provide all necessary instruments and labour for testing and shall make adequate records of test procedures and readings, shall repeat any tests requested by the consultant / RMC and shall provide test certificates signed by a properly authorized person such test certificates shall Cover all works.

3.4 It tests fail to demonstrate the satisfactory nature of the installation or any part thereof then no claims for the extra cost of modifications, replacements, or retesting will be considered. RMC's decision as to what constitutes a satisfactory test shall be final. The above general requirements as to testing shall be read in conjunction with any particular requirements specified elsewhere.

TECHNICAL SPECIFICATIONS OF VERTICAL TURBINE CENTRIFUGAL PUMP AND INDUCTION MOTOR

1.0 VERTICAL TURBINE CENTRIFUGAL PUMP

GENERAL:

The Pump shall be single or multi stage, wet pit, Centrifugal, Vertical shaft, Vertical Turbine type designed and manufactured to operate without affected by large water level fluctuations and pumping Raw/potable water with suction strainer, bell mouth, column assembly, discharge elbow, motor stool, thrust bearing, non-reversing device, etc. Pump shall be directly coupled to motor through coupling, mounted on motor stool, sole plates with foundation bolts and all other required accessories.

The vertical turbine pump shall comply to all currently applicable statutes, regulations and safety codes and shall conform to IS 1710 or its latest edition.

The pump shall be designed to operate satisfactorily without detrimental surges, vibration, noise or dynamic imbalance over the required Head-Capacity range. The head-capacity curve of the pump shall have continuously rising head characteristics with decreasing capacity over the whole performance range of pump. The shut off head of the pump shall be at least 120% of the total head.

The pump shall be selected in such a way so that operating point shall lie on best efficiency point (BEP) or within 20 % of BEP flow on either side meeting minimum submergence requirement.

The pump shall be selected with intermediate diameter of Impeller. The rated impeller diameter shall be at least 10 mm smaller than the maximum Impeller dia. possible for the offered pump model. The pump selected for rated performance below minimum Impeller diameter shall not be accepted.

The pump shall be suitable to run with minimum submergence water level recommended by pump manufacturer throughout its performance range of rated impeller without cavitation and vibration.

Each pump must be capable of running satisfactorily in parallel with other sets in the system without throttling and by itself, without cavitations or overload under all operating conditions within the system resistance indicated. All pumps shall have identical performance.

The pump shall be designed to start with delivery valve fully open.

The unit shall be designed to operate safely at the maximum speed attainable in the reverse direction of rotation due to water returning through the pump at times when the power supply to the motor is interrupted and the discharge valve fails to close.

Pump's rotating assembly shall be statically and dynamically balanced as per ISO standards and shall run smooth without undue noise and vibration. The velocity of vibration shall be within the 4.5 mm/sec. Noise level shall be limited to 85 dB A at a distance of 1.5 m

The power rating of motors to drive pumps shall be suitable to meet maximum requirement of power for the rated impeller throughout its' performance range with min. reserve power margin of 10%.

FEATURES OF CONSTRUCTION:

The Pump unit assembly shall be consisting of suction strainer, bell mouth, impellers, Impeller/pump shaft, Shaft sleeves, bowl assembly comprising of suction covers, bowl / s, pump shaft bearings, wear rings, etc. The bowl shall have integral housing to provide support for pump shaft bearings.

The column assembly shall consist of the column pipes, separate bearing spiders to hold Line bearings, line bearings, Line shafts, couplings, shaft sleeves, shaft enclosing tubes, etc. to convey the liquid handled from bowl assembly to shaft assemblies and discharge elbow.

The discharge head assembly shall consist of discharge head with side discharge flange, stuffing box assembly, motor/drive shaft, thrust bearing assembly with bearing cooling system, etc.

BOWL:

The Pump bowl shall be of robust construction and free from blow holes and other detrimental defects. Liquid passages shall be designed to allow free passage and finished smooth. Bowl shall be provided with replaceable wearing rings / suction covers and shall contain bushes to serve as bearings for the impeller shaft.

IMPELLER:

Impeller shall be enclosed / semi open type, single suction type with smooth and large ways so as to allow free passage to the fluid being pumped. It shall be free from sharp corners and projections likely to catch and hold rags and stringy materials. Impeller shall be statically and dynamically balanced at rated speed as per applicable standard so as to avoid vibration. Impellers shall be adjustable vertically by means of an adjusting nut in the head assembly.

Impeller shall be securely fastened to the impeller shaft with keys, taper bushings or lock-nuts.

The impeller adjustment shall be such that the impeller runs free in any installed condition despite extension of line shaft (caused by hydraulic down thrust), the weight of shafting and weight of impellers.

The bowl & impeller shall be designed not to generate internal resonance.

IMPELLER SHAFT:
The impeller/pump shaft shall be made of high tensile alloy steel having min. 230 BHN hardness. It shall be guided by shaft bearings above and below each impeller. The butting faces of the shaft shall be machined square to the axis and the shaft ends shall be chamfered at the edges.

LINE SHAFT:
The line shaft shall be designed so as to transfer required power and rotate the complete rotating assembly from stand still to rated speed without generating any vibration, noise or shear of shaft.

The critical speed of the shaft shall be at least 30 % lower or above the operating speed.

The shaft shall be furnished with interchangeable sections having a nominal length of 1.5 / 2.5 m. The maximum permissible error in the axial alignment of the thread axis with the axis of the shaft shall be 0.05 mm in 150 mm.

Line shafts shall be connected through threaded couplings designed with a safety factor of 150 % of shaft factor and shall have positive locking/tightening during pump operation.

LINE SHAFT BEARINGS:
Line shaft bearings shall be of Thordon type, in general, with outer shell of brass. Anti-friction bearing shall be of standard type and shall be selected to give 20000 hours continuous operation at rated conditions.

The Line shaft bearings shall be housed in bearing spider (in case of self-lubricated pumps) and sandwiched between flanges of two consecutive column pipes. Bearing spiders shall be designed to support & locate the line shaft in the center.

Line shaft bearings holding arrangement shall not be a integral part of column pipes.

COLUMN PIPE:
The standard lengths of column pipe shall be same as of line shaft nominal length, i.e. 1.5 m / 2.5 m maximum. No part in the column pipe such as the flange outside dia. shall exceed the bowl outside dia. The column pipe shall be welded Mild Steel pipe or shall be manufactured from tubes confirming to IS 1978 or grade A of IS 2062 with internally & externally epoxy coated. The column pipe shall be double flanged ended.

SHAFT SLEEVE:
Replaceable shaft sleeves shall be provided for each line/transmission shaft bearing and shall be securely locked or keyed to the shaft to prevent loosening.

STUFFING BOX:
Pump shall be provided with stuffing box arrangement for shaft sealing.

Pump when required with gland packed Stuffing box; same shall be of such design that they can be repacked without removal of any part other than gland and lantern ring. Stuffing box drain with pipe connection shall be provided at the lowest point so that no leakage accumulates in it. Lantern ring shall be sandwiched between packing and shall be easily removable. Lantern ring shall be of axially split type and shall be sealed with self liquid being pumped or as recommended by the pump manufacturer. Necessary pipe connections and piping for this shall be provided by pump manufacturer. Gland shall be of split type. Gland bolts and nuts shall be of SS.

THRUST BEARINGS:
Pump shall be provided with anti friction Thrust bearings. The whole rotating assembly of pump shall rest on minimum one bearing for smooth operation. Bearings shall be easily accessible for inspection and maintenance. Bearings shall be of SKF / FAG make only.

COUPLING:
The pump shall be coupled with electric motor mounted on a MS /CI motor stool using pin bush type coupling of KTR / Rathi / Fenner make only. Coupling shall be statically and dynamically balanced at rated speed.

DRIVER:
Driver shall be coupled through flexible coupling to the head shaft.

MATERIAL OF CONSTRUCTION:
The specific requirement shall be considered as under:

Bowl/Suction cover	CI IS210 Gr. FG 260 with 2% Ni
Pump Shaft	AISI 316
Line/Head Shaft	AISI 410
Shaft sleeve	AISI 410
Impeller	CF8M
Impeller wear ring, if applicable	SS 316
Casing wear ring, if applicable	CI IS210 Gr. FG 260 with 2% Ni
Shaft Seal	Gland Packed
Lantern Ring	Bronze, IS 318, Gr LTB
Length of each Line Shaft & Column Pipe	1.5 / 2.5 m
Motor Stool	CI / MS - Epoxy Coated
Sole plates	CI / MS - Epoxy Coated

INDUCTION MOTOR:

CODES AND STANDARDS:
The design, material, construction, manufacture, inspection, testing and performance of induction motors shall comply with all currently applicable status, regulations and safety codes

in the locality where the equipment will be installed. The equipment shall also confirm to the IS 325 and IS 12615-2011 or latest applicable standards.

GENERAL DESIGN AND CONSTRUCTION REQUIREMENTS:

Motors preferably designed for low starting current and smooth acceleration except for cases where the driven equipment characteristic demands otherwise. Motors shall be of 4/6/8 pole design as required and provided with terminal box large enough to accommodate armored PVC/XLPE insulated Alluminium conductor of appropriate size / ratings. Motors shall be of energy efficient design of IE2/IE3 as per IS:12615-2011.

Motors shall be foot / flange mounted or as per pump/driven equipment coupling requirements and squirrel cage induction type and shall be capable of developing at least minimum 10% more power than demanded by the VT Pump over its duty point of operation.

OPERATING CONDITIONS:

1) Frequency and Voltage Variation

Induction motor shall be suitable for the following.

Supply voltage	:	415 Volts, 3 Phase, 50 Hz AC supply
Voltage variation	:	$\pm$ 10%
Frequency variation	:	$\pm$ 5%
Combined variation of Voltage & Frequency	:	10%
Design Temperature	:	50° C

2) Starting

a) Motors shall be designed for re-acceleration under full load after momentary loss of voltage with the residual voltage being 100% and is in phase opposition to the applied voltage.

b) Minimum locked rotor thermal withstand time at rated voltage shall be 10 seconds under cold conditions and 8 seconds under hot conditions. The starting time of motor shall be less than the hot thermal withstand time to permit application of conventional bimetal relays or thermal release against locked rotor and overload conditions.

c) The motors shall be suitable for starting under specified load conditions with 75% of rated voltage at the motor terminals.

3) Direction of Rotation

Motors shall be suitable for either direction of rotation. In case unidirectional fan is provided for motors, direction of rotation for which the motor is designed shall be permanently indicated by means of an arrow.Normally clockwise rotation is desired as observed from driving (coupling) end. Ample space shall be provided in terminal box for interchanging any two external leads for obtaining reverse phase sequence.

CONSTRUCTIONAL DETAILS:

Motor Casing and Type of Enclosure

- The motor enclosure including terminal boxes and bearing housing shall have IP:55 degree of protection.
- Motor casing shall be provided with a suitable drain for removal of condensed moisture for motors operating in safe area.
- Vertical motors shall be provided with suitable canopies covering the motors fully. Motors designed to handle external thrust from the driven equipment shall be supplied with a thrust bearing at the NDE.
- Motors shall have standard frame sizes for various output ratings as per IS.
- All external surfaces of the motor and it's canopy shall be given a coat of epoxy based paint shade 632 as per IS.

WINDINGS:

Insulation and bracing

- Motors shall be provided with class 'F' insulation with the permissible temperature rise above the specified ambient temperature shall be limited to class 'B'.
- The winding shall be tropicalized. The windings shall preferably be vacuum impregnated. Alternately the windings shall be suitably varnished, baked and treated with epoxy gel for operating satisfactorily in humid and corrosive atmosphere.
- Windings shall be adequately braced to prevent any relative movement during operation.
- Overhung of winding shall be DOUBLE coated with epoxy gel.

Bearing and Lubrication

Motors shall have grease lubricated ball or roller bearings with minimum L-10 rating life of 5 years (40,000 hours) at rated operating condition. Bearings shall be capable of grease injection from outside without removal of covers with motors in running condition. Necessary seal to prevent entry of dust/moisture and loss of grease shall be provided. Grease nipples shall be provided with appropriately located relief devices which ensure passage of grease through the bearings.

Cooling System

Motors shall be self-ventilated, fan cooled.

Rotor

The motor shall be squirrel cage type, dynamically balanced to provide a low vibration level and long service life of the bearings.

Shaft Extension

Motors shall be provided with a single shaft extension with key-way and full key. Motor shaft shall be sized to withstand 10 times the rated design torque.

Lifting Hook

All motors shall be provided with lifting hook of adequate capacity.

Earth Terminals

Two earth terminals of adequate size, located preferably on diametrically opposite sides shall be provided for each motor. Necessary nuts and spring washers shall be provided for earth connection.

MOTOR TESTING:

Testing of motors shall comply with the requirements of IS:4029. Motor shall be subjected to all routine tests as per IS 12615-2011/ applicable standard, shall be carried on the motors in OEM factory, in witness of client / TPI agency. All type tests certificates shall be furnished during factory test. Generated values of efficiency and power factors at full load and ¾ load shall be furnished by the tenderer.

2.0 SUBMERSIBLE CENTRIFUGAL PUMPS

GENERAL

The Pump shall be submersible, single stage, centrifugal, corrosion resistance with vertical shaft suitable for permanent installation in Floating barge system along with Submersible motor and submersible cable of specified length. The pump and motor shall be as one unit together with impeller mounted on extended shaft of motor.

The pump shall be designed to pump Raw water and operate satisfactorily without detrimental surges, vibration, noise or dynamic imbalance over the required Head-Capacity range. The head-capacity curve of the pump shall have continuously rising head characteristics with decreasing capacity over the whole performance range of pump. The shut off head of the pump shall be at least 120% of the total head.

The pump operating point shall lie on best efficiency point (BEP) or within 15 % of BEP flow on either side meeting NPSH requirement. **Pump selected with duty point lying on right side of BEP beyond 15 % limit shall not be accepted.**

The rated impeller diameter shall be at least 10 mm smaller than the maximum Impeller dia. possible for the offered pump model. **The pump selected for rated performance below minimum Impeller diameter shall not be accepted.**

The pump shall be suitable to run with minimum submergence water level recommended by pump manufacturer throughout its performance range of rated impeller without cavitation and vibration.

Each pump must be capable of running satisfactorily in parallel with other sets in the system without throttling and by itself, without cavitations or overload under all operating conditions. All pumps shall have identical performance.

The pump shall be designed to start with delivery valve fully open.

The pump shall be designed to operate safely at the maximum speed attainable in the reverse direction of rotation due to liquid returning through the pump.

Pumps' rotating parts & assembly shall be statically and dynamically balanced as per ISO standards and shall run smooth without undue noise and vibration. The velocity of vibration shall be within the 4.5 mm/sec. Noise level shall be limited to 80 dBA at a distance of 1.0 m.

The Pump –set must be easily installed and dismantle in floating barge system at nyari-1 dam site.

The power rating of motors to drive pumps shall be suitable to meet maximum requirement of power for the rated impeller throughout its' performance range and including min. 10 % or higher reserve power margin as specified elsewhere in the tender.

FEATURES OF CONSTRUCTION

Pump shall be Vertical/Horizontal Submersible centrifugal, single stage suitable for permanent installation in floating barge system having bottom suction and side discharge nozzle. The pump and motor shall be as one unit together with impeller mounted on extended shaft of motor.

CASING
Pump casing shall be volute type of robust construction and designed for high efficiency. Liquid passages shall be designed to allow free passage and finished smooth. The tongue shall be straight across and filed to a smooth rounded edge. Casing shall be provided with wearing rings / wear plates.

IMPELLER
Impeller shall be enclosed/semi-open, single suction with smooth and large ways.

Impeller shall be statically and dynamically balanced at rated speed as per applicable standard so as to avoid vibration. The Impeller shall have back vanes or suitable features to balance axial thrust.

Pump having semi open impeller shall be provided with suitable wear plate fixed in casing with adjusting bolts & nuts.

IMPELLER NUT
Impeller shall be fixed on rotating shaft with the help of SS 316 impeller screw or cap top type impeller nut with helicoil insert and washer.

SHAFT SLEEVE
If provided as per manufacturer design, shaft sleeves shall be replaceable and shall be securely locked or keyed to the shaft to prevent loosening. Necessary rubber 'O' ring or CAF / Teflon gaskets shall be provided between impeller and shaft sleeve to prevent liquid passage between shaft and sleeve

MECHANICAL SEALS
Double mechanical seals shall be provided to protect the motor from ingress of handaled water along the shaft. The preliminary and secondary seals shall be oil-lubricated. The seal faces of the preliminary seal shall be of either tungsten carbide or silicon-carbide faces while the secondary seal can be of carbon versus chrome steel or tungsten carbide. Pumps shall be equipped with an electrical monitoring system for seal failure detection. Use of Lip seals or back to back seals is not allowed. The mechanical seals shall be bi-directional.

BEARINGS
Pump set shall have double anti friction grease lubricated bearings. The bearings life shall be minimum 40,000 hrs of operation. Bearings shall be greased for life –i.e. shall not require any re-greasing. Bearings shall be of SKF / FAG / NBC make only.

LIFTING HOOK
To "fish out" a vertical submerged pump set from the wet well (even if a chain has not been attached to the lifting hook prior to the pump set being lowered) the pump shall have a self centering lifting hook. Its design shall be such that the lifting chain's hook can be engaged to the pump's lifting hook without the need for man to enter the wet well. This hook shall be of corrosion resistant stainless steel.

INDUCTION MOTOR (Submersible)
The submersible motor shall be Induction, Squirrel Cage, and Dry type, designed for continuous operation (S1 duty) capable of working satisfactorily in liquid immersion. Motor shall be capable of giving rated output without reduction in the expected life span when operated continuously under the following Electrical Supply conditions:

(i) Variation of supply voltage from rated motor voltage +/- 10%
(ii) Variation of supply frequency from rated frequency +/- 5%
(iii) Combined voltage and frequency Variation +/- 10%

Degree of protection of motor shall be IP 68. The power rating of the motor shall be min. 110 % of power required by the rated impeller on its entire performance range or higher reserve power margin as specified elsewhere in the tender.

The starting current of motor shall not exceed 200% of rated full load current for star/delta starting under any circumstances. Motor shall be suitable for full voltage & star-delta starting. Motor shall be capable of starting and accelerate the load with the applicable method of starting, without exceeding acceptable winding temperature, when the supply voltage is in the range 85% of the rated motor voltage to maximum permissible voltage. The locked rotor current of the motor shall not exceed 600% of full load current (subject to tolerance as per the applicable standard) unless otherwise specified. Motors shall be designed to withstand 120% of rated speed for two minutes without any mechanical damage, in either direction of rotation. The motor vibration shall be within the limit specified in applicable standard unless otherwise specified for the driven equipment. Except as mentioned herein, the guaranteed performances of the motor shall be met with tolerances specified in applicable standards.

Any joints in the motor insulation such as at coil connection or between slot and end winding section, shall have strength equivalent to that of the slot section of the coil. The insulation shall be given tropical and fungicidal treatment for successful operation of the motor in hot, humid and tropical climate. The tropical treatment shall be as per the applicable standard.

The stator winding shall be made from high conductivity annealed copper conductor, super enameled insulated winding wires conforming to IS 8783-1978 for dry type motors. The stator winding shall be of high conductivity annealed copper enameled insulated wires conforming to IS 4800 (part-VII): 1970 for dry type motors. The corresponding Class of insulation shall be "F" for motor ratings up to 120 hp & Class "H" for larger ratings – however for motors to be operated on VFD's , only Class "H" insulation is allowed.

The temperature-rise test of the motor may be taken with the pump at the duty point at the full load output of the motor. When the various temperatures are stabilized, the set is stopped and the temperature-rise of the stator winding by the resistance method shall not exceed 80ºC even for Class "F" or Class "H" insulated motors.

As the cable resistance method, due care is taken to account for the correct hot and cold resistance of windings.

If these pump's motors are to be used with Variable Speed Frequency drives (VFD's) than :

- The motor insulation shall be Vacuum Varnish Impregnated instead of Dip Varnishing or Trickle Varnishing with double insulation coating.
- The motor insulation is to be of Class "H" only
- Current insulated bearing/s (preferably NDE) are desired & compulsorily required for motor ratings above 200kW.

Terminal box shall be of IP 68 type construction to eliminate entry of water and dust. The terminal shall be the stud type with necessary plain washer, spring washers and check nuts. They shall be substantially designed for the current carrying capacity and shall ensure ample phase to phase to ground clearance.

PROTECTION

Protection against increase in stator winding temperature (15 Deg. C) shall be provided. Minimum three number thermostats / bimetallic switches in series shall be provided to sense the stator winding temperature.

Sensors are to be provided to detect if leakage of water into the oil housing is above 30% concentration. Bimetallic thermal switch to trip the motor against increase in temperature shall be provided.

The required control unit to process these safety signals & with potential free contact o/p for alarm / trip shall be provided by vendor for suitable interlocking in starter circuit and /or PLC.

SUBMERSIBLE CABLE

A watertight Cable Junction Box sealed from the motor shall be provided for the motor power and signaling cables. The cable shall be of sufficient length and shall be brought out of the submerged motor without joint to terminate in junction box / control panel, located in LT panel room /outside the wet well.

Power as well as Control Cables shall be of Dual Sheathed EPRS / PVC Armored type with required no. of Copper Core, round type and of required size as per design requirement.

The power cable shall be PVC insulated and PVC sheathed, flexible, 3.5/4.0 core round type. The size of the conductor shall be adequate for continuous use under water and air. Cable half/full core as per design to be used for earthing. The size of the conductor and length of cable shall be suitably selected so that the voltage drop at motor terminals does not exceed 3 percent of the rated voltage.

The control cable shall be PVC insulated PVC sheathed, flexible, round type and shall be adequate for continuous use under water and air. The control cable for stator winding temperature sensor (Thermostats/ bimetallic switches) of 3 core X 1.5/2.5 sq.mm copper conductor and for bimetallic thermal switch with 2 core X 1.5/2.5 sq.mm copper conductor shall be provided or as required as per design. Similarly control cable for level sensor shall be 2 core X 1.5/2.5 sq.mm copper conductor shall be provided or as required as per design. Accordingly suitable multi core control cable shall be provided with minimum 1 spare core.

Earthing of the motors shall be done in accordance with the relevant provisions of IS:3043-1966 for the purpose of earthing these motors, earthing connection may be made to discharge pipe.

MATERIAL OF CONSTRUCTION

The specific requirement shall be considered as under:

Casing, Casing Cover	CI IS210 Gr FG 260
Casing wear ring/wear plate/ Suction Cover	CI IS210 Gr FG 260
Oil chamber/ Motor casing	CI IS210 Gr FG 260
Shaft	AISI 410
Shaft sleeve	AISI 316 (if applicable)
Impeller / Impeller Nut	CF 8 M
Shaft Seal	Mechanical Seal
Auto Coupling Unit	CI / DI
Motor Cooling	By surrounding liquid
Motor Rotor (up to 90 kW rating)	Copper Bar base/Aluminum Die cast.
Motor Rotor (above 90 kW rating)	Copper Bar base.
Lifting Chain	SS-304 of suitable length

3.0 TECHNICAL SPECIFICATIONS OF SLUICE VALVES

Design Requirements and construction Features:
Valve shall be **rising spindle** type, PN 1.6 rating in general, free from sharp projections which are likely to catch and hold stringy materials.

Body of the valve shall be designed for 1.5 times the rating of the valve.

Valve flange face shall be parallel to each other and flange face should beat right angle to the valve centerline.

Back side of valve flange shall be machined or spot faced for proper seating of bolt head and washer & nut.

Wherever extension spindle is provided, the valve shall also be provided with suitable headstock.

Valve shall close with clockwise rotation of the hand wheel. The direction of closing shall be marked on the hand wheel.

Valve shall be non rising spindle type and rated for nominal pressure of PN 1.6

Accessories shall be provided as under:
1. Valves above 300 mm size shall be provided with Repacking arrangement as per IS 14846.
2. The Valves 600 mm & above size shall have channel and shoe arrangement as per IS 14846.
3. The Valves above 500 mm size shall have by pass arrangement as per IS 14846.
4. The Valves 450 mm size & above shall have spur / bevel gear arrangement as per IS 14846.
5. All Valves shall have valve's OPEN / CLOSE indicator arrangement as per IS 14846.

Materials of Construction

a) Body and wedge	:	CI to IS 210 GR FG 200/260
b) Spindle Nut	:	Bronze to IS 318 Gr LTB2
c) Spindle	:	SS to BS 970 Gr 304 S16
d) Seat rings	:	SS to BS 970 Gr 304 S16
e) Back seat bush	:	Bronze to IS 318 Gr LTB2
f) Shoe & channel linings	:	SS to BS 970 Gr 304 S16

Note: Material test certificates shall be furnished for all the above parts.

4.0 TECHNICAL SPECIFICATIONS OF DUAL PLATE CHECK VALVE

GENERAL:

All double flanged dual plate check valves shall conform to API 594-1997 and API 598 or its latest amendment for pressure rating PN 1.6. All the parts of the valve shall be designed so as to withstand the test pressure as specified in the standard. Valve shall be free from sharp projections which are likely to get clogged with stringy materials.

The internal dimensions and shape of the body, plates, etc. shall ensure that the area for flow passage at any cross section in the valve is not less than the area of the nominal bore of the valve.

The designs of the plates, hinge pin, stop pins, etc shall ensure free swinging of the plates. The spring action shall optimize the equal closing rates of each plate. The dual plates face shall have close face contact with the body seat ring in close position. Valves shall be designed for horizontal and vertical mounting position. The plates shall not vibrate under full or partial flow condition.

Valve shall be quick closing type with non-slam characteristics. The non-slam characteristics shall be achieved by providing suitable combination of plates, springs and hydraulic passages.

FEATURES OF CONSTRUCTION:

BODY:

Valve body shall be double flanged. The minimum thickness of metal for body shall be as per directives given in the API 594 and shall be maintained throughout any section uniform. The Flange to flange dimensions shall be in accordance with manufacturing standard (tables 2A & 2B).

Body of the valve shall be fitted with removable seat ring securely fixed in machined recesses by proper engineering practice. Rear side of valve flanges shall be machined or spot faced for proper seating of bolt head, washer and nut.

Each check valve shall carry an embossed ARROW to indicate the direction of flow.

The internal parts shall be easily accessible for inspection through inspection hole just by removing cover

FLANGES:

Valve flange faces shall be parallel to each other and shall be at right angle to the valve centerline. The finish on facing shall comply with MSS SP-6 / ASME B 16.5. The flanges and their dimensions of drilling shall be in accordance with the requirements of IS 1538, Table IV & VI.

PLATES & HINGES:

Plates and hinges shall be designed so as to withstand satisfactorily the repeated impacts likely to occur during service. Plates shall be securely positioned on body seat face with the assistance of required nos. of spring or other devices. Plate seating face shall be renewable or uniformly deposited weld metal machined and lapped using good manufacturing process so as to provide leak less seating on body face ring.

The spring action shall optimize the equal closing rates of each plate. The plates shall be totally vibration free under full or partial flow condition.

INTERNAL WETTED PARTS:

Internal wetted parts shall be suitable for the specified service conditions. The term shall include but not be limited to hinges, pins, bolts, bearings and any other part in contact with the fluid medium other than the body, plates, trim, springs and pipe plugs.

Accessories shall be provided as under:

1. Valves above 300 mm size shall be provided with drain plugs.
2. Valves above 300 mm size shall have lifting eyebolts.
3. Valves above 600 mm size shall have support foot.
4. Valves above 600 mm size shall have By pass arrangement.

MATERIAL OF CONSTRUCTION:

a) Body and Plates	:	CS, ASTM A 216 Gr WCB (for valves PN 1.6)
b) Body Ring	:	SS to BS 970 Gr 304 S16
c) Plate Ring / Face	:	SS to BS 970 Gr 304 S16 / AWS A 5.9 (ER 308)
d) Hinge Pin / Stop pin	:	SS, AISI 410
e) Springs	:	SS, AISI 304

5.0 TECHNICAL SPECIFICATIONS OF METALLIC EXPANSION BELLOWS

Design and construction requirements:

- Expansion bellow shall be designed as per the details furnished in the data sheet and shall be in accordance with the EJMA/ ASME standard.
- All expansion bellows shall be free from dirt, moisture, grease; oil etc. and reports for hydrostatic test shall be furnished.
- The bellows shall be metallic corrugated design and shall have double flange. The material for bellow shall be SS 304.
- Bellows shall first be given two coats of zinc base primer after completely cleaning the surface and then it shall be coated with three coats of coal tar epoxy paint. The resulting coating shall be uniform and smooth and shall adhere perfectly to the surface.
- Bellows used in pipes carrying potable water, the inside coating shall not contain any constituent soluble in water or any ingredient which could import any taste or odor to the water.

Data Sheet:

Location & Quantity	As required
Size	Suitable
Working pressure	PN 1.6
Temperature	50 deg, C. ambient
End connection	Flanged. Flanges shall be flat faced and confirming to IS 1538 part IV having off center bolt holes
Material of Flange	MS IS 2062
Material of bellows	SS 304
Material of hardware	C.S IS 1367
Axial expansion in mm	5
Axial compression in mm	15
Mode of installation	Horizontal
Hydrostatic Test pressure	24 kg / sq.cm

TESTS AND INSPECTION:

- Bellows shall be tested as per relevant standards with latest revisions
- Bellows shall be offered for visual inspection and dimensional checks.
- Client shall witness the hydrostatic and water tightness.

DRAWINGS:

The manufacturer shall submit the following drawings:

- Preliminary outline dimensional drawings.
- Typical cross sectional drawing showing constructional details with the complete bill of material, MOC and relevant standards.

6.0 TECHNICAL SPECIFICATIONS OF FLOATING BARGE SYSTEM

Agency shall have to design floating barge and the design shall have to be got approved from engineer in charge for installation of SCF pump set. For designing of barge agency shall have to approach original manufacturer to know the weight of SCF sets. One barge shall carry one SCF only and the barrels shall have to be of good quality to prevent leakage in the dam water. The number of barrels shall be suitable to provide buoyancy to the barge as against loading of SCF, Fabrication itself, Chain pulley block of 5 M Tons, and all accessories, and
partial weight of the Flexible rubber hose pipe of required numbers. If after supply and installation, it is found that buoyancy is more or higher then required then in that case agency shall be liable to add or remove number of barrels. Barges have to be fabricated out of MS channels, angles, bars, hardware, and chequered plate. One 02 M Ton manual chain pulley block of approved make with lift suitable for barge shall have to be installed on barge for loading and un loading of the SCF during erection and after erection for the purpose of maintenance of the SCF. The barge should be having sufficient strength to float SCF, its own weight, Chain pulley block, partial weight of rubber/steel hose pipes etc all installed. The length and breadth should be sufficient to restrict the toppling of the barge. The SCF pump set should be in submergence after installation on barge.

One suitable capacity Chain is to be provided and SCF should be permanently hanged on this chain to the chain pulley block. The barrel should be Supply and make it air tight then coat with enamel. Floating Barge/Platform should be so design that the material like pumping machinery, chain pulley block and other tools kit can be easily installed on it and prepared from M.S. sheet, Drums, Nut-Bolts, clamps etc. and also two coat of enamel paint .Minimum size of barge/platform should be as per Design and pump capacity requirement and shifting carting & Installing of floating platform at site Satisfactorily.

- The erection of the floating barge platform should be separate for each pump and there should be an arrangement to couple the platform side by side without disturbance.
- There should be a separate arrangement like tripod at the place of platform for easy dismantling of pump set from the work area. It should be sufficient strong and tough to carry the weight of the pump during lifting and dismantling.
- The work area of floating barge platform should be well secured with railing around platform with comfortable and strong support around the platform.

7.0 TECHNICAL SPECIFICATIONS OF LT PANEL (PCC / PMCC / MCC / APFC)

SPECIFIC DESIGN REQUIREMENTS:

Suitable removable type lifting hooks and / or jacking pads shall be provided on each panel or shipping section for ease of lifting of switchboard. These hooks when removed shall not leave any opening in the panels.

It shall be of fixed type, single/double front execution. Circuit breakers (ACBs) panels shall be in single front and rear execution. Motor starter and power feeders / switch fuse modules accommodated at front and rear of incomer. Also vacant space on incomer and bus coupler panel shall not be used for mounting the starter and switch fuse modules. Access to all operating devices shall be from the front of the switchboard.

All metering and protection equipment associated with a particular circuit shall be housed in separate and independent compartment earmarked for that particular circuit and in the fixed portion of the vertical panel in case of breaker panels.

All auxiliary devices for control, indication, measurement and protection such as pushbuttons, control and selector switches, indicating lamps, ammeters, voltmeters, KWH meters and protective relays shall be mounted on the front side of respective compartment. The design shall be such that unless required for maintenance / inspection purposes, all power on/off or start/stop and relay reset operations shall be performed without opening panel door.

ACBs shall be draw-out type and rest circuit breakers / motor starters shall be fixed type. Type of ACBs shall be as specified below in other specifications / requirements for ACB

All feeders to be housed in separate compartments. All compartments to be fully segregated from one another, as well as from bus bar chamber, with sheet steel barriers.

This type of construction shall be single front or double front as required. Each feeder compartment to have a separate door. PCC incoming feeder shall have cable entry from Bottom. Bottom cable entry for rest feeders through cable alley where as outgoing/incoming Circuit Breaker feeders to have bottom exit/entry from respective compartment itself. Cable termination compartment shall be provided.

Main Bus Bar shall have rating at least equal to the maximum demand under any circuit configuration plus a provision for 10% future load growth. Incomers of these switch boards shall also be designed to cater to the complete load including 10% margin for future load growth. Bus bars shall be of high conductivity, electrolytic copper. The maximum temperature of bus bar shall be 85ºC i.e. maximum permissible temperature rise over design ambient of 50º C shall be 35º C.

Spare outgoing breaker / power feeders shall be provided in all switchboards. Atleast one number of highest rated breaker shall be provided as spare in PCC and atleast two numbers of

each rating and type or 20% (rounded off on higher side) of power feeders, whichever is more shall be provided as spare in MCCs.

All incomers to same switch board shall be of equal rating. All circuit breakers shall be of single break type having one pole per phase.

Each short circuit interrupting device shall be designated to have breaking capacity equal to or higher than the maximum value of the short circuit current at the point of installation. MCCBs with back-up fuses shall not be acceptable.

MCB/MCCB for capacitors shall have a current rating of at least 160% of the capacitor rated current. Circuit breakers capability to interrupt applicable capacitive current shall be specifically verified.

The switch board components viz. circuit breakers, main horizontal and vertical busbars, busbar joints, busbar supports etc. shall be designed to withstand the maximum expected short circuit level for minimum 1 sec.

Moulded Case Circuit Breakers for power feeders shall have built-in short circuit and thermal overload releases. The rated service short-circuit breaking capacity (Ics) of MCCBs shall be more than or equal to the specified fault level.

The Power Control Centre (PCC) shall generally include PGVCL incomers, DG incomer, necessary electrical/mechanical interlocks and outgoing breaker feeders.

The Motor Control Centre (MCC) shall generally include motor feeders of rating **75 KW and 132 KW.** The maximum rating of busbar shall preferably limit to 800 Amps. In case of MCC having two incomers, necessary tie switch shall be provided for bus sectionalizing. Heavy Duty type load break switch /ACB shall be provided for incoming and tie feeders and these shall have suitable interlocks and shall be designed to withstand the specified short circuit level for minimum 1 sec.

All power feeders (incoming & outgoing) of PCC & MCC shall be fuse less type only with provision of ACB based on current rating as specified elsewhere of this specifications except for capacitor bank / feeder for which SFU is acceptable and for feeders of up to 63A rating for which 'D' curve MCB can be accepted.

All Soft Starter feeders shall be with MCCB and semiconductor fuse protected. All soft starters shall be with external bypass contactor only. Also contactor shall be provided at incomer of each Soft Starters for isolation and with suitable interlock such that contactor shall close only when Soft Starters are required to operate / run for isolation and to prevent no load losses. The Soft Starter Cubicles shall be min. 700 mm wide x 600 mm depth x 1800 mm height.

The outgoing Motor Feeders should Comply to Type-2 Coordination as per IS:13947. Panel shall have main horizontal and riser bus bars air insulated, housed in a separate compartment, segregated from all other compartments, with sheet steel barriers. Busbars

shall be of high conductivity, electrolytic Copper, suitable for carrying the rated and short time current without overheating. Busbars shall be adequately supported on insulators to withstand dynamic stresses due to short circuits. Busbar support design should ensure free thermal expansion.

Busbars for risers shall be rated to carry 125% of the rated current of all feeders connected to the risers.

Isolators shall be heavy duty load break of AC23 category. Isolators shall be rated for 120% of circuit full load current with minimum rating of 25 Amps.

All fuses shall be HRC, link type.

All power contactors shall be rated for 125% of feeder full load current. Minimum rating shall not be less than 16 Amps, duty category AC3 except for auxiliary contactor which shall have 10 Amps, 4NO + 4 NC.

All bimetal overload relays shall be of hand reset type with at least 1NO and 1NC contact with reset type push buttons, mounted on door such that it shall be possible to reset the O/L relay with door closed.

The MCC shall be provided with a continuous earth bus having sufficient cross section to carry the specified fault current for specified duration without exceeding the safe temperature throughout its entire length.

Adequately rated anti-condensation heater with porcelain connectors shall be provided in each breaker panel and in cable alley to maintain inside temperature 5 deg C above outside ambient temperature. It shall be supplied from 240V AC auxiliary bus for space heater. The space heater shall be provided with a thermostat having variable setting of 30-70 deg C and manually operated switch fuse and link for phase and neutral respectively.

It shall be possible to monitor the LT breaker status including various fault conditions from remote location for which required spare potential free contacts shall be made available wired at terminal block. Similarly it shall be possible to operate the electrically operated breakers (EDO ACBs) from remote location and control wiring shall be designed accordingly. All microprocessor based relays & multifunction meters, where provided as per specifications, shall communicate with PLC/SCADA through required communication port & cable. Spare contacts (min. 1 NO + 1 NC) shall be made available at control terminal strip for all breakers module status including on, off, trip, spring charged (for electric motor operated Breaker), L/R selector switches as a minimum. Indicating instruments (meters) shall be of digital type for all PCC/MCC incomers and outgoing feeders & starters. The meters shall be generally of square pattern type of 96 x 96 mm suitable for flush mounting. Instrument shall generally conform to IS: 1248 & shall have accuracy class of 1.0 or better. All incomers of PCC/MCC shall be provided with digital type ammeter and voltmeter with required selector switches.

All PCC incomer and PCC outgoing power feeders shall also be provided with Multifunction meters.

- Digital meters shall have 3 ½ Digit, LED / LCD display as a minimum
- Multifunction meters (MFM): MFM where specified digital type only suitable to measure & display various parameters including Per Phase Voltage & Currents, KW, PF, Frequency, Phase Sequence, KVA, KWh, etc.

All starter feeders shall be suitable for operation from local & remote location as well as in manual modes. Manual and Local-Remote Selector Switches shall be provided at each starter for this purpose. It shall be possible to monitor the starters including various fault conditions from remote location for which required spare potential free contacts shall be made available wired at terminal block. Similarly it shall be possible to operate the electrical drives from remote location and control wiring shall be designed accordingly.

All indicating Lamps shall be of min. 20 mm dia. LED type with series resistance & metal body.

Push Buttons shall be oil tight type with 2 NO + 2 NC contacts with min. 4A rated current (AC-11). All push button except for Emergency Stop PB shall be flush type with spring aided self reset contacts. Emergency Stop PB shall be mushroom headed type with stay put contacts and shall be press to lock & twist to release type. All motor starters cubicles (at PMCC / MCC) shall be provided with Emergency Stop Push Button only.

10 Channel temperature scanner shall be provided in starter for monitoring and control of motor winding temperature (RTD input).

CONSTRUCTION:

- The MV switchboard panels shall be floor mounting, free standing, compartmentalized, Modular type suitable for indoor installation. The panel shall be totally enclosed and dust, damp & vermin proof. Enclosure shall have IP-52 or better degree of protection for indoor unit & IP-55 or better degree of protection for outdoor unit as a minimum. Outdoor unit shall be additionally provided with canopy or weather shed for protection.

- Overall height of Panel shall not exceed 2300mm (For Soft Starter panel height up to Max. 2300mm can be accepted) including min. 75mm ISMC base frame. Minimum 175 mm height cable alley shall be provided at bottom of each vertical compartment as a part of panel in total height of 2300 mm. Operational height of starters and control switch gear shall not exceed 1800 / 1900 mm above FFL (irrespective of overall height of panel) for ease of operation of starters.

- Soft Starter cubical compartment shall be provided with Min.700mm width and Mini. 600mm depth & 1800mm Height.

- Bus bars chamber compartment shall be provided with Min. 300mm or higher as required.

- All type of meters shall be digital type.

- MFM shall be considered with communication facility.

- MV switch boards sheet steel shall be CRCA mini. 2.0 mm for load bearing members & 1.6 mm for non-load bearing members. Gland plate shall be CRCA sheet min. 3.0 mm thick. All the doors and others openings shall be provided with neoprene rubber gaskets or of durable material gaskets.

- All hardware shall be corrosion resistant. Star washers shall be used for effective continuity.

- Suitable lifting hooks and jacking pads shall be provided on each panel or on each shipping section for ease of lifting of switchboard.

- LT Panel shall be of fixed type (except air circuit breaker feeder, air circuit breaker feeder shall be draw-out type), single/double front execution. LT Panel shall be single tier for all incomers and multi-tier for all outgoing feeders. Vacant space on incomer and bus coupler panel shall not be used for mounting the starter and switch gear modules.

- All auxiliary devices for control, metering, protection, indication & measurement such as push-buttons, control and selector switches, indicating lamps, ammeters, voltmeters, kWh meters and protective relays shall be mounted on the front side of respective compartment for easy operation without opening the door.

- Minimum width of Cable alley shall be 350mm and Bus-bar alley shall be 300mm to be provided.

- MCB/MCCB for capacitors shall have a current rating of at least 160% of the capacitor rated current. Circuit breakers capability to interrupt applicable capacitive current shall be specifically verified / supported by manufacturer recommendation.

- The switch board components, Bus bars etc. shall be designed to withstand the maximum Designed short circuit level for minimum 1 sec.

- Incomer MCCB shall be considered with micro-processor based release with in-built O/C, S/C and E/F protection and all out going MCCB for power feeders shall be considered with thermal magnetic release. MCCB shall be suitable for ICS=ICU. The rated service short-circuit breaking capacity (Ics) of MCCBs shall be more than or equal to the specified fault level.

- The LT panels shall be provided with a continuous earth bus having sufficient cross section to carry the specified fault current for specified duration without exceeding the safe temperature throughout its entire length.

- All control wiring except C.T. secondary wiring shall be carried out with minimum 1.5 sq.mm copper conductors. C.T. secondary wiring shall be carried out with 2.5 sq.mm copper conductor.

- All starters shall be provided with Local-Remote selector switches (where Start PB provided at Panel End) to monitor & operate MCC.

- 240V AC control supply shall be fed from 415/240V control transformer. Control transformer shall be provided on Incomer each bus.

- All CTs, PTs and Control transformer shall be cast resin type.

- 2 Nos. auxiliary contactors to be considered for PLC interface.

- All capacitors shall be with dielectric losses ≤ 0.2w/kVAR.

BUSBAR:

- Busbars shall be of high conductivity, electrolytic **Copper** suitable for carrying the rated and short time current without overheating supported on insulators made of non-hygroscopic, non-flammable material to ensure free thermal expansion. With tracking index equal to or more than that defined in IS.
- Cupper bus bars shall be sized for maximum 1.4 A/mm² current density only.
- Bus bars for risers shall be rated to carry 125% of the rated current of all feeders connected to the risers.
- The current rating of neutral shall be min. half that of phase busbars.
- Both horizontal and vertical TP & N, bus bars, bus joints and supports shall be capable of withstanding dynamic and thermal stresses of the specified short circuit currents for 1 second.
- Only zinc passivated or cadmium plated high tensile steel bolts, nuts and washers shall be used for all bus bars joints and supports.
- The hot spot temperature of bus bars including joints at design temperature shall not exceed 85 deg C for normal operating conditions.
- All bus bars shall be insulated with heat shrunk PVC sleeves of 1100V grade.

Auxiliary Bus bars:

- Auxiliary power bus bars of suitable rated size shall be provided for all Soft Starters. Cables / Wires shall not be acceptable.
- Auxiliary bus bars of suitable size in copper shall be provided for following application. Exact number of bus bars shall depend on various controls, metering and auxiliary power distribution requirement.
- Panel space heater supply and motor space heater supply.
- Control supply for breaker tripping, closing and indication circuits.
- Control supply for breaker spring charging motors, motor starter control and indication circuits.
- AC potential supply for energy meters, voltage operated relays, etc.

AIR CIRCUIT BREAKER:

- Circuit breakers shall be air break, motorised, draw out type for feeders rated above 630A.
- The ACB shall have 50kA (1 Sec.) S/C withstands rating and having ICW for 1 Sec. = ICS = ICU= Icw. The breaker shall be electrical draw-out type and electrically operated motor spring charging type in open execution
- All ACBs shall comply and tested as per IS – 13947 / IEC 60947-1 and IEC 60947-2 standards.
- ACB for all Incoming and PCC Feeder outgoing should be Four Pole Type.
- ACB shall be with communication facility.

ACB Trip Release should have Minimum following

- Overload with time delay
- S/C with time delay and Inst. Trip Setting
- Earth Fault with Time Delay.
- Under/over Voltage for incomer
- Trip Indications
- Ammeter Display

ACB shall be fitted with following

- Heavy duty switches having not less than 6 NO +6 NC contacts
- Built in resin cast current transformer
- Auxiliary contacts
- Shunt and under voltage tripping device
- All necessary Electro Mechanical protections & interlocks etc.
- The ACB shall be suitable for locking the breaker in various positions. Provision for door locking ACB shall be provided with the requisite end termination lugs/sockets. Terminal bars for connecting more than one terminal.

SOFT STARTER:

SCOPE:

This specification covers the requirement for design, manufacture, installation, testing and commissioning of step-less reduced voltage / solid state torque controlled soft starter for motors in MCC panel to provide linear ramp starting and stopping of A.C induction motors.

Constructional and Performance Features (Microprocessor Soft Starter):

- The PCB power structure shall consist of six SCR's mounted on a heat sink for motor. PCB shall be self-tuning to accept control power input as per design.
- All phases should be controlled during start/stop.
- Soft starter shall consist of built-in MODBUS RTU for monitoring & control.
- Soft starter should be built for continuous operation without need of by pass for any reason.
- The logic circuitry shall incorporate a latch circuit for two wire / three-wire control.
- Control terminals shall be easily accessible and located on the front bottom of the device.

Following shall be considered while sizing the soft starter and its enclosure:

- Soft Starter (S/S) shall be de-rated as per manufacturer's recommendation for 50°C operating conditions based on site/operating condition and such de-rated current of Soft Starter shall be min. 110% of rated current of motor.
- Soft Starter shall be rated for DOL starting and shall have **External Bypass** Contactor of **AC3** rating.
- Soft starter shall be provided with breaker (MCCB/ACB) along with F.A. Semi-conductor fuse protection and with series contactor of rating as recommended by vendor and meeting Type-2 co-ordination requirement (soft starter signal to be interlocked with PLC and in manual mode timer based interlock to be provided to ensure that signal to turn on S/S is fed only if contactor close signal is received) to switch off supply to contactor through PLC when soft starter is not ON.
- Contractor/Vendor shall furnish the heat dissipation load data and shall provide the cooling arrangement accordingly to ensure that the temperature rise within enclosure does not exceed 5°C over the max. ambient temperature of 50°C.
- Min. Two cooling fans shall be provided or higher nos. as required. The enclosure coolingfans & temperature sensing device (RTD / Thermisters) with tripping arrangement shall be provided and shall also be interlocked with soft starter operation i.e. in case of cooling fan failure or excess temperature (55 deg C or as set), the soft starter shall be tripped / shall not turn **ON.** Vents shall be provided with washable filter.
- Soft Starter shall be provided with conformal coating to protection level 3C2 according to IEC-60721-3-3 to withstand harsh environment.
- Aux. contact of incoming breaker & contactor shall be used in series to provide "Soft Starter Ready" interlock signal for PLC/remote operation
- Detachable display/key pad with Digital parameter adjustment, preferred with cable suitable for door mounting. The Control keypad and display shall have the option for remote mounting. For safety reasons the controller should have green lights for running and red for start/stop.

CONTROL MODULE DESIGN FEATURES:

User Adjustments

- The two acceleration start ramp & stop ramp timers shall have individual adjustments from 1 to 60 seconds & 2 to 60 seconds respectively.
- The initial torque setting shall be adjustable from 0 to 200 % of motor torque.
- The end torque setting shall be adjustable from 50 to 200% of motor torque.
- Current limit starting shall be adjustable from 150% to 500% of the motor's full load current.

Pump Control (Standard Feature)

- The standard feature pump control shall be implemented to provide closed loop control of a motor to match the specific torque requirements of centrifugal pumps for both starting and stopping.
- Pump stop shall be initiated without the need for a dedicated Pump Stop input. A coast-to rest stop shall still be possible with stop input.

Controller's Features and Modes

- **Starting modes** required for controller includes Linear Torque control for Start, Pump Control Current Limit Start (Voltage ramp Start, Voltage ramp with current limit Start, Full Voltage DPL Start, Remote analogue control, Slow Speed time controlled, Slow Speed external controlled, Dual Ramp Start, Soft Start with Selectable Torque Boost), Bypass control & Bypass contactor mode with all the protection parameter working.
- **Stopping modes** required for controller includes Linear Torque control for Stop, Quadratic Torque control for Stop, Pump Control (Cost to stop, Remote analogue control Stop, Slow Speed time controlled, Slow Speed external controlled, Dual Ramp Stop, Bypass control).

Protection and Diagnostics

- Protections of Controller shall meet applicable standards.
- **Protective Features:** Motor Thermal Overload – selectable for starting class 10A, 15A, 25A under load protection (to avoid dry run), Soft Start thermal overload, PTC input, Phase imbalance, Phase reversal, Over voltage, Under voltage, Locked Rotor, Excessive Starts per hour for application, Phase loss input / output etc.
- Shaft Power measurement without the need of external electro-mechanical sensors.
- Electronic thermal memory shall be provided for enhanced motor protection.
- All Protections should be available in bypass mode also.
- When fault conditions are detected, the controller shall inhibit starting or shut down SCR pulse firing.
- **Fault Indications:** Controller shall indicate latest fault indications /occurrence for Line failure, Phase imbalance, Over temperature – motor, Over temperature – Soft Starter, Shorted Thyristor, Open Thyristor, Locked Rotor, Motor output loss, Overload & Under load – Shaft Torque, Over voltage, Under voltage, Excessive Starts & Phase reversal etc.
- **Viewing Functions:** Motor Current, Three Phase Voltage, Shaft Power in kW / HP (selectable), Motor thermal capacity, Motor Energy consumption (kWh), Power factor &Run time in hours etc.

Switchgear Modules

- Minimum 1kVA control transformer shall be provided for each bus section for motor control circuit voltage and each transformer shall be sized for the entire switchboard.
- Incomer supply to control transformer shall be tapped from incoming side of the Incomer.

Switches/ Fuses

- The switches or fuse switches shall be load break, heavy duty / motor duty, air break type provided with quick make/break manual operating mechanism. The operating handle shall be mounted on the door of the compartment having the switch. Fuses shall be non-deteriorating HRC cartridge link type.
- Rating of heavy duty switches or motor duty starter modules shall meet the requirement of AC23 duty as per IS: 13947.

Contactors

- The contactors shall be air break type, equipped with three main contacts and minimum (2NO + 2NC) auxiliary contacts. The main contacts of a particular contactor for motor starter module shall have AC-3 rating.
- Unless otherwise specified, the coil of the contactor shall be suitable for operation on 240V, 1 Ph., AC supply and shall work satisfactorily between 65 to 110% of the rated value.

Bimetal Relay

- All bimetal overload relays shall be of manually reset type with at least 1NO and 1NC contact with reset type push buttons, mounted on door such that it shall be possible to reset the O/L relay without opening the compartment door.

Moulded Case Circuit Breakers (MCCB)

- All MCCBs shall be comply and tested as per IS - 2516 / IEC 60947-1& IEC 60947-2 standards. MCCB shall be provided with short circuit delay &instantaneous protection, over load protection and Earth fault protection as inbuilt protection along with time delays.
- Position of the knob shall be clearly indicated ON, OFF and TRIP conditions as a minimum in front and 1 NO + 1 NC Aux. Contacts. All MCCBs shall be considered with operating handle with pad locking facility.
- All MCCB shall be 4-pole of min. 50 kA (1 sec.) rated ultimate short circuit breaking circuit current rating as a min. or of higher short circuit current rating capacity as per fault level.
- MCCB as part of motor starter module shall be current limiting type and type tested for Type-2 co-ordination as per IS: 13947 / IS/IEC: 60947.

Protective Relays

- All relays (Except Lock-out and Auxiliary relays) shall be numerical type with communication facility.
- Relays shall be rectangular in shape, flush mounting type, having dust tight covers, removable from front, and shall be equipped with externally reset, positive action operations indicators. The relay shall have auxiliary units of either series connected or shunt connected type. All auxiliary relays shall be non-draw out type and protection relays shall be draw-out type with test facilities.
- Test plug shall be supplied loose. All relays shall conform to the requirements of IS-3231 or relevant IEC in general and IS - 3231 in specific.

- Relays shall be provided with adequate number of potential free self-reset / hand reset output contacts as required. Provision shall be made for easy isolation of trip circuits of each relays for the purpose of testing and maintenance.

Instrument Transformers (CTs/PTs)

- Current transformer & potential transformer shall generally conform to IS: 2705, IS/IEC: 60044-122 and any special requirement w.r.t. numerical relay shall be taken care of by contractor.
- Current transformers for instruments& protection shall have an accuracy class as per SLD.
- The current transformers in breaker feeders shall be capable of withstanding the applicable peak momentary short circuit and the symmetrical short circuit current for 1.0 sec.

Indicating / Measuring Instruments

- The meters shall be generally of square pattern type of 96 x 96 mm suitable for flush mounting. Instrument shall generally conform to IS: 1248 & shall have accuracy class of 0.5 or better.
- Digital meters shall have 3 ½ Digit, LED / LCD display as a minimum
- All auxiliary equipment such as shunt transducers, CT's, PT's etc., as required shall be included in the supply of switchboard. The current coil of ammeters and potential coils of voltmeters shall continuously withstand 120% of rated current and voltage, respectively, without the loss of accuracy.
- Digital type Multi-function Meter shall be of Accuracy Class: 0.5S (for Active)-IEC-687 / CBIP-88 and Suitable for measuring and digitally mini. three line displaying the following parameters: kVA, kW, kWH, A, V, P.F., frequency& with RS 485 communication port.

Push Buttons

- Pushbuttons shall be oil tight type with 2 NO + 2 NC contacts; each contact shall have rated operational current of not less than 4A (AC-11)
- Pushbuttons for START, OPEN, CLOSE, LEFT, RIGHT, FORWARD, REVERSE etc. shall be flush type with spring aided self-reset contacts.
- Pushbuttons for STOP/EMERGENCY STOP shall be mushroom headed type with stay put contacts & shall be colored red. The operation of the button shall be press to lock and twist to release. The stop PB for each outgoing feeder/starter at MCC and for field LCS shall be EMERGENCY STOP push button. Push buttons shall be in compliance with IEC 60947-5-5
- Push button colours shall be as follows:
  Stop / Open / Emergency - Red
  Start / close - Green
  Reset / Test - Yellow / White

Indicating Lamps

- Colour shade for the indicating lamps shall be as below LED type:
  ON indicating lamp : Red
  OFF indicating lamp : Green
  TRIP indicating lamp : Amber
  PHASE indicating lamp : Red, Yellow and Blue
  TRIP circuit healthy lamp : Milky

Wiring and Terminal Blocks

- All wiring shall be done with IS approved FRLS insulated copper conductors. The insulation grade for these wires shall be 660V grade. The control wiring shall preferably be enclosed in plastic channels or neatly bunched together.
- Control / CT circuit wiring shall be FRLS insulated, copper conductor of 2.5 sq.mm size.
- Each wire shall be identified at both ends by PVC ferrules.
- Inter panel wiring shall be done through PVC sleeves or rubber grommets.
- A minimum of 2 nos. or 20%, whichever is higher, spare terminals shall be provided on each terminal block.
- Marking on the terminal strips shall correspond to wire numbers on the wiring diagrams. All spare contacts and terminal of panel mounted equipment and devices shall be wired to terminal blocks.

Earthing:

- All vertical panels shall be connected to a Aluminium earth bus bar running throughout the length of the switchboard. The minimum earth bus size shall be 50x12 sq.mm aluminium shall be considered..
- All doors and movable parts shall be earthed using flexible copper connections to the fixed frame of the switch board. Provision shall be made to connect the earthing bus bar to theplant earthing grid at two ends. All non-current carrying metallic parts of the mounted equipment shall be earthed. Minimum 4 nos., 10mm dia hole shall be provided on the earth bus for termination of earth strip / wire.

Name Plate:

- Nameplates shall be provided as per standard.
- LT Panel shall be with name plate (on front side of door of I/c) having minimum details like (1) control supply voltage (2) Panel fault level (3) Panel protection class (4) Panel manufacturing IS standard considered etc. details.

Painting:

- The LT Panel shall be treated with seven tank process with cleaning of scale, grease rust and foreign adhering matter &chemical de-rusting, sand blasting, degreasing, pickling in acid bath and phosphating as per IS: 6005 and primed.
- After cleaning, the surfaces shall be given 2 coats of epoxy primer.
- After seven tank process and primer coating the external paint shall be powder coated with RAL-7032 or paint shade shall be 631 of IS-5 for indoor and outside of LT Panel.

Danger Notice Plates:

- The danger notice plate shall be affixed in a permanent manner on operating side of the Panels. The danger notice plate shall indicate danger notice both in Hindi and English and with a sign of skull and bones as per IS 2551.

APFC PANEL:

- The control equipment including capacitors shall be mounted in a panel made of 2 mm cold rolled sheet steel for all load-bearing members and 1.6 mm for doors and covers.
- The housing of the capacitor banks shall be of open construction with free ventilation for capacitor units (IP5X). The connections from the capacitor units to the control panel shall be carried in totally enclosed, dust-proof, vermin-proof bus-ways or wire-ways.
- All capacitors shall be with dielectric losses ≤ 0.2w/kVAR.
- Except for the specific requirements of PFIC / APFC panel specified here in, rest all specifications shall be as per LT Panel / MV Switchboard specifications specified above.
- APFC Panel shall be as per IS-16636:2017

The automatic control panel shall comprise of the following:-

- MCCB for Protection of Each Capacitor Bank (MCCB should be suitable for Capacitor Switching)
- Microprocessor based APFC Relay for sensing and correction the power factor of the system with required 12 no. of steps to achieve the specified improvement in power factor.
- 'ON' and 'OFF' push Buttons for manual control of each capacitor unit with indication lamp.
- 'ON' indication lamps with LED type lamps for each capacitor unit.
- Auto/manual Selector switch and On delay timer shall be considered for each capacitor feeder.
- Capacitor Duty Contactor with series Reactor.
- Any other components required for satisfactory and safe operation.
- Capacitor Banks shall comprise identical delta connected three phase units. Capacitor Banks shall be non-flammable, non – toxic, all polypropylene type with extended foil design. Capacitors should be of APP Double Layer Type only.
- Capacitor shall be compact in size and hermetically sealed. In built fuses & surge suppressors shall be provided for protection of each capacitor element.

Test and Test Reports

- All tests shall be conducted in accordance with the latest edition of IS – 2834 and as applicable for controls.
- Type test certificates for similar capacitor units shall be furnished.

Drawings to be submitted for the approval of the Engineers Representative:

- Fully dimensioned general arrangement drawings of capacitor and capacitor control panel with elevation side view, sectional view and foundation details.
- Complete schematic and wiring diagrams for capacitor control panel.

JUNCTION BOX:

- Junction Box (JB) material shall be Cast Aluminium (LM-6), and shall be weather proof to IP-64. Outdoor JBs shall be provided with canopy made of at least 14 SWG (2mm) galvanized sheet steel or FRP suitable for providing protection against rain from top and two sides for IP-5X protection JBs. JB shall be as per electricity regulations & BS 7671.
- The boxes shall have terminals suitable for Power cables and/or control cables termination, mounted on ISMC / Steel structure. The size of terminal and bus bar connections shall be suitable for terminations of Submersible pump motor flat cable / PVC/ XLPE cables as pr requirement. Minimum 20% or minimum 2 Nos. (Whichever is higher) of spare terminals shall be supplied in junction boxes for each size of terminals.
- Each junction box shall be provided with 10% or minimum 1 No. of spare entry for each power & control cable with plugs.
- Fault level of Junction box shall be 20 MVA.
- JB shall be with Wall / Stand mounting with Zinc passivated Bolts & nuts and earth terminals as per IS and name plate as required.
- JB shall be as per approved drawings and test certificates shall be submitted.

DRAWINGS:

- Prior to fabrication of the Panels the supplier / contractor shall submit for consultant's approval the drawing consisting of G.A. drawing, sectional elevation, single line diagram, bill of material etc. and design calculations indicating type, size, short circuiting rating of all the electrical components used, bus bar size and calculation, internal wiring size, Panels dimension, colour, mounting details etc.
- The contractor shall also submit manufacturer's catalogues of the electrical components installed in the Panels along with the drawing.

INSPECTION & TESTING:

- Major electrical equipments, as indicated below shall be tested and inspected at vendor manufacturer's works before dispatch to ensure compliance with the specifications/requirements and applicable codes and standards and agreed quality assurance/testing plan.
- Inspection at Manufacturers Premises: Tests of major items like LT panel & Motors shall be conducted at manufacturer's work in presence of PMC / third party inspection (TPI) agency and client representative appointed by purchaser's representative. All the expenses like transportation, lodging & boarding shall be borne by contractor. Rest items shall be cleared for dispatch based on review of manufacturer's Test Certificates / manufacturer's Test Report by TPIA/ Client's Engineer.
- The owner / Client or his authorized representative may visit the works during manufacture of various electrical equipment/materials to assess the progress of work as well as to ascertain that only quality raw materials are used for the same. He shall be given full assistance to carry out inspection. Owner/ client's representative shall be given minimum two weeks advance notice for witnessing of final testing.
- Field tests as per approved procedures / procedures available with engineer-in-charge or his authorized representative shall be performed on the electrical system / equipment before it is being put into service. All test equipment shall be arranged by the vendor. Test reports shall be approved by the engineer-in-charge before acceptance of the complete plant and equipment.
- All the cost pertaining to inspection including to & from travel, local conveyance, lodging and boarding expenses shall be borne by contractor for minimum 2 representatives of client / client's consultants / Third Party Inspection Agency.

APPROVED VENDOR LIST FOR
ELECTRICAL & MECHANICAL EQUIPMENT

1.	Submerge Centrifugal (SCF) Pump-Motor Set	Aqua / Kirloskar / Kishor / KSB / M&P (Wilo) / WPIL / JASCO
2.	Vertical Turbine (VT) Pump	Kirloskar / Mather & Platt (Wilo) / Worthington (WPIL)
3.	Induction Motor	Kirloskar / ABB / Crompton
4.	Sluice Valve	Kirloskar / IVC / Fouress Engg. / VAG/ IVI
5.	Dual Plate Check Valve	Kirloskar / IVC / Fouress Engg. / VAG/ IVI
6.	Metallic Expansion Bellow	Flexican Bellows & Hoses / Precise Engineers / Sur Industries / Athulya / B.D. Engineers / Dhruv / D. Wren / Stanfab
7.	MS Pipes	Jindal / Zenith / Tata / Welspun / Samshi / Asian / SAIL / Essar
8.	MS Steel Wire Braded Rubber Flexible Hose Pipe	Jyoti, Hitech, Brahans, pyrofeb or Equivalent
9.	Pontoon modules	Litmus, Baroda Poly or Equivalent
10.	Pipe Floats	Litmus, Sangir, Baroda Poly or Equivalent
11.	Pressure Gauge	Airmaster/ ARBUDA/ WIKA/ H.GURU/ BELLS
12.	415-V MCC Panel components	L&T / Siemens / C&S / ABB
13.	Air Circuit Breaker	L&T / Siemens / C&S / ABB
14.	Soft Starters	L&T / Siemens / C&S / ABB
15.	Contactors	L&T / Siemens / C&S / ABB
16.	MCB, MCCB	L&T / Siemens / C&S / ABB
17.	Switch Fuse Unit	L&T / Siemens / C&S / ABB
18.	CTs & PTs	KAPPA / Silkans / Gibert / Precise / ABB / C&S / L&T / AE / Ashmor
19.	Protective Relays	ABB / Siemens / Minilec / C& S / L&T
20.	Indicating Meters	AE / C&S / L&T / Siemens / Trinity / Nippen

21.	Indicating Lamps	L&T / Siemens / C&S / Rass Controls / Technik
22.	Push Button stations	L &T / BCH / Siemens / Technik / Rass / C&S
23.	Meters	AE / / L&T /Minilec / Trinity / C&S
24.	Selection Switches	KEC / Thakoor/ Technic (Heavy duty type only)
25.	Annunciators	Minilec / Peacon / ICA.
26.	Terminal Block	CONNECTWELL / ELMEX / Wago(C&S)
27.	Power and Control Cable	Asian-cables / Fort gloster / Finolex / KEI / Torrent / Havells /V-Guard
28.	Cable Glands & Lug	Comet / SMI / Dowells / HEX
29.	LT Cable Termination	Dowells / Jointwell/Hex
30.	LED Lights	Crompton / Philips / syska

The contractor shall distinctly understand that it will not be their prerogative to insist on a particular brand from the list, final selection will be done with the approval of Engineer in charge.

Dy. Executive Engineer
Water Works, West Zone
Rajkot Municipal Corporation

Add. City Engineer
Water Works
Rajkot Municipal Corporation

DATA SHEET OF RAW WATER PUMPS – VERTICAL TURBINE (VT) PUMP AT RAW WATER PUMP HOUSE AT NYARI-1 DAMSITE.

SR. NO.	PARTICULAR	DESCRIPTION	DATA TO FILL BY BIDDER
1.0	LIQUID DATA		
1.1	Liquid handled	Raw Water	
1.2	Specific gravity	1.0	
1.3	Temperature	Ambient temp.	
1.4	Suc. Pre.@ rated capacity-m	Flooded	
2.0	PUMP DATA		
2.1	Make	Vendor list	
2.2	Pump type	Vertical Turbine	
2.3	Pump Model	Pl furnish	
2.4	Number of pumps - Nos.	2 nos	
2.5	Type of duty	Continuous	
2.6	Design capacity-m^3/hr.	490 m3/hr.	
2.7	Total Bowl Head-mlc	28mtr	
2.8	Guaranteed Bowl efficiency at rated capacity-%	Min. w/o -ve tolerance	
2.9	Bowl input at rated duty-KW	Pl furnish	
2.10	Rated Speed of pump- RPM	Max. 1450	
2.11	Max. Bowl Input KW @ Rated Impeller.	Pl furnish	
2.12	Reco. Drive motor rating- KW	Pl furnish	
2.13	Drive motor rating make	Vendor list	
2.14	Min. Submergence Required, m	Pl. furnish	
2.15	Shut off head-m	Pl. furnish	
2.16	Colum pipe length * No of pipe	Valve tower depth 41 feet approx	

Signature of the Bidder

DATA SHEET SUBMERGE CENTRIFUGAL PUMPSET FOR WATER APPLICATION

Pump Data Sheet			
Sr. No.	DESCRIPTION	UNIT	DATA TO FILL BY BIDDER
1	Site Details	Nyari- 1 dam site	
2	Qty.	2 Nos.	
3	Service	Water Supply	
4	Liquids to be handle	Raw water	
5	Sp. Gravity of Liquid	1.05	
6	Ambient Temp.	50' C	
PERFORMANCE PARAMETER			
7	Pump Model		
8	Pump Type	Submerged Centrifugal pumpset	
9	Rated Capacity	800 m3/hr	
10	Rated Head	35.0 mWc	
11	No. of Stages	Single	
12	Rated Impeller Dia.	mm	
13	Shut Off Head	120% of duty point	
14	overall Efficiency @ duty point	80.0% Min. No Negative Tolerances	
15	kw/HP	110/150	
16	Speed	1450 rpm	
17	Delivery Size of Pump	250 mm	
18	Direction of Rotation from DE	Clock wise/ Anticlockwise	
19	Casing Design Pressure	10 kg/cm2	
MATERIAL OF CONSTRUCTION			
20	Casing	CI IS 210 Gr FG 260	
21	Impeller/Impeller Nut	ASTM, A351-2012, Gr- CF-8M (SS-316)	
22	Spiral/Wear Plate	CI IS 210 Gr FG 260	
23	Shaft [Pump+Motor]	ASTM, A479-2013B, TYPE -410	
24	Mechanical Seal	preliminary- tungsten carbide or	

		silicon -carbide	
		Secondary-carbon versus chrome or tungsten carbide	
25	Casing wear ring	CI IS 210 Gr FG 260	
26	Suction Strainer	ASTM, A351-2012, Gr- CF-8M (SS-316)	
27	Motor Body	CI IS 210 Gr FG 260	
28	Base Frame/ Portable Stand	200 mm Chanel Fabricated with Epoxy Coated	
29	Lifting Chain	S.S 304- Gr-40 ASTM-80 – 20 mtr. Length	
30	Static & Dynamic Weight [Pump+motor]	kg	

Signature of the Bidder

Motor Data Sheet			
Sr. No.	DESCRIPTION	UNIT	**DATA TO FILL BY BIDDER**
1	Type	Totally Enclosed Wash Down type Squirrel Cage Type (NEMA)	
2	Duty	S1	
3	Supply Power	415 ± 10% Volts, 50 ± 3% Hz, A.C. Supply	
4	Full Load Speed	1450 rpm	
5	Full Load Current	Amp	
6	Full Load Torque	% kgm	
7	Efficiency	@ 100% load	
		@ 75% load	
		@ 50% load	
8	Power Factor	@ 100% load	
		@ 75% load	
		@ 50% load	
9	Insulation Class	"H" Class	
10	Ambient Temp.	50 ° C	
11	Temp. rise	Insulation Class "H" Temperature rise up to Class "B" 120°C	
12	Type of Enclosure & Cooling	Totally Enclosed Wash Down (TEWD) & Surround Liquid	
13	Degree of Protection	IP-68	
14	Application Standard	As per IS: 325-1996	
15	Method of Starting & Current	Soft starter	
16	℗Minimum Protection	IP 68	
MATERIAL OF CONSTRUCTION			
17	Stator Body	C.I FG:260 As per IS 210-2009	
18	Oil Chamber	C.I FG:260 As per IS 210-2009	
19	Rotor	Copper bar base	

Signature of the Bidder

Test Certificates & Inspection:

1. Pump+Motor Shaft	EN 10228-2, CLASS-3 UT & DPT TEST WITNESSED BY RMC.
2. Pump Casing	1.5 X OPERATING PRESSURE HYDRO TEST WITNESSED BY RMC
3. Pump Impeller	AS PER ISO 1940/IS-11723 DYNAMIC BALANCING SAMPLING WITNESSED BY RMC
4. Motor Rotor	AS PER ISO 1940/IS-11723 DYNAMIC BALANCING SAMPLING WITNESSED BY RMC
5. Motor Routine test	Routine TEST WITNESSED BY RMC
6. Performance Test	PERFORMANCE TEST WITNESSED BY RMC
7. Strip Test	YES, REQUIRED.
8. Final Painting	YES, REQUIRED.

Signature of the Bidder

:: 250 mm Dia. Rising Stem SLUICE VALVES::

DATA:		**To be filled by bidder**
Description :- As per tender specification		
Size	250mm	
Rating(kg/sq.cm)	PN 1.6	
Make	As per Approved Vendor List	
Material of Construction		
Body & Wedge	CI IS:210 Gr. FG 200/260	
Spindle Nut	Bronze IS 318 LTB II	
Spindle	SS TO BS 970 Gr 304 S16	
Seat rings	SS TO BS 970 Gr 304 S16	
Channel & shoe lining	SS TO BS 970 Gr 304 S16	
SHOP TESTING		
HYDROTEST		
Seat leakage	16 Kg/cm² (5 min) – for PN 1.6	
Back seat leakage	8 Kg/cm² (2 min) – for PN 1.6	
Body	24 Kg/cm² (5 min) – for PN 1.6	
Material compliance	TC's for major material to be furnished	

Signature of the Bidder

:: 350 MM, 400MM,250MM DIA. D.I. DUAL PLATE NRV ::

DATA :			**To be filled by bidder**
1.	Size	350mm, 400mm,250mm	
2.	Rating (Kg/sq.cm)	PN 1.6	
3.	Drilling	IS 1538 Table 4 & 6	
Material of construction:			
1.	Body, Door, Cover, Diapharm	CS,ASTM A 216 Gr WCB	
2.	Body Ring	SS TO BS 970 Gr 304 S16	
3.	Plate Ring /Face	SS TO BS 970 Gr 304 S16	
4.	Hinge pin /stop pin	SS,AISI 410	
5.	Spring	SS,AISI 304	
SHOP TESTING : HYDROTEST			
Seat leakage		16 Kg/cm² (5 min) – for PN 1.6	
Body		24 Kg/cm² (5 min) – for PN 1.6	
Material compliance		TC's for major material to be furnished.	
OTHER		G.A. drawing to be furnished.	

Signature of the Bidder

:: S.S. EXPANSION BELLOW ::

EXPANSION BELLOWS:

DATA:			To be filled by bidder
1.	Size (mm)	250,350,400	
2.	Make	As per Approved Vendor List	
3.	Rating (PN)	1.6	

MATERIAL OF CONSTRUCTION:

Sr. No.	Component	Material	To be filled by bidder
1.	Body	SS 304	
2.	Flange	M.S.	
3.	Tie Rods	Steel	
4.	Nut Bolts	High tensile Steel with grade of 8.8	

Note:

1. Manufacturing as per related I.S.
2. Inspection witness of rmc and TPI
3. **Length of Expansion Bellow must be as per site condition :-**

(1) 250mm- 210mm
(2) 400mm- 210mm
(3) 350mm -215mm

Signature of the Bidder

R.M.C./C./ ૬૩૨

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

હુકમ :–

વિષયઃ– ઈ–ટેન્ડર / ઓપન ટેન્ડર પધ્ધતિથી મંગાવવામાં આવતી તમામ પ્રકારની ઓફરો સાથે બિનઅધિકૃત રજુ થતાં ડોકયુમેન્ટસ સામે કડક કાર્યવાહી હાથ ધરવા બાબત.

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

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

સંદર્ભના પ્રસિધ્ધ કરેલ પરીપત્ર મુજબ તમામ ઈ–ટેન્ડર / ઓપન ટેન્ડરથી મંગાવવામાં આવતાં ભાવો સાથે ભાવ ભરનાર એજન્સીઓ / બીડરો દ્વારા ટેન્ડર બીડ માટે રજુ કરવાનાં થતાં તમામ ડોકયુમેન્ટસ ફરજીયાતપણે 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 ડોકયુમેન્ટસ કે તે પૈકી કોઈપણ એક ડોકયુમેન્ટસ 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 ફરજીયાતપણે 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 ડોકયુમેન્ટસની મુળ (ઓરીજીનલ)નકલ મંગાવી તેની ખરી નકલની ચકાસણી ફરજીયાતપણે સંબંધીત ડી.ઈ.ઈ.શ્રી તથા મ.ઈ.શ્રી / અ.મ.ઈ.શ્રીએ કરવાની રહેશે. **જે મુળ નકલ સાથે વેરીફાય કર્યાની સહી ફરજીયાતપણે 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 નહી.** જેમાં ફરજચૂક 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 ક્રોડ ડોકયુમેન્ટસ રજુ કરી કામ મેળવવા માટે પ્રયાસ કર્યાનું ધ્યાનિત થશે, તેવા કિસ્સામાં બીડર / એજન્સીને બ્લેકલીસ્ટ કરી, આવા બીડર સામે ફરજીયાતપણે ફોજદારી કાર્યવાહી સંબંધીત શાખાના વડા તથા વીજીલન્સ અધિકારીશ્રી (પ્રોટેકશન) દ્વારા જોઈન્ટલી દિન–૭ માં કરવા આદેશ કરવામાં આવે છે. જેની લેખિતમાં

જાણ તાત્કાલીક અત્રે કરવાની રહેશે. જેમાં ચુક 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 ફરજીયાત રહેશે, તથા બીડર દ્વારા ટેન્ડરમાં પ્રસિધ્ધ થતાં સંદર્ભનાં પરીપત્ર તથા આ હુકમનાં દરેક પાને સહી સિક્કા સાથે ભરેલ ટેન્ડરની ટેકનીકલ બીડ ફરજીયાત રજુ કરવાની રહેશે.

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

કમિશ્નર.

રાજકોટ મહાનગર સેવાસદન

<u>નકલ રવાના (જાણ અર્થે):-</u>
નાયબ કમિશ્નરશ્રીઓ (તમામ)

<u>નકલ જાણ તથા અમલવારી અર્થે :-</u>
(૧) સહાયક કમિશ્નરશ્રીઓ (તમામ)
(૨) શાખાધિકારીશ્રીઓ (તમામ)

આર.એમ.સી./સી. ૩૨૮

રાજકોટ મહાનગરપાલિકા
કમિશનર વિભાગ
તા.૨૨/૧૨/૨૦૧૨

પરિપત્ર:-

ઇ-ટેન્ડર પદ્ધતિ / ઓપન ટેન્ડર પદ્ધતિથી માંગવામાં આવતી ઓફરોમાં એજન્સીઓ દ્વારા ટેકનીકલ બીડમાં રજુ કરવામાં આવતા ડોક્યુમેન્ટ્સ જેવા કે ટર્નઓવર, અનુભવના પ્રમાણપત્રો વિગેરે ખરી નકલમાં રજૂ કરવામાં આવતા નથી. આથી હવે પછીથી એજન્સીઓ દ્વારા રજૂ થતાં ટેકનીકલ બીડમાં રજુ કરવામાં આવતા ડોક્યુમેન્ટ્સ ખરી નકલમાં અથવા સેલ્ફ એટેસ્ટેડ હોવા જરૂરી છે તેમજ જે એજન્સીનું ટેન્ડર ટેકનીકલ બીડમાં ક્વોલીફાય થાય અને ખરી નકલ ગેઝેટેડ ઓફીસર મારફત પ્રમાણિત કરાવેલ ન હોય તેવા કેસમાં તેના ઓરીજીનલ ડોક્યુમેન્ટ્સ પ્રાઇસબીડ ખોલતા પહેલા ચકાસી અને ખરી નકલ રજૂ કરાવીને જ ખોલવાના રહેશે તથા આ બાબતનું શાખાધિકારીશ્રીઓએ ચુસ્તપણે પાલન કરાવવાનું રહેશે. આમ ન થયેથી પુરતી ચકાસણીને અભાવે જો કોઇ એજન્સીને ખોટા કે અધુરા આધારો સાથે કામ આપવાની ક્ષતિજનક બાબત જાણમાં આવ્યે તે ટેન્ડર ડોક્યુમેન્ટ્સની ચકાસણી કરનાર કર્મચારીશ્રીઓ તેમજ શાખાધિકારીશ્રીની જવાબદારી નક્કી કરવામાં આવશે, જેની સર્વે શાખાધિકારીશ્રીઓએ નોંધ લેવી.

ઉપરોક્ત બાબતનો અમલ તાત્કાલિક અસરથી કરવો.

૨૨/૧૨

કમિશનર
રાજકોટ મહાનગરપાલિકા

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

નકલ જાણ તથા અમલવારી અર્થે :-
- સહાયક કમિશનરશ્રીઓ (તમામ)
- શાખાધિકારીશ્રીઓ (તમામ)

જાહેરનામું

ફોજદારી કાર્યરીતી અધિનીયમ ૧૯૭૩ (૧૯૭૪ના નં.૨) ની કલમ ૧૪૪ અન્વયે કાઢેલ હુકમ

ક્રમાંકઃ એસ.બી./મજૂર/જાહેરનામું/૫૬૭૯/૨૦૧૪.
પોલીસ કમિશ્નરશ્રીની કચેરી,
રાજકોટ શહેર,રાજકોટ.
તા.૨૬/૦૪/૨૦૧૪

તાજેતરમાં રાજકોટ શહેરમાં ઘરફોડ ચોરીના બનાવો વધતા પ્રમાણમાં બનેલ છે ભુતકાળમાં રાજકોટ શહેરમાં બનેલ ઘરફોડ ચોરીના બનાવોની તપાસ કરતા તપાસમાં આવ્યા મુજબ કરનાર (ઘરફોડીયા) પકડાયેલ છે. ત્યારે તપાસમાં આવ્યા મુજબ આરોપીઓએ ગુન્હાના બનાવના દિવસો અગાઉ રાજકોટ શહેરમાં નવા બંધાતા મકાનોમાં જુદી જુદી ઔદ્યોગીક કંપનીઓમાં, કોર્પોરેશનમાં મજુરી કામ અને ટેલીફોન કંપનીઓ દ્વારા તથા ગેસ પાઇપ લાઇન માટે ખોદાતા ખાડાઓની મજુરી કામ મેળવી અથવા તેના બહાના હેઠળ આવી રોકાણ કરી આજુબાજુની સ્થાનિક પરીસ્થિતીનુ સર્વે કરી માહીતગાર થઇ મિલ્કત વિરૂધ્ધના ગુન્હાઓ આચરતા હોય છે. મજુરી કામના બહાના હેઠળ આતંકવાદીઓ પણ આશરો મેળવી લેતા હોય છે જેથી જાહેર જનતાની જાન-માલ (મિલ્કત)ની સલામતી તથા સુરક્ષા સારૂ થોડા નિયંત્રણો મુકવા જરૂરી જણાય છે.

જેથી હું મોહન ઝા (I.P.S.), પોલીસ કમિશ્નર, રાજકોટ શહેર ફોજદારી કાર્યરીતી અધિનીયમ (સી.આર.પી.સી.) ૧૯૭૩ (૧૯૭૪ ના નં.૨) ની કલમ ૧૪૪ અન્વયે અમોને મળેલ સત્તાની રૂએ આથી હું હુકમ કરૂ છું કે, રાજકોટ શહેરના પોલીસ કમિશ્નર વિસ્તારમા લેબર કોન્ટ્રાકટર/મુકાદમનાઓએ પોતાની પાસે જે મજુર કામે રાખેલ હોય અને મજુરો કામકાજ માટે સપ્લાય કરતા હોય તેઓએ નીચે જણાવેલ ફોર્મ મુજબ દરેક મજુરોના અલગ-અલગ ફોર્મ ભરી ફરજીયાત પણે સ્થાનીક પોલીસ સ્ટેશનને જાણ કરવાની રહેશે તથા મજુરી જ્યારે મજુરી કામ તરત રાજકોટ શહેર છોડી જતા રહે ત્યારે લેબર કોન્ટ્રાકટર/મુકાદમે તે અંગેની જાણ નામ/સરનામા સહિતની લિખીત રાહે સ્થાનીક પો.સ્ટે.મા કરવાની રહેશે

૧	લેબર કોન્ટ્રાકટર / મુકાદમ (સપ્લાયર) નુ પુરૂ નામ સરનામુ મો.નં., નંબર સહિત	:-	
૨	મજુરનુ નામ તથા ઉ.વ.	:-	
૩	મજુરનું હાલનું સરનામું ટેલીફોન નંબર	:-	
૪	મજુરનુ પુળ વતનનું સરનામું ગામ, તાલુકો, જીલ્લો	:-	
૫	હાલની મજુરીનુ સ્થળ / કંપનીનુ નામ	:-	
૬	મજુરનુ વતનનું સ્થાનીક પો.સ્ટે.નું નામ તથા ટેલીફોન નંબર	:-	
૭	મજુરના વતનના આગેવાનનું નામ, સરનામુ, ટેલીફોન નંબર	:-	
૮	મજુર અગાઉ કોઇ પોલીસ ગુન્હામાં પકડાયેલ હોય તો તેની વિગત	:-	
૯	કયારથી મુકાદમો / કોન્ટ્રાકટરે મજુરી કામ માટે રાખેલ છે	:-	
૧૦	મજુરનુ બેંકમા ખાતેનુ આઇ.ડી.પુરૂ (ફોટા સાથે નું)	:-	
૧૧	રાજકોટ શહેરમાં કઇ તારીખથી મજુરી કામ કરે છે ? અને કઇ તારીખે જવાનો છે ?	:-	
૧૨	રાજકોટ શહેરમાં નજીકના સંબંધી કોઇ હોયતો તેનુ નામ, સરનામુ	:-	

મજુરનો તાજેતરનો ફોટો

મજુરના અંગુઠાનું નિશાન.....
મુકાદમ/સપ્લાયર/કોન્ટ્રાકટરની સહિ.....
નામ.....

આ હુકમ તા. ૦૧/૦૫/૨૦૧૪ થી તા.૩૦/૦૬/૨૦૧૪ સુધી અમલમા રહેશે.

આ હુકમનો ભંગ કરનાર વ્યક્તિ વખતોવખત કે સહિતાની કલમ ૧૮૮ મુજબ શિક્ષાને પાત્ર થશે.

તમામને વ્યક્તિગત રીતે નોટીસની બજવણી કરવી શક્ય ન હોય આથી એકતરફી હુકમ કરું છું. જાહેર જનતાની જાણ સારૂ સ્થાનીક વર્તમાન પત્ર આકાશવાણી અને દુરદર્શન કેન્દ્ર મારફતે પ્રસિધ્ધી દ્વારા તથા પોલીસ સ્ટેશનના પોલીસ ઇન્સ્પેકટર, મદદનીશ પોલીસ કમિશ્નર, નાયબ પોલીસ કમિશ્નર તથા પોલીસ કમિશ્નર કચેરીના નોટીસ બોર્ડ ઉપર હુકમની નકલ ચોંટાડી પ્રસિધ્ધી કરવામાં આવશે તેમજ સહેલાઇથી જોઇ શકાય તેવી જાહેર જગ્યાઓ ઉપર હુકમની નકલ ચોંટાડી પ્રસિધ્ધી કરવામા આવશે ગુજરાત પોલીસ અધિ. કલમ ૧૯૩ મુજબ પોલીસ અધિકારીઓ પણ આ હુકમની જાહેરાત કરવા અધિકૃત ગણાશે.

આજ તારીખ૨૬માહે એપ્રીલ-૨૦૧૪ ના રોજ મારી સહી અને સિક્કો કરી આપેલ છે.

(મોહન ઝા)
પોલીસ કમિશ્નર
રાજકોટ શહેર,રાજકોટ

નકલ રવાના:-

(૧) અગ્ર સચિવશ્રી, ગૃહ વિભાગ, ગાંધીનગર.
(૨) પોલીસ મહાનિર્દેશક અને મુખ્ય પોલીસ અધિકારીશ્રી, ગુ. રા. ગાંધીનગર
(૩) અધિક પોલીસ મહા નિર્દેશકશ્રી (ઈન્ટે.) ગુ.રા.ગાંધીનગર.
(૪) પોલીસ કમિશ્નરશ્રી, અમદાવાદ શહેર, વડોદરા શહેર, સુરત શહેર.
(૫) ખાસ મુખ્ય પોલીસ અધિકારીશ્રી, રાજકોટ રેન્જ, રાજકોટ.
(૬) જીલ્લા પોલીસ અધિક્ષકશ્રી, રાજકોટ ગ્રામ્ય, રાજકોટ.
(૭) કલેકટરશ્રી , રાજકોટ શહેર
(૮) મ્યુનિસિપલ કમિશ્નરશ્રી, રાજકોટ શહેર.
(૯) નિયામકશ્રી, માહીતી ખાતું ડો.જીવરાજ મહેતા ભવન જુના સચિવાલય બ્લોક નં.૭, બીજા માળે,ગુ.રા., ગાંધીનગર.
(૧૦) જીલ્લા સરકારી વકિલશ્રી, સેસન્સ કોર્ટ, રાજકોટ.
(૧૧) મેનેજરશ્રી, ગર્વમેન્ટ પ્રેસ, રાજકોટ. (ગેઝેટ ભાગ-૧ માં પ્રસિધ્ધ કરવા સારૂ).
(૧૨) મદદનીશ પોલીસ કમિશ્નરશ્રી, પૂર્વ/ પશ્ચિમ વિભાગ, રાજકોટ શહેર.
(૧૩) આર્મ.કમિશ્નરશ્રી, (ઈન્ટે.), રાજકોટ રીજીયન, રાજકોટ.
(૧૪) નાયબ પોલીસ અધિક્ષકશ્રી./પો.ઈન્સ.શ્રી. રાજકોટ રેલ્વે જંકશન પો.સ્ટે.
(૧૫) તમામ પો.સ્ટે.ઈન્ચાર્જશ્રીઓ,રાજકોટ શહેર(નકલો ચોંટાડી લાઉડ સ્પીકર વાહન દ્વારા જાહેરાત કરાવવા સારૂ)
(૧૬) તમામ શાખાઓ તથા શાખા ઈન્ચાર્જશ્રીઓ, રાજકોટ શહેર.
(૧૭) કન્ટ્રોલ ઈન્ચાર્જશ્રી, રાજકોટ શહેર (૧૦ નકલ) વર્તમાનપત્રોને આપવી.
(૧૮) લેબર કમિશ્નરશ્રી, ... તમામ ખાનગી સંસ્થાઓને અવગત કરવવા સારૂ

નકલ સવિનય રવાના:-

(૧) રજીસ્ટ્રારશ્રી, હાઈકોર્ટ, ગુ.રા.સોલારોડ અમદાવાદ.
(૨) રજીસ્ટ્રારશ્રી, ડીસ્ટ્રીકટ એન્ડ સેશન્સ કોર્ટ, રાજકોટ.
(૩) રજીસ્ટ્રારશ્રી, ચીફ જ્યુડીશ્યલ મેજી.શ્રી કોર્ટ, રાજકોટ.
(૪) રજીસ્ટ્રારશ્રી, એડીશનલ સેશન્સ જજ કોર્ટ, રાજકોટ.
(૫) એકઝીકયુટીવ મેજી.શ્રી, રાજકોટ શહેર
(૬) એકઝીકયુટીવ મેજી.શ્રી, રાજકોટ તાલુકા
(૭) સયુંકત માહીતી નિયામકશ્રી, રાજકોટ.
(સ્થાનીક વર્તમાનપત્રો, આકાશવાણી તથા દુરદર્શન કેન્દ્રમાં પ્રસિધ્ધ કરવા અને વર્તમાનપત્રોની છાપતીઓ મોકલવા સારૂ)

રા.મ.ન.પા./લીગલ/જા.નં. ૧૮૩૧૯

રાજકોટ મહાનગરપાલિકા
લીગલ શાખા
તા.૧૮/૫/૨૦૧૭

હુકમ:

વંચાણે : લીગલ શાખા નં.૧૭૧/૨૦૧૬ ૧૭

રાજકોટ મહાનગરપાલિકાની કામગીરી માટે જુદી-જુદી શાખાઓ દ્વારા કામગીરીના પ્રકારને ધ્યાને લઇ નિયમ અનુસારની પ્રક્રિયા અનુસરીને એજન્સી/સપ્લાયર/કોન્ટ્રાકટર સાથે જોગવાઇઓ
૩ સંબંધી કરાર કરવામાં આવે છે. મહાનગરપાલિકાની કામગીરી સંદર્ભે તૈયાર કરવામાં આવતા ટેન્ડર/કરારનામામાં વખતો વખતની જરૂરીયાતને ધ્યાને લઇ આર્બીટ્રેશન (Arbitration) ની જોગવાઇઓનો સમાવેશ કરવામાં આવેલ છે.

રાજકોટ મહાનગરપાલિકાની કામગીરી માટે કરવામાં આવેલ કરારનામાની શરતો અનુસંધાને અમુક એજન્સી/સપ્લાયર/કોન્ટ્રાકટર દ્વારા છેલ્લા કેટલાક વર્ષોથી નામદાર હાઇકોર્ટ સમક્ષ આર્બીટ્રેટરશ્રીની નિમણુંક અંગે પીટીશનો કરવામાં આવે છે. જેના કારણે મહાનગરપાલિકાની કામગીરીના ભારણમાં વધારો થયેલ છે. અને સબંધિત અધિકારીશ્રીઓને વારંવાર અમદાવાદ ખાતે હાજર રહેવુ પડતુ હોય તેના કારણે અગત્યના પ્રોજેકટો સહીત કચેરીની કામગીરી તેમજ પબ્લીક કામો ઉપર વિપરીત અસર થવા પામેલ છે. તેમજ અરજદારોને હેરાન થવું પડે છે. આ બાબતે કાયદાકીય, શાખાના અભિપ્રાય અને પ્રકરણની વિગતો જોતા આ કામે વૈકલ્પિક ઉપાય (alternate remedy) ઉપલબ્ધ હોય મહાનગરપાલિકાના ટેન્ડર/કરારનામામાં આર્બીટ્રેશનની જોગવાઇઓને સામેલ કરવાનું ઉચીત જણાતું નથી.

આથી - રાજકોટ મહાનગરપાલિકાના કામે કરવામાં આવતા ટેન્ડર ડોક્યુમેન્ટ અને કરારનામામાં આર્બીટ્રેશન (Arbitration) ને લગત જોગવાઇઓ દુર કરવાનો" અને તેના બદલે "ટેન્ડરની શરત/કરારનામાની શરતના અર્થઘટન સંદર્ભે મહાનગરપાલિકાના કમિશનરશ્રીનો નિર્ણય આખરી અને બંધનકર્તા રહેશે." અને "ટેન્ડરની/કરારનામાની શરતો અંગે કોઇ પણ બાબતે વિવાદ ઉપસ્થિત થયે રાજકોટની દિવાની અદાલતની હકુમત રહેશે." તેવી શરતોનો મહાનગરપાલિકાના કામ અર્થે તૈયાર કરવામાં આવતા તમામ કામગીરીના પરિપત્રો/ટેન્ડર ડોક્યુમેન્ટ તેમજ કરારનામામાં સમાવેશ કરવાનો આથી હુકમ કરવામાં આવે છે.

આ હુકમનો અમલ તાત્કાલિક અસરથી ચુસ્તપણે કરવો.

કમિશનર
રાજકોટ મહાનગરપાલિકા

નકલ રવાના જાણ અર્થે : નાયબ કમિશનરશ્રી (તમામ)

નકલ રવાના જરૂરી કાર્યવાહી અર્થે : તમામ શાખાધિકારીશ્રીઓ

Annexure I.

Finance Department, GR. No.: EMD/10/2019/50/DMO

Date: 01/11/2019

(A) Guarantees issued by following banks will be accepted as SD/EMD on permanent basis:

- All Nationalized Banks

(B) Guarantees issued by following Banks will be accepted as SD/EMD for the period up to March 31, 2020. The validity cut-off date in GR is with respect to date of issue of Bank Guarantee irrespective of date of termination of Bank Guarantee.

- Axis Bank
- Baroda Gujarat Gramin Bank
- DCB Bank
- HDFC Bank
- ICICI Bank
- IndusInd Bank
- Kotak Mahindra Bank
- Nutan Nagarik Sahakari Bank Ltd.
- Rajkot Nagarik Sahakari Bank Ltd.
- RBL Bank
- Saurashtra Gramin Bank
- The Ahmedabad Mercantile Co-Op. Bank Ltd.
- The Kalupur Commercial Co-operative Bank Ltd.
- The Mehsana Urban Co-Operative Bank Ltd.
- The Surat District Co-Operative Bank Ltd.

All the eligible banks are instructed to collect the original documents/papers of guarantee from the concerned tendering authority.

(S. Chhakchhuak)
Joint Secretary (B)
Finance Department

-------XXXXX-------