

**CEMENT CORPORATION OF INDIA LIMITED**  
**(A Govt. of India Enterprise)**  
**CORE -5, SCOPE COMPLEX**  
**7, LODHI ROAD, NEW DELHI-110 003**

**TENDER NOTICE**

Sealed and superscribed tenders are invited from reputed and experienced organizations/manufacturers who can execute the following jobs on turn-key basis at our Tandur Cement Factory, Tandur (A.P.). However, the tenderer have option to quote for one or more job as per their suitability. **Only ELEGIBLE PARTIES (as per eligibility criteria of part III of tender documents) may participate in the tender.**

Tender Notice No.	Item	Last date for sale of tender documents	Last date for submission of Tender (by 2.30 PM)	Earnest money deposit by way of DD/BG/FDR (Rs)
6(11)/09-MMO	Design, engineering, manufacture, supply, civil/structural design, construction, erection & commissioning of mechanical transport system in Raw Mill, Kiln Feed & Cement Mill	19.04.10	20.04.10	26,75,000/-
6(12)/09-MMO	Design, Engg., modification, supply and Retrofitting of one set of static, high heat recuperation efficiency plates along with all accessories and erection & commissioning.	19.04.10	20.04.10	7,75,000/-

The tender documents can be purchased from HOD (F) at the above mentioned address on any working day between 3.00 pm to 5.30 pm on payment of Rs. 500/- (non-refundable) for each tender by way of DD/IPO in favour of Cement Corporation of India Ltd., payable at New Delhi. In addition to the sale of tender documents manually, the complete set of tender document is also available on our website No. [www.cementcorporation.co.in](http://www.cementcorporation.co.in) (Corporate Office). Interested parties may download the tender documents from the website, but the tenderer has to pay the amount towards cost of the tender document by DD/IPO at the time of submission of tender.

The tenders are required to be submitted in two parts, one containing techno-commercial bid along with EMD by way of DD/BG/FDR in favour of Cement Corporation of India Ltd., payable at New Delhi and the other containing price bid only. The tender should be submitted at CCI House, 87, Nehru Place, New Delhi 110019.

SSI units registered with NSIC and Public Sector Undertakings are exempted from furnishing EMD. No tenderer can participate without having purchased manually or have downloaded CCI's tender documents and paid the requisite amount.

The techno commercial bids of above tender will be opened on 20.04.10 at 3.00 PM in the presence of interested tenderers or their authorised representatives who may like to be present at the office of Cement Corporation of India Ltd., 87, CCI House, Nehru Place, New Delhi-110019. Tenders received late or without earnest money shall not be entertained.

The Corporation reserves the right to reject any or all tenders without assigning any reasons thereof.

General Manager (MM,I/C)

CEMENT CORPORATION OF INDIA LTD.  
(A GOVT.OF INDIA ENTERPRISE)  
87, CCI HOUSE, NEHRU PLACE  
NEW DELHI-110 019

GRAM: STATECEM NEW DELHI

PHONE: 30880183/26288487

FAX:011 – 26425331/26425345

REGISTERED/SPEED POST/COURIER

No: 6(11)/09-MMO/

Dated: 11.03.10

M/s. ....  
.....  
.....  
.....

**Sub: TENDER FOR DESIGN, ENGINEERING, MODIFICATION, SUPPLY, CIVIL / STRUCTURAL DESIGN, INCLUDING CIVIL WORK / FOUNDATIONS, ERECTION & COMMISSIONING, INCLUDING HOOKING -UP WITH THE EXISTING SYSTEM FOR THE COMPLETE MECHANICAL TRANSPORT SYSTEM ON TURNKEY BASIS FOR RAW MILL, KILN FEED AND CEMENT MILL SECTIONS AT OUR TANDUR CEMENT FACTORY HAVING 3000 TPD CAPACITY LOCATED IN RANGAREDDY DISTRICT OF ANDHRA PRADESH**

Dear Sirs,

We are enclosing our tender documents for the above work detailed in the enclosed tender documents. Your offer in sealed cover containing separate sealed covers for (i) Commercial bid and (ii) Price bid along with one set of tender documents is invited at the above mentioned address in accordance with our terms and conditions of the tender which should reach us as per the schedule given below:

**1.TIME SCHEDULE**

<b>PARTICULARS</b>	<b>DATE &amp; TIME OF SUBMISSION OF TENDER</b>	<b>DATE &amp; TIME OF OPENING TENDER</b>
a)Techno-Commercial bid along with EMD and CCI tender documents duly signed (each page initialed) in token of acceptance of terms and conditions.	20.04.10 (Upto 2.30 PM)	20.04.10 (at 3.00 PM)
b)Price bid	20.04.10 (Upto 2.30 PM)	----- *

1.\*the time and date of opening of price bid will be informed to only such of those tenderers whose techno-commercial offers are found acceptable.

2. The EMD must be submitted along with the Techno-Commercial bid for a value of Rs.26,75,000/- and must not be enclosed with the price bid (refer clause I of Part-II). Offers not accompanied with the requisite EMD may not be considered.

3.The validity of the offer should be kept open for acceptance for 4 months from the date of opening of techno-commercial bid.

4. The price bids should be submitted only as per CCI's price bid format otherwise the tender is liable for rejection.

5. The tender documents comprise of following:

- a) Covering letter which must be submitted by the tenderer duly signed.
- b) Part I - Instruction to tenderers
- c) Part-II – General terms & conditions
- d) Part-III – Special terms & conditions
- e) Part-IV Technical specifications
- f) Price Bid Proforma (Price schedule) to be submitted duly filled in separate sealed cover. Cost break up rates quoted may also be furnished.

Please confirm your participation by return post.

Yours faithfully,  
FOR CEMENT CORPORATION OF INDIA LTD

GENERAL MANAGER (MM)-I/C

Encl: As above

**COVERING LETTER WHICH MUST BE SUBMITTED BY THE  
TENDERER DULY FILLED IN AND SIGNED.**

Ref.....

Date: .....

To  
The General Manager (MM-I/C)  
Cement Corporation of India Ltd.,  
C.C.I House  
87, Nehru Place  
NEW DELHI-110 019

SUB : .....

REF: Your Letter No..... dt.....

Dear Sir,

With reference to your tender for the above work, We/I hereby submit our / my tender in two separate sealed envelopes duly sealed in a common envelope as per instructions in the tender documents. The required marking as per Clause 2 (b) of Part-I indicating reference of tender, has been done on all the envelopes.

A. The following documents are enclosed with the techno-commercial bids in one envelope superscribed "Techno-Commercial Bid"

1. One copy each of your terms and conditions in Part I, II, III & IV duly signed on each page in token of acceptance of the same in its entirety.
2. Earnest money of Rs.26,75,000/- (Rupees twenty-six lakh and seventy five thousand) in the form of FDR/Bank Draft No..... dated .....in favour of Cement Corporation of India Ltd. payable at New Delhi/ B.G. from any nationalized bank (in CCI format enclosed at Annexure - A) No..... dated.....
3. Certificate whether any officer of your Corporation is related to me/us or not (Annexure `B`)
4. List of unexecuted orders in hand as per (Annexure C)
5. Additional information to be furnished (Annexure D)
6. Details of Plant & Machinery installed (Annexure D1).
7. Details of testing facilities installed (Annexure D2)
8. Details of orders executed, including CCI during last 3 years (Annexure D3)
9. Freight element by rail (Annexure 1B)

- 10. Freight element by road (Annexure 1C)
- 11. A copy of our/my latest Income Tax Clearance Certificate/ Latest Income Tax Return/PAN duly attested by a Gazetted Officer.
- 12. Partnership Deed/Memorandum of Articles of Association by partnership firms/companies duly attested. In case of partnership deed, the same is registered/not registered.
- 13. Modvat Credit – ( Annexure E )

B. Price bid only as per format enclosed in separate sealed envelope superscribed “PRICE BID”

We/I hereby declare that We/I have not been debarred from tendering for contracts in any of the departments of Govt./Semi Govt./Public Sector Undertaking and Local Bodies.

We/I certify that the information given by us/me in the tender documents is correct and if at any stage the same is found to be incorrect, the contract will be liable to be terminated/rescinded and action may be taken against us/me by the Corporation for damages.

We are/I am duly authorized/empowered to sign all the tender documents.

- a) Name of the Tenderer :.....
- b) Full Postal Address :.....  
.....  
.....
- c) Telegraphic Address/Telex/Fax.....
- d) Phone : Office.....Residence.....
- e) E-mail .....

Yours faithfully,

( SIGNATURE OF THE TENDERER WITH SEAL)

WITNESS (NAME & ADDRESS)

1.....  
.....  
.....

2.....  
.....

**CEMENT CORPORATION OF INDIA LTD.  
(A GOVT.OF INDIA ENTERPRISE)**

**PART – I : INSTRUCTIONS TO TENDERER :**

**1.GENERAL :**

- a) The tender should be addressed to the officer who has invited the tenders.
- b) Any offer made in response to this tender, when accepted by the Cement Corporation of India Ltd., will constitute a contract between the parties.

**2. SUBMISSION OF TENDER :**

- a) Every tender shall be made out in English. All amounts shall be indicated by tenderer in figures as well as in words. When there is any difference between prices quoted in figures and words, lower of the two shall prevail. Tender should be free from over writings. All corrections and alterations should be duly attested by the Tenderer. The word “NOT QUOTED” should be written against item in the schedule for which the tenderer does not wish to quote.
- b) Tender is to be sent by post or deposited in tender box kept for this purpose in the office of CCI so as to be available within the due date and time fixed, in a sealed envelope in the manner prescribed below:
  - i) Techno-Commercial terms and conditions should be sent in a separate sealed cover and should be superscribed as “TECHNO-COMMERCIAL BID”.
  - ii) The Price portion should be sent in a separate sealed cover and should be superscribed as “PRICE BID”.
  - iii) Both these sealed covers should be sent in a separate sealed cover and all the envelopes should be marked as under:-
    - A)Offer for .....
    - B)CCI's Tender No.....
    - C)Date of opening of Tender
  - iv) In the event of the tender being submitted by a firm, it must be signed separately by each partner thereof. In the event of the absence of any partner, it must be signed on his behalf by a partner holding power of attorney authorizing to do so.
  - v) In the case of a company, the tender should be signed in the manner as laid down in the said Company's Article of Association.
  - vi) A true copy of the partnership deed (and Articles and Memorandum of Company) duly attested should be furnished.

- vii) Tenders received after the specified time & date are liable for rejection.
- c) Tenders not submitted in the prescribed formats and not completed in all respect are likely to be rejected.
- d) The tender documents are non-transferable. Only those firms can participate in whose name the tender has been sold.
- e) The tender with terms and conditions in Part-I, II, III & IV duly signed & stamped on each page shall be sent along with EARNEST MONEY DEPOSIT and not be kept in the PRICE BID, but SHALL be enclosed with the COMMERCIAL BID.
- f) Tenderers shall not be entitled to claim any costs, charges, expenses or incidentals for or in connection with the preparation and submission of their tenders even though the Corporation may decide to withdraw the “Invitation of Tender” or reject any/all tender(s) without assigning any reasons thereof.
- g) Tenderer must submit copy of his latest Income Tax Clearance Certificate / PAN No./Latest Income Tax Return from appropriate Income Tax Authority in the form prescribed therefor duly attested by a Gazetted Officer.

### **3. OPENING OF TENDER:**

- a) Tenders will be opened on the specified date and time in the office of the Officer inviting the tender or as directed by him, in the presence of such of those tenderers who may choose to be present. The representatives will have to establish their identity to the satisfaction of the Corporation by producing introductory letters from the firm/company. Otherwise they may not be allowed to be present at the tender opening.
- b) The tenders which are not received in separate covers as explained above are liable for rejection.

### **4. CLEAR UNDERSTANDING :**

When a tenderer submits his tender in response to this tender documents, he will be deemed to have understood fully about the requirement, terms and conditions. No extra payment will be made or any other claim whatsoever entertained on the pretext that the tenderer did not have a clear idea of any particular point(s)

### **5. VALIDITY OF OFFER**

Tender shall remain open for acceptance for 120 days or as may be specified from the date of opening of commercial bid. No revision/modification in the tendered rate will be allowed during the period of original validity of tender or the extended period except for any reduction/ revision as may be asked for specifically by CCI during negotiations.

## **6. REFERENCE LIST:**

The tenderer(s) should submit along with their tender(s) the list of unexecuted orders in hand, if any, for same/similar jobs and period by which jobs are proposed to be completed (Proforma enclosed Annexure 'C')

## **7. AWARD OF CONTRACT:**

a) The Corporation reserves the right:

- i) To accept in its sole and unfettered discretion any tender for whole or part quantities/ part work or to reject any or all tenders without assigning any reasons thereof and without entitling the tenderer to any claim whatsoever.
  - ii) To award the contract to one or more number of firms, either on equal price or on different prices.
  - iii) To enter into parallel contracts simultaneously or at any time during the period of the contract with one or more tenderer(s) as the Corporation may deem fit.
  - iv) To place adhoc order simultaneously or at any time during the period of the contract with one or more tenderer(s) for such quantity and for such jobs as the Corporation deem fit.
- b) Normally no price negotiation will be conducted. Tenderers are advised to quote lowest rates on firm basis in their offers.
- c) Firms which have failed to fulfil earlier contractual obligations may not be considered.
- d) If no separate agreement has been signed by the parties to the contract, the LOI/ Order resulting from this tender including all negotiation and detailed order to be issued subsequently, with its terms and conditions and stipulation as agreed to by the tenderer and to the extent modified during negotiations, constitutes the contract agreement relating to the work between the successful tenderer and the Corporation and the parties shall be bound by the terms and conditions and all provisions of this contract.
- e) The Corporation does not bind itself to accept the lowest or any tender to assign any reason for non-acceptance of the same.
- f) The Corporation shall mean and include the administrative and executive officers of its Corporation Office at New Delhi as well as of factories/ projects as the case may be who are identified to deal with matter relating to this contract on its behalf.

8. In case of the due date of sale/ submission/opening of tender falling on Government holiday(s), the succeeding working day/date will be treated as due day/date automatically. However, the time will remain unchanged.

9. The tenderer should have adequate experience in the related field and should furnish supporting documents giving details of similar job executed during last three years.

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**CEMENT CORPORATION OF INDIA LTD  
(A GOVT. OF INDIA ENTERPRISE)**

**PART-II : GENERAL TERMS AND CONDITIONS**

**1.0 EARNEST MONEY DEPOSIT:**

- 1.1 All tenderers including those registered with the Corporation should furnish earnest money, as specified, by way of Bank Draft or Fixed Deposit Receipt (FDR) in favour of Cement Corporation of India Limited payable at New Delhi or Bank Guarantee from any nationalised bank for equivalent amount as per CCI's format. Tender received without the Earnest money deposit, as specified in the tender, will be liable for rejection. Any other money held by or pending with the Corporation against any other contract will not be generally adjusted/ treated as EMD for this tender.
- 1.2 Earnest money will be forfeited if the rates are revised/or modified upward during the validity period or extended period. Earnest money will also be forfeited if the security deposit is not furnished within 15 days from the date of LOI or work not started after acceptance of the tenderer's offer by CCI.
- 1.3 The Earnest money deposit will not bear any interest.
- 1.4 The Earnest money deposit of successful tenderers would be adjusted towards the Security deposit and that of others will be refunded, except in the cases mentioned in 1.2 above and mentioned in Clause 2.3 below.
- 1.5 Public Sector Undertakings (Central/State) and SSI units registered with NSIC are exempted from submission of Earnest money deposit. The SSI units shall furnish a documentary proof to the effect that they are registered with NSIC along with the tender documents.

**2.0 SECURITY DEPOSIT:**

- 2.1 The amount of Security deposit as specified in the terms and conditions of the tender/LOI shall be deposited by the successful tenderers within 15 days of acceptance of offer i.e. issue of Rate Contract/P.O.
- 2.2 Failure to furnish Security Deposit in accordance with the conditions of the tender i.e. within 15 days of the acceptance of offer/issue of Rate Contract/P.O. will be considered to be breach of contract which would give the Corporation the right to terminate the contract and forfeit the EMD amount. For such breach of contract, the Corporation will also be entitled to take any other course of action against the successful tenderer as it may deem fit like stoppage of business dealings/ debarring from tendering, etc.
- 2.3 The Security deposit may be made either by bank draft or bank guarantee in favour of Cement Corporation of India Ltd. from any nationalized bank in the prescribed form as given in Annexure-II valid for a 6 months beyond the date of completion of contract with a further claim period of 3 months. The Earnest money deposit in the form of bank draft will be adjusted towards portion of security deposit, in the case of successful bidder.

- 2.4 If work is not started after acceptance of tenderer's offer, EMD/SD will be forfeited.
- 2.5 In the event of any approved upward revision in the value of the contract the successful tenderer will, on receiving intimation, make further deposit as specified by the Corporation towards the increased value of the contract.
- 2.6 The security deposit will not bear any interest. The Corporation reserves the right to adjust security deposit towards any amount due to it from the successful tenderer against this contract or against any other contract with this Corporation and in such an event the successful tenderer on receipt of notice from the Corporation shall make further deposit to restore the security deposit to the full amount.
- 2.7 The security deposit shall be liable to be forfeited wholly or partly at the sole discretion of the Corporation, should the successful tenderer either fail to complete the jobs assigned to him/them as per agreed time schedule or to fulfil his/their contractual obligations or to settle in full his/their dues to the Corporation.
- 2.8 The Corporation is empowered to deduct from the security deposit or from any other outstanding amount any sum that may be fixed by the Corporation as being the amount of loss or losses or damages suffered by it due to delay in performance or non-performance of any of the conditions of the tender/contract. The Corporation will, however, not be bound to prove any demonstrable loss or damages suffered.
- 2.9 The Corporation shall have a lien over all or any money that may become due and payable to the contractor under this contract or any other contract or transaction of any other nature either all alone or jointly with other and unless the Contractor pays and clears the claim of the Corporation immediately on demand, the Corporation shall be entitled at all times to deduct the said sum due from the contractor from any money/security deposit with which may have become payable to the contractor or may become due at any future date under this contract or any other contract or transaction whatsoever between the contractor and the Corporation without prejudice and in addition to the other rights of the Corporation to recover the amount of any such claim by other remedies legally available.
- 2.10 Bank Guarantee as required under this contract or agreed to against any advance made by the Corporation/ contract performance/equipment performance/ guarantee etc. shall be extended by the Contractor whenever so required by the Corporation and without any question for covering the period of completion and finalisation of work, performance etc. Failure to do so shall entitle the Corporation to encash the bank guarantee against it towards any dues, recoveries L.D. etc.

### **3.0 MEMBER OF THE CORPORATION NOT INDIVIDUALLY LIABLE:**

No Director or official or employee of the Corporation shall in any way be personally bound or liable for acts or obligations of the Corporation under the

contract or answerable for any default or omission in observance or performance of any of the acts, matters or things which are herein contained.

**4.0 CORPORATION NOT BOUND BY PERSONAL REPRESENTATION:**

The contractor shall not be entitled to any increase in the rates or any other right or claim whatsoever by reason of any representations, explanation or statement or alleged representation, promise or assurance given or alleged to have been given by any employee of the Corporation.

**5.0 NON-PERFORMANCE OF CONTRACT/CANCELLATION OF CONTRACT/ RIGHT OF THE CORPORATION:**

5.1 The Corporation reserves the right to cancel the contract if the contractor fails to carry out the jobs assigned to him as per contract and as per the instructions given by authorized representative of the Corporation. In addition, Corporation may also take any other remedial measures in such an event as described hereunder.

5.2 Any bribe, commission, gift or advantage given, promised or offered by or on behalf of the tenderers, their partners agents or servants to any officer servant or representative of the Corporation for obtaining or for execution of this or any other contract or for receiving payments under the contract shall in addition to the criminal liability he may incur will subject to tenderer to cancellation and the Corporation shall be entitled to deduct the amount so payable from any money otherwise due to the tenderer under this or any other contract. Any question or dispute as to whether the tenderers have incurred any liability under the clause shall be settled by the Corporation in such manner and on such evidence of information as it may deem fit and sufficient and the Corporation decision in this regard shall be final and conclusive.

5.3 In case of any compelling circumstances or for any other reasons and in the opinion of the Corporation, the contract needs to be determined and terminated at the stage during the execution, the Corporation shall be entitled to do so, giving one month's notice in writing. In such an eventuality, no compensation whatsoever for any arrangement is made by the contractor or for any liabilities incurred by him or any consequential loss will be payable by the Corporation except the payment for work actually done at contracted rates, after making good all dues recoveries L.D. if any etc. CCI also reserves its right to suspend the contract for any compelling reasons if in the opinion of the Corporation it is so required. In such an eventuality, the time of completion will be extended to the extent of suspension period but no claim whatsoever for any damages, increase in rates, idle wages machinery etc. will be payable to the contractor.

5.4 The Corporation also reserves the right to make risk purchase from the open market by tender or by any other mode of purchase at the risk and cost of supplier in respect of such quantities that the supplier fails to deliver in accordance with the schedule of delivery agreed to, after giving due notice to the supplier.

## **6.0 SUB-LETTING OF CONTRACT:**

The contractor shall not sublet or assign this contract or any part thereof without obtaining prior written permission of the Corporation. In the event of the contractors subletting or assigning the contract or any part thereof without such permission, the Corporation shall have the right to rescind the contract and contractor shall be liable to the Corporation for any loss or damage which the Corporation may sustain in consequence or arising out of such cancellation. Even, in case subletting is permitted by the Corporation the party to whom subletting is proposed, will be subject to approval of the Corporation. However, the Corporation will not recognize any contractual obligations with the persons or party to whom the contract has been sublet including compensation under workman's compensation Act and the Contractor will be held responsible for the satisfactory, due and proper fulfillment of the contract.

## **7.0 CHANGES IN CONSTITUTION:**

- 7.1 Where the contractor is a partnership firm, a new partner shall not be introduced in the firm except with the previous consent in writing of the Corporation which may be granted only upon furnishing of a written undertaking by the partner to perform the contract and accept all liabilities incurred by the firm and under the contract prior to the date of such undertaking.
- 7.2 On the death or retirement of any partner of the Contractor's firm before complete execution and performance of the contract, the Corporation may, at its option rescind the contract and in such case the contractor shall have no claim, whatsoever, for compensation of any kind, consequential loss etc. against the Corporation.
- 7.3 Without prejudice to any of the rights or remedies under this contract, if the contractor is a proprietorship concern and proprietor dies during the subsistence of the contract, the Corporation shall have the option to terminate the contract without paying compensation of any kind consequential loss etc. to any claimant i.e. legal heirs and successors.

## **8.0 FORCE MAJEURE CONDITIONS:**

- 8.1 If any time during the continuance of the agreement/contract it becomes impossible by reasons of war, or war like operations, strikes, lock-outs, riots, civil commotion, epidemical sickness, pestilence, earthquake, fire, storm, or floods, the contractor shall during the continuance of such contingencies, not be bound to execute the contract during this period as per agreement/ contract time schedule. The work shall be resumed immediately the contingencies has have ceased or otherwise determined and contractor's obligations shall continue to be in force for correspondingly extended period after the resumption of execution. The contractor shall however, inform the corporation by registered post about such acts at the beginning and end of the above causes of delay within ten days of occurrence and cessation of such force majeure conditions.
- 8.2 In the event of delay lasting over one month, if arising out of cause of force majeure the Corporation reserves the right to cancel the order/

contract without any compensation whatsoever, and/or any consequential loss etc.

- 8.3 Only events of Force Majeure which affect the work at the time of its occurrence shall be taken into cognizance. The Corporation shall not be liable to pay any extra costs or increased rates due to delay under Force Majeure conditions. Only appropriate extension of time will be granted.

**9.0 NOTICE:**

- 9.1 Any notice hereunder may be served on the contractor by registered post/ mail at his last known address. Proof of issue of any such notice at this address shall be conclusive proof of having received the notice by contractor.

**10. DISPUTE UNDER THIS CONTRACT AND ARBITRATION:**

- 10.1 In the event of any question/ dispute, breach or difference arising in respect of the meaning and scope of terms & conditions herein or in connection with any matter under this agreement (except for those matters which are to be decided as per provisions made in these terms & conditions), the same shall be referred to the Chairman-cum-Managing Director of Cement Corporation of India Limited for appointment of a Sole Arbitrator. There will be no objection if the Arbitrator so appointed is or was an employee of the Corporation and whether he had at any time in discharge of his duties as an employee had expressed views on all or any of the matters in dispute or difference or dealt with the matter in substance. The Arbitrator shall give award with reasons in respect of each claim, dispute or difference referred to him in the event the value of the dispute(s) exceeds Rs.50,000/-. The award of the Arbitrator shall be final and binding on the parties to this contract.
- 10.2 Subject to aforesaid the Arbitration & Conciliation Act, 1996 and the rules made thereunder and any statutory modifications thereof for the time being in force shall apply to the arbitration proceedings under this clause.
- 10.3 The work under the contract shall be continued uninterrupted during the pendency of the arbitration proceedings and no payment due from one to the other parties therein shall be withheld on account of pendency of such proceedings unless such payment related to the matter under arbitration.
- 10.4 The venue of the arbitration shall be New Delhi or such other place as the arbitral tribunal at his discretion may determine.

**11.0 JURISDICTION:**

- 11.1 It is hereby agreed by the parties here to that only courts at New Delhi/ Delhi shall have jurisdiction to decide or adjudicate upon any dispute which may arise out of or be in connection with this agreement.

**12.0 LAWS GOVERNING THE CONTRACT:**

- 12.1 This contract shall be governed by the laws of Union of India in force.

**13.0 WAIVER NOT TO IMPAIR THE RIGHT OF THE CORPORATION:**

13.1 Any delay in exercising or omission to exercise any right, power or remedy accruing to the corporation upon any default under this contract shall not impair any such right, power or remedy or shall be construed to be inaction of the Corporation in respect of any such default or any acquiescence by the Corporation effect or impair any right, power or remedy of the Corporation under this contract.

**14.0 CONDITION GIVEN BY THE TENDERER:**

14.1 With the acceptance of the terms and conditions described in this tender any terms and conditions given by the tenderers contrary to those conditions shall be treated as withdrawn by the tenderer(s).

**15.0 OTHER COMMERCIAL TERMS AND CONDITIONS**

**15.1 PRICES:**

- a) Total prices quoted shall be firm during the tenure of the contract and shall be inclusive of ED, Taxes, duties, packing, forwarding charges etc. and on F.O.R./F.O.T. station of dispatch/ destination as the case may be.
- b) Any statutory levy / variation in the excise duty, Cess on ED sales tax and entry tax etc. on the items ordered (final finished items for which rates are quoted) at the rates prevailing on the date of scheduled delivery or at the rates prevailing on the date of supply whichever is lower, shall be borne by the Corporation. However, supplier has to furnish documentary evidence i.e. Notification for such levy/variation.
- c) Prices are to be quoted on firm basis and there shall be no variation of the same during the period of contract unless specifically agreed to and provided in the contract.
- d) If the dispatches are made within the scheduled time, prices as per the contract will be payable. However, if the dispatches are delayed, the Corporation will have the option to either charge liquidated damages or rate difference calculated on the basis of prices pertaining to the schedule date of dispatch and/or prices applicable to the actual date of dispatch i.e. prevailing rate, whichever is higher i.e. ordered value minus liquidated damages or prevailing rate whichever is lower, will be paid. However, extension in the validity of the contract will be required if the dispatches are made after expiry of the contract. If at any time, during the said period, the supplier reduces the sale price of such stores or sell such stores to any other person at a price lower than the price chargeable under the contract, he shall forthwith notify such reduction or sale to the Corporation and the price payable under the contract for the stores supplied after the date of coming into force such reduction or sale, shall stand correspondingly reduced.

**15.2 SALES TAX/VAT:**

VAT/The Central or State sales tax, if applicable will be paid at concessional rate on the cost of the finished goods being supplied including excise duty thereon at the rates prevailing at the time of scheduled delivery period subject

to the suppliers claiming the same as a separate item in their bill. The paying authority shall furnish 'C' form/ declaration form at the time of final settlement of the bills. The supplier shall furnish the following certificate on the body of the bill claiming aforesaid amount of Sales Tax/VAT etc.

"It is certified that the goods, on which VAT/sales tax has been charged, have not been exempted under the VAT/Central Sales Tax Act, or the State Sales Tax Act or the rules made thereunder. The amount charged on account of VAT/sales tax on those goods are not more than what is payable under the provisions of the relevant act, or the rules made thereunder.:"

"Certified further that we (our branch/or Agent) ..... address ..... are registered as dealers in the State of ..... under local Registration No. .... and in the State of ..... under Central Registration No. .... for purpose of Sales Tax/VAT."

### **15.3 EXCISE DUTY & CESS ON EXCISE :**

In case Excise duty & Cess on Excise Duty is payable on the finished goods which are to be supplied, the supplier shall record the following certificate on their bills.

"It is certified that the excise duty & cess on excise duty, on the goods on which it has been charged, has actually been paid by us and is not more than that is payable under the provisions of the relevant act, or the rules made thereunder. Excise duty gate pass should be enclosed along with the supplies and photo copy of ED gate pass should be enclosed along with copy of invoice to be forwarded to C.O. MM deptt."

### **15.4 PACKING AND MARKING:**

- a) All machinery equipments, hardware items and materials prone to deterioration shall be adequately packed to protect them against all damages, pilferage, rust etc. during transit and from atmosphere. Packing shall be adequate and suitable for transport by rail/ road as required. Each package shall contain order no. and date and name of consignee.
- b) Each consignment must relate to one purchase order only. Where dispatch of material against more than one orders in a single consignment/ case is warranted, the material against each order should be packed separately. Order numbers should be visibly marked outside all packages for easy identification.
- c) Any loss, damages or pilferage in transit due to faulty/ inadequate packing or on any other account will be to the account of the supplier.
- d) All packing and forwarding charges are to be borne by the supplier.

## **15.5 DELIVERY AND LIQUIDATED DAMAGES:**

- a) The successful tenderer, on receipt of Purchase Order, will finalise a detailed manufacturing schedule keeping in view the overall delivery schedule as per the order. He will indicate the completion dates of critical activities and on approval by CCI, the same will form the basis for monitoring the progress when the items are taken up for manufacture. The copies of the schedule shall be forwarded to Inspecting Authority besides Material Management Department.
- b) LD for delay in delivery shall be levied @ ½% per fortnight or part thereof on the belated supplies against each indent subject to maximum of 5% of the delayed portion of supplies against that indent. The corporation will, however, not be bound to prove that it has suffered to the extent of LD claimed. The LD for delay in delivery shall be levied on the landed cost at CCI's units inclusive of basic prices, taxes, duties & freight etc.
- c) The time and date of delivery is the essence of the contract and the goods must be dispatched within the time and subject to the conditions specified. For such breach of contract, the Corporation will be entitled to take any other course of action against the supplier as it may deem fit like stoppage of business dealings/ debarring from tendering etc.

## **15.6 FREIGHT**

- a) Stores, ordered for, must be dispatched in such a way that the total freight charges whether based on cubic measurement or weight should be minimum keeping in view that the under-load consignment are to be avoided.
- b) The supplier shall obtain clear and unconditional Railway Receipt/ Parcel way bills/ lorry receipts from the Carriers.
- c) The supplier shall have to make arrangements for the dispatch of all over size dimensional consignments to purchaser's site and shall be responsible for taking permission, if necessary, from the concerned authorities for the movement of such oversize consignments from the station of dispatch to destination station. All expenses incurred in this connection shall be borne by the supplier.

## **15.7 INVOICING**

- a) Two copies (one of which should be in original) of invoice, packing list/ delivery challan along with Railway receipt/ Lorry receipt/ Parcel waybill, Inspection certificate issued by the inspecting authority or similar other documents as above should be sent to the consignee. The documents as above should be sent within 72 hours from the dispatch of the consignments to avoid payment of demurrage/ wharfage. Any demurrage/ wharfage paid by the Corporation due to non/late receipt of documents will be to the account of supplier.
- b) A telegraphic intimation giving details of RR/Lorry receipt/ Parcel way bill, consignment details, such as no. of packages, weights and values shall be sent to the consignee in advance.
- c) One copy of invoice pre-receipted along with copies of packing list, delivery challan, inspection certificate issued by the inspection authority shall be sent to the paying authority. In case the dispatch documents are



to be sent through bank, advance copy of the invoice shall be sent to the paying authority within 72 hours of the dispatch of the consignments.

- d) One copy of the invoice along with a copy of packing list delivery challan shall be sent to the Officer who has placed the order.
- e) If any extra charges including wharfage or demurrage are incurred in taking delivery of the consignment due to supplier's failure to observe the conditions mentioned above same will be recovered from the supplier.

#### **15.8 INSPECTION:**

- i) Pre-inspection at supplier's work will be carried out by P&I Dept. of CCI/ Unit/ any other agency at the sole discretion of CCI.
- ii) All inspection calls will be issued from the works and not Sales Office with the stamp of the supplier, giving a clear notice of 21 days from the date of stamp of the Post Office when any items are offered for inspection.
- iii) Inspection will cover checking of all items being manufactured by the supplier at his own works, at the works of his sub-supplier and also of any of his bought out items.
- iv) The supplier will provide all facilities including tools, instruments and other apparatus to inspecting officer to facilitate inspection and avoid delay in work on this account.
- v) The test would normally be conducted as per BIS standards wherever available and in other cases as per prevalent engineering practices for consignments, checking of material will be done for chemical analysis, physical properties, visual inspection, non-magnetic property, test certificates and other non-destructive tests (if specified in the purchase order). Test verification of chemical composition will be done in a Govt. laboratory/ Govt. approved laboratory/any other reputed laboratory at the discretion of CCI wherever required.
- vi) The Inspector will have access to the premises/ workshop of supplier, his sub-supplier at all reasonable times to undertake inspection, take samples, take any other measurement or readings and to check the progress of any of the items.
- vii) Inspection will include checking of raw materials manufacturing procedures, stage inspection (as per stages to be indicated/ required by CCI during execution) and final inspection. All detailed records about the stage inspection will always be kept by the manufacturer and CCI inspector will be at liberty to check those records on demand.
- viii) For any sub contracted items, supplier will inspect them himself before offering them to CCI for inspection. In this regard, the supplier will submit his inspection report along with all documents while giving inspection call for sub-contracted items.
- ix) The supplier will immediately on receipt of the order, draw an inspection plan with CCI for identifying the stages at which checking is to be done to meet with CCI's requirements.
- x) Final inspection will be carried out when the material/equipments are ready in all respect preferably before painting. The extent and type of inspection will depend upon type of equipment/ item and its function in general and will include items like checking of critical dimensions, physical tests, straightness/ flatness and surface finish, checking of hardness of components, carrying out load/ no load trials,

- dynamic/ static balancing, leakage and hydraulic tests contract impression, tooth profile and back lash etc.
- x i) The manufacturer will supply to the inspector all test certificates and records of their own internal inspection at the time of final inspection. These will include manufacturing records, destructive and non destructive tests, impulse test etc.
  - x ii) If the inspector has advised the supplier to do certain rectification before dispatch of materials, these instructions will be carried out and materials will not be dispatched without these rectifications. Inspection by CCI inspectors will not absolve the supplier from his responsibility regarding the quality of materials supplied by him or his sub-contractors/ sub-suppliers. CCI will have the right to reject the materials if after their receipt at site, it is found that the rectifications advised by CCI were not carried out or the items do not give the specified performance as per the specifications and the guarantees.
  - x iii) For long delivery items, the supplier will send a monthly progress report indicating the latest status of each item/assembly to enable CCI to know the progress of work.
  - x iv) Notwithstanding the stage/final inspection done at the works of supplier, CCI reserves the right to inspect or test the goods at its destination site and any defects/short-comings noticed will be made good by the supplier/work as per contracted time schedule, at his own expenses.
  - x v) CCI reserves the right to inspect any bought out item and in this regard the supplier will submit all necessary records, data and documents so as to enable CCI inspector to undertake inspection.
  - x vi) No material will be dispatched under any circumstances without clearance from CCI Corporate Office.
  - x vii) All costs involved in connection with inspection/testing will be borne by the supplier.

#### **15.9 WARRANTY REGARDING QUALITY OF MATERIALS SUPPLIED**

- a) Supplier shall guarantee that all the items supplied by them whether manufactured by them or their sub-contractor or purchased from any other source and supplied to the corporation shall be new and free from all defects arising due to defective material or manufacturing defects. Items supplied shall be first class workmanship with effective design.
  - b) The supplier shall warranty to replace, rectify or repair free of cost at the factory site, the component or part of item proved to have become unserviceable due to any of the above defects within period of 12 months from the date of use of the material or 18 months from the date of dispatch of item(s) whichever is earlier. In the event of the supplier not complying with the above within a reasonable time, the corporation will have the option to rectify/repair or replace the defective part(s)/component after giving three weeks' notice to the supplier and recover the cost from the supplier.
16. CCI reserves the right to request for diversion of dispatch of materials to any of its other units. Difference in taxes, duties and freight charges if any, shall be borne by CCI.

17. In the event of negotiations, only downward revision of rates will be allowed. Any change in techno-commercial terms as agreed earlier, will not be permitted at this stage. Hence any qualifying remarks in the price bid revised/ negotiated offer will not be entertained and shall render the tender liable for rejection and forfeiture of earnest money deposit.
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**CEMENT CORPORATION OF INDIA LTD**

**NEW DELHI**

ANNEXURE – “A”

**PROFORMA OF BANK GUARANTEE FOR EARNEST MONEY DEPOSIT**

Where as M/s ..... (name and address of the party) a Company incorporated under the Companies Act, 1956, having its registered office at ..... (hereinafter called the Tenderer) wish to participate in tender enquiry no..... of the Cement Corporation of India Ltd., a Company incorporated under the Companies Act, 1956, having its registered office at SCOPE complex, Core-V, 7 Lodi Road, New Delhi 110003 (hereinafter called the ‘Corporation’) for \*\* supply/execution of ..... (name of the supply item/work) for ..... (name of CCI’s Project/Factory).

AND WHEREAS in terms of the tender conditions the tenderer is required to furnish to the CORPORATION a bank guarantee for the sum of Rs..... (Rupees ..... (in words) as Earnest Money Deposit against the ‘Tenderer’s offer aforesaid.

AND WHEREAS we ..... (name and address of the bank) have at the request of the Tenderer agreed to give to the CORPORATION this guarantee as hereinafter contained.

We ..... (name of the bank) hereby undertake the guarantee to pay immediately to the CORPORATION on demand in writing by the CORPORATION the amount of Rs..... (Rupees ..... (in words), without any reservations and recourse, if the Tenderer shall for any reason backout, whether expressly or impliedly, from their said tender during the period of its validity of any extension thereof or the Tenderer fails to execute the order/ work awarded to them by the CORPORATION against the said tender.

We ..... (name of the bank) further agree that our liability to pay the aforesaid amount is not dependent or conditional on the CORPORATION proceeding against the Tenderer and we shall be liable to pay the amount, without any demur merely on a claim being raised by the CORPORATION.

The guarantee herein contained shall not be determined or affected by the liquidation or winding up, dissolution or change of constitution or insolvency of the said TENDERER but shall in all respects and for all purpose be binding and operative until payment of all moneys due to CORPORATION in respect of such liability or liabilities are paid.

NOTWITHSTANDING anything to the contrary in aforesaid paragraphs, our liability under the guarantee is restricted to Rs..... (Rupees..... (in words), our guarantee shall remain in force till ..... (date) (to be given for 6 months from the date of opening of Techno-commercial bid). Unless a suit or action enforce a claim under the guarantee is filled on us within two months from the aforesaid date viz., ....., we shall be relieved and discharged from all liability thereunder.

We ..... (name of the bank) lastly undertake not to revoke this guarantee during its currency except, with the previous consent of the CORPORATION in writing.

For .....

Dated.....

\* Delete if not applicable

\*\* Delete whichever is not applicable

**CEMENT CORPORATION OF INDIA LTD  
NEW DELHI**

**ANNEXURE – ‘B’**

I declare that the following officer of the Corporation are related to me/ no officer of the Corporation is related to me:

S.No.	Name of the Officer	Post held	Place of posting
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Signature of tenderer  
(Name / full address with seal)

**CEMENT CORPORATION OF INDIA LTD  
NEW DELHI**

**ANNEXURE – ‘C’**

**UNEXECUTED / PRESENT CONTRACTS / JOBS IN HAND**

S.No.	Name of client	Nature of work	Tonnage	Approx. value of contract (Rs. In lakhs)	Date of start	Stipulated date of completion
-----	-----	-----	-----	-----	-----	-----

Note: Please attach photocopies of such orders/ contracts

Signature of tenderer  
(Name / address with seal )

Place:

Date:

**CEMENT CORPORATION OF INDIA LIMITED**  
**NEW DELHI**

ANNEXURE-`D`

**FORMAT FOR ADDL. INFORMATION TO BE FURNISHED BY THE  
TENDERERS (REFER SPL. INSTRUCTIONS PART III SPL. TERMS  
& CONDITIONS)**

1. Name of the Firm
2. Complete Postal address/Gram/Tlx/Phone etc.
  - a) Head Office/Corporate Office
  - b) Factory
  - c) Other branches (incl. Delhi office, if any)
3. Whether Public Sector/Private Sector/Joint Sector etc.
4. Type of Organization: Proprietary/Partnership/  
Limited/any other type
- A. In case of Proprietors/Partnership**
  - i) Name of the Proprietors/Partners
  - ii) Whether business/Partnership is registered
  - iii) Date of commencement of business
  - iv) Status of Income Tax assessment(Please attach copy of Valid Income Tax clearance certificate)
  - v) Name & address of the Bankers (Please attach reference letter from your banker)
- B. In case of Limited Liability Company or Company Limited by Guarantees**
  - i) Amount of paid-up Capital
  - ii) Name of Directors
  - iii) Date of Registration of Company
  - iv) Copies of last three years audited balance Sheets of company (including Profit & Loss Statement) to be enclosed.
  - v) Name & address of the Bankers (please attach reference letter from your banker)
5. Date of commencement of production of item for which tender is being submitted



6. Annual turnover for last 3 years of the category/item for which tender is being submitted. Amount Rs. In lakhs
7. List of Plant & Machinery installed (Details to be furnished as per Annexure-D 1)
8. Details of orders executed/completed including CCI's, if any, during last 3 years (details to be Furnished as per Annexure-D2). (Photocopies of orders/contracts alongwith performance certificates from buyers to be enclosed).
9. Present order in hand (Details to be furnished as per Annexure `C') (Photocopies of orders/contracts to be attached).
10. Details of Foreign collaboration, if any. (Please attach photocopies of collaboration agreement if it is there).
11. **FINANCIAL**
- a) Investment on fixed assets of building, fitting & fixtures.
- b) Investment on Plant & Machinery tools And dies etc.
12. **Testing Facilities**
- i) Is your firm authorised to use ISI certification mark (give authority reference with copies)
- ii) Are these testing facilities adequate in line with ISI.
- iii) What are the test facilities (Test Equipments Annexure – D2)
13. Are you on the approved list with any of the following Supply of items quoted :
- Any Public Sector Undertakings
  - Cement Plants
  - Other reputed agency
- (Enclose photocopies of Registration Certificates)

14. **LIST OF ENCLOSURES ATTACHED BY VENDORS TO BE INDICATED**

	Enclosed	Not Enclosed
a) Latest Income Tax Clearance Certificate/ Latest Income Tax Return	_____	_____
b) Partnership Deed, if applicable	_____	_____
c) Copies of last three years audited Balance sheets with Profit & Loss A/cs	_____	_____
d) List of Plant & Machinery (as per Annexure D1)	_____	_____
e) Photocopies of Performance Reports from the customers	_____	_____
f) Details of present orders in hand (as per Annexure – C)	_____	_____
g) Photocopy of foreign collaboration, If applicable	_____	_____
h) Reference from the Bankers indicating Financial status of the company	_____	_____
i) Details of Testing Facilities (as per Annexure D2)	_____	_____

**It is hereby solemnly declared that the above information and the data furnished in the enclosed Annexure is true to the best of our knowledge.**

Signature of Tenderer

Name of the Singnatory

Designation

Seal of the Company

Place :

Date :

**DETAILS OF PLANT & MACHINERY INSTALLED**

**Name of Firm :**

Sl. No.	Machinery	Size/Capacity	Qty.	Year of Manufacture	General Condition
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Signature :

Name :

Designation :

**A. DETAILS OF TESTING FACILITIES INSTALLED**

**Name of Firm :**

Sl. No.	Item	Size/Capacity	Qty.	Year of Manufacture	General Condition
---------	------	---------------	------	---------------------	-------------------

Note : Also specify if test facilities like Radiography, Magnetic crack detection ultrasonic, physical test and chemical test facilities are available. Also indicate routine and type-testing facilities.

Date :

Signature :

Name :

Designation :

**DETAILS OF ORDERS EXECUTED**  
**INCLUDING CCI DURING THE LAST THREE YEARS**

-

**Name of firm :**

Type of items (give details)	Name of the party to whom supplied	Value	Date of order	Delivery date	Date of actual completion

Date :

Signature :

Name :

Designation :

N. B.: Please attach photocopies of such orders/contracts.

**B. FREIGHT ELEMENT BY ROAD**

<u>Destination Station</u> Of CCI factories	<u>Distance in Kms. From Stn.</u> <u>of despatch to factory site</u>	<u>Freight/MT</u>
-----	-----	-----
1. Tandur, Distt. K.V. Ranga Reddy (AP)		<b>NOT APPLICABLE AS IT IS TO BE SUBMITTED IN PRICE BID</b>

The above road freight charges shall remain firm during the contractual period and no variation on any account whatsoever, shall be allowed.

Signature of Tenderer  
With date & seal

**CEMENT CORPORATION OF INDIA LTD.**

**NEW DELHI**

**MODVAT CREDIT**

We are entitled for availment of MODVAT Credit in respect of excise duty cess on ED paid on exciseable materials. For availing MODVAT Credit, following documents are required to be submitted to our respective Units alongwith supply of materials :-

- i. A clear invoice-cum-excise, gatepass, cess on excise duty etc pass having excise duty tariff head No., duly stamped and signed by the supplier.
- ii. The excise duty and cess rate and amount should be clearly shown separately in the invoice-cum-excise gate pass.
- iii. The duplicate copy of invoice-cum-gate pass meant for transporter with title 'Transporter Copy'.

Please confirm all the documents would be submitted along with each and every supply to our Units for availment of the MODVAT Credit. In case any of the documents is not submitted, MODVAT Credit amount will be debited from your bill for the concerned supply.

Please submit this Annexure duly sealed and signed alongwith techno-commercial bid as token of acceptance of the above.

**In case excise duty and cess on excise duty is not applicable, the same may be clearly mentioned alongwith techno-commercial bid.**

**CEMENT CORPORATION OF INDIA LIMITED**  
**(A GOVT. OF INDIA ENTERPRISE)**  
**‘CCI HOUSE’, 87-NEHRU PLACE**  
**NEW DELHI – 110 019**

**PART – III**

**SPECIAL TERMS AND CONDITIONS OF TENDER FOR DESIGN, ENGINEERING, MODIFICATION, SUPPLY, CIVIL / STRUCTURAL DESIGN, INCLUDING CIVIL WORK / FOUNDATIONS, ERECTION & COMMISSIONING, INCLUDING HOOKING –UP WITH THE EXISTING SYSTEM FOR THE COMPLETE MECHANICAL TRANSPORT SYSTEM ON TURNKEY BASIS FOR RAW MILL, KILN FEED AND CEMENT MILL SECTIONS AT OUR TANDUR CEMENT FACTORY HAVING 3000 TPD CAPACITY LOCATED IN RANGAREDDY DISTRICT OF ANDHRA PRADESH.**

In addition to the General Terms and Conditions of tender under PART – I & II, the following terms and conditions will also apply to the contract. These special terms and conditions, if contradictory to any conditions given in PART – I & II, will prevail upon the conditions given therein. The order will be released in four parts i.e. PART – A, PART – B, PART-C & PART-D. **The contract shall be finalized/decided on lowest basis of total of PART-A, PART-B, PART-C & PART-D of individual sections separately on Turnkey Basis i.e., for raw mill, kiln feed and cement mill-1 & cement mill No-2.**

**ELIGIBILITY CRITERIA**

1. Average annual financial turn over during last three years ending 31<sup>st</sup> March of previous financial year should be Rs.1.60 crore.
2. Experience of having successfully completed similar works during last seven years ending last day of month previous to the one in which applications are invited should be either of the following:
  - a) Three similar completed works costing not less than Rs.2.20 crore .  
or
  - b) Two similar completed works costing not less than Rs.2.70 crore .  
or
  - c) One similar completed work costing not less than Rs.4.30 crore

**1.0 SCOPE OF WORK AND TECHNICAL SPECIFICATIONS**

- 1.1 The scope of work includes design, engineering (mechanical, civil/structural, electrical & instrumentation), modification, supply, construction, erection and commissioning of the complete Mechanical Transport System for Raw Mill, kiln feed and Cement Mill Sections as per the Technical Specifications described in PART – IV enclosed herewith. Any addition of equipment /



modification for satisfactory completion of the schemes as per site condition, shall also be in the scope of the tenderer.

- 1.2 All technical specifications, design, drawings, schemes, list of vendors etc. are to be checked / verified, finalized and approved by the Technical Consultant to be directly appointed by the tenderer only from the list of consultants enclosed at Annexure – IV.8.

## **2.0 PRICES**

- 2.1 The Bank Guarantees as mentioned under different columns (EMD, Security Deposit, Advance & Performance guarantee etc.) are to be submitted as per CCI formats from any Nationalised Banks only of equal amount as per validity indicated in the relevant clause with claim period of further 3 months.
- 2.2 Prices are to be quoted on firm and F.O.R. destination basis including VAT/SST/CST, Octroi, packing, forwarding, insurance, transportation, entry tax etc. etc. but exclusive of ED, CESS on ED and Service tax which will be payable extra as per actual as applicable at the time of scheduled delivery of machineries as per order or at the time of actual dispatch of machineries, on submission of documentary evidence, whichever is lower. No escalation during the period of contract/execution of the entire contract/ extended period on whatever reasons thereof will be allowed in prices. **However, prevailing rate of all taxes & duties may be declared in techno- commercial bid.**
- 2.3 The price should be quoted strictly in our prescribed Price Bid proforma only enclosed with the tender, both in figures and words to avoid ambiguities. In case of any difference in figures & words, the lower amount of the two will be taken into consideration.
- 2.4 Award of contract will be solely at the discretion of CCI.

## **3.0 PROJECT SCHEDULE**

- 3.1 The complete job as per the scope of work specified above should be completed within **12 months** from the date of award of Work Order. **The date of award of the Work Order shall be considered as the zero date for all purposes.**
- 3.2 The submission and the approval of the detailed General Arrangement Drawings of the system (Mechanical, Civil, Electrical & Instrumentation Schemes) and technical Specifications should be completed and approved by CCI within **60 days** from the date of award of Work Order.

**Decision of CCI in respect of all the technical specifications, design, drawings, diagrams, schemes and selection of vendors will be final.**

- 3.3 The successful tenderer has to submit item wise Billing Schedule for the supply of the material within 20 days from the date of Work order. The billing schedule may be item wise and / or on the tonnage basis as the case may be.

#### **4.0 PAYMENT TERMS**

##### **4.1 PART-A SUPPLY OF MACHINERY AT SITE**

- 4.1.1 90% (ninety per cent) of the contract value of Part-A of material & 100% of ED & Cess on ED shall be paid through Letter of Credit (LC) against each complete machinery supplied. **For this purpose, the tenderer should indicate the break up of prices involved, machinery-wise as per the price bid format and get the same approved by CCI before commencement of despatches.** LC shall be established at CCI's Bank at TANDUR, one week before the dispatch of the first consignment by the tenderer. The tenderer shall send intimation to CCI in this regard. The CCI's bank charges shall be on CCI account and tenderer's bank charges shall be on their account. The LC shall be operated on submission of the following documents to the banker in original:
- (a) Three copies of invoice along with excise gate pass, packing list etc.
  - (b) Copy of equipment/machinery list along with value as per billing schedule to be submitted by the successful tenderer duly approved by CCI.
  - (c) Proof of despatch viz. consignee copy of consignment note (GR/LR/RR). Copy of insurance policy, clearly indicating the part consignment by underwriter, and
  - (d) Material inspection report from the Tandur Cement factory indicating value of material with respect to (b) above.

##### **4.2 PART-B CIVIL WORKS**

- 4.2.1 80% (eighty per cent) of the contract value of Part-B i.e. civil works shall be paid within 15 days of submission of monthly running bills for the Civil Works executed by the tenderer which will be duly certified by the concerned department of CCI.

- 4.2.2 10% (ten percent) of contract value of Part-B shall be paid after completion of civil works duly certified by the concerned department of CCI.

##### **4.3 PART-C ERECTION OF MACHINERY**

- 4.3.1 80% (eighty per cent) of the contract value of Part-C i.e. erection charges & 100% Service tax shall be paid within 15 days of submission of monthly running bills by the tenderer, duly certified by the concerned department of CCI.
- 4.3.2 10% (ten percent) of the contract value of Part-C shall be paid on completion of erection of all the machinery after verification of CCI site In-charge .

#### **4.4 PART-D COMMISSIONING OF MACHINERY**

4.4.1 90% (ninety per cent) of the contract value of Part-D i.e. Commissioning charges & 100% Service taxes shall be paid after successful completion of commissioning.

4.5 Balance 10% of the total contract value (Part-A, Part-B, Part-C & Part-D), shall be released after successful erection & commissioning on submission of bank guarantee for equivalent amount towards performance guarantee/warranty for a period of 12 months from the date of successful commissioning with claim period of further 3 months and after deduction of LD/ recovery, if any .

#### **5.0 LIQUIDATED DAMAGES(L/D).**

5.1 Any delay beyond the scheduled completion period will attract liquidated damage (L/D) @ 0.5% per fortnight of the total contract value subject to the maximum ceiling of 5% of the total contract value comprising Part-A, Part-B, Part-C & Part-D.

5.2 The date of successful commissioning will be treated as the date of completion for the purpose of calculating LD . However, Performance Guarantee Test shall be carried out as per Annexure – IV.6

5.3 Recoveries for penalty will be made from the final bills of the party in respect of PART- A, PART – B, PART-C & PART-D.

#### **6.0 SECURITY DEPOSIT (S.D)**

6.1 The successful tenderer shall have to furnish Security Deposit equivalent to 5 % (five percent) of the total value of the contract by way of Demand Draft / Bank Guarantee (in CCI format to be provided by the unit) in terms of Clause 2.0 of PART – II of the tender towards satisfactory performance of the contract within 15 days from the date of award of the work order to our Tandur unit.

The BG should be valid for a period of 18 months from the date of award of contract with claim period of 3 months.

6.2 This Security Deposit shall be refunded within 2 months from the date of satisfactory completion of the commissioning and on basis of certificates given by CCI.

#### **7.0 INVOICING**

7.1 Three copies of the invoices, showing ED & Cess on ED and the balance amount (10%) to be released against submission of performance guarantee, along with Gate Pass for Excise Duty and Cess on Excise Duty indicating actual amount of ED/Cess on ED paid, packing list, delivery challan, Railway Receipt/

Lorry Receipt/ Parcel Way Bill or similar other documents are to be submitted to the Bank certified by CCI representative in the manners specified under Clause 4.1.1 for obtaining payment under LC. Copy of the document should also be sent immediately after dispatch of the consignment to the destination by fax to avoid demurrage/ wharfage.

- 7.2 Three copies of invoices of which one shall be original duly pre-receipted along with packing list/delivery challan shall be sent to the paying authority.
- 7.3 If any extra charges including wharfage/ demurrage are incurred in taking delivery of the consignment due to supplier's failure to observe the conditions mentioned above, the same would be recovered from the supplier.

#### **8.0 CONSIGNEE: -**

- 8.1 HOD (MM) – Tandur (AP). However, the consignment note (C/N) /LR/RR shall be endorsed by CCI in the name of tenderer's representative posted at CCI Tandur Unit to facilitate receipt, transport and safe custody by him at CCI's site.
- 8.2 The successful tenderer should ensure that their site incharge would be available at Tandur unit, before the first lot of material reaches the unit, for ensuring the receipt of the material and its safe unloading as well as custody etc.

#### **9.0 PAYING AUTHORITY: - H.O.D. (FINANCE) – TANDUR CEMENT FACTORY, TANDUR**

#### **10.0 INSPECTION**

- 10.1 Pre-dispatch inspection shall be done at the tenderer's works or the works of tenderer's vendors. The tenderers shall give an advance notice of minimum seven days for enabling CCI to depute the inspector. Material will be dispatched only after dispatch clearance certificate given by CCI's inspector.
- 10.2 The equipments shall also be inspected at works of purchaser's plant site by the Corporation representative.
- 10.3 Inspection shall, in no way, absolve the supplier of their responsibilities of workmanship, quality and performance guarantee offered by them.

#### **11.0 PERFORMANCE GUARANTEE TESTS**

- 11.1 The successful tenderer shall be required to give performance guarantee tests as per Clause 8.0 of Part – IV.
- 11.2 Deductions shall be made for the shortfall of performance including forfeiture as per Clause 8.2 (v), 8.3 (b) (vi), 8.3 (c) (iv) and 8.8(vi) of Part-IV.

#### **12.0 WARRANTY**

- 12.1 The tenderer shall guarantee that all the equipments supplied by them whether manufactured at their works or by their sub-suppliers or purchased from any

other source and supplied to the Corporation shall be new and free from all defects and shall be of first class workmanship and quality.

- 12.2 The tenderer shall warranty to replace, rectify or repair free of cost at our factory site, the components or the parts of the machinery, including the bought outs which have become unserviceable due to any of the defects within a period of 12 (twelve) months from the date of successful commissioning of the plant or 18 (eighteen) months from the date of completion of the delivery whichever is earlier. If the tenderer is not complying with the above within a reasonable time, the Corporation shall have the option to rectify, repair or replace the defective parts /machinery after expiry of two weeks' notice and at the risk and cost of the tenderer.

**13.0 FREIGHT, INSURANCE AND HANDLING AT SITE**

The freight and insurance charges will be borne by the successful tenderer. All loading, unloading, transportation and storage at site will be done by the successful tenderer. Suitable covered space shall be provided by CCI for critical and other sensitive components free of charges. Erection cum storage insurance shall also be included in the successful tenderer's scope.

**14.0 TECHNICAL INFORMATION/DATA**

- 14.1 The tenderers are required to furnish the information particulars along with their tender as per enclosed ANNEXURE – IV.4.

- 14.2.1 The successful tenderer will have to supply six copies of the detailed parts list of each and every equipment separately to enable us to verify the items at the time of receipt and installation.

**15.0 SUBMISSION OF DRAWINGS/ SCHEMES/ TECHNICAL DOCUMENTS ETC.**

Complete set of descriptive catalogue, Dimensional General Arrangement Drawings with Electrical/Instrumentation Schemes to be furnished by the successful tenderer as specified in the Part-IV i.e Clause No. 'C. General' of Annexure-IV.4.

**16.0 RETURNS**

- 16.1 Monthly report of the dispatches for each previous month shall be sent by the successful tenderer by 5<sup>th</sup> of the subsequent month to the CCI, Tander with following particulars: -

- i) Quantity due for supply during the month.
- ii) Quantity actually dispatched with reasons for variation.
- iii) LR No. and date.
- iv) Bill No. and date.
- v) Quantity awaiting dispatches.

A copy of the above shall also be submitted to OPERATION DIRECTORATE at the address of CCI Corporate Office, New Delhi.

## **PART – IV**

### **TECHNICAL SPECIFICATIONS**

**TENDER SPECIFICATION FOR DESIGN, ENGINEERING , MODIFICATION , SUPPLY, CIVIL / STRUCTURAL DESIGN, MODIFICATION, SUPPLY, CIVIL / STRUCTURAL DESIGN, INCLUDING CIVIL WORK/ FOUNDATIONS, ERECTION & COMMISSIONING, INCLUDING HOOKING –UP WITH THE EXISTING SYSTEM FOR THE MECHANICAL TRANSPORT SYSTEM ON TURNKEY BASIS FOR RAW MILL, KILN FEED AND CEMENT MILL SECTIONS AT OUR TANDUR CEMENT FACTORY (3000 TPD CAPACITY) LOCATED IN RANGAREDDY DISTRICT OF ANDHRA PRADESH.**

#### **1.0 PRESENT SYSTEM:**

##### **1.1 RAW MILL SECTION**

1.1.1 At present, the raw-meal ground in the raw mill section is fed to the air lift Pump (2A.21) through the screw conveyor (2A-19). The dust of electro-static precipitator (2A-10) and the gas conditioning tower (2A-09) is also fed to the airlift pump (2A-21) through this screw conveyor (2A-19).

When the raw mill is not in operation, the dust of the electrostatic precipitator (2A-10) and the gas conditioning tower (2A-09) is directly fed to the pneumatic screw pump (2A-93) through the chain conveyor (2A-83).

The air lift pump (2A-21) discharges raw meal into the continuous blending silo through the expansion vessel (3A-50 (i)) .

Raw meal from the expansion vessel (3A-50 (i)) is discharged into the continuous blending silo (3A-75) through the pneumatic gravity conveyors (3A-01) & (3A-08 (ii)).

The pneumatic screw pump (2A-93) directly discharges the ESP/GCT dust into the continuous blending silo when VRM is not in operation.

Flow sheets TAN-101-1-94 and TAN-101-1-95 show the complete system design of the present system. The list of all the existing equipments of the raw mill section is enclosed at Annexure – A.

The system, as indicated above, is currently in operation but it is consuming more power.

The following General Arrangement Drawings indicating the present system are enclosed with this tender for information to the intending tenderers.

- (a) General Arrangement of Raw Material Grinding Department with LM43.40 Roller Mill. (Sheet 3) : Drg.No. A.ABL/CCI-TDR/G-RM/1096/ (Rev. E)
- (b) General Arrangement of 18 m dia Continuous Blending Silo : Drg. No. A.ABL/CCI-TDR/G-BLS/1104/ (Rev.E)
- (c) General Arrangement of Raw Material Grinding Department with LM 43.40 Roller Mill. (Sheet 1) : Drg.No.A-ABL/CCI-TDR/G-RM/1094.
- (d) General Arrangement of Raw Material Department with LM 43.40 Roller Mill (Sheet 4) : Drg.No.A-ABL/CCI-TDR/G-RM/1097 (Rev. G)

## **1.2 KILN FEED SECTION**

1.2.1 At present, the raw-meal extracted from the continuous blending silo (3A-75) is transported to the control bin (3A-28) through pneumatic gravity conveyors (3A-22 & 3A.26) and bucket elevators (3A-25).

The raw meal discharged from the control bin (3A-28) is fed to the air lift vessel (3A-35) via weigh feeder (3A-34) and the pneumatic gravity conveyor (3A-42).

The air lift vessel (3A-35) transports raw meal through the raw meal divider (3A-39) which distributes it to both the streams of preheater.

Flow sheets TAN-101-1-95 and TAN-101-1-96 show the complete system design of the present kiln feed system. The list of all the existing equipments of kiln feed section is enclosed at Annexure – A.

The system as indicated above is currently in operation but it is consuming more power.

1.2.2 The following General Arrangement Drawings indicating the present system are enclosed with this tender for information to the intending tenderers.

- (a) General Arrangement of 18 m dia continuous blending silo and kiln feed department : Drg. No.A.ABL/CCI-TDR /G-KF/1105(Rev. C) (Sheet 1 of 2)
- (b) General Arrangement and foundation details of preheater 3764 size : Drg No.ABL/CCI-TDR/ PH/1022 (Rev. C)
- (c) General arrangement and foundation details of preheater 3764 size : Drg. No.ABL/CCI-TDR/ PH/1021

### **1.3 CEMENT MILL SECTION**

There are two cement mills. Each mill has its individual cement transportation system to the cement silos (3 Nos.)

The cement ground in the cement mill is fed to the vertical pneumatic conveyor (0114) through the pneumatic gravity conveyor (0113)

The vertical pneumatic conveyor (0114) discharges cement into cement silos (3 Nos) through the top separator (0114B) and the pneumatic gravity conveyor (0115)

The enclosed flow sheet MDD-CM/7487 shows the complete system design of the present system and details of the existing equipments.

The system, as indicated above, is currently in operation but it is consuming more power.

The following General Arrangement Drawing indicating the present system is enclosed with this tender for information to the intending tenderer.

General arrangement of clinker grinding mills - Drg. No. AA-726-20-PR-1004/G

**2.0 PROPOSED SYSTEM DESCRIPTION** -AS PER ANNEXURE – IV.1

**3.0 DESIGN DATA FOR PROPOSED SYSTEM-** AS PER ANNEXURE – IV.2

**4.0 SCOPE OF WORK AND SUPPLY** -AS PER ANNEXURE – IV.3

**5.0 TECHNICAL INFORMATION TO BE FURNISHED ALONG WITH THE TENDER OFFER** -AS PER ANNEXURE – IV.4

**6.0 TERMS & CONDITIONS FOR ERECTION AND COMMISSIONING** -AS PER ANNEXURE – IV.5

**7.0 COMPLETION PERIOD**

Design, engineering, manufacture, supply including civil/ structural design, construction, erection and commissioning should be completed within 12 months from the date of award of the Letter of Intent / Work Order.

**8.0 PERFORMANCE GUARANTEE TEST** - AS PER ANNEXURE – IV.6

**9.0 LIST OF DRGS.** - AS PER ANNEXURE - IV.7

**10.0 LIST OF CONSULTANTS** - AS PER ANNEXURE – IV.8



## ANNEXURE-IV.1

### PROPOSED SYSTEM DESCRIPTION

CCI propose to install belt bucket elevators for the transportation of raw meal and cement respectively in the Raw Mill Section, Kiln feed section and Cement Mill Section.

The proposed systems for these sections are described below: -

#### **A. RAW MILL SECTION**

1. The present system of transporting raw meal and GCT/ESP dust by the existing airlift pump (2A.21) to the continuous blending silo (3A-75) shall be retained as a standby arrangement.
2. In the proposed system a common chute (CC) shall be provided for the collection of raw meal and/or GCT/ESP dust respectively from the existing pneumatic gravity conveyor (2A.17) and the existing chain conveyor (2A.83). This common chute (CC) shall discharge material (Raw meal and / or GCT/ESP dust) either into the existing airlift pump (2A.21) or to the proposed belt bucket elevator (BBE-1) through an inverted Y-chute (IYC-1). The inverted Y-chute (IYC-1) shall be provided with a manually operated diverting valve (DV-1) for facilitating discharge of material (raw meal and / or GCT/ESP dust) either into the existing airlift pump (2A.21) or to the proposed belt bucket elevator (BBE-1) through the gravity chute (GC-1).
3. The GCT/ESP dust, when the vertical roller mill is not in operation, shall be fed to the proposed belt bucket elevator (BBE-1). It is envisaged that the combined KW rating of the drives of the existing pneumatic screw pump (2A-94) and its compressor (2A-95) shall be more than the KW rating of the drive of the proposed belt bucket elevator (BBE-1). Hence, the removal of the existing pneumatic screw conveyor (2A-94)
4. The proposed belt bucket elevator (BBE-I) shall discharge material into the existing expansion vessel (3A-50(i)) installed at the top of the continuous blending silo (3A-75) through a gravity chute (GC-2). The material discharged through the proposed gravity chute (GC-2) shall be fed to the continuous blending silo (3A.75) through the existing pneumatic gravity conveyors ( (3A-01) & (3A-08) (ii) ).
5. The enclosed Flow Sheet TDO/RM/SKETCH-1 shows the proposed Mechanical Transport System in the Raw Mill Section as described above.
6. The proposed Mechanical Transport System as shown in the enclosed Flow Sheet TDO/RM/SKETCH-1 is indicative only. The exact location, size of belt bucket elevator and associated equipments shall be designed and finalized as per the system/site requirements.

7. For supporting the load of the elevator at different heights cantilever platforms shall be erected. These platforms shall be fixed to the beams & columns of the existing kiln feed section, as per enclosed sketch –A.

## **B. KILN FEED SECTION**

The present system as described in clause 1.0 of Part-IV shall be retained. As it is consuming more power and does not ensure equal distribution of kiln feed into both the preheater streams, CCI propose to install a belt bucket elevator for the transport of raw meal and solid flow meter for feeding measured quantity to both the preheater streams.

The proposed system, therefore, envisages installation of a belt bucket elevator with other auxiliaries. Transportation of raw meal from the existing continuous blending silo to a load cell hopper and then feeding measured quantity to both the preheater streams after weighing by the solid flow meter.

The proposed kiln feed transport and weighing system as shown in the enclosed SKETCH-II The exact location / size of belt bucket elevator, solid flow meter dampers, valves, venting arrangement, chutes and associated equipment etc. shall be designed and finalized as per the system / site requirement.

The proposed kiln feed transport and weighing system is to be hooked up with the existing system

A dust collector (DC) shall be installed for venting the air of all the proposed equipment. The dust collector (DC) shall be supported on the structure and shall be provided with shed for protection from rain.

The proposed system shall have close-loop operation for maintaining optimum level of raw meal in the load cell hopper. In addition, weighing system shall also have close loop operation.

For supporting the load of the elevator at different heights cantilever platform shall be erected. These platforms shall be fixed to the beams & columns of the existing kiln feed section, as per enclosed sketch – B.

Only CGI Sheets of 12 SWG or lesser than 12 SWG shall be used for sheds / louvers. All the slabs at various floor levels shall be made of RCC/structural steel. For hooking up the proposed system 4-5 days time shall be allowed.

## **C – CEMENT MILL SECTION**

1. The present systems of transporting cement by the existing vertical pneumatic conveyor (0114) to the cement silos (3) shall be retained as a standby arrangement for both the mills.

2. The proposed system envisages installations of an inverted Y – Chute (IYC – 2) in the existing pneumatic gravity conveyor (0113). The inverted Y – Chute (IWC – 2) shall be provided with a manually operated diverting valve (DV – 2) for facilitating feeding of cement either with the existing vertical pneumatic pump (0114) or to the proposed belt bucket elevator (BBE – 2) through the gravity chute (GC – 3).
3. The proposed belt bucket elevators (BBE – 2) shall transport cement through the gravity chute (GC – 4) to the existing separator (0114B) installed on the top of the cement silo No. I. The top separator (011B) shall feed cement to all 3 cement silos through the existing pneumatic conveyor (0115).
  - a. The enclosed flow sheet TDO / CM / SKETCH – 1 show the proposed mechanical transport system in the cement mill section, as described above.
  - b. The proposed system shall be identical for both the cement mills.
  - c. The proposed mechanical transport system as shown in the enclosed flow sheet TDO / CM / SKETCH – 1 is Indicative only. The exact location, size of belt bucket elevator and associated equipments shall be designed and finalized as per the system / site requirement.

For supporting the load of the elevator at different heights cantilever platform shall be erected. These platforms shall be fixed to the beams & columns of the existing kiln feed section, as per enclosed sketch-A.

Suitable louvres shall be provided for adequate ventilation. Hand railings shall be provided for safety, wherever necessary. Only CGI sheets of 12 SWG or lesser than 12 SWG shall be used for shed and the louvers. Staircase shall be provided for access to all the floors.

Any addition of equipment / modification for satisfactory completion of the schemes as per site condition, shall also be in the scope of the tenderer.

**All intending tenderers should visit Tandur unit to get themselves acquainted with the existing system before submitting their offer. This condition has been made mandatory for ensuring compatibility of the proposed systems with the existing system design. CCI shall have right not to consider the offer of the tenderers who have not fulfilled this mandatory condition.**

**DESIGN DATA FOR PROPOSED SYSTEM**

**RAW MILL SECTION**

**A. MECHANICAL**

**B.**

**C. 1. Characteristics of material**

Characteristics	Raw Mill Section
Particle size	17-18% residue on 90 micron sieve
Temperature (°C)	
(a) Minimum	85 °C
(b) Maximum	160 °C
Density, (Kg/m <sup>3</sup> )	0.9gm / c.c.
Moisture, (%)	Less than 1.0 %
Flow ability	Free flowing

**2. Belt Bucket Elevators:**

	Raw Mill Section
Capacity (Tonnes per hour)	380
Height (Metres) (Reckoned from 00 level)	64 (approx.) Discharge chute bend
Quantity (Nos)	One
Code	BBE-1

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### 3. Other Equipments

Equipment	Raw Mill	Section
	Code	No.
Common Chute	CC	One
Diverting valves	DV-1	One
Gravity Chutes	GC-1	One
	GC-2	One
Inverted Y-Chute	IYC-1	One
Mono-rail Hoist	MRH-1	One

These equipments are to be designed as per system/site requirement.

### 4. Structures for Belt Bucket Elevators

Top floors supporting top boot and drive to be covered with shed. Intermediate floors to be provided for equipment support, operation and maintenance. Staircases to be provided for access to all floors, drive platform shall also be provided with staircase for accessibility from the roof of the silo.

Suitable louvers for adequate ventilation and hand railings for safety.

**Only CGI sheets of 12 SWG or less than 12 SWG to be used for sheds and louvers.**

## **D. ELECTRICAL /INSTRUMENTATION**

1. Only energy efficient motors as per IS: 12615 of Kirloskar / Crompton / ABB / Bharat Bijlee / Siemens/ NGEF/ BHEL/ALSTAM make with IP55 enclosure shall be used.
2. The proposed system to be integrated with the existing electrical/instrumentation schemes.
3. Tenderer should ensure the availability of MCC modules in existing MCC in consultation with site engineers.
4. Power/control cables shall conform to BIS specification and should have IS mark. Only following makes of power/control cables shall be acceptable—Universal/Fort Gloster / Cable Corporation of India/Hindustan Cable / Finolex /NICCO.

#### **Note: -**

- 1.0 Please refer the enclosed Flow Sheets, TDO/RM/SKETCH-1. for the proposed mechanical transport system respectively for Raw Mill Section.
- 2.0 Pin bush / love joy couplings not acceptable. Only Tyre / Bibby couplings acceptable.

- 3.0 Only antifriction bearings of SKF/FAG make to be used at all places. Bush bearings are not acceptable.
- 4.0 The equipments are to be designed for 10% additional capacity over and above the rated capacity mentioned above.
- 5.0 The equipments are to be designed for continuous operation i.e. 24 hours, 7 days in week.

### KILN FEED SECTION

#### A- MECHANICAL

- |   |   |
|---|---|
| 1. Characteristics of Raw meal  | Particle size micron. 17-18% retained on 90micron mesh<br><br>Temperature C (max.) 80-100 <sup>0</sup> C<br><br>Density 100 Kg/m <sup>3</sup> for equipt.<br>Sizing Kg/m <sup>3</sup> for drive rating<br><br>Moisture : % < 1.0 %<br>Flow Characters tics : Free flowing |
| 2. Two-way chute (TWC)  | Capacity : 380 TPH<br>Fabricated from MS plate not less than 8mm thick.   |
| 3. Diverting Damper (DD)  | Manually Operated<br>Capacity : 380TPH  |
| 4. Airslides  | (a) Airslide (AS)<br>Capacity : 380 TPH<br>Length : As per site reqt.<br>Inclination : Not less than 8 <sup>0</sup><br><b>Blowers of reputed make to be provided for all the proposed airslides indicated above.</b>  |
| 5. Belt Bucket Elevator (BBE)   | Capacity : 380 TPH<br>Height : 95 metres (approx)<br>Qty. reqd : one number   |
| <p><b>Only “Aumund (India)Engg.Pvt. Ltd, Channai / Mahindra Engg.&amp;Chemicals Products (MECP) Ltd. Pune / Beumer Technology India Pvt.Ltd.,Mumbai / Enexco Technologies Pvt.Ltd.,Gurgaon / Rexnord India Ltd., Pune / BHP Infrastructure Private Ltd., Faridabad.”make belt bucket elevator acceptable.</b></p> |   |
| 6. Load Cell Hopper   | Capacity : 90 MT (LCH)  |

- |                              |   |
|------------------------------|---|
| 7. Aeration Blower<br>(AB)   | Suitable for aerating load cell<br>hopper (LC)                  |
| 8. Isolation Valves<br>(ISV) | Capacity : 380 TPH<br>Foolproof dust seal, manually<br>operated |
| 9. Dosing Valves<br>(DV)     | Electrically operated<br>Capacity : 380 TPH                     |

**Only reputed makes like IBAV/Schenck-JensonNicholson,etc. acceptable**

- |                               |  |
|-------------------------------|--|
| 10. Solid Flow meter<br>(S F) | Capacity : 380 TPH<br>Measuring range : 10 to 380 TPH<br>Accuracy (+)/ (-) 1 per cent<br><b>Only“Schenck-JensonNicholson”<br/>Make solid flow meters acceptable.</b> |
| 12. Rotary feeders            | Rotory feeders with driving  |
| 13. Shut- off Valves<br>(SOV) | Electrically operated.<br>Quantity required – Two Nos.   |

**Only reputed makes like IBAV/Schenck-JensonNicholson,etc. acceptable**

- |                                |   |
|--------------------------------|---|
| 14. Double Flap valve<br>(DFV) | Electrically operated.<br>Quantity required – Two Nos.  |
| 15. Dust Collector<br>(DC)     | Suitable for venting the air of all the<br>proposed equipments.<br>Qty. reqd. : One No.<br><b>Only reputed make acceptable.</b> |
| 16. Mono-rail hoist            | Indef / Morris / Chack  |

- |  |   |
|--|---|
| <b>17. Structures for Belt bucket Elevator /<br/>Load cell hopper/chain conveyors /<br/>Airslides/dust collector</b> | For supporting the load of the elevator<br>at different heights cantilever platforms<br>shall be erected.<br>These platforms shall be fixed to the<br>beams & columns of the existing kiln<br>feed section, as per enclosed sketch-A.<br><br>Drive platform shall also be provided<br>with staircase for accessibility from the<br>roof of the preheater. |
|--|---|

Load cell hopper & dust collector shall also be provided with supporting structures and shall have covered sheds for protection from rain water. The structure shall have connectivity with the existing preheater tower. Chain conveyors & airslides shall be duly supported and provided with covered sheds for protection from rain.

Suitable louvers for adequate ventilation and hand railings for safety.

**Only CGI sheets of 12 SWG or less than 12 SWG to be used for sheds and louvers.**

#### **18. Pit for belt bucket elevator**

Width of pit be suitably sized for easy accessibility for operation and maintenance.

14” wide plastered and 18” high parapet wall be constructed all along the pit. For avoiding seepage, water proofing is to be done.

The pit to be provided with suitable staircase.

#### **A. ELECTRICAL/INSTRUMENTATION**

1. Only energy efficient motors as per IS:12615 of Kirloskar / Crompton / Bharat Bijlee / ABB /Siemens make having efficiency 92% or above shall be used .
2. The proposed system to be integrated with the existing electrical/instrumentation schemes.
3. Tenderer should ensure the availability of MCC modules in existing MCC in consultation with site engineers.
4. Power/control cables shall conform to BIS specification and should have IS mark. Only following makes of power/control cables shall be acceptable – Universal/Fort Gloster/Cable Corporation of India/Hindustan Cable/Finolex / NICCO.

#### **Note: -**

- 1.0 Please refer the enclosed Drawings for the above.
- 2.0 Pin bush / love joy couplings not acceptable. Only Tyre couplings / Bibby couplings shall be provided for all drives.
- 3.0 Only antifriction bearings of SKF / FAG make to be used at all places. Bush bearings are not acceptable.



- 4.0 The equipments are to be designed for 10% additional capacity over and above the rated capacity mentioned above.
- 5.0 The equipments are to be designed for continuous operation i.e. 24 hours, 7 days in week.

## CEMENT MILL SECTION

### A. MECHANICAL

#### 1. Characteristics of material

Characteristics	Cement Mill Section
Particle size	3 – 6 % on + 90 micron sieve
Temperature (°C) (c) Minimum (d) Maximum	90 °C 130 °C
Density, (Kg/m <sup>3</sup> )	1.0 – 1.3 gm / c.c.
Moisture, (%)	-
Flow ability	Free flowing

#### 2. Belt Bucket Elevators:

	Cement Mill Section
Capacity (Tonnes per hour)	150 each
Height (Metres) (Reckoned from 00 level)	45 (approx.) Discharge chute bend
Quantity (Nos)	Two
Code	BBE-2

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#### 3. Other Equipments

Equipment	Cement Mill Section	
	Code	No.
Common Chute	Nil	Nil
Diverting valves	DV-2	Two
Gravity Chutes	GC-3	Two
	GC-4	Two
Inverted Y-Chute	IYC-2	Two
Mono-rail Hoist	MRH-2	Two

These equipments are to be designed as per system/site requirement.

#### **4. Structures for Belt Bucket Elevators**

Top floors supporting top boot and drive to be covered with shed. Intermediate floors to be provided for equipment support, operation and maintenance. Staircases to be provided for access to all floors. Drive platforms shall be provided with staircase for accessibility from silo.

Suitable louvers for adequate ventilation and hand railings for safety.

**Only CGI sheets of 12 SWG or less than 12 SWG to be used for sheds and louvers.**

#### **B. ELECTRICAL /INSTRUMENTATION**

1. Only energy efficient motors as per IS: 12615 of Kirloskar / Crompton / ABB / Bharat Bijlee / Siemens/NGEF/BHEL/ALSTAM make with IP55 enclosure shall be used.
2. The proposed system to be integrated with the existing electrical/instrumentation schemes.
3. Tenderer should ensure the availability of MCC modules in existing MCC in consultation with site engineers.
4. Power/control cables shall conform to BIS specification and should have IS mark. Only following makes of power/control cables shall be acceptable – Universal/Fort Gloster / Cable Corporation of India/Hindustan Cable / Finolex/NICCO.

#### **Note: -**

- 1.0 Please refer the enclosed Flow Sheets, TDO/CM/SKETCH-1 for the proposed mechanical transport system respectively for Cement Mill Section.
- 2.0 Pin bush / love joy couplings not acceptable. Only Tyre / Bibbly couplings acceptable.
- 3.0 Only antifriction bearings of SKF/FAG make to be used at all places. Bush bearings are not acceptable.
- 4.0 The equipments are to be designed for 10% additional capacity over and above the rated capacity mentioned above.
- 5.0 The equipments are to be designed for continuous operation i.e. 24 hours, 7 days in week.

## ANNEXURE - IV.3

### SCOPE OF WORK / SUPPLY

**The scope of work / supply includes: -**

#### **PART – A DESIGN, ENGINEERING, MANUFACTURE & SUPPLY**

This includes design, engineering and supply of the proposed Mechanical Transport Systems, preparation of General Arrangement and other arrangement drawings, manufacture and supply of all equipments required for the proposed system. Civil design of foundations, structures, supports, etc. and preparation of related drawings. Strengthening arrangement of existing structures, if required, for the proposed equipments/ structures. Electrical / instrumentation schemes including single line diagrams etc.

The following design features as indicated below to be followed for the proposed equipments.

#### **1. RAW MILL SECTION**

##### **MECHANICAL**

##### **(a) BELT BUCKET ELEVATOR:**

Belt bucket elevators complete with bottom boot assembly, intermediate casings, top hood assembly, complete drive arrangement with motor & drive gear box, supporting structure, expansion joint etc. The drive arrangement should be of self-support type/ floor mounted type as may be required considering design requirement. Elevators should have provision for venting. The drive shaft to be provided with zero speed switch and suitable holdback arrangement. The belt bucket elevators shall be provided with creep drives for maintenance and standard safety equipments like level control, parallel tensioning device and speed monitor. The belts shall be heat resistant, capable of withstanding the temperature of the material fed to the elevators. This requires special attention with respect to the system to be provided in the Raw Mill Section. The drive pulley shall have belt centering design and provided with exchangeable-segmented friction linings. The bottom boot of the elevator shall have bar type drum. The buckets shall be provided with wear lips. Inspection doors shall be provided at suitable places.

~In both the sections, the material discharges into the elevators from (+) 7.9 metre level or more. The elevators, therefore, need not be installed at 00 level. The level may be raised for reducing height of the equipment. RCC structure above the 00 level shall be constructed by the tenderer for the installation of the belt bucket elevator at the appropriate level.

Only helical gear box of FMG/Elecon/NAW make shall be provided.

A mono-rail hoist of suitable capacity shall be provided for the maintenance of each belt bucket elevator.

**Only “Aumund (India)Engg.Pvt. Ltd, Channai / Mahindra Engg.&Chemicals Products (MECP) Ltd. Pune / Beumer Technology India Pvt.Ltd.,Mumbai / Enexco Technologies Pvt.Ltd.,Gurgaon / Rexnord India Ltd., Pune / BHP Infrastructure Private Ltd., Faridabad.”make belt bucket elevator acceptable.**

**(b) DIVERTING VALVES :**

The diverting valves shall be manually operated, fitted with anti-friction bearings (SKF/FAG)for smooth operation. Bush bearings shall not be acceptable.

**(c) CHUTES:**

All chutes (common chute, gravity chutes and inverted Y-chutes) shall be fabricated from wear resistant plate. The thickness of plates used for fabrication shall not be less than 8 mm.

**(d) STRUCTURES FOR BELT BUCKET ELEVATORS**

For supporting the load of the elevator at different heights cantilever platform shall be erected.

These platforms shall be fixed to the beams & columns of the existing, as per enclosed sketch - A.

The top floor should have provision for installing a mono-rail with electric hoist of suitable capacity for the maintenance of the elevator.Suitable capacity of Hand operated mono rail hoist of reputed make such as Indef / Morris, shall be installed by the tenderer for the maintenance of the belt bucket elevators.

I-beam for the movement of hoist shall also be in the scope of the tenderer.

Suitable louvers for adequate ventilation and hand railings for safety.

**Only CGI sheets of 12 SWG or less than 12 SWG to be used for shed and louvres.**

**(e) PLATFORMS:**

Platforms suitable for the maintenance and operation of all the equipments shall be provided by the tenderer.

All platforms shall have staircases (not monkey ladders) for accessibility and hand railings for safety.

## **ELECTRICAL /INSTRUMENTATION ( TENDERER'S SCOPE )**

- 1 .Only energy efficient motors having efficiency of 92% or above as per IS:12615 of / Siemens Kirloskar / Crompton / ABB / Bharat Bijlee/BHEL/NGEF/ALSTOM make shall be used with IP 55 enclosure.
2. The proposed system is to be integrated with the existing electrical / instrumentation schemes and should be operated from the Central Control Room. (All cables - Power and control supply cables, lugs etc. shall be in the tenderer scope).
3. Ammeters shall be provided at MCC and Central Control Room for all motors having rating of 1 HP and above. For main drive Bucket elevator KW indicators / transducers to be provided at control room. Ammeters should be AI / MECO / L & T make.
4. The incoming cables from MCC No.283 and MCC No. 10 & 11 shall be laid to the drives of the proposed equipments respectively for Raw Mill and Cement Mill Sections and shall be in the scope of tenderer. If the module in the respective MCC is not available, the tenderer shall be required to provide the same at his cost. The make and size of MCC in case required to be provided, should match with the existing MCCs. All the cable termination accessories shall be provided by the tenderer.
5. Power/control cables shall conform to relevant BIS specifications and have IS mark. Shielded & Screened control cables should be used wherever required.
6. The necessary instruments required in CCR for operation of the system are to be considered during engineering & hook up with the existing control & instrumentation scheme.The make of the equipments proposed shall be approved by CCI.

## **2. KILN FEED SECTION**

### **MECHANICAL**

#### **a) BELT BUCKET ELEVATOR**

Belt bucket elevator complete with bottom boot assembly, intermediate casings, top hood assembly, complete drive arrangement with motor & drive gear box, supporting structure, expansion joint etc. The drive arrangement should be of self-support type/ floor mounted type as may be required considering design requirement. Elevator should have provision for venting. The drive shaft to be provided with zero speed switch and suitable holdback arrangement. The belt bucket elevator shall be provided with creep drive for maintenance and standard safety equipments like level control, parallel tensioning device and speed monitor. The drive pulley shall have belt centring design and provided with exchangeable segmented friction linings. The bottom boot of the elevator shall have bar type drum. The buckets shall be provided with wear lips. Inspection doors shall be provided at suitable places.

Only helical gear box of FMG/Elecon/NAW make shall be provided.

A mono-rail hoist of suitable capacity shall be provided for the maintenance of the elevator.

**Only “Aumund (India)Engg.Pvt. Ltd, Chennai / Mahindra Engg.&Chemicals Products (MECP) Ltd. Pune / Beumer Technology India Pvt.Ltd.,Mumbai / Enexo Technologies Pvt.Ltd.,Gurgaon / Rexnord India Ltd., Pune / BHP Infrastructure Private Ltd., Faridabad.”make belt bucket elevator acceptable.**

**b) SOLID FLOW METERS:**

Solid flow meter of 150 TPH capacity along with auxiliary components including Control Panel.

**Only imported “Schlenck / Transweigh ” makes acceptable.**

**c) SHUT-OFF VALVES:**

Electrically operated, leak proof.

**Only reputed makes like IBAV/Schenck-JensonNicholson,etc. acceptable**

**d) BYPASS CHUTES:**

Fabricated from MS Plates of thickness not less than 8 mm.

**e) DUST COLLECTOR:**

Dust collector of pulse jet type along with all accessories/equipments like fan, compressor etc. shall be provided for the venting of all the proposed equipments. DLG type dust collector shall not be acceptable.

**f) MONO RAIL HOIST: (Manually operated)**

Mono-rail hoist shall be suitable for the maintenance of the belt bucket elevator. I-beam for the movement of hoist shall be in the scope of the tenderer.

**g) STRUCTURES FOR BELT BUCKET ELEVATOR/LOADCELL HOPPER/ AIRSLIDES / CHAIN CONVEYORS/DUST COLLECTOR :**

For supporting the load of the elevator at different heights cantilever platform shall be erected. These platforms shall be fixed to the beams & columns of the existing preheater tower, as per enclosed sketch - B.

Totally covered shed shall also be provided for the chain conveyors for protection from rains.

**h) PLATFORMS FOR MAINTENANCE & OPERATION:**

All equipments shall be provided platforms for the maintenance and operation of the proposed equipments. The platforms shall be provided with staircases (not monkey ladders) for accessibility, and hand railings for safety.

**i) PIT FOR BELT BUCKET ELEVATOR**

Width of pit be suitably sized for easy accessibility for operation and maintenance. 14" wide plastered 18" high parapet wall to be constructed all around the pit. The pit shall be provided with staircase also. Water proofing of the pit is also in the scope of the tenderer.

**ELECTRICAL**

If the existing motor control center MCC-5 does not have spare drive module, then either the existing MCC be augmented by providing identical make/size or a separate MCC shall be provided.

**Only "Siemens" make MCC shall be acceptable.**

The MCC shall have features similar to the existing MCC.

All starters shall be suitable for 150% overload for 15 seconds under maximum steady state temperature conditions, and for eight times starting current in case of DOL starters.

Bus bars shall be of copper conforming to relevant IS – standard. MCC shall have interchangeable/fully draw out type modules as per the existing system.

All the switch fuse units (double break type), contactors, overload relays shall be of Siemens / L&T make only. Measuring CT's and ammeters shall be of AE/MECO/UE make only. Power supply incomer shall be suitable to handle total load of all the drives with 10 percent additional load and provided with an electronic energy meter of class 1.0 accuracy for measuring/recording power consumption.

Ammeters shall be provided at MCC and Central Control Room for all motors having rating of 1 HP and above.

The outgoing cables from the MCC shall be in the scope of tenderer. All the cable termination accessories shall be provided by the tenderer.

**Only energy efficient motors having efficiency of 92% or above as per IS:12615 of "Kirloskar/Crompton/Siemens/ABB/Bharat Bijlee with IP55 enclosure" make shall be supplied**



## **INSTRUMENTATION**

The control and instrumentation system shall be compatible and hooked up with the existing system. Any equipments needed for this purpose shall be provided by the tenderer.

All the control instruments shall be fitted in the existing control desk. The modification of the existing mimics shall be carried out in the existing control desk only.

The control desk recorders shall be of Taylor/Digital Electronics/IL Kota make only.

PID controller of ABB/Siemens/IL Kota make only shall be acceptable.

**N.B : In this case some of the existing equipment are common and some auxiliary equipment may need to be incorporated to make the complete system functional. The tenderer are to quote for complete system and such a system should be clearly indicated in the techno- commercial bid also along with makes.**

### **3. CEMENT MILL SECTION**

#### **MECHANICAL**

##### **(a) BELT BUCKET ELEVATORS:**

Belt bucket elevators complete with bottom boot assembly, intermediate casings, top hood assembly, complete drive arrangement with motor & drive gear box, supporting structure, expansion joint etc. The drive arrangement should be of self-support type/ floor mounted type as may be required considering design requirement. Elevators should have provision for venting. The drive shaft to be provided with zero speed switch and suitable holdback arrangement. The belt bucket elevators shall be provided with creep drives for maintenance and standard safety equipments like level control, parallel tensioning device and speed monitor. The belts shall be heat resistant, capable of withstanding the temperature of the material fed to the elevators. This requires special attention with respect to the system to be provided in the Raw Mill Section. The drive pulley shall have belt centering design and provided with exchangeable-segmented friction linings. The bottom boot of the elevator shall have bar type drum. The buckets shall be provided with wear lips. Inspection doors shall be provided at suitable places.

In both the sections, the material discharges into the elevators from (+) 7.9 metre level or more. The elevators, therefore, need not be installed at 00 level. The level may be raised for reducing height of the equipment. RCC structure above the 00 level shall be constructed by the tenderer for the installation of the belt bucket elevator at the appropriate level.

Only helical gear box of FMG/Elecon/NAW make shall be provided.

A mono-rail hoist of suitable capacity shall be provided for the maintenance of each belt bucket elevator.

**Only** “Aumund (India)Engg.Pvt. Ltd, Chennai / Mahindra Engg.&Chemicals Products (MECP) Ltd. Pune / Beumer Technology India Pvt.Ltd.,Mumbai / Enexo Technologies Pvt.Ltd.,Gurgaon / Rexnord India Ltd., Pune / BHP Infrastructure Private Ltd., Faridabad.”**make belt bucket elevator acceptable.**

**(b) DIVERTING VALVES :**

The diverting valves shall be manually operated, fitted with anti-friction bearings (SKF/FAG) for smooth operation. Bush bearings shall not be acceptable.

**(c) CHUTES:**

All chutes (common chute, gravity chutes and inverted Y-chutes) shall be Fabricated from wear resistant Plate.The thickness of plates used for fabrication shall not be less than 8 mm.

**(d) STRUCTURES FOR BELT BUCKET ELEVATORS**

For supporting the load of the elevator at different heights cantilever platform shall be erected. These platforms shall be fixed to the beams & columns of the existing as per enclosed sketch – A.

**(e) MONO RAIL HOIST:**

Suitable capacity of Hand operated mono rail hoist of reputed make such as **Morris/ Indef / Chack** shall be installed by the tenderer for the maintenance of the belt bucket elevators. I-beam for the movement of hoist shall also be in the scope of the tenderer.

The top floor should have provision for installing a mono-rail with electric hoist of suitable capacity for the maintenance of the elevator.

Suitable louvres for adequate ventilation and hand railings for safety.

Only CGI sheets of 12 SWG or less than 12 SWG to be used for shed and louvres.

**(f) PLATFORMS:**

Platforms suitable for the maintenance and operation of all the equipments shall be provided by the tenderer.

All platforms shall have staircases (not monkey ladders) for accessibility and hand railings for safety.

## **ELECTRICAL /INSTRUMENTATION (TENDERER'S SCOPE)**

1. Only energy efficient motors having efficiency of 92% or above as per IS:12615 of Siemens/ Kirloskar/ Crompton/ ABB/ Bharat Bijlee/BHEL/NGEF/ALSTOM make shall be used with IP 55 enclosure.
2. The proposed system is to be integrated with the existing electrical / instrumentation schemes and should be operated from the Central Control Room. (All cables- Power and Control supply cables, lugs etc. shall be in the tenderer's scope)
3. Ammeters shall be provided at MCC and Central Control Room for all motors having rating of 1 HP and above. For main drive Bucket elevator KW indicators / transducers to be provided at control room. Ammeters should be AI / MECO / L & T make.
4. The incoming cables from MCC No.283 and MCC No. 10 & 11 shall be laid to the drives of the proposed equipments respectively for Raw Mill and Cement Mill Sections and shall be in the scope of tenderer. If the module in the respective MCC is not available, the tenderer shall be required to provide the same at his cost. The make and size of MCC in case renewal to be provided, should match with the existing MCCs.All the cable termination accessories shall be provided by the tenderer.
4. Power/control cables shall conform to relevant BIS specifications and have IS mark. Shielded & Screened control cables should be used wherever required.
6. The necessary instruments required in CCR for operation of the system are to be considered during engineering & hook up with the existing control & instrumentation scheme.The make of the equipments proposed shall be approved by CCI.

## **GENERAL POINTS (Tenderer's Scope)**

The following shall be within the scope of the tenderer :

- i) All the modifications required to be carried out in the existing system, hooking up of the proposed system with the existing mechanical, electrical equipments and control system and removal of the existing equipments which come in the way of the proposed system.
- ii) All civil and structural work, like foundations, structures, platforms etc. and any other civil modification required in the existing arrangement to install the proposed system etc.
- iii) Control panel and power distribution board for supply to all drives should be designed and engineered by the tenderer but shall be as per approval of CCI. Suitable local on/off push buttons are to be provided for all the drives. 100% spare modules / feeders are to be provided / incorporated in the MCC.

- iv) All power control and instrumentation cables required for the system and earth conductors for grounding with main grid shall be of suitable size. Wherever cable trays are not existing, suitable cable trays shall be provided. Separate earth pits should be provided for new installations.
- v) All interconnecting chutes, ducting, piping etc.
- vi) Even though the scope of equipment supply is elaborated it is the responsibility of the tenderer to ensure that manufacture, supply, erection & commissioning is complete including auxiliaries, ducts, chutes, supports, dampers, expansion joints and any other items required for proper functioning of the proposed Mechanical Transport Systems on turnkey basis.
- vii) Four sets of Operational and Instructions manuals of all equipments, six prints of all drawings prepared for the system, fabrication and erection.
- viii) One set of all reproducible of all the drawings prepared for the proposal to be supplied by the successful tenderer after execution of the job by incorporating the changes made during erection and commissioning.
- ix) Manufacturing drawings (6 sets of blue prints along with RTF's) of the following spares are to be supplied by the tenderer:-
  - a) Complete Specifications of the belts used in the belt bucket elevators.
  - b) Top and bottom drum assemblies along with the details of components, buckets, sealing arrangement etc. for the belt bucket elevator.
  - c) Make & Sizes of the bearings / bearing housings and couplings.
  - d) Dimensional drawings of motors with technical data.
- x) Each floor of a shed to be suitably illuminated by providing energy efficient lamps of Philips make. PVC armoured aluminium conductor cable size 2x2.5/4 x 2.5 sq. mm to be laid for this purpose and to be kept in the scope of supply/erection/commissioning. Besides, suitable miniature circuit breaker panel in dust & vermin proof. Lighting distribution board (LDB) to be provided/installed by the tenderer.
- xi) Platforms / staircases for the operation and maintenance of the proposed system are within the scope of the tenderer.
- xii) All the cables shall be conforming to relevant BIS and with IS mark.

## **PART – B      SCOPE OF ERECTION AND COMMISSIONING**

- 1.0 Erection and commissioning of all the equipments are covered under the tenderer's scope.
- 2.0 The erection should be completed without affecting the plant operation and it should be planned in such a manner that only about 4-5 days plant shutdown period is taken at the end for hooking up with the operating plant.

### **3.0 ERECTION OF MECHANICAL EQUIPMENTS**

- 3.1 It will cover the entire supplies made by the tenderer i.e. ducts, chutes, piping, belt bucket elevators, sheds, structures, foundations, staircases, platforms, supports hand railings etc.
- 3.2 Interconnections and tapping from and to the existing plant equipments.

### **4.0 ERECTION OF ELECTRICAL & INSTRUMENTATION ITEMS**

For electrical instrumentation equipment and other related items, special conditions, over and above those given in the proceeding paras are given below:-

- 4.1 All the equipments are to be suitably mounted, assembled, aligned and interconnected with various sections, checking of each components for satisfactory mechanical and electrical operation and cleaning of contacts, mounting of loose supplied components to their respective positions, setting of relays in accordance with the requirements.
- 4.2 Power cable shall be supplied by CCI, however laying of all cables, control, instrumentation and special cables including supply / fabrication of all cable accessories such as junction boxes, indoor, outdoor and termination / straight through / tee joining kit for cables, cable gland, cable lugs, cable ferrules, rigid / flexible pipes, cable racks / supports / trays etc. cable laying shall be as per approved schedule and shall be carried out in a neat and systematic manner with codified markings.
- 4.3 Supply and erection of earthing station, mains and connections with all accessories for the mechanical transportation system including control arrangement. The work includes earthing of all drives, cables, power equipment and electrical boxes. The instrumentation panels and screened cables should be separately and effectively earthed. All work shall be carried out in accordance with Indian Electricity Rules and the code of practice as per Indian standards IS 3043.
- 4.4 Supply and erection of lighting system inside the covered sheds is under the scope of this order as per statutory requirement.
- 4.5 All erection and standard tests as per BIS and electricity regulations shall be carried out, documented and countersigned by the purchaser's representative, which shall be an integral part of the installation and commissioning work.
- 4.6 The tenderer shall provide all the drawings, layouts and relevant data for getting the statutory approval from the central electricity authorities as per rules in vogue.
- 4.7 For laying of screened / shielded cables separate cable trays shall be provided.
- 4.8 Condition for erection and commissioning are given separately in ANNEXURE - IV.5.

**TECHNICAL INFORMATION TO BE FURNISHED ALONG WITH THE TENDER OFFER.**

**(Tenderer to fill separately for Raw Mill & Cement Mill &Kiln feed)**

For proper evaluation of the tender, it is important that all the information / technical data required and as given below is provided by the tenderer in respect of both the sections separately. Tenders wherein the desired information / technical data are not furnished in the required format may not be considered.

**TECHNICAL INFORMATION**

**I) RAW MILL SECTION**

**MECHANICAL**

**1.0 BELT BUCKET ELEVATORS**

Make -  
Size / capacity -  
Height -  
Bucket size & spacing -  
Belt Specification -  
Belt Make -  
Belt speed -  
Max. temperature that  
belt can withstand

**MOTOR**

H.P -  
Rpm -  
Make -  
Frame size -  
Mounting -  
Type of enclosure -  
Type of starting -  
Squirrel Cage / Slip ring -  
Torque Ratio ( ST/RT) -  
Efficiency -

**Gearbox (helical)**

Make -  
Size -  
Reduction  
Ratio -

Service factor -  
Zero speed  
Switch -  
Type of hold back arrangement -  
Tensioning device

Details of Creep Drive :

### **Couplings**

Type -  
Size -  
Make -  
(Lovejoy and pin bush type couplings are not acceptable)  
Power consumption -  
  
Details of counter  
weight Mechanism -

## **2.0 DIVERTING VALVES**

Type of bearings used : Whether antifriction/bush  
Make :

## **3.0 CHUTES**

Thickness of plates used

## **4.0 MONO-RAIL HOISTS (Manually Operated)**

Make  
Capacity

Note : - Data to be furnished separately for each belt bucket elevator, diverting valve, chute, and mono-rail hoist.

## **II) KILN FEED SECTION**

For proper evaluation of the tender, it is important that all the information / technical data required and as given below is provided by the tenderer. Tenders wherein the desired information / technical data are not furnished in the required format may not be considered.

## **A. MECHANICAL**

### **1.0 BELT BUCKET ELEVATOR**

Make	-
Size / capacity	-
Height	-
Bucket size & spacing	-
Belt Specification	-
Belt Make	-
Belt speed	-
<b>Motor</b>	
H.P	-
Rpm	-
Make	-
Frame size	-
Mounting-	
Type of enclosure	-
Type of starting	-
Squirrel Cage / Slip ring	-
Torque Ratio ( ST/RT)	-
Efficiency	-
<b>Gearbox (hellical)</b>	
Make	-
Size	-
Reduction Ratio	-
Service factor	-
Zero speed Switch	-
Type of hold back arrangement	-
Tensioning device	
Details of Creep Drive :	
Couplings	
Type	-
Size	-
Make	-
(Lovejoy and pin bush type couplings are not acceptable)	
Power consumption	-
Details of counter weight Mechanism	-

### **2.0 AIR SLIDE**

Capacity :  
Slope :  
Type of fabric:  
Thickness of plate:



### **3.0 SOLID FLOW METER**

Load Cell details  
Make  
Capacity  
Accuracy  
Panel dimensions  
Type of Material Handled, Remote/Local TPH indication details

### **4.0 SHUT- OFF VALVES**

Make  
Drive Specifications

### **5.0 BYPASS CHUTES**

Thickness of plate

### **6.0 MONO-RAIL HOIST**

Make  
Capacity

### **7.0 VENTING EQUIPMENTS**

Type of equipment :  
Equipments to be vented :

## **B. INSTRUMENTATION**

### **1.0 PID Controller**

Make  
Programming details  
Dimensions of PLC  
Display type  
Facilities available in PID controller  
Memorary back up

### **2.0 Control Chart Recorder for Process Parameter**

Make of the Recorder  
Dimensins  
Printing details  
Chart speed  
Memory back up details

### **3.0 TPH Indicating and Set Point Control Station**

Make  
Dimensions  
Type of display details  
Set & actual feed rate arrangement & display  
Totaliser details

### **4.0 Mimic & Annunciation details**

Make  
Dimensions ( Mimic panel and annunciators)  
Type of indication lamps

## **III) CEMENT MILL SECTION**

### **MECHANICAL**

#### **1.0 BELT BUCKET ELEVATORS**

Make -  
Size / capacity -  
Height -  
Bucket size & spacing -  
Belt Specification -  
Belt Make -  
Belt speed -  
Max. temperature that  
belt can withstand

#### **MOTOR**

H.P -  
Rpm -  
Make -  
Frame size -  
Mounting -  
Type of enclosure -  
Type of starting -  
Squirrel Cage / Slip ring -

Torque Ratio ( ST/RT) -  
Efficiency -

#### **Gearbox (helical)**

Make -  
Size -  
Reduction  
Ratio -  
Service factor -

Zero speed  
Switch -  
Type of hold back arrangement -  
Tensioning device

Details of Creep Drive :

### **Couplings**

Type -  
Size -  
Make -  
(Lovejoy and pin bush type couplings are not acceptable)  
Power consumption -

Details of counter  
weight Mechanism -

## **2.0 DIVERTING VALVES**

Type of bearings used : Whether antifriction/bush  
Make :

## **3.0 CHUTES**

Thickness of plates used

## **4.0 MONO-RAIL HOISTS (Manually Operated)**

Make  
Capacity

Note : - Data to be furnished separately for each belt bucket elevator, diverting valve, chute, and mono-rail hoist.

## **ELECTRICAL**

### **1.0 Horizontal Busbars :**

- a) Maximum withstand fault current rating .
- b) Provision of one additional vertical section including horizontal and vertical busbars and cable chambers and all other allied equipment but excluding feeders on drawout chassis.
- c) Busbar material and cross section
- d) Maximum temperature rise at full load rated current  
(Tests to be made at 48<sup>0</sup> C ambient)
- e) Current rating of 48<sup>0</sup> C ambient.

**2.0 Vertical Busbar:**

- a) Maximum full load rated current.
- b) Maximum withstand fault current rating
- c) Busbar material and cross section .
- d) Maximum temperature rise at rated full. Load current (Tests to be made at 48<sup>0</sup> C Ambient)

**3.0 Neutral Busbar:**

- a) Size and material
- b) Fault current ratings

**4.0 Ground Busbar :**

- a) Size and material ) As per existing
- b) Fault current rating ) MCC

**5.0 Switch Fuse and Fuses:**

- a) Make and type of all ratings
- b) Rated full load current at 415 volts, 50 cycles, continuous current ratings for temperature rise of 30<sup>0</sup> C above 48<sup>0</sup> C ambient (Temperature measured on current carrying parts); Maximum making and breaking capacities of switch without flash-over etc. shall be indicated as under :-

Rating (Amps)	Cont. Rating at 30 <sup>0</sup> C above 48 <sup>0</sup> C ambient (Amps)	Max. making (Amps)	Max. breaking (Amps)
---------------	--	--------------------	----------------------

- c) Maximum through fault current Ratings with solid links replacing Fuse links (symmetrical RMS valve at 415 V 50 Cycles)
- d) Make and type of fuse
  - i) Category of duty of fuses and switches
  - ii) Maximum symmetrical RMS fault current interrupting capacity of fuses.
  - iii) Fully draw-out

**6.0 Contactors:**

- a) Make, type and category (duty) .....
- b) Full load current ratings at 415 volts, 50, cycles, maximum making and breaking capacity without flash-over shall be indicated as under :

Type Breaking	Ratings (Amps)	Max. Making (Amps)	Max. (Amps)
------------------	-------------------	-----------------------	----------------

- c) Maximum symmetrical through fault Withstand capacity
- d) Contactor coil rated voltage
- e) Contactor coil minimum drop-out voltage
- f) Contactor coil minimum voltage
- g) Power consumption of the coil
- h) Switching VA of the coil
- i) Rating of auxiliary contacts :
- j) At 110 volts Ac
- k) Details of direct operated and C.T. operated O.L. relays
- l) No. of contacts in O/L relays

**7.0 Control transformers :**

- a) Make
- b) Type
- c) VA Rating
- d) Ratio

**8.0 Control fuses and links:**

- a) Type and make
- b) Rating (List all ratings)

**9.0 Wiring and Terminal:**

- a) Type and size of control wiring
- b) Type and size of power wiring
- c) Type of terminal blocks, power control
- d) No. of terminals for each type of feeder in each module

**10.0 Meters:**

- a) Type, make and size of ammeter
- b) Type, make and size of volt meter
- c) Type and make of ammeter selector switch
- d) Type and make of KW meter
- e) Type and make of volt meter selector switch

**11.0 Current transformers:**

- a) Make and type
- b) Protections provided

- c) Accuracy
- d) Ratio

## **12.0 Cable Schedule**

Cable Schedule for power and control cables as per cable route  
Make of cables

### **ELECTRICAL / INSTRUMENTATION:**

#### **1.0 POWER CABLES :** PVC insulated, PVC sheathed armoured Aluminium conductor

Make : Universal cables / Fort gloster / Incav/ ICC/ Finolex /  
Finecab / NICCO  
Schedule as per cable route

#### **2.0 CONTROL CABLES:** PVC insulated, PVC sheathed armoured Copper conductor

Make : Universal cables / Fort gloster / Incav/ ICC/ Finolex /  
Finecab / NICCO  
Schedule as per cable route

## **C. GENERAL**

### **1.0 Drawings**

Four sets of proposal drawings comprising (i) Flow Chart, (ii) General Arrangement including electrical and instrumentation (iii) Power, control and instrument wiring diagrams and (iv) Process instrument and block interlocking diagram (PI and BID).

### **2.0 Bar chart**

Bar chart indicating schedule of various activities such as, design, engineering, supply of material, erection and commissioning for the total period of 12 months.

### **3.0 Reference list**

List of supplies made for similar application with design data, performance certificate of their clients, copy of purchase orders etc. should be furnished with the tender in order to assess their capabilities.

### **4.0 Boughtout items**

Make of bought out items should be listed separately.

## **5.0 Spare parts**

- 5.1 A detailed list of recommended spare parts list with specifications for two years operation is to be submitted along with techno-commercial offer. The relevant rates are to be quoted separately in the price bid.
- 5.2 The award of offer for the purchase of the recommended spares may not be made at the time of issue of the letter of intent for this tender. The validity period for the price may be kept not less than six months from the date of submission of the price-bid for the spares.
- 5.3 CCI reserves the right to buy all or some of the spares recommended by the tenderer. The quantity ordered for each spare will also be as per the requirement of CCI.
- 5.4 For the evaluation of this tender the price of the recommended spares will not be taken into consideration for assessing the lowest offer. The price-bid for the recommended spares should be submitted separately as indicated in the price-bid.
- 6.0 Approval of Electrical / Instrumentation drawings and inspection of installation by CEA is in the scope of tenderers.

**TERMS & CONDITIONS FOR ERECTION AND COMMISSIONING**

**1.0 RESPONSIBILITY OF THE SUCCESSFUL TENDERER:**

- 1.1 A schedule for the erection work will be made out by the contractor keeping in view the supply schedule and the construction schedule for carrying out the job sequentially within the overall time schedule as specified in the order.
- 1.2 Unloading and handling of all the equipments forming scope of supply, from the railway wagons or road transport (truck/ trailer) to the contractor's storage shed/yards or to the storage points within the plant areas, as may be indicated by the purchaser. However, required storage area will be provided by CCI for the electrical and imported components.
- 1.3 Safety of contractor's equipments during transportation and handling and safe custody of all the equipments during the storage.
- 1.4 Successful tenderer at his expenses shall comply with all labour laws and shall indemnify Cement Corporation of India Ltd. (CCI) against accident/damage caused to their equipment or employees.
- 1.5 Handling and transportation of all equipments from storage sheds/yards/storage points/purchaser's godown /purchaser's storage yards to the equipment foundations and placing them over the foundations.
- 1.6 The contractor shall be responsible for demurrage and wharfage charged by railways, all damages, shortages and security of materials and equipment under his charge till the same are erected and commissioned on full load, certified in writing as such and taken over by the purchaser.

**2.0 TOOLS AND TACKLES**

- 2.1 Arrangement of all tools and tackles, instruments, cranes, winches, derricks, ropes, sleepers, lifting and transport equipment, jacks, chain blocks, crow bars, welding and gas cutting sets, testing and checking equipments etc. in adequate numbers will be the responsibility of tenderer.

**3.0 CHECKING OF EQUIPMENT FOUNDATION**

- 3.1 Checking of levels, foundation center distances cross checking, alignment of Civil foundations and structure for machinery installation purpose.
- 3.2 The modifications required in the existing civil structures and other structures for erecting the proposed mechanical transportation system is also in the scope of erection work.



#### **4.0 COMPLETION OF ERECTION WORK**

- 4.1 Rectification/modification as required before erection as well as during erection and after trial run of machineries with and without load, shall be the responsibility of the contractor.
- 4.2 Arrangement of adequate number of safety equipments for erection and storing shall be the responsibility of the contractor.
- 4.3 Arrangement of all necessary erection materials like machined and un-machined packings by the contractor will be made by the contractor.
- 4.4 Erection, staging structures and necessary supporting hardware, consumables as may be required shall be arranged by the contractor.
- 4.5 Contractor would also provide foundation drawings, structural drawings, erection drawings, permissible erection tolerances and relevant proforma in reproducible sheets for individual equipments erection and checks. All checking of the erected machinery would be done with these basic drawings and tolerances.
- 4.6 The contractor may carry out fabrication work at site for which facilities like space and power supply will be provided free of cost by CCI.
- 4.7 Side cladding work shall be carried out neatly and as per established practices.
- 4.8 The contractor at his own cost for all equipments, platform, hand railings, supports and structures etc will do painting with red-oxide and two coats of enamel paints.
- 4.9 The existing equipments removed from their foundation including scrap materials are to be shifted to a place indicated by CCI. The entire work premises are to be cleaned after completion of erection work.

#### **5.0 ELECTRICAL AND INSTRUMENTATION ERECTION:**

For electrical and instrumentation equipment and other related items, special conditions, over and above those given in the preceding paras are given below.

- 5.1 All the equipments are to be suitably mounted, assembled, aligned and inter-connected with various sections, checking of each components for satisfactory mechanical and electrical operation and cleaning of contacts, mounting of loose supplied components to their respective positions, setting of relays in accordance with the requirements.

- 5.2 Laying of LT, control, instrumentation and special cables including supply/ fabrication of all cable accessories such as junction boxes, indoor, outdoor and termination/straight through/tee jointing kit for cables; cable glands; cable lugs; cable ferrules, rigid/flexible pipes; cable racks/supports/trays etc. Cable laying shall be as per approved schedule and shall be carried out in a neat and systematic manner with codified markings.
- 5.3 Supply and erection of earthing stations; mains and connections with all accessories for the mechanical transportation system including control arrangement. The work includes earthing of all drives, cables, power equipment and electrical boxes. The instrumentation panels and screened cables should be separately and effectively earthed. All work shall be carried out in accordance with Indian Electricity Rules and the code of practice as per Indian Standards.
- 5.4 Supply and erection of lighting system inside the covered sheds is under the scope of this order, as per statutory requirement.
- 5.5 All erection and standard tests as per BIS and electricity regulations shall be carried out, documented and countersigned by the purchaser's representative which shall be an integral part of the installation and commissioning work.
- 5.6 The tenderer shall provide all the drawings, layouts and relevant data for getting the statutory approval from the State Government authorities as per rules in vogue.

## **6.0 OTHER TERMS AND CONDITIONS**

### **6.1 Commencement and completion period of erection.**

- 6.1.1 The detailed time schedule for erection is to be prepared in consultation with purchaser and will be approved by the purchaser. Alteration of schedule will be kept to minimum but not changed.
- 6.1.2 Erection of equipment of a section will be considered completed, when each unit is ready for trial & commissioning. If any defects or deficiencies are found during the pre-commissioning test, or trial run, due to sub-standard quality of equipment, workmanship of the contractor, the same shall be rectified/ removed by the contractor expeditiously. An interim certificate of completion of the concerned equipment will be issued by the purchaser after satisfactory completion / defect rectification. However, the final certificate for the erection will be issued for the section as a whole when it is ready for trial & commissioning.

## **6.2 Contractor's site Supervisory Staff:**

6.2.1 All necessary staff headed by the site Manager or Resident Engineer should be available at site according to the progress of erection and quantum of erection. Replacement in case of unforeseen eventualities shall be done expeditiously. Manager will be considered as Chief

Authority representing the contractor for all purposes of communications with the purchaser and his representatives. He will also be responsible for his sub-supplier representatives, staff etc. for this purpose.

6.2.2 Site Electrical in-charge must possess valid Electrical Supervisory license.

## **6.3 Site Facilities:**

6.3.1 CCI will provide to the contractor, free of cost, necessary water and electrical power facilities and cement within the factory premises for the purpose of erection and civil works.

6.3.2 Land for storage yard, site office and fabrication yard shall be made available to the Contractor within the factory premises free of cost.

6.3.3 The accommodation to the Staff / Employee of the contractor shall be provided on chargeable basis, if available.

6.3.4 Safety of personnel will be the responsibility of the tenderer.

6.3.5 To ensure timely payments to their work force.

## **7.0 TRIAL RUNS AND COMMISSIONING**

- a) After the completion of erection work of mechanical, electrical and instrumentation equipments and getting completion certificate from CCI, the tenderer shall offer the entire system for trial runs and commissioning
- b) The alignment of all the drives and the equipments shall be checked jointly and defects, if any, shall be rectified.
- c) After the erection but before the power supply is switched on, the insulation of all electrical equipments shall be tested by suitable instrument and any defects revealed shall be rectified.
- d) All the motors shall be run on no load with and without gear boxes at least for eight hours.
- e) On supply of power to the system, the following tests shall be carried out –  
The correctness of all the circuits, interlocks and sequence of operation including mimic indications.
  - i) The satisfactory operation of all the protective devices
  - ii) Satisfactory operation of all the local push button (LPBs)

iii) Calibration of all the instruments.

iv) After the successful no load trials/tests as indicated above, the defects observed, if any, shall be rectified before taking load trial.

The following details shall be recorded in regard to the trial and commissioning of the system.

(a) Alignment of all motors, gear boxes and equipments

(b) Value of insulation resistance.

(c) Correctness of all circuits, interlocks, sequence of operations, mimic lamp indications and calibration data of all instruments.

(d) Satisfactory operation of all protective devices.

(e) Any other remark, if required.

## ANNEXURE IV.6

### 8.0 PERFORMANCE GUARANTEE TEST

#### A. RAW MILL SECTION

8.1 The performance guarantee test is to be carried out after one month or 300 running hours of the Raw Mill whichever is earlier. The period is to be reckoned from the date of completion of erection and commissioning including defect rectification, if any.

8.2 The performance guarantee test shall be carried out for this section as per the procedure given below :-

- (i) The tenderer shall submit the theoretical calculation for the KW rating of the drive of the belt bucket elevator for the carrying capacity of 380 tph plus 10% margin. The calculations shall be duly verified by the Technical Consultant appointed by the tenderer as per the provision made in Annexure – IV-3 of Part IV of this tender. The KW rating of the drive calculated theoretically shall be compared with the actual rating of the drive motor supplied for verifying the adequacy of KW rating.
- (ii) For checking the carrying capacity of 380 tph plus 10% margin, a bucket of the belt bucket elevator shall be filled with the raw meal up to the brim. The material contained in the bucket shall be weighed. The revolution per minute (r.p.m.) of the top drum of the belt bucket elevator shall be measured. The carrying capacity of the belt bucket elevator shall be calculated theoretically, using the capacity of the bucket in Kg. and r.p.m. of the top drum and shall be compared with the rated capacity of 380 tph plus 10% margin.
- (iii) To test whether the belt of the elevator can withstand the temperature of 160 °C, the belt bucket elevator shall be run for 24 hours with only ESP/ GCT dust (i.e. without running the raw mill). After 24 hours, the belt shall be checked jointly for blisters.
- (iv) Drop test shall be conducted for verifying the performance of the system. For this purpose, the material transported by the belt bucket elevator shall be dropped on the top of the continuous blending silo for ten minutes. The quantity shall be measured physically for calculating the carrying capacity or any other measure suggested by the tenderer for the weightment of the material.

During drop test, the current / KW drawn by the motor of the belt bucket elevator shall be measured. Both the parties shall analyse the recorded data and compare them with the rated capacity of the system (380 tph plus 10% margin), rated full load current and rated KW of the motor for verifying the adequacy of the system vis-à-vis theoretical calculations submitted by the tenderer for the KW rating of the drive.

After the completion of the performance guarantee test as indicated above and deliberations, a joint protocol shall be drawn up for the performance of the system. In token of acceptance, the protocol shall be duly signed by both the parties.

- (v) For any shortfall of performance found in terms of carrying capacity or the KW rating of the drive of the belt bucket elevator, 10% (ten per cent) of the value of the contract (Part –A & Part-B) paid to CCI in the form of bank guarantee shall be forfeited and accordingly, CCI shall encash the bank guarantee furnished by the tenderer on this account.

**B. KILN FEED SECTION**

- 8.3 The performance guarantee test shall be carried out for (a) the system as a whole, (b)the kiln feed transport system and (c) the weighment system.

**(a) Performance Guarantee Test for System as a whole**

- (i) The duration of the performance guarantee test for the system as a whole shall be 72 hours. For any interruption in between exceeding 2 hours, the duration of the test shall be extended accordingly. However, if the total stoppage of the complete system/each stream exceeds 20 hours, the test is to be repeated for another 72 hours in the same manner.
- (ii) The tenderer shall rectify the defects, if any, observed during the above test, and only after the rectification of such defects, the performance guarantee tests for the kiln feed transport system and weighment system, as indicated below at (b) and (c) shall be carried out.

**(b) Performance Guarantee Test for the Kiln Feed Transport System**

The performance guarantee test is to be carried out after one month or 300 running hours of kiln whichever is earlier. The period is to be reckoned from the date of completion of erection and commissioning including defect rectification, if any.

- (i) The performance of the Kiln Feed Transport System, commencing from the extraction of the raw meal from the continuous blending silo to the discharge of raw meal into the load cell hopper shall be tested for 100% capacity of 380 tph.
- (ii) For carrying out the performance test, the load cell hopper shall be emptied out and then material will be taken for 10 minutes. The reading of load cell indicator in terms of the quantity of material collected in the surge hopper shall be taken as the actual quantity transported in 10 minutes and accordingly the actual quantity transported in terms of tph shall be worked out.
- (iii) The test as indicated above at (ii) shall be done thrice and the average value of the three shall be taken as the actual quantity transported in

terms of tph for assessing the satisfactory performance of the Kiln Feed Transport system.

- (iv) The above test shall be carried out only after the calibration of the load cell hopper.
- (v) During the test, the actual kw and current drawn by each drive shall be compared with the rated current for 10 per cent margin. The tenderer shall be required to replace the drive in which 10% margin is not available over and above the rated capacity.
- (vi) Deduction shall be made for the shortfall in performance of the Kiln Feed Transport System. For the shortfall of 5% or more in the quantity transported in terms of tph, 5% of the total contract value (Part-A and Part-B) paid to CCI in the form of Bank Guarantee, shall be forfeited and accordingly, CCI shall encash the Bank Guarantee. If the shortfall is less than 5%, pro rata deduction (i.e. for one per cent short fall, 20% deduction) shall be made.

(c) **Performance Guarantee Test for the Weighment System**

- (i) Performance guarantee test shall be carried out separately for each stream or precisely for solid flow meter by taking drop test for 100%.
- (ii) For drop test at 100% of rated capacity, the solid flow meter shall be run for 10 minutes. The material so discharged during the drop test shall be collected and actually weighed gravimetrically on a calibrated weighbridge. The drop test is to be done thrice for solid flow meter. The average of three shall be taken as the actual feed rate in terms of tph.
- (iii) For both the tests, as indicated above at (ii) and (iii), the solid flow meter should exhibit rated accuracy of plus / minus 1%, otherwise it will be considered as not having the required accuracy of plus / minus 1%.
- (iv) For any shortfall in the rated accuracy of plus / minus 1%, 2.5.% of the value of the contract (Part-A and Part-B) paid to CCI in the form of Bank Guarantee shall be forfeited and accordingly, CCI will encash the Bank Guarantee.

8.4 The successful tenderer shall provide the instruments, including electrical meters, tools and tackles, equipments required for the performance guarantee tests. All arrangements for the performance guarantee test shall be carried – out by the tenderer.

8.5 The tenderer shall guarantee the successful and satisfactory operation of the equipments and materials supplied, erected and commissioned under the contract, as per the specifications and documents.

- 8.6 The tenderer shall further guarantee that the equipments and materials supplied by them and installed under their supervision shall be free from all defects in design, material and workmanship and shall upon written notice from the Purchaser, rectify such defects as developed under the normal use of the said equipments and material within the period of guarantee / warrantee specified in the relevant clause of terms and conditions of the contract PART – III.
- 8.7 The modifications /alterations/rectification, if any, shall be carried out immediately on completion of the performance guarantee test, but in any case within a period of 15 days from the date of performance guarantee test. In case the tenderer fails to carry out the modifications/ alterations/rectification within the above period, CCI reserves the right to carry out the same at the risk and cost of the tenderer.

**C. CEMENT MILL SECTION**

The performance guarantee test is to be carried out after one month or 300 running hours of the Cement Mill whichever is earlier. The period is to be reckoned from the date of completion of erection and commissioning including defect rectification, if any.

- 8.8 The performance guarantee test shall be carried out for this section as per the procedure given below :-
- (i) The test shall be carried out separately for each cement mill.
  - (ii) The theoretical calculations as indicated above at A (i) and A (ii) shall be made for each elevator for ascertaining KW rating of the drive and the carrying capacity.
  - (iii) The test shall be carried out for 24 hours at the rated capacity of 100 tph of the cement mill. All the weigh feeders shall be calibrated before the conduct of the test for accuracy.
- The following parameter measured after the interval of two hours.
- (a) Feed rate in tones / hour.
  - (b) Actual current drawn by the motor of the belt bucket elevator.
  - (c) Actual KW of the motor of the belt bucket elevator.

From the above parameters the average of the feed rate, actual current drawn and actual KW of the drive shall be worked out.

Both the parties shall analyse the recorded data and compare them with the rated capacity of the system (150 tph + 10% margin) rated full load current and rated KW of the motor for verifying the adequacy of the system vis-à-vis theoretical calculations submitted by the tenderer for the KW rating of the drive.

After the completion of the performance guarantee test as indicated above and deliberations, a joint protocol shall be drawn up for the performance of the system. In token of acceptance, the protocol shall be duly signed by both the parties.



- (iv) For any shortfall of performance found in terms of carrying capacity or the KW rating of the drive of the belt bucket elevator, 10% (ten per cent) of the value of the contract (Part –A & Part-B) paid to CCI in the form of bank guarantee shall be forfeited and accordingly, CCI shall encash the bank guarantee furnished by the tenderer on this account.
- 8.9 The successful tenderer shall provide the instruments, including electrical meters, tools and tackles, equipments required for the performance guarantee tests. All arrangements for the performance guarantee test shall be carried – out by the tenderer.
- 8.10 The tenderer shall guarantee the successful and satisfactory operation of the equipments and materials supplied, erected and commissioned under the contract, as per the specifications and documents.
- 8.11 The tenderer shall further guarantee that the equipments and materials supplied by them and installed under their supervision shall be free from all defects in design, material and workmanship and shall upon written notice from the Purchaser, rectify such defects as developed under the normal use of the said equipments and material within the period of guarantee / warrantee specified in the relevant clause of terms and conditions of the contract PART – III.
- 8.12 The modifications /alterations/rectification, if any, shall be carried out immediately on completion of the performance guarantee test, but in any case within a period of 15 days from the date of performance guarantee test. In case the tenderer fails to carry out the modifications/alterations/rectification within the above period, CCI reserves the right to carry out the same at the risk and cost of the tenderer.

## ANNEXURE – IV.7

### LIST OF ENCLOSURES

1. Flow sheet for raw material grinding department with roller mill, airlift, conditioning tower and ESP (two fan circuit). - Drg. No.TAN-101-1-94
2. Flow sheet for continuous blending silo with kiln feed department. - Drg. No.TAN-101-1-95
3. Flow sheet Kiln Feed Section - Drg. No.TAN-101-1-96
4. List of existing equipments - Annexure – A
5. Flow sheet for the proposed Mechanical Transport System for Raw Mill Section - Drg. No. TDO/RM/ SKETCH-1/
6. General arrangement of Raw Material Grinding Department with LM 43.40 Roller Mill (Sheet-3) -Drg.No.A.ABL/CCI-TDR/G-RM/1096 (Rev.E)
7. General arrangement of 18 m dia continuous blending silo - Drg. No.A.ABL/CCI-TDR/G-BLS/1104 ( Rev.E)
8. General arrangement of Raw Material Grinding Department with LM 43.40 roller mill (Sheet-1) -Drg.No .ABL/CCI/TDR/G-RM/1094 (Rev.F)
9. General arrangement of Raw Material Grinding Department with LM 43.40 roller mill (Sheet-4) - Drg.No.A.ABL/CCI-TDR/G-RM/1097 (Rev.G)
10. General arrangement of 18 m dia, continuous blending silo and kiln feed department (Sheet 1 of 2) - Drg. No.A.ABL/CCI-TDR/G-KF/1105 (Rev.C)
11. General arrangement and foundation details of preheater 3764 size (Sheet 1 of 2) - Drg. No.A.ABL/CCI-TDR/ PH/1021
12. General arrangement and foundation details for preheater 3764 size (Sheet 2 of 2) - Drg. No.A.ABL/CCI-TDR/PH/1022
13. Kiln Feed proposed system to be hooked –up with the existing system - Sketch –II
14. Flow sheet of clinker grinding cement transport department. - Drg. No. MDP – CM – 7487

15. General arrangement of clinker grinding mills.- Drg.No.AA-726-20-  
PR-1004/G
16. Flow sheet for the proposed Mechanical- Drg. No. TDO/CM/ SKETCH-1  
Transport System for cement Mill Section
17. Sketch for cantilever platform arrangement of  
Belt bucket elevator for raw mill / cement mill - Sketch – A
18. Sketch for cantilever platform arrangement of  
Belt bucket elevator for preheater - Sketch – B
19. Price bid proforma (A) for Raw Mill Section
20. Price bid proforma (B) for Kiln feed Section
21. Price bid proforma (C) for Cement Mill Section

**ANNEXURE- 1V.8**

**LIST OF CONSULTANTS**

1. M/s. Holtec Consulting (P) Ltd. Fax : 0124 –2385114  
A-Sushant Lok 0124 – 2385116  
GURGAON ,122001. Website:holtecnet.com  
Haryana E-mail : [info@holtecnet.com](mailto:info@holtecnet.com)
2. M/s Development Consultants Ltd Tel: 033 – 22297601/609  
Development House, Fax :033 –22292897  
24-B, Park Street  
KOLKATA – 700016.
3. M/s. ERCOM Consulting Engineers Pvt. Ltd.. FAX : 011-25779152  
C-1, C Block Community Centre 011-2574391  
Naraina Vihar E-MAIL : ercom @ vsnl.com  
New Delhi-110028 Tel : 011-25799153
4. National Council for Cement & Building Materials(NCBM) FAX: 0129-5242100  
34, Km. Stone 0129-5246175  
Delhi Mathura Road (NH-2) E.Mail: nccbm@glassdl0.vsnl.net.in  
Ballbharh –121004 Haryana
5. M/s. Cemtech Consultants Pvt.Ltd. FAX : 011-26862488  
J-202, Saket Tel : 011- 26761745  
New Delhi – 110017 -26961618
6. Hallmark Technical Services Pvt. Ltd. FAX : 020-5410809  
A-J Tower, 176, Dhanukar Colony Tel : 020-5450102  
Kothrud , Pune-38 : - 5451181
7. M/s. EXELON Techno Engineers (P) Ltd. FAX : 011-25739719  
Aman Chambers , 2<sup>nd</sup> Floor Tel : 011-25731321  
47/21-22. Old Rajinder Nagar : -25758624  
  
Main Pusa Road New Delhi-110060
8. Metallurgical & Engineering Consultants FAX : 0651-2502189  
(India) Ltd. -2502214  
Doranola, Ranchi-834002 Tel : 0651-2501002  
Bihar -2501216

Any other reputed consultant having sufficient experience in the line may be considered by CCI , for which prior approval shall be obtained by the tenderer.

**PRICE BID PROFORMA – (A)**

**(RAW MILL SECTION)**

**MECHANICAL TRANSPORT SYSTEM FOR RAW MILL SECTION AT  
TANDUR CEMENT FACTORY OF CEMENT CORPORATION OF INDIA  
LTD.**

**Tender no: 6(11)/09-MMO**

Sl.no.	Description	Amount (Rs. in lakhs)	
		Figure	Words
A	Design, Engineering, Manufacturing, Supply along with all Accessories for mechanical transport system, Modification, including VAT/SST/CST, Octroi, Packing Forwarding, Insurance, Transportation, Entry tax etc. etc. but exclusive of ED, CESS on ED and Service Tax on F.O.R. destination basis.		
B	Civil works		
C	Erection of machinery excluding Service tax		
D	Commissioning of machinery excluding Service tax		
<b>TOTAL</b>			
E	Recommended spares for two years operation		

NOTE:

1. The lowest rate (L-1) shall be evaluated taking into consideration the total of Part-A+B+C+D only . The price of recommended spares given at Part-E will not be taken into consideration for evaluation purpose.
2. The price is to be quoted as per Clause 2 of Part-III, Special terms & conditions.

**Certified that the above rate is quoted in accordance with the technical bid of the tender**

Signature of the Tenderer

Name & Designation  
with Company's Seal

**PRICE BID PROFORMA (B)**

**(KILN FEED SECTION)**

**KILN FEED TRANSPORT AND WEIGHING SYSTEM AT TANDUR  
CEMENT FACTORY OF CEMENT CORPORATION OF INDIA LTD.**

**Tender no: 6(11)/09-MMO**

Sl.no.	Description	Amount (Rs. in lakhs)	
		Figure	Words
A	Design, Engineering, Manufacturing, Supply along with all Accessories for mechanical transport system, Modification, including VAT/SST/CST, Octroi, Packing Forwarding, Insurance, Transportation, Entry tax etc. etc. but exclusive of ED, CESS on ED and Service Tax on F.O.R. destination basis.		
B	Civil works		
C	Erection of machinery excluding Service Tax		
D	Commissioning of machinery excluding Service Tax		
<b>TOTAL</b>			
E	Recommended spares for two years operation		

**NOTE:**

1. The lowest rate (L-1) shall be evaluated taking into consideration the total of Part-A+B+C+D only . The price of recommended spares given at Part-E will not be taken into consideration for evaluation purpose.
2. The price is to be quoted as per Clause 2 of Part-III, Special terms & conditions.

**Certified that the above rate is quoted in accordance with the technical bid of the tender**

Signature of the Tenderer

Name & Designation  
with Company's Seal

**PRICE BID PROFORMA – (C)**

**(CEMENT MILL -1 )**

**MECHANICAL TRANSPORT SYSTEM FOR CEMENT MILL SECTION  
AT TANDUR CEMENT FACTORY OF CEMENT CORPORATION OF  
INDIA LTD.**

**Tender no: 6(11)/09-MMO**

Sl.no.	Description	Amount (Rs. in lakhs)	
		Figure	Words
A	Design, Engineering, Manufacturing, Supply along with all Accessories for mechanical transport system, Modification, including VAT/SST/CST, Octroi, Packing Forwarding, Insurance, Transportation, Entry tax etc. etc. but exclusive of ED, CESS on ED and Service Tax on F.O.R. destination basis.		
B	Civil works		
C	Erection of machinery excluding Service Tax		
D	Commissioning of machinery excluding Service Tax		
<b>TOTAL</b>			
E	Recommended spares for two years operation		

**NOTE:**

1. The lowest rate (L-1) shall be evaluated taking into consideration the total of Part-A+B+C+D only . The price of recommended spares given at Part-E will not be taken into consideration for evaluation purpose.
2. The price is to be quoted as per Clause 2 of Part-III, Special terms & conditions.

**Certified that the above rate is quoted in accordance with the technical bid of the tender**

Signature of the Tenderer

Name & Designation  
with Company's Seal

**PRICE BID PROFORMA – (C)**

**(CEMENT MILL –2)**

**MECHANICAL TRANSPORT SYSTEM FOR CEMENT MILL SECTION AT  
TANDUR CEMENT FACTORY OF CEMENT CORPORATION OF INDIA LTD.**

**Tender no: 6(11)/09-MMO**

Sl.no.	Description	Amount (Rs. in lakhs)	
		Figure	Words
A	Design, Engineering, Manufacturing, Supply along with all Accessories for mechanical transport system, Modification, including VAT/SST/CST, Octroi, Packing Forwarding, Insurance, Transportation, Entry tax etc. etc. but exclusive of ED, CESS on ED and Service Tax on F.O.R. destination basis.		
B	Civil works		
C	Erection of machinery excluding Service Tax		
D	Commissioning of machinery excluding Service Tax		
TOTAL			
E	Recommended spares for two years operation		

NOTE:

1. The lowest rate (L-1) shall be evaluated taking into consideration the total of Part-A+B+C+D only . The price of recommended spares given at Part-E will not be taken into consideration for evaluation purpose.
2. The price is to be quoted as per Clause 2 of Part-III, Special terms & conditions.

**Certified that the above rate is quoted in accordance with the technical bid of the tender**

Signature of the Tenderer

Name & Designation  
with Company's Seal