

# **BHARAT COKING COAL LIMITED**

(A Subsidiary of Coal India Limited)

Regd. Officer : Koyla Bhawan

OFFICE OF THE GENERAL MANAGER

B.C.C.L., C.V. AREA-XII

P.O.- BARAKAR, DIST-BARDHMAN, (W.B.)

## **PART – I**

( TO BE SUBMITTED IN SEPARATE ENVELOP )

1. **Name of work** : “Construction of P.C.C. road at Laikdih colony under DBOCP.”

2. Name of Tenderer :

Address :

Contact No. ( Tel / Mob.) :

3. N.I.T. Reference : BCCL/XII/ACE/NIT/2010-11/169/682 dated 26.11.2010  
(Sl.No.-1)

4. Date of Receipt of tender : Up to 3.00 P.M. on 20.12.2010

5. Date of open of Tender : At 3.30 P.M. on 20.12.2010

6. Details of E.M.D. : No. Date

7. Money Receipt No. : No Date  
(for issue of tender paper)

8. Documents issued to Tenderers : i) Tender Document Part-I: 62 pages(page 1 to 62 )  
( including NIT- 2 pages)  
ii) Tender document Part-II: 2 pages ( page 63 to 64)  
(Total 64 pages)

SIGNATURE OF ISSUING OFFICER

**BHARAT COKING COAL LIMITED**  
(A Subsidiary of Coal India Ltd)  
**OFFICE OF THE GENERAL MANAGER**  
**CHANCH-VICTORIA AREA-XII**  
**P.O.-BARAKAR - 713324**  
**DIST-BARDHMAN ( W.B.)**  
Phone : 06540-272126 ; FAX 0341-2520063

Ref. No. BCCL/XII/ACE/NIT/2010-11/169/682

Date :26.11.2010

**NOTICE INVITING TENDERS**

Sealed percentage rate tender in two parts (part I & II) are invited from experienced and eligible contractors for the following work of

Sl. No.	Name of the work	Estimated value	EMD	Time of completion	Cost of Tender document
1.	Construction of P.C.C road at Laikdih colony under DBOCP	Rs.2,97,390.00	Rs. 2975.00	2 months	Rs. 250.00
2.	Construction of P.C.C Road at R.K colony, DBOCP under C.V. Area	Rs.3,12,448.00	Rs. 3125.00	2 months	Rs. 250.00

Availability of tender documents from : **16.12.2010 to 18.12.2010**

Tender documents will be issued on all working days during working hours except on Sundays & holidays. In the event of the specified date for submission/opening of bids being declared a holiday the bids will be received/opened on the appointed time on the next working day.

Time and date of receipt/opening of tender - **3.00 PM/3.300 P.M.** respectively on **20.12.2010**.

**1) Eligibility criteria :-**

a) The intending tenderer must have in his/their name as a prime contractor experience of having successfully completed similar works during last 7 (seven) years ending last day of month previous to the one in which bid applications are invited (i.e. eligibility period) any one of the following(in case the bidder is not a prime contractor but a sub-contractor the bidder experience as sub-contractor will be taken into account if the contract in support of qualification is a sub-contract in compliance with the provision of such sub-contract in the original contract awarded to the prime contractor) :-

Three similar completed works each costing not less than the amount equal to 40% of the estimated cost.OR

Two similar completed works each costing not less than the amount equal to 50% of the estimated cost.OR

One similar completed work costing not less than the amount equal to 80% of the estimated cost.

Similar work means : **Any civil construction/Maintenance work..**

b) Average annual financial turnover of civil works during the last 3 (three) years, ending 31<sup>st</sup> March of the previous financial year, should be at least 30% of the estimated cost.

The intending tenderer must submit documentary evidence in support of (1) (a) , (b) as above in the form of certified copy of work order, completion certificate, payment certificates/ vouchers etc. indicating the period of work for which the payment has been made, duly signed by him/them.

Note:- (i) Provision under eligibility criteria 1. (a) shall also include those similar work which have been started earlier than eligibility period of tender but completed during the eligibility period as per NIT.

(ii) As per eligibility criteria specified under Sl.No.1(a). Pre-qualification shall be done based on experience of successfully completed works and not on experience of work in progress.

2) The tender documents can be had from the office of the Area civil Engineer, BCCL, Chanch Victoria Area-XII , P.O.- Barakar, Dist-Bardhman (West Bengal) during the period mentioned above on deposition of requisite cost of tender paper in form of cash or bank draft of any Nationalized/Schedule bank in favour of B.C.C.L., Area No-12, payable at Dhanbad.

3) Completed sealed tender documents (part I & II) should be submitted at the same time. Part-I shall consist of terms and conditions of the tender, additional terms and conditions if any, technical bid and credentials. Part-II shall consist of tender documents as sold to the tenderers duly filled in for rates, amounts etc. i.e. price bid.

The Earnest money deposit is to be submitted in a separate Envelope altogether super scribing "Earnest Money Deposit", and not inside the envelope containing Part-I or Part-II of the Bid. The Part-I & Part-II should also be put into separate sealed envelopes super-scribed as such. Thereafter all the three envelopes should be submitted in a sealed envelope with appropriate superscription.

**Contd. Page-2**

The tender will be received on the date given above **upto 3.00 P.M. in the office of the General Manager , Chanch Victoria Area-XII and will be opened at 3.30 P.M.** on the same day in presence of the intending tenderer or their authorized representative **in the Office of the Area Civil Engineer , Chanch Victoria Area-XII** . Only part-I will be opened on this date. The part-II will be opened only after the department is satisfied that the criteria fixed are fulfilled and also the earnest money is deposited i.e. on acceptance of part-I.

- 4) In case where tender documents are requested for transmission by post, these should be dispatched by registered A.D. The department is not responsible for any postal delay in such cases.
- 5) The earnest money is to be deposited as per detail given in the tender documents.
- 6) Sales Tax clearance certificate & Sales Tax/Vat Registration (TIN) certificate is to be furnished.
- 7) The tenderers have to submit Permanent Account No. of Income Tax (PAN No.).
- 8) Conditional tenders will not be accepted.
- 9) Issuance of tender documents does not mean that the parties are considered qualified.
- 10) Every tenderer is required to give an Affidavit in the proforma given in the tender document on non-judicial stamp paper.
- 11) The experience as given in the eligibility criteria should be in the name and style in which tender is filled. The experience in the name of some other firm/company will not be considered for this purpose.
- 12) The validity of the tender will be 120 days from the date of opening price bid or revised price bid if any.
- 13) The management of BCCL reserves right to reject any or all tender or split the work among two or more tenderers with out assigning any reasons whatsoever.
- 14) **Other details may be obtained from detailed tender notice/tender documents/website <http://bccl.cmpdi.co.in>.**
- 15) In case tender document is downloaded the tenderers are required to deposit along with their tender, a Bank Draft of any Nationalized / Schedule Bank in favour of B.C.C.L. Area-12 payable at Dhanbad exclusively towards the cost of Tender Document for the amount indicated as above, in a separate envelope. Any Bank Draft, prepared after the scheduled closure of sale of Tender Documents may be liable for rejection.
- 16) The contents of the Tender Documents available in our offices, shall be deemed as authentic .The bidder will be required to submit an undertaking that they will accept the tender document as available in the web-site and their tender shall be rejected if any tempering is there in the tender document thus submitted.

Sd/  
Area Civil Engineer  
Chanch Victoria Area-XII

Copy to :-

- 1) The Chief Vigilance Officer, BCCL, Koyla Bhawan..
- 2) All CGMs/GMs/of Areas of BCCL.
- 3) GM, Chanch Victoria Area-XII.
- 4) GM (Civil), BCCL, Koyla Nagar.
- 5) GM(System) – with request to upload the NIT in Co's Website (C.D. containing NIT document is being sent separately together with a forwarding letter).
- 6) Addl. GM, Chanch Victoria Area-XII.
- 7) A.F.M., Chanch Victoria Area-XII.
- 8) All P.O.s of Chanch Victoria Area-XII.
- 9) Builders Association of India, Central Akashkinaree Kanta, Katras Garh, Dhanbad-828113.
- 10) PRO, BCCL, Koyala Bhawan – for kind information that C.D. containing NIT document for uploading on the company's website is being sent to GM (System), BCCL, Koyala Bhawan.
- 11) Notice Board.

## DETAILED TENDER NOTICE

1. Sealed tenders in prescribed forms and parts with the name of works superscribed as as per NIT N.I.T. Ref. No. as per NIT on each of the envelopes are invited from bonafide and experienced contractors and will be received at as per NIT Dhanbad upto 3.00 P.M. on as per NIT. All tenders will be opened at 3.30 P.M. on as per NIT in the presence of the intending tenderers or their authorized representatives who wish to be present. In case where the tender is in two parts, only Part-I, will be opened on the above day and time.

2 (a) Tenders should be submitted in the prescribed form in time. These forms together with the proposed contract document including specifications and tender drawings ( if available ) may be obtained from the above office during normal working hours on payment of Rs. as per NIT (non-refundable) (Rupees as per NIT only ) as Application Fee for each set. The payment may be made either in Cash or by Bank Draft drawn in favour of Bharat Coking Coal Ltd. On Nationalized Bank payable at Dhanbad. General specification and description of work is enclosed with the tender document.

2 (b) **Any Bids received after the deadline prescribed at Clause 1 above due to any reasons what soever will not be accepted. In the event of the specified date for the submission of bids being declared a holiday by the employer, the bids will be received up to the appointed time on the next working day.**

2 I Tenders thus submitted shall consist of the following:

2 Complete set of tender documents as sold, duly filled in and signed on all pages and at different places as required of the tender documents including Part I & Part II of the tenders as per the tender notice as applicable.

ii) Sales-tax clearance certificate copy attested by a Gazetted Officer of the Govt. (Central or State)&TIN No.

iii). PAN (Permanent I. Tax Account Number )

iii) Earnest money deposit (as specified hereafter)

iv) Power of Attorney in the case the tender is signed by an authorized representative of the tenderer.

v) Full name and address of the tenderer shall be written on the bottom left hand corner of the sealed covers.

vi) Every Tenderer will have to submit a declaration in support of the authenticity of the credentials submitted by him along with the Tender in the form of an AFFIDAVIT as per the format provided at ANNEXURE VI.

2 (d) The tender document in which the tender is submitted by the tenderer shall become the property of the Company and the Company shall have no obligation to return the same to the tenderer.

2 (e) The Tender shall be submitted,

### EITHER

\* in Two Envelope System with the first envelope containing credentials ( duly authenticated by the bidder ) in support of his qualifications in accordance with the eligibility criteria along with the EMD in a separate envelope and the original tender document issued to the bidder duly signed by authorized signatory of the bidder on all pages as proof of accepting the conditions of the contract ( excluding the price bid ) and the second envelope comprising of priced bill of quantities superscribing Envelope I , II and EMD on the cover.

## OR

\* in two parts as indicated in the Notice Inviting Tenders. Part-I shall consist of any deviations from terms & conditions of the tender and additional terms & conditions and if asked for, technical bid and credentials (documentary evidence in support of eligibility criteria and bid assessment duly authenticated by the bidder) and the original tender document issued to the bidder duly signed by authorized signatory of the bidder on all pages as proof of accepting the conditions of contract (excluding the price bid).

Part II shall consist of tender documents as sold to the tenderers duly filling in rates, amounts etc. i.e. price bid.

The Earnest Money Deposit is to be submitted in a separate Envelope altogether; super-scribing "Earnest Money Deposit"; and not inside the envelope containing Part I or part II of the Bid.

The bidders, who will download the tender documents from the website of the company, will be required to pay the cost of tender documents (Application Fee) by Bank Draft as per NIT at the time of submission of tenders.

The bidders will be required to submit an undertaking that they will accept the tender documents as available in the website and their tender shall be rejected if any tampering in the tender document is found to be done at the time of opening of tender.

The Bank Draft towards the cost of tender documents ( Application Fee ) and the undertaking of the tenderer as above shall be submitted in a separate envelope marked "Cost of Tender Documents and the Undertaking" and not with Part-I/ EMD.

In case of any discrepancy between the tender documents downloaded from the web site and the master copy available in the office, the latter shall prevail and will be binding on the tenderers. No claim on this account will be entertained.

The Part I & Part II should also be put into separate sealed envelopes superscribed as such. Thereafter all the three envelopes (four envelopes in case of Bidders using downloaded Bid document) should be submitted in a sealed envelope with appropriate superscription.

The date of opening of the Second Envelope or Part II of the tenders shall be communicated in due course after consideration of First Envelope or Part-I.

**(\* STRIKE OUT WHICHEVER IS NOT APPLICABLE AS PER THE ESTIMATED VALUE OF THE WORK )**

**2 (f)** Each bidder shall submit only one bid for one package. A bidder who submits or participates in more than one bid (other than as sub-contractor or in case of alternatives that have been permitted or requested) will cause all the proposals with the bidders' participation to be disqualified.

**3.** Earnest Money/ Bid Security @1% of the estimated cost (rounded off to nearest hundred rupees subject to maximum of Rs. 50 lakhs) is to be deposited in the form of irrevocable Bank Guarantee (from Scheduled Bank/ Branch acceptable to the owner) with validity 28 days beyond the validity of the Bid in the format given in the Bid Document in a separate envelope alongwith the tender. Certified Cheques and Demand Drafts will also be acceptable as Earnest Money/ Bid Security drawn in favour of Bharat Coking Coal Limited on any scheduled Bank payable at its branch at Dhanbad. For works valued upto Rs. 5 lakhs the earnest money may be deposited in cash or in the aforesaid form. In case of earnest money deposit by cash, cash receipt is to be submitted in a separate envelope alongwith the tender. Earnest Money/ Bid Security of the unsuccessful bidder shall be refunded as promptly as possible after opening of Price Bid and finalisation of the tender and shall bear no interest.

**4.** No tender shall be considered unless accompanied by the said Earnest Money.

**5.** The earnest money will be retained in the case of successful tenderer and refunded to the unsuccessful tenderer in due course and will not carry any interest. The unsuccessful bidder for this purpose means the bidder who have not qualified for opening of Part-II (Price Bid) and those who have not emerged as L-1 tenderer after opening of price bid. The earnest money deposited by the successful tenderer will be dealt with as provided elsewhere in the tender documents.

**6 (a)** Site Investigation Report: The contractor, in preparing the bid, shall rely on the site investigation report referred to in the bid document, supplemented by any information available to the bidder.

**6 (b).** Every tenderer is expected, before quoting his rates, to go through the requirements of materials/workmanship under specification/requirements and conditions of contract and to inspect the site/area of the proposed work.

In case of item rate tender a schedule of quantities is enclosed with the tender document. He should quote specific rate for each item in the schedule and the rates shall be in rupees and paise. The rates shall be written both in words and figures and the unit in the words and the amount against each item totaled. In the event of any discrepancy between the description in words and figures, the description in words will prevail. The rates for the work should be inclusive of all incidentals, overheads, all taxes, Octroi's, duties, leads, lifts, carriage, tools & plant etc. as required for execution and completion of the work. It shall be deemed that the tenderer has visited the site/area and got fully acquainted with the working conditions and other prevalent conditions and fluctuations thereto whether they actually visited the site/area or not and have taken all the above factors into account while quoting his rates.

**7 (a)** Corrections where unavoidable, shall be made by crossing out and rewriting duly authenticated with full signature and date by the tenderer. Erasing or over-writing in the tender documents may disqualify the tender.

**7 (b)** The tender shall be submitted either in English or in Hindi.

**7 (c)** Cost of Bidding: The bidder shall bear all costs associated with the preparation and submission of his bid and the Employer will in no case be responsible and liable for those cost

**8.** The tenderer shall closely study all specification in detail, which govern the rates for which he is tendering.

**9.** Sales-tax clearance certificate for the last financial year or the last assessment whichever is later or proof of filing the returns for the previous financial year should accompany the tender.

**10.** The work should be completed within as per NIT from expiry of ten (10) days from the issue of letter of acceptance of tender/work order or handing over the site or handing over reasonable number of working drawings to the contractor or the period of mobilisation allowed in the work order for starting the work in special circumstances, whichever is latest.

**11.** On completion of the work all rubbish, debris, brick bats etc. shall be removed by the contractor(s) at his/their own expense and the site cleaned and handed over to the company and he/they shall intimate officially of having completed the work as per contract.

**12.** The Company does not bind itself to accept the lowest tender and reserves the right to reject any or all the tenders without assigning any reasons whatsoever and to split up the work between two or more tenderers or accept the tender in part and not in its entirety.

**13.** The tenderer(s) will indicate the equipment/machinery/ vehicles he/they is/are going to use on this job and also give adequate evidence of experience in doing similar works and financial capacity to complete the work in time.

**14.** The tenderer(s) should also state what technical/ supervisory personal he/they would be employing for supervising the work.

**14 (a).** Full information should be given by the tenderer in respect of following:

- |                          |  |
|--------------------------|--|
| i) If an individual:     | Full name.<br>Postal Address.<br>Place of Business.                  |
| ii) If proprietary firm: | Name of the Proprietor.<br>Full postal address of Firm/ Proprietors. |

- |                           |   |
|---------------------------|---|
| iii) If partnership firm: | Full name of partners.<br>Full postal addresses of the registered office of firm & the partners.<br>Registered partnership Deed.  |
| iv) In case of Company:   | Date and place of registration.<br>Memorandum & Articles of Association.<br>Name of all the Directors.<br>Full postal address of the registered office & all Directors.   |
| v) Joint Venture          | Two or three companies/ contractors participating in the tender as Joint Venture should submit Firm-wise participation details, Banker's name, execution of work with details of contribution of each and all other relevant details. |

**Notes: Joint ventures must comply the following requirements:**

- i) Following are the minimum qualification requirements for joint ventures:
  - a) The qualifying criteria parameter i.e. experience, financial resources etc. of the individual partners of the J.V. will be added together and the total criteria should not be less than as spelt out in qualification criteria.
- ii) The formation of joint venture or change in the joint venture character/ partners after submission of the bid and any change in the bidding regarding joint venture will not be permitted.
- iii) Any bid shall be signed so as to legally bind all partners jointly and severally and any bid shall be submitted with a copy of the Joint Venture Agreement (JV Agreement) providing the joint and several liabilities with respect to the contract.
- iv) The pre-qualification of a joint venture does not necessarily pre-qualify any of its partners individually or as a partner in any other joint venture or association. In case of dissolution of a joint venture, each one of the constituent firms may pre-qualify if they meet all the pre-qualification requirements, subject to written approval of the employer.
- v) The bid submission must include documentary evidence to the relationship between joint venture partners in the form of JV Agreement to legally bind all partners jointly and severally for the proposed agreement which should set out the principles for the constitution, operation, responsibilities regarding work and financial arrangements, participation (percentage share in the total ) and liabilities ( joint and several ) in respect of each and all of the firms in the joint venture. Such JV Agreement must evidence the commitment of the parties to bid for the facilities applied for (if pre-qualified) and to execute the contract for the facilities if their bid is successful.
- vi) One of the partners responsible for performing a key component of the contract shall be designated as Lead Partner. This authorization shall be evidenced by submitting with the bid a Power of Attorney signed by legally authorized signatories of all the partners.
- vii) The JV Agreement must provide that the Lead Partner shall be authorized to incur liabilities and receive instructions for and on behalf of any and all partners of the Joint Venture and the entire execution of the contract shall be done with active participation of the Lead Partner.
- viii) The contract agreement should be signed jointly by each Joint Venture Partners.
- ix) An entity can be a partner in only one Joint Venture. Bid submitted by Joint Ventures including the same entity as partner will be rejected.

x) The J. V. agreement may specify the share of each individual partner for the purpose of execution of this contract. This is required only for the sole purpose of apportioning bid the value of the contract to that extend to individual partner for subsequent submission in other bids if the intends to do so for the purpose of the qualifications in that tender.

**14(b) Change in Constitution of the Contracting Agency:**

Prior approval in writing of the company shall be obtained before any change is made in the constitution of the contracting agency, otherwise it will be treated as a breach of Contract.

**15.** Canvassing in connection with the tenders in any shape or form is strictly prohibited and tenders submitted by such tenderers who resort to canvassing shall be liable for rejection.

**16 (a)** Every Tenderer will have to submit a declaration in support of the authenticity of the credentials submitted by him along with the Tender in the form of an AFFIDAVIT as per the format provided at ANNEXURE VI.

**16 (b)** If a Tenderer deliberately provides wrong information or submits false credentials in support of his qualifications, the Company reserves the right to terminate/rescind the contract, forfeit the EMD and other dues of the contractor and to take any other action as may be deemed fit.\*

**\* (STRIKE OUT WHICHEVER IS NOT APPLICABLE )**

**17 (a)** An intending tenderer, after obtaining tender documents on payment of Application Fee, having doubts as to the meaning of any part of the tender documents may submit to the official inviting tender a written request for interpretation or clarification thereof. Any interpretation or clarification of the tender documents by formal addendum if issued by the official inviting tender, shall be final and valid and binding on the company and the tenderers.

**17(b)** A pre-bid meeting may be held ( if the subsidiary company feels it necessary ) on ..... at..... Hrs at the Office of the ..... to clarify the issues and to answer questions on any matter that may be raised at that stage.  
(Pre-bid meeting will be held for turnkey civil works only.).

**18. Tender Evaluation & Bid Assessment:**

The Tenders received will be scrutinised and evaluated by a duly constituted Tender Committee.

The Tender Committee will examine the Comparative Statements prepared by the concerned technical department and will satisfy itself that all aspects/conditions of each offer has been properly evaluated with respect to financial implications etc.

Tenders received without Earnest Money will be rejected.

The deviations from the commercial terms & conditions & the Tender specifications are scrutinised before opening of price bids. Normally no deviations in the commercial terms & conditions will be accepted.

However, the Tender Committee may decide to scrutinise the different conditions given by the tenderers and formulate and freeze the acceptable conditions and intimate all the tenderers about the same and give them an opportunity to revise their price bid if necessary before opening the same.

The Price Bids are opened at the time and place fixed for the same in presence of the tenderers & committee members and due information for opening of Price Bid is to be given to all concerned. In case where the tenderes are given opportunity to revise their Price Bids, only the revised price bids are opened and the original Price Bids are to be kept in tact in the custody of the company.

The Price Bids of the tenderers will have no condition. The Price Bids which are incomplete & not submitted as per instructions given in the Tender Document will be rejected.

Bidders who meet the minimum qualifications criteria will be qualified only if their available bid capacity is more than the updated estimated value. The available bid capacity will be calculated as under:

$$\text{Assessed Available Bid capacity} = (A \times N \times 2 - B)$$

where,

**A**= Maximum value of Civil Engineering Works executed in any one year during the last five years (updated to present level @ 5% per calendar year) taking into account the completed as well as works in progress.

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

**B**= Value at present price level, of existing commitments and on going works to be completed during the next .....months (period of completion of works for which bids are invited)

Financial turn over and cost of completed works of previous works shall be given a weightage of 5% per year (average annual rate of inflation) to bring them at current price level, while evaluating the **qualification requirement and bid assessment of the bidders**.

Even though the bidders meet the above qualifying criteria, they are subject to be disqualified if they made misleading or false representation in the forms, statement and attachment submitted in proof of qualifying requirement.

Information on Bid Capacity (works for which bids have been submitted and works which are yet to be completed) as on the date of this bid.:

#### 1 (A) Existing commitments and on going works.

Description of work	Place & State	Contract No.& Date	Name and address of Employer	Value of Contract (Rs.lakh)	Stipulated period of completion	Value of works remaining to be completed	Anticipated date of completion
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)

#### 1 (B) Works for which bids already submitted.

Description of work	Place & State	Estimated value of works (Rs.lakhs)	Stipulated period of completion	Date when decision is expected	Remarks if any
(1)	(2)	(3)	(4)	(5)	(6)

**2. Works performed as prime contractor (In the same name) on works of a similar nature over the last seven years \*\***

Project Name	Name of employer	Description of work	Contract No.	Value of contract (Rs.lakh)	Date of issue of work order	Stipulated period of completion	Actual date of completion	Remarks explaining reasons for delay and work completed

**3. Quantities of work executed as prime contractor (in the same name and style) in the last seven years\*\*:**

*(Table given below is a typical example & the contents may vary depending upon the nature & scope of work)*

Year	Name of the work	Quantity of work performed(cum)			Remarks (indicate contract ref.)
		<u>Cement concrete</u> (Including RCC & PCC)	<u>Masonry</u>	<u>Earth Work</u>	
19... - 20....					
20... - 20....					
20... - 20....					
20... - 20....					
20... - 20....					

1. Enclose a certificate(s) from Engineer(s)-in-charge.
2. Immediately preceding the financial year in which bids are received.

*(THE SYSTEM OF DETERMINATION OF BID ASSESSMENT CAPACITY AS ABOVE WILL BE USED ONLY IN CASE OF WORKS OF ESTIMATED VALUE OF OVER Rs. 1 CRORE.)*

No document presented by the bidder after the closing date & time of the bid will be taken into account unless it is of purely technical nature which has no bearing financially on the contract & which does not seek major changes in the technical specifications given in the bid documents. If a bidder offers a rebate unilaterally after the closing date & time of the bid, it will not be taken into account for evaluating purposes by the Tender Committee, but if that bidder emerges as the lowest evaluated, the rebate offered will be taken into account for determination of the total offer.

If the bid of the successful bidder is seriously unbalanced in relation to the estimate of the cost of work to be performed under the contract, the company may require the bidder to produce detailed price analysis for any or all items of the Bill of quantities to demonstrate the internal consistency of these prices with the construction method and the schedule proposed. After evaluation of the price analysis, the company may require that the amount of the performance security/security deposit is increased at the expense of the successful bidder to a level sufficient to protect the company against financial loss in the event of default on the part of the successful bidder under the contract.

**19. Negotiations:**

Work will be awarded to the lowest bidder (L1) without post tender negotiations if the rates are reasonable.

**20. Banned or delisted Contractors:**

The bidders would give a declaration that they have not been banned or delisted by any Govt. or Quasi Govt. agencies or PSU's. If a bidder has been banned or delisted by any Govt. or Quasi Govt. agencies or PSU's this fact must be clearly stated and it may not necessarily be a cause for disqualification. If the declaration is not given, the bid will be rejected as non-responsive.

**21.** On receipt of letter for acceptance of the tender issued by the Company, the successful tenderer shall execute/accept contract agreement/work order in the company's prescribed form for the due fulfillment of the contract. Failure to enter into the required contract/accept the work order issued by the company within the specified period in the work order shall entail cancellation of letter of acceptance of tender/work order and forfeiture of the earnest money. The written contract/ work order to be entered into between the contractor and the company shall be the foundation of the rights of both the parties and the contract shall not be deemed to be executed until the contract/ work order is signed/ accepted by both the parties i.e. Contractor and the Company.

**22(a)** The validity period of the tenders shall be 4 (four) months from the date of opening of price bid or revised price bid, if any.

The tenderer shall not, during the said period or within the period extended by mutual consent, revoke or cancel his tender or alter the tender or any terms/conditions thereof without consent in writing of the company. In case the tenderer violates to abide by this, the Company will be entitled to forfeit the Earnest Money and reject the tender.

**22 (b)** The Company reserves the right to postpone the date of receipt and opening of tenders or to cancel the tenders without assigning any reason whatsoever.

**23.** The Company reserves its right to allow Public Enterprises purchase preference facility as admissible under prevailing policy.

**24.** This detailed Tender Notice shall be deemed to be part of the Contract Agreement/Work Order.

**25.** No subletting of work as a whole by the contractor is permissible. Subletting of work in piece rated jobs is permissible with the prior approval of the department.

The Contract Agreement will specify major items of supply or services for which the contractor proposes to engage sub-contractor/sub-vendor. The contractor may from time to time propose any addition or deletion from any such list and will submit proposals in this regard to the Engineer-in -Charge/Designated Officer in charge for approval well in advance so as not to impede the progress of work. Such approval of the Engineer in Charge / Designated Officer in Charge will not relieve the contractor from any of his obligations, duties and responsibilities under the contract.

**26.** In case the contractor enters into any litigation, such action should have to be taken in a court of law with jurisdiction over the place where the subject work is to be executed.

# GENERAL TERMS AND CONDITIONS

## 1. Definitions

- i) **"Employer"** or "Company" means the Coal India Limited or any of its subsidiaries who will employ the contractor represented by the appropriate authority.
- ii) **"Principal Employer"** means the Coal India Limited or any of its subsidiaries or the officer nominated by the Company to function on its behalf.
- iii) The word **"Contractor/ Contractors"** wherever occurs means the successful tenderer/ tenderers who has/have deposited the necessary Earnest money and has/have been given written intimation about the acceptance of tender and shall include legal representative of such individual or persons composing a firm or a company or the successors and permitted assignees of such individual, firm or Company, as the case may be.
- iv) **"Site"** means the land and places including any building and erection thereon, over, under, in or through which the Permanent works or Temporary works designed by the Engineer in Charge are to be executed and any other lands and places provided by the Employer for working space or any other purpose as may be specifically designated in the Contract as forming part of the site.
- v) The term **"Sub-Contractor"** as employed herein, includes those having a direct contract with Contractor either on piece rate, item rate, time rate or any other basis and it includes one who furnishes work to a special design according to the plans or specifications of this work but does not include one who merely supplies materials.
- vi) **"Accepting Authority"** shall mean the management of the company and includes an authorized representative of the company or any other person or body of persons empowered in this behalf by the company.
- vii) **"Engineer-in-charge"** shall mean the officer nominated by the company in the Civil Engineering cadre/ discipline who is competent to direct supervisors and authorised to be in charge of the works for the purpose of this contract. The Engineer in Charge /Designated Officer in Charge who is of an appropriate seniority, will be responsible for supervising and administering the contract, certifying payments due to the contractor, valuing variations to the contract, awarding extension of time and valuing compensation events. The Engineer in Charge /Designated Officer in Charge may further appoint his representatives i.e. another person/Project Manager or any other competent person and notify to the contractor who is directly responsible for supervising the work being executed at the site, on his behalf under their Delegation of Powers of the company. However, overall responsibility, as far as the contract is concerned, will be that of the Engineer in Charge/Designated Officer in Charge.
- viii) The **"Contract"** shall mean the notice inviting tender, the tender as accepted by the Company, the work order issued to the contractor, and the formal contract agreement executed between the company and the contractor together with the documents referred to therein including general terms and conditions, special conditions, if any, scope of work, frozen terms & conditions/technical parameters/scope of work and revised offer, if any, specifications, drawings, including those to be submitted during progress of work, schedule of quantities with rates and amounts.
- ix) A **"Day"** shall mean a day of 24 hours from midnight to midnight.
- x) The **"Work"** shall mean the works required to be executed in accordance with the contract/work order or parts thereof as the case may be and shall include all extra or additional, altered or substituted works or any work of emergent nature, which in the opinion of the Engineer-in-charge, become necessary during the progress of the works to obviate any risk or accident or failure or become necessary for security.
- xi) **"Schedule of Rates"** referred to in this conditions shall mean the standard schedule of rates prescribed by the company and the amendments issued from time to time.

xii) **"Contract amount"** shall mean:

a) in the case of turnkey contracts the total sum for which tender is accepted by the company.

b) in the case of other types of contracts the total sum arrived at based on the individual rates quoted by the tenderer for the various items shown in the "Schedule of Quantities" of the tender document as accepted by the Company with or without any alteration as the case may be.

xiii) **"Written notice"** shall mean a notice or communication in writing and shall be deemed to have been duly served if delivered in persons to the individual or to a member of the contractors firm or to an office of the company for whom it is intended, or if delivered at or sent by registered mail to the last business address known to him who gives the notice.

xiv) **"The constructional plant"** means all appliances, tools, plants or machinery or whatsoever nature required in or about the execution, completion or maintenance of the works but does not include materials or other things intended to form part of the permanent work.

xv) **"Letter of Acceptance of Tender"** means letter giving intimation to the tenderer that his tender has been accepted in accordance with the provisions contained in that letter.

xvi) **"Department"** means the Civil Engineering Department of Coal India Limited or any of its subsidiary companies/units represented by the appropriate authority.

xvii) **"Act of insolvency"** means as it is designed by Presidency Town Insolvency Act or Provincial Insolvency Act or any act amending such originals.

xviii) The words indicating the singular only also include the plural and vice-versa where the context so requires.

## 2. **Contract Documents:**

The following documents shall constitute the contract documents :

i) Notice Inviting Tender/Detailed Tender Notice.

ii) Articles of Agreement / Letter of Acceptance of Tender/ Work Order.

iii) General Terms & Conditions of contract/ Commercial Terms & Conditions of contract.

iv) Additional Terms & Conditions of contract, if any.

v) Specifications.

vi) Schedule of quantities (or Bill of Quantities)/ Schedule of work/ Scope of work and schedule of deviation *(to be provided by the contractor.)*

vii) Frozen terms & conditions / technical parameters/ scope of work and revised offer, if any.

viii) Contract drawings and work programme.

ix) Safety Code etc. forming part of the tender.

**N.B. Deviations:** Deviations sought by the bidders, whether they are technical or commercial deviations, must only be given in the schedules prescribed for them. Any willful attempt by the bidders to camouflage the deviations by giving them in the covering letter or in any other documents than the prescribed schedules may render the bid itself as non-responsive.

**2.1** The contractor shall enter into and execute contract agreement in the prescribed form (ref. format at ANNEXURE VII ). The cost of the stamp papers for the contract agreement shall be borne by the contractor. Two sets of contract document/agreements shall be prepared and signed by both the parties One of the sets shall be stamped "Original" and the other "Duplicate". The duplicate copy will be supplied to the contractor free of cost and the original is to be retained by the company. For any additional copies required by the contractors the price to be charged would be that of the cost of the Tender Document ( Application Fee ).

All additional copies should be certified by the Engineer in Charge.

The contractor shall keep copy of these documents on the site/place of work in proper manner so that these are available for inspection at all reasonable times by the Engineer-in-charge, his representatives or any other officials authorised by the company for the purpose.

**2.2** The contract document shall not be used by the contractor for any purpose other than this contract and the contractor shall ensure that all persons employed for this contract strictly adhere to this and maintain secrecy, as required of such documents.

**2.3 Tender Evaluation & Bid Assessment**  
***[ Refer clause 18 of Detailed Tender Notice ]***

**2.4. Abnormally High Rate (AHR) & Abnormally Low Rate (ALR) Items.**

Abnormally High Rates & Abnormally Low Rates, if quoted by the contractor, in item rate tenders will be identified & dealt with as under:

- i) For identification of AHR & ALR items the ceiling of +/- 20% respectively, when compared with the updated estimated rate, will be considered.
- ii) Variation in Quantity on quoted rate during execution for AHR & ALR items shall be permitted upto +/-25% ( +25% for AHR & -25% for ALR ) of the quantity provided for items of work below plinth level & +/- 5% of the quantity provided for items of work above plinth level respectively.
- iii) Quantity variation beyond the limit mentioned at ii) above shall be dealt by arriving at new rate based on prevalent market rates of materials & labour analysed as per standard analysis of rate of N.B.O./ C.P.W.D. Payment of extra quantity over the permitted quantity of +/-25% and +/-5%(as the case may be) would be made on the basis of the new analysed rate.
- iv) For identified abnormally low rate ( ALR ) items, the contractor will be required to deposit with the company the difference in amount calculated between the departmental justified rate multiplied by the quantity of a particular ALR item and the ALR rate quoted by the contractor multiplied by the quantity of the same item.

The total amount to be deposited will be the sum total of all the identified ALR items calculated as per the method outlined above.

The amount so retained will be refunded on successful completion of individual ALR items of work.

**2.5 Negotiations:**  
***[ Refer clause 19 of Detailed Tender Notice ]***

**2.6 Acceptance of Offer :**

Letter of Acceptance is an acceptance of offer by the company and it need not be accepted by the tenderer. But the tenderer should acknowledge the receipt of the order within 15 days of mailing of work order and any delay in acknowledging the receipt will be treated as a breach of contract and compensation for the loss caused by such breach will be declared by the company by forfeiting EMD .

**2.7 Banned or delisted Contractors: *[ Refer clause 20 of Detailed Tender Notice ]***

### **3. Discrepancies in contract documents & Adjustments thereof**

The documents forming part of the contract are to be treated as mutually explanatory of one another and in case of discrepancy between schedule of quantity, the specifications and/or drawing, the following order of preference shall be observed;

- a) Description in Bill of Quantities of work.
- b) Particular specification and special conditions, if any
- c) Drawings.
- d) General specifications.

**3.1** In the event of varying or conflicting provision in any of the document(s) forming part of the contract, the Accepting Authority's decision/clarification shall hold good with regard to the intention of the document or contract as the case may be.

**3.2** Any error in description, quantity or rate in Bill of Quantities or any omission there from, shall not vitiate the contract or release the contractor from discharging his obligations under the contract including execution of work according to the Drawings and Specifications forming part of the particular contract document.

**3.3** Any difference detected in the tender/ tenders submitted resulting from :

- a) discrepancy between description in words and figures, the rate which corresponds to the amount worked out by the contractor shall be taken as correct.
- b) discrepancy in the amount quoted by the contractor due to calculation mistake of the unit rate and quantity, the unit rate shall be regarded as firm and amount corrected.
- c) when the amount of an item is not worked out by the contractor or it does not correspond with the rates written either in figures or words, then the rates quoted by the Contractor in words shall be taken as correct.
- d) in the case of percentage rate tender, the Contractors are required to quote their rates both in amount as well as in the percentage below/above the rates entered in the Schedule. In such cases in the event of Arithmetical error committed in amount by the contractor, the tender percentage and not the amount should be taken into account.
- e) discrepancy in totaling or carry forward in the amount quoted by the contractor shall be corrected.

The tendered sum so corrected and altered shall be substituted for the sum originally tendered and considered for acceptance instead of the original sum quoted by the tenderer alongwith other tender/tenders. Rounding off to the nearest rupee should be done in the final summary of the amount instead of in totals of various sections of the offer.

### **4. Security Deposit:**

**4.1.1** Security Deposit shall consist of two parts;

- a) Performance Security to be submitted at award of work and
- b) Retention Money to be recovered from running bills.

The security deposit shall bear no interest.

**4.1.2** Performance Security should be 5% of contract amount and should be submitted within 28 days of receipt of LOA by the successful bidders in any of the form given below

- a Bank Guarantee in the form given in the bid document
- Govt. Securities, FDR or any other form of deposit stipulated by the owner
- Demand Draft drawn in favour of ..... Coalfields Ltd on any Scheduled Bank payable at its Branch at.....

The Earnest Money/ Bid Security deposited in the form of Bank Guarantee shall be discharged when the Bidder has signed the Agreement and furnished the required Performance Security/ Security Deposit. The bid security deposited in the form of Demand draft/ cash shall be adjusted against the security deposit.

- If performance security is provided by the successful bidders in the form of bank guarantee it shall be issued either -
- (a) at Bidder's option by a nationalized/ Scheduled Indian Bank or
  - (b) by a foreign bank located in India and acceptable to the employer.
  - (c) the validity of the Bank Guarantee shall be for a period of one year or ninety days beyond the period of contract, whichever is more.

Failure of the successful bidder to comply with the requirement as above shall constitute sufficient ground for cancellation of the award of work and forfeiture of the bid security.

**4.2.1** All running on account bills shall be paid at 95% (ninety five percent) of work value. This 5% (five percent) deduction towards Retention Money will be the second part of security deposit.

**4.2.2** . 5% Performance Security should be refunded within 14 days of the issue of defect liability certificate (taking over certificate with a list of defects). Retention Money should be refunded after issue of No Defect Certificate. Retention Money should be deducted at 5% from running bills.

**4.3** The Bank Guarantee towards security deposit shall be acceptable only for values above Rs.50, 000/- and the Bank Guarantee shall also be valid for a minimum period of one year or ninety days beyond the period of contract, whichever is more.. Bank Guarantee is to be submitted in the format prescribed by the company. Bank Guarantee shall be irrevocable and will be from amongst the list of Banks ( Scheduled Banks ) provided in the bid document.

**4.4** The Company shall be at liberty to deduct/appropriate from the security deposit such sums as are due and payable by the contractor to the company as may be determined in terms of the contract, and the amount appropriated from the security deposit shall have to be restored by further deduction from the contractors subsequent on account running bills, if any.

The refund of security deposit shall be subject to company's right to deduct/ appropriate its due against the contractor under this contract or under any other contract.

**4.5** On completion of the entire work and issue of defect liability certificate (taking over certificate with a list of defects) by the Engineer-in-charge, one half of the security deposit remaining with the company shall be refunded. The other half shall be refunded to the contractor after issue of No Defect Certificate by the Engineer-in-Charge. on the expiry of Defect Liability Period of six months , subject to the following conditions:

- a) Any defect/defects in the work, if detected after issue of defect liability certificate is/are rectified to the satisfaction of the Engineer-in-Charge within the said period.
- b) In the case of building work or other work of similar nature, the refund shall be made on the expiry of the said six months period or at the end of one full monsoon period i.e. June to September, whichever is later in point of time and any defects such as leakages in roof, effloresces in walls, dampness, defects in drainage etc. should be rectified to the satisfaction of Engineer-in-Charge.

## **5. Deviations/Variations in Quantities and Pricing**

The quantities given in the "Schedule of Quantities" are based on estimates and are meant to indicate the extent of the work and to provide a uniform basis for tendering and any variation either by addition or omission shall not vitiate the contract.

**5.1** The company through its Engineer In Charge or his representative shall, without radically changing the original scope and nature of the work, under contract, have power to make any alterations in or additions to or

substitution of the original specifications, drawings, designs and instructions that may appear to be necessary or advisable during the progress of the work.

The contractor shall be bound to carry out the works in accordance with the instructions given to him in writing by the Engineer In Charge or his representative on behalf of the company. Such altered or additional or substituted work, which shall form part of the original contract, shall be carried out by the contractor on the same terms and conditions in all respects on which they agreed to do the main work and at the same rate/rates as are specified in the contract/ work-order.

**5.2** The right is reserved to cancel any items of work included in the contract agreement or portion thereof in any stage of execution if found necessary to the work and such omission shall not be a waiver of any condition of the contract nor invalidate any of the provisions thereof.

**5.3** If the additional, altered or substituted work includes any class of work for which rate/rates is/are not specified in the contract/work order, rates for such items shall be determined by the Engineer In Charge as follows:

- a) In the case of percentage tenders, if the rate for the item of work executed is available in the company's approved SOR, it will be paid at the schedule rate plus or minus the accepted percentage as per contract,
- b) In case of item rate tenders, the rate for extra item shall be derived from the rate for similar item or near similar item of work available in the agreement schedule of work or by analysis of rates as at (c) below and the lower rate out of the above two shall be considered.
- c) In case the rate for extra item is to be derived by analysis of rate, the same shall be done by analysis on prevalent market rate of materials and labour based on standard norms of analysis of rate of N.B.O./C.P.W.D.
- d) In case of combined tender with partly item rate for non-schedule items & partly percentage tenders for SOR items, the rate for extra item shall be derived as at (b) above in case of non-schedule items rates and in case of percentage rates for SOR items the rate for extra item shall be derived as at (a) above.

In case of any difference between the contractor and the Engineer-In Charge as to the fixation of rates, the matter shall be referred to the accepting authority of the company i.e. CGM(C)/GM(C)/CE(C) of the company or Staff Officer(C) for the work awarded at Company Hqrs. level and Area level respectively, whose decision shall be final and binding on the contractor.

**5.4** Payment for such deviated items (additional/ altered / substituted items of work or excess quantities of work beyond +/- 25% of the agreement schedule) shall be made in the contractors running on account bills, till the revised estimate regularising these items are sanctioned by the competent authority of the company, at the provisional rates and shall not exceed :

- a) 75% of the rate recommended by the Engineer In Charge to the accepting authority of the company i.e. CGM(C)/GM(C)/ CE(C) of the company or SO(C) of the Area , if the rate is directly available in the SOR of the company.
- b) 50% of the rate recommended by the Engineer In Charge to the accepting authority of the company, i.e. CGM(C)/ GM(C)/ CE(C) of the company or SO(C) of the Area , if it is analysed item rates based on prevalent market rates of materials and labour following NBO/CPWD norms.

**5.5** *The time for completion of the originally contracted work shall be extended by the company in the proportion that the additional work (in value) bears to the original contracted work (in value) plus 25% of the time calculated as explained above or such further additional time as may be considered reasonable by the Engineer in Charge.*

**5.6** The company through its Engineer In Charge or his representative, on behalf of the company, shall have power to omit any part of the work in case of non-availability of a portion of the site or for any other reason and the contractor shall be

bound to carry out the rest of the work in accordance with the instructions given by the Engineer In Charge. No claim from the Contractor shall be entertained/ accepted on these grounds.

**5.7** In the event of any deviation being ordered which in the opinion of the contractor changes radically the original scope/nature of the contract, the contractor shall under no circumstances suspend the work, either original or altered or substituted, and the dispute/disagreement as to the nature of deviation and the rate/rates to be paid for such deviations shall be resolved separately with the company as per the procedures/ norms laid down hereafter.

## **6. Time for Completion of Contract, Extension thereof, Defaults and Compensation for Delay**

Time is the essence of the contract and as such all works shall be completed within the time stipulated in the contract/work order.

Immediately after the contract is executed/the work order is issued, the Engineer In Charge and the contractor shall agree upon a detailed time and progress chart prepared based on BAR CHART/ PERT CPM techniques on the basis of a construction schedule submitted by the contractor at the time of executing contract showing the order in which the work is proposed to be carried out within the time specified in the contract document/work order.

For the purpose of this detailed time and progress chart, the work shall be deemed to have commenced on the expiry of 10 (ten) days from the issue of Letter of Acceptance of Tender/Work Order or handing over the site of work or handing over reasonable number of working drawings to the contractor or the period of mobilisation allowed in the work order for starting the work in special circumstances, whichever is later.

**6.1** If the contractor, without reasonable cause or valid reasons, commits default in commencing the work within the aforesaid time limit, the company shall without prejudice to any other right or remedy, be at liberty, by giving 15 days notice in writing to the contractor to commence the work, to forfeit the Earnest Money deposited by him and to rescind the Letter of Acceptance of Tender/Work Order.

Additionally, the Company will reserve the right to debar such defaulting Contractors from participating in future Tenders for a minimum period of 1 (One) year.

**6.2** If the contractor fails to maintain the required progress in terms of the agreed time and progress chart or to complete the work and clear the site on or before the contract or extended date of completion, he shall without prejudice to any other right or remedy available under the law to the company on account of such breach, pay as compensation (Liquidated Damages) @ half percent (1/2%) of the contract price per week of delay. The aggregate of such compensation/ compensations shall not exceed 10 (ten) percent of the total value as shown in the contract.

This will also apply to items or group of items for which separate period of completion has been specified. The amount of compensation may be adjusted or setoff against any sum payable to the contractor under this or any other contract with the company.

**6.2.1** The company, if satisfied, that the works can be completed by the contractor within a reasonable time after the specified time of completion, may allow further extension of time at its discretion with or without the levy of L.D. In the event of extension granted being with L.D, the company will be entitled without prejudice to any other right or remedy available in that behalf, to recover from the contractor as agreed damages equivalent to half percent of the contract value of the works for each week or part of the week subject to a ceiling of 10% of the contract price.

**6.2.2** The company, if not satisfied that the works can be completed by the contractor, and in the event of failure on the part of the contractor to complete work within further extension of time allowed as aforesaid, shall be entitled, without prejudice to any other right, or remedy available in that behalf, to rescind the contract.

**6.2.3** The company, if not satisfied with the progress of the contract and in the event of failure of the contractor to recoup the delays in the mutually agreed time frame, shall be entitled to terminate the contract.

**6.2.4** In the event of such termination of the contract as described in clauses 6.2.2 or 6.2.3 or both, the company, shall be entitled to recover L.D. upto ten percent (10%) of the contract value and forfeit the security deposit made by the contractor besides getting the work completed by other means at the risk and cost of the contractor.

**6.3** a) The company may at its sole discretion, waive the payment of compensation on request received from the contractor indicating valid and acceptable reasons if the entire work is completed within the date as specified in the contract/work order or as validly extended date without stipulating any compensation for delay. **or**

b) If the progress of the work or of any portion of the work is unsatisfactory, the Engineer In-charge shall be entitled, after giving the contractor 15 days' notice in writing, to employ another Agency for executing the job or to carry out the work departmentally either wholly or partly debiting the contractor with the cost involved in engaging another Agency or the cost involved in executing the work departmentally, as the case may be. The certificate to be issued by the Engineer In-charge for the cost of the work so done shall be final and conclusive and the extra cost, if any, shall be borne by the contractor.

**6.4** Extension of date of completion: On occurrences of any events causing delay as stated here-under, the contractor shall intimate immediately in writing to the Engineer In Charge.

a) Force Majeure :

- i) Natural phenomena, including but not limited to abnormally bad weather, unprecedented flood and draught, earthquakes & epidemics.
- ii) Political upheaval, civil commotion, strikes, lockouts, acts of any Govt. (domestic/foreign) including but not limited to war, proprietries, quarantine embargoes

The successful bidder/ contractor will advise in the event of his having to resort to this clause by a registered letter duly certified by the local chamber of commerce or statutory authorities, the beginning and end of the cause of delay, within fifteen days of the occurrence and cessation of such Force Majeure condition.

In the event of delay due to Force Majeure for more than one month the contract may be terminated at the discretion of the company. Termination under such circumstances will be without any liability on either side.

b) Serious loss or damage by fire

c) Non-availability of stores which are the responsibility of the company to supply as per contract

d) Non-availability of working drawings in time, which are to be made available by the company as per contract during progress of the work

e) Delay on the part of the contractors or tradesmen engaged by the company not forming part of the contract, holding up further progress of the work

f) Non-availability or breakdown of tools and plant to be made available or made available by the company

g) The execution of any modified or additional items of work or excess quantity of work.

h) Any other causes which, at the sole discretion of the company, is beyond the control of the contractor.

**6.4.1 A HINDRANCE REGISTER** shall be maintained by both department and the contractor at site to record the various hindrances, as stated above, encountered during the course of execution.

Hindrance register will be signed by both the parties. The contractor may also record his observations in the Hindrance Register. In case the contractor has a different opinion for hindrance and a dispute arises then the matter would be referred to the EIC and or the next higher authority whose decision would be final & binding on the contractor & the decision to be communicated within 15 days.

**6.4.2** The contractor shall request the company in writing for extension of time within 15 days of happening of such event causing delay stating also, the period for which extension is required. The company may, considering the genuinity of the request, give a reasonable extension of time for completion of the work. Such extension shall be communicated to the contractor in writing by the company through the Engineer In Charge within 1(one) month of the date of receipt of such request.

**6.4.3** The opinion of the Engineer-in-charge, whether the grounds shown for the extension of time are or are not reasonable, is final. If the Engineer-in-charge is of the opinion that the grounds shown by the contractor are not reasonable and declines to the grant of extension to time, the contractor can not challenge the soundness of the opinion by reference to arbitration.

The opinion of the Engineer-in-charge that the period of extension granted by him is proper or necessary is not, however, final. If the contractor feels that the period of extension granted is inadequate he can appeal to the CGM(Civil)/ GM(Civil)/ CE(Civil) of the company for consideration on the question whether the period of extension is or is not proper or necessary.

**6.4.4** Provisional extension of time may also be granted by the Engineer In Charge during the course of execution, on written request for extension of time within 15(fifteen) days of happening of such events as stated above, reserving the company's right to impose/ waive penalty at the time of granting final extension of time as per contract agreement.

**6.4.5** When the period fixed for the completion of the contract is about to expire, the question of extension of the contract may be considered at the instance of the Contractor or the Department or of both. The extension will have to be by party's agreement, express or implied.

In case the contractor does not apply for grant of extension of time within 15(fifteen) days of the hindrance occurring in execution of the work and the department wants to continue with the work beyond the stipulated date of completion for reason of the work having been unavoidably hindered, the Engineer-in-charge can grant extension of time even in the absence of application from the contractor.

Such extension of time granted by the Engineer In Charge is valid provided the contractor accepts the same either expressly or implied by his actions before and subsequent to the date of completion. Such extension of time shall be without prejudice to Company's right to levy compensation under the relevant clause of the contract.

The contractor shall however use his best efforts to prevent or make good the delay by putting his endeavors constantly as may be reasonably required of him to the satisfaction of the Engineer In Charge.

## **7. Material Supply & other facilities**

**7.1\*** The company does not undertake any responsibility for supply of any materials to the contractor.

**7.2** If the steel is issued by the department, the wastage of steel shall be the barest minimum. The wastage allowed from theoretical quantity will be upto a maximum of 5% to cover the wastage due to cutting into pieces,

bending and other factors. No cut pieces or scrap less than 2 mtr. in length will be taken by the department. Efforts should be made to use the cut pieces of 2 mtr. or above length as far as possible.

If the wastage of steel is more than the permissible variation mentioned above the cost of excess wastage made by the contractor shall be recovered at double the issue rates indicated above, or 115% of prevailing market rate including sales tax and general tax during the period of work, whichever is more.

No allowances shall be entertained on account of Rolling Margin for the steel either issued by the department or procured by the contractor.

**7.3** If the cement is issued by the department, the variation of 5% will be permitted over the theoretical consumption of cement for value of work upto Rs.10.00 lakhs and 3% for value of work above Rs.10.00 lakhs. In the event of cement consumed is more/less than specified above, the recovery for the quantity of cement consumed in excess or less than the specified quantity shall be made at double the issue rate or 115% of prevailing market rate including sales tax and general tax during the period of work, whichever is more.

**7.4** In case the department is not able to supply cement/steel as per the provisions of the contract, the Engineer In Charge may allow, with the approval of CGM(Civil)/ GM(Civil)/ CE(Civil) of the company, the contractor in writing for procurement of cement/ steel from the approved sources and the extra on this account including transport charges, if any, over the issue rate shall be reimbursed to the contractor on production of authentic documents. Transportation of cement/ steel from the place of purchase to the site of work and proper storage of cement/steel at site shall be contractor's responsibility. He should maintain proper account of cement/steel issued/procured by him and should allow inspection of his godown and his cement/steel account by the concerned Engineer-in-charge or any other authorised officers of the company. Contractor should draw materials from the company on the basis of actual requirement as assessed by the Engineer In Charge on "as and when required" basis.

**7.5** Recovery of cost of materials issued on sale A/c will be made as per actual consumption basis but the Engineer In Charge will have the discretion for making full recovery while processing a particular bill or asking for the return of the balance materials if the work is not progressing satisfactorily.

The contractor shall keep accurate record of materials issued by the company, maintain proper account for the materials received and consumed in the work and shall be open to check by the Engineer In Charge or his authorised representative. The contractor shall ensure that such materials are consumed for the contract works only and the Register for the aforesaid account shall be signed both by the representatives of Engineer In Charge and the contractor.

**7.6** All materials, tools and plants brought to site by the contractor including the materials supplied by the company shall be deemed to be held in lien by the company and the contractor shall not have the right to remove the same from the site, without the written permission of the Engineer In Charge. The company shall not however be liable for any loss, theft or damage due to fire or other cause during this period of lien, the responsibility for which shall lie entirely on the contractor.

**7.7** The contractor shall bear the cost of loading, transportation to site, unloading, storing under cover as required etc. as may be necessary for the use and keeping the materials in good condition.

**7.8** Any surplus materials issued by the company, remaining after completion or termination of the contract, shall be returned by the contractor at his cost to the place of issue and the Engineer In Charge shall accept the same at the rate not exceeding the rate at which these were originally issued taking into consideration the deterioration or damage, if any, that may have been caused during the custody of the contractor. In the event, the contractor fails to return the surplus materials out of those supplied by the company, the Engineer In Charge may, in addition to any other liability which the contractor would incur in this regard, by giving notice in writing require the contractor to pay the amount at double the issue rate for such unreturned surplus materials or 115% of the prevailing market rate including Sales Tax & General Tax during the period of work, whichever is more.

**7.9** On completion or on termination of the contract and on complete recovery of secured advance paid by the company, if any, in respect of materials brought to site, the contractor with due permission of the Engineer In Charge shall be entitled to remove at his expenses all surplus materials originally supplied by him and upon such removal, the same shall become the property of the contractor.

**7.10** All charges on account of octroi, terminal or sales tax and other duties on materials obtained for the works from any source (excluding materials supplied by the company) shall be borne by the contractor.

**7.11** The contractor shall arrange necessary electricity at his own cost for the work and his own establishment. However, if available and feasible the company may arrange electricity at one point near the work site and necessary recovery of cost of energy consumed will be made at rates prescribed by the company from time to time. Energy meter for this purpose shall be provided by the contractor.

**7.12** The contractor shall arrange necessary water for the work and his own establishment. However, if available and feasible the company may arrange water at one point near the work site for which recovery @ 1% of the contract value of work done will be made from the contractor's bills.

**7.13** Coal required for manufacturing of bricks to be used in the work will be issued @ 25 tonnes per one lakh of bricks on payment at the rate prevailing on the date of issue. Requirement of coal may vary depending on the quality of coal. Transportation of coal and the charges thereof shall be contractor's responsibility.

**7.14** Explosives, detonators and other inflammable materials shall not be used in the execution of the work at site by the contractor without prior written permission of the Engineer In Charge. Transportation and storage of such materials shall be done in specified manner in accordance with the law in force. The contractor shall also obtain licence under such laws for, transportation, storage, use and all other operations, connected with the handling of the same.

## **8. Quality Assurance - Materials and Workmanship**

The contractor shall carry out and complete the work in every respect in accordance with the contract and shall ensure that the work conforms strictly to the drawings, specifications, instructions of the Engineer In Charge. The Engineer In Charge may issue, from time to time, further drawings, detailed instructions/ directions in writing to the contractor. All such drawings, instructions/directions shall be consistent with the contract documents and should be reasonably inferable therefrom, alongwith clarifications/ explanations thereof, if necessary.

**8.1** For Quality Assurances of all the Civil Engineering Works the norms/ guidelines laid down by the company herein and elsewhere will form part of the contract for the purpose of quality of works.

**8.2** The contractor shall be responsible for correct and complete execution of the work in a workman like manner with the materials as per specification which shall be subject to the approval of the company. All work under execution in pursuance of the contract shall be open to inspection and supervision by the Engineer In Charge or by his authorised representative or any other official of higher rank or any other person authorised by the company in his behalf & the contractor shall allow the same.

**8.3** All materials to be provided by the contractor shall be in conformity with the specifications/schedule of work as per the contract and the contractor shall furnish proof, if so required by the Engineer In Charge to his satisfaction that the materials do so comply.

**8.4** The contractor shall immediately after the award of work draw up a schedule giving dates for submission of samples as required or necessary as per the specification for approval of Engineer In Charge who shall approve, if found acceptable, promptly so that there is no delay in the progress of the work of the contractor or of the work of any of the sub-contractor.

On receipt of samples as per schedule, the Engineer In Charge shall arrange to examine/test with reasonable promptness ensuring conformity of the samples with the required specification and complying with the requirements as per contract documents keeping in view that the work shall be in accordance with the samples approved by him. The contractor shall not start bringing materials at the site unless the respective samples are approved. Materials conforming to approved samples shall only be brought to site.

Samples are to be supplied by the contractor at his own cost. The cost involved in tests shall be borne by the contractor. If any test is ordered by the Engineer In Charge which is to be carried out by any independent person or agency at any place other than the site even then the cost of materials and testing charge etc. shall be borne by the contractor. If the test shows that the materials are not in accordance with the specifications, the said materials shall not be used in the work and removed from the site at contractors cost.

**8.5** The company, through the Engineer In Charge, shall have full powers to reject any materials or work due to a defect therein for not conforming to the required specification, or for materials not being of the required quality and standard or for reasons of poor workmanship or for not being in accordance with the sample approved by him. The contractor shall forthwith remedy the defect/replace the materials at his expense and no further work shall be done pending such rectification/replacement of materials, if so instructed by the Engineer In Charge.

In case of default on the part of the contractor, the Engineer In Charge shall be at liberty to procure the proper materials for replacement and/or to carry out the rectifications in any manner considered advisable under the circumstances and the entire cost & delay for such procurement/rectification shall be borne by the contractor.

**8.6** The Engineer In Charge shall be entitled to have tests carried out for any materials, according to the standard practice followed for such tests, other than those for which satisfactory proof has already been furnished by the contractor who shall provide at his expense all facilities which the Engineer In Charge may require for the purpose.

The cost of any other tests, if so required by the Engineer In Charge, shall be borne by the contractor only, if the test shows the workmanship or materials not to be in accordance with the provision of the contract or the instruction of Engineer In Charge, but otherwise by the company.

**8.7** Access to the works: The Engineer-in-charge and any person authorised by the company shall at all times have access to the works and to all workshops and places where work is being prepared or from where materials, manufactured articles are being obtained for the works and the contractor shall afford every facility for and every assistance in or in obtaining the right to such access.

**8.8 Inspection of works:** i) No work shall be covered up or put out of view without the approval of the Engineer-in-charge or the Engineer-in-charge's representative or any other officer nominated by the company for the purpose and the contractor shall afford full opportunity for the EIC or EIC's representative or any other officer nominated by the company for the purpose to examine and measure any work which is about to be covered up or put out of view and to examine foundations before permanent work is placed thereon. the contractor shall give due notice to the Engineer-in-charge's representative whenever any such work or foundations is ready or about to be ready for examination and the Engineer-in-charge's representative shall, without unreasonable delay, unless he considers it unnecessary and advises the contractor accordingly, attend for the purpose of examining and measuring such work or foundations.

ii) The contractor shall uncover any part or parts of the works or making openings in or through the same as the Engineer In Charge may from time to time direct and shall reinstate and make good such part or parts to the satisfaction of Engineer-in-charge.

If any such part or parts have been covered up or put out of view after compliance with the requirement of sub-clause above and are found to be executed in accordance with the contract, the expenses of uncovering, making openings in or through and making good the same shall be borne by the Employer, but in any other cases all costs shall be borne by the contractor.

#### **8.9 Removal of Improper Work and Materials:**

- i) The Engineer-in-charge shall during the progress of the works have power to order in writing from time to time :
- a) The removal from the site, of any materials which in the opinion of Engineer-in-charge, are not in accordance with the contract/ work order/ approved sample.
  - b) The substitution with proper and suitable materials.

c) The removal and proper re-execution, notwithstanding any previous test thereof or interim payment therefrom, of any work which in respect of materials or workmanship is not in accordance with the contract.

ii) In case of default on the part of the contractor in carrying out such order, the Engineer-in-charge shall be entitled to employ and pay other agency to carry out the same and all expenses consequent thereon shall be recoverable from the contractor or may be deducted from any amount due or which may become due to the contractor.

**8.10 Devaluation of Work :** In lieu of rejecting work done or materials supplied not in conformity with the contract/work order/approved samples, the Engineer-in-charge or any other officer nominated by the company for the purpose may allow such work or materials to remain, provided the Engineer In Charge/ the officer nominated by the company is satisfied with the quality of any materials, or the strength and structural safety of the work, and in that case shall make such deduction for the difference in value, as in his opinion may be reasonable.

**8.11 Final Inspection of Work:** The Engineer-in-charge and any other officer nominated by the company for the purpose shall make final inspection of all work included in the contract/work order, or any portion thereof, or any completed structure forming part of the work of the contract, as soon as practicable after notification by the contractor that the work is completed and ready for acceptance. If the work is not acceptable to the Engineer-in-charge at the time of such inspection, he shall inform the contractor in writing as to the particular defects to be remedied before final acceptance can be made.

**8.12 Defects appearing after acceptance:** Any defects which may appear within the defect liability period and arising, in the opinion of the Engineer-in-charge, from lack of conformance with the drawings and specifications, shall, if so required by the Engineer-in-charge in writing, be remedied by the contractor at his own cost within the time stipulated by the Engineer-in-charge. If the contractor fails to comply, the Engineer-in-charge may employ other persons to remedy the defects and recover the cost thereof from the dues of the contractor.

**8.13 Site Order Book :** A Site Order Book is a Register duly certified by the Engineer-in-charge regarding number of pages it contains, each page being numbered, name of work, name of contractor, reference of contract/ work order and the aforesaid certificate should be recorded on its first page.

Site Order Books shall be maintained on the sites of works and should never be removed therefrom under any circumstances. It shall be the property of the company. The Engineer In Charge or his authorised representative shall duly record his observations regarding any work which needs action on the part of the contractor like, improvement in the quality of work, failure to adhere to the scheduled programme etc. as per contract/work order. The contractor shall promptly sign the site order book and note the orders given therein by the EIC or his representative and comply with them. The compliance shall be reported by the contractor in writing to EIC in time so that it can be checked.

The Site Order Book will be consulted by the Engineer In Charge at the time of making both running on account and final bills of the contractor. A certificate to this effect should be given in the Measurement books by the Engineer In Charge or his representative.

**8.14 Samples and Testing of Materials:** All the materials to be procured by the contractor and to be used in work shall be approved by the Engineer In Charge in advance, and shall pass the tests and analysis required by him, which will be as specified in the specifications of the items concerned and or as specified by BIS or the IRC standard specifications acceptable to the Engineer In Charge. The method of sampling and testing shall be as per the relevant BIS, IRC and other relevant standards and practices. Minor minerals like sand, stone chips etc. shall be conforming to relevant BIS standards. All bought out items including Cement and Steel shall be procured from such manufacturers who hold valid license conforming to relevant BIS standards for manufacturing of such items.

**8.15 Storage of Materials :** Materials shall be so stored as to ensure the preservation of the quality and fitness for the

work. When considered necessary by the Engineer-in-charge, they shall be placed on wooden platforms or other hard, clean surfaces and not directly on the ground.

Materials shall be placed under cover when so directed and the contractor shall erect and maintain at his own cost temporary weather-proof sheds at the work site for the purpose. Stored materials shall be so located as to facilitate prompt inspection. All stored materials shall be inspected at the time of use in the work, even though they may have been inspected and approved before being placed in storage or during storage.

**8.16 Defective Materials:** All materials not conforming to the requirements of the specifications shall be considered as defective, and all such materials, whether in place or not shall be rejected. They shall be removed immediately by the contractor at his expenses and replaced with acceptable material.

No rejected material, the defects of which have been subsequently corrected, shall be used on the work until approval in writing has been given by the Engineer In Charge. Upon failure on the part of the contractor to comply with any instruction of the Engineer-in-charge made under the provisions of this article within the time stipulated by the Engineer-in-charge, the Engineer-in-charge shall have authority to remove and replace defective material and recover the cost of removal and replacement from the contractor.

Further all such defective material lying at site not removed and replaced within 30 days after issue of notice by the Engineer-in-charge, if the Engineer-in-charge so decides, shall dispose off such material in any manner without any further written notice to the contractor.

## **9. Measurement and Payments**

Except where any general or detailed description of the work in the Bill of Quantities or specifications of the contract/work order provides otherwise, measurement of work done shall be taken in accordance with the relevant standard method of measurement published by the Bureau of Indian Standards(BIS) and if not covered by the above, other relevant Standards/practices shall be followed as per instructions of the Engineer In Charge.

**9.1** All items of work carried out by the contractor in accordance with the provision of the contract having a financial value shall be entered in the Measurement Book as prescribed by the company so that a complete record of the measurements is available for all the works executed under the contract and the value of the work executed can be ascertained and determined therefrom. Measurements of completed work / portion of completed work shall be recorded only in the Measurement Books.

**9.2** Measurement shall be taken jointly by the Engineer-in-Charge or his authorised representative and by the contractor or his authorised representative.

**9.3** Before taking measurements of any work, the Engineer In Charge or the person deputed by him for the purpose shall intimate the contractor to attend or to send his representative to attend the measurement. Every measurement thus taken shall be signed and dated by both the parties on the site on completion of the measurement. If the contractor objects to any measurements, a note to that effect shall be made in the Measurement Book / Log Book and signed and dated by both the parties.

**9.4** The measurement of the portion of work/items of work objected to, shall be re-measured by the Engineer In Charge himself or the authority nominated by the company for the purpose in the presence of the contractor or his authorised representative and recorded in the M.B. which shall be signed and dated by both the parties. Measurements so recorded shall be final and binding upon the contractor and no claim whatsoever shall thereafter be entertained.

In case the contractor or his authorised representative does not attend to the joint measurements at the prefixed date and time after due notice, the measurements taken by the Engineer In Charge or his representative shall be final and binding on the contractor.

Measurement of the extra items of work or excess quantities of work duly authorised in writing by the Engineer In Charge shall also be taken and recorded in the M.B. based on the existing items in the SOR of the company and if such items do not exist in the company's SOR, the description of the work shall be as per actual execution. Payment for such extra items will be based on the rates to be derived as described in the relevant clauses of the contract/ work-order

**9.5** No work shall be covered up or put out of view without the approval by the Engineer In Charge and recording of measurements and check measurement thereof duly accepted by the contractor. The contractor shall provide full opportunity to the Engineer In Charge or his representative to examine and measure all works to be covered up and to examine the foundations before covering up.

The contractor shall also give notice to Engineer In Charge whenever such works or foundations are ready for examination and the Engineer In Charge shall without unreasonable delay arrange to inspect and to record the measurements, if the work is acceptable and advise the contractor regarding covering of such works or foundations.

**9.6** In case of items which are claimed by the contractor but are not admissible according to the department, measurements of such items, will be taken by for record purposes only and without prejudice so that in case it is subsequently decided by the department to admit the contractor's claims, there should be no difficulty in determining the quantities of such work. A suitable remark should, however, be made against such measurements to guard against payment in the ordinary way.

**9.7 Payments:** The running on account payments may be made once in a month or at intervals stipulated in the work order/ contract agreement.

**9.7.01** Running on account bill/bills for the work executed/ materials supplied in accordance with the work order/ contract shall be prepared on the basis of detailed measurements recorded as described hereinbefore and processed for payments.

**9.7.02** Payment of on account bill shall be made on the Engineer In Charge's certifying the sum to which the contractor is considered entitled by way of interim payment for the following :

a) The work executed as covered by the bill/bills after deducting the amount already paid, the security deposit and such other amounts as may be deductible or recoverable in terms of the work order/ contract.

b) (i) Payment for excess quantity of work done with the written instructions of the Engineer In Charge for items already appearing in the bill of quantities of work with approved rates, will be made alongwith the on account bills only upto 10% of the quantity provided in the agreement subject to overall value of work not exceeding the agreement value.

(ii) The CGM(Civil)/ GM(Civil)/ CE(Civil) of the company and / or the Staff Officer(C) of the Area may authorise interim payment for excess work done upto 20 % of the quantity of work provided in the Bill of Quantity of the work awarded from Company level and Area level respectively subject to overall value of work done does not exceed the contract value.

c) Extra items of work executed will be paid on specific written authorisation of CGM (Civil)/ GM(C)/ CE(C) of the company or Staff Officer (Civil) of the Area provided that the value of such extra items of work when added together is not more than 10% of the contract value and the total gross payment including excess quantity does not exceed the contract value.

Balance amount on account of excess quantity and extra items of work executed shall be paid after the deviation estimate / revised estimate regularising the extra items and excess quantities of work is sanctioned by the competent authority of the company with the concurrence of the Finance Department of the company.

d) On the Engineer In Charge's certificate of completion in respect of the work covered by the contract / final measurements of the work certified by the Engineer In Charge or his representative.

**9.7.03** The measurements shall be entered in the M.B for the work done upto the date of completion and evaluated based on the approved rates for the items in the contract agreement/sanctioned revised estimate. In case of extra items of work, the rates shall be derived as stated in the relevant clause of the contract.

The payments shall be released against the final bill subject to all deductions which may be made on account of materials supplied, water supply for construction, supply of electricity and any other dues payable by

the contractor to the company, and further subject to the contractor having given to the Engineer In Charge a no claim certificate.

The contractor shall indemnify the company against proof of depositing royalty on account of minor minerals used in the work before the final bill is processed for payments. The final payment to be made will also be subject to Clause-4.5 of the General Terms & Conditions of the contract.

**9.7.04** Any certificate given by the Engineer In Charge for the purpose of payment of interim bill/bills shall not of itself be conclusive evidence that any work/materials to which it relate is/are in accordance with the contract and may be modified or corrected by the Engineer In Charge by any subsequent certificate or by the final certificate.

**9.7.05** The company reserve the right to recover/enforce recovery of any over payments detected after the payment as a result of post payment audit or technical examination or by any other means, notwithstanding the fact that the amount of disputed claims, if any, of the contractor exceeds the amount of such overpayment and irrespective of the facts whether such disputed claims of the contractor are the subject matter of arbitration or not.

The amount of such over payments shall be recovered from subsequent bills under the contract, failing that from contractor's claim under any other contract with the company or from the contractor's security deposit or the contractor shall pay the amount of over payment on demand. In case of contractor's non-payment on such demand, the same should be realised from the contractor's dues, if any, with Coal India Limited or any of its subsidiaries.

**9.7.06** The contractors are required to execute all works satisfactorily and according to the specifications laid down in the contract/ work order. If certain items of work, executed by the contractor, are below specifications, the contractor should re-do them according to the specifications and instructions of EIC and if the contractor fails to rectify the defect within the time and in the manner specified by the EIC, the work shall be got re-done or rectified by the department at the risk and cost of the contractor. Engineer In Charge may accept such work of below specifications provided the department is satisfied with the quality of such works and the strength/ structural safety of such works. In that case Engineer In Charge shall make such deductions for the difference in value, as in his opinion is reasonable and is approved by the accepting authority of the company i.e. CGM(C)/ GM(C)/ CE(C) of the company in this case or any other officer nominated by CGM(C)/ GM(C)/ CE(C) for the purpose.

**9.7.07 Payment Stage: The payment stage involved will be as under,**

- i) Signature of EA(Civil)/ Sr. Overseer(C) / Overseer(C) in MB's both in pages recording measurements, abstract of bill & the duly filled in bill form.
- ii) Signature of Engineer(C)/ EE(C) with appropriate check measurements in the MB's and the bill form.
- iii) Signature of Sr. EE(C)/ SE(C) with appropriate check measurements in MB's and the bill form.
- iv) Signature of Engineer in Charge as per definition as at clause 1(vii) of the General Terms and Conditions, as a token of acceptance for payment of the bill. The EIC may sign in the abstract of the bill in the MB & the bill form. In between stage iii) and iv) accountal checking may be made by the concerned Accounts Officer/ Accountant.

**9.7.08 Secured Advance:** Secured advance can be paid for items of materials required for execution of the work and covered under categories A & B and supplied by the contractor at work site, supported by necessary vouchers, challans, test certificates etc. after execution of indemnity bond as per prescribed Form of the company on non-judicial stamp paper of prescribed value.

This advance shall be recovered in four equal installments or as per consumption whichever is higher. Engineer In Charge shall recover at his discretion all or any part of secured advance paid, if in his opinion the work is not progressing satisfactorily or the security of these materials at site is not adequately taken care of by the contractor. Secured advance shall be payable for contracts of value above Rs.10.00 lakhs only.

Secured advance for structural steel sections, reinforcement steel and cement, collected at site, will be paid upto 75% of the corresponding stock yard prices of SAIL for the corresponding steel items and Govt. approved/ D.G.S.D. prices for cement, if the same exist.

In case of non-availability of Govt. approved prices of cement & steel and for the materials falling under Category - A and B the secured advance will be paid at the basic rate available in the approved schedule of rates of

the company plus or minus the overall percentage on which the work was awarded, provided such rate is not more than 60% of the quoted rate of the contractor for the actual work.

At any point of time the outstanding recoverable secured advance shall not be more than 10% of the contract value.

Items against which secured advance can be granted:

### **Category-A**

#### **Civil:**

1. Bricks
2. Stone and brick aggregate
3. Stones
4. Finished products of brass, iron and steel such as doors & windows frames, wire mesh, gate, GI Sheets.
5. Pre-cast R.C.C. products such as pipes, jali, water storage tanks etc.
6. Doors & Window fittings.
7. Pipes and sanitary fittings of CI, SCI & HCI

#### **Electrical :**

1. Steel conduits
2. G.I. Pipes
3. I.C. Boards
4. Switchgears (Air circuit breakers and Air break switches)
5. C.I. Boxes.
6. A.C.S.R. Conductors
7. A.C. Plant & Machinery
8. Pumps
9. Generating sets (without oil)

Items against which secured advance can be granted:

### **Category- B**

#### **Civil:**

1. Glazed tiles, terrazzo tiles and similar articles.
2. Marble slabs
3. Asbestos cement products
4. Finished timber products such as doors, windows, flush doors, particle boards (subject to mandatory test being satisfactory) etc.
5. Bitumen in sealed drums
6. Bitumen felt
7. Polythene pipes and fittings and tanks
8. Sanitary fittings and pipes of S.W., porcelain and chinaware materials
9. Laminated / Safety, one way vision, and bullet proof glasses.
10. Chemical required for anti-termite treatment (in sealed drums)
11. Paints, varnishes, distempers, pigment, spirits etc.

**Electrical:**

1. Transformers
2. Oil-filled switch gears.
3. L.T. & H.T.Cables
4. Fans
5. Storage and Dry Batteries
6. Insulation tapes
7. Epoxy cable compounds
8. Electric light fittings
9. Wooden battens, casing & capping and wooden boards
10. Flexible wires
11. PVC materials
12. Oil and lubricants
13. Rubber materials
14. Glass wool, thermocole & other insulating materials
15. Porcelain H.T. and L.T. insulators.

In addition to indemnity bond, for materials listed under Category-B, the contractor shall be required to provide necessary insurance cover of equivalent value of materials.

Items against which no secured advance shall be granted:

**Civil:**

1. Glass products other than those indicated in Category-B.
2. Sand and moorum
3. Chemical compounds other than those indicated in Category-B.

**Electrical:**

1. Glass gloves and shades
2. Bulbs and tubes
3. Petrol and diesel
4. Freon and other refrigeration gases.

**9.8** Income tax deduction @ 2% ( Two percent ) of the gross value of each bill or at the rate as amended from time to time, shall be made unless exempted by the competent authority of the Income Tax Department

Sales tax on works contract shall be payable by the contractor. If, however, the company is asked to make deduction from the contractor's bills, the same shall be done and a certificate to this effect shall be issued to the contractor for dealing with the State Govt. and the company does not take any responsibility to do anything further in this regard.

**9.9** No interest shall be payable on the amounts withheld, under the terms of the Contract Agreement/Work-order.

**10. Termination, Cancellation, Suspension and Foreclosure of Contract**

The company shall, in addition to other remedial steps to be taken as provided in the conditions of contract be entitled to cancel the contract in full or in part, if the contractor :-

a) makes default in proceeding with the works with due diligence and continues to do so even after a notice in writing from the Engineer In Charge, then on the expiry of the period as specified in the notice

**Or**

b) commits default/breach in complying with any of the terms and conditions of the contract and does not remedy it or fails to take effective steps for the remedy to the satisfaction of the Engineer In Charge, then on the expiry of the period as may be specified by the Engineer In Charge in a notice in writing.

**Or**

c) obtains a contract with the company as a result of ring tendering or other non-bonafide methods of competitive tendering

Or

d) shall offer or give or agree to give any person in the service of the company or to any other person on his behalf any gift or consideration of any kind as an inducement or reward for act/acts of favour in relation to the obtaining or execution of this or any other contract for his company.

Or

e) fails to complete the work or items of work with individual dates of completion, on or before the date/dates of completion or as extended by the company, then on the expiry of the period as may be specified by the Engineer In Charge in a notice in writing.

Or

f) transfers, sublets, assigns the entire work or any portion thereof without the prior approval in writing from the Engineer In Charge. The Engineer In Charge may by giving a written notice, cancel the whole contract or portion of it in default.

**10.1** The contract shall also stand terminated under any of the following circumstances :

a) If the contractor being an individual in the case of proprietary concern or in the case of a partnership firm any of its partners is declared insolvent under the provisions of Insolvency Act for the time being in force, or makes any conveyance or assignment of his effects or composition or arrangement for the benefit of his creditors amounting to proceedings for liquidation or composition under any Insolvency Act.

b) In the case of the contractor being a company, its affairs are under liquidation either by a resolution passed by the contractors company or by an order of court, not being a voluntary liquidation proceedings for the purpose of amalgamation or reorganisation, or a receiver or manager is appointed by the court on the application by the debenture holders of the contractor's company, if any.

c) If the contractor shall suffer an execution being levied on his/their goods, estates and allow it to be continued for a period of 21 (twenty-one) days.

d) On the death of the contractor being a proprietary concern or of any of the partners in the case of a partnership concern and the company is not satisfied that the legal representative of the deceased proprietor or the other surviving partners of the partnership concern are capable of carrying out and completing the contract. The decision of the company in this respect shall be final and binding which is to be intimated in writing to the legal representative or to the partnership concern.

**10.2** On cancellation of the contract or on termination of the contract, the Engineer In Charge shall have powers:

a) to take possession of the site and any materials, constructional plant, equipments, stores etc. thereon.

b) to carry out the incomplete work by any means at the risk and cost of the contractor.

c) to determine the amount to be recovered from the contractor for completing the remaining work or in the event the remaining work is not to be completed the loss/damage suffered, if any, by the company after giving credit for the value of the work executed by the contractor upto the time of cancellation less on a/c payments made till date and value of contractor's materials, plant, equipments, etc. taken possession of after cancellation.

d) to recover the amount determined as above, if any, from any money due to the contractor on any account or under any other contract and in the event of any shortfall, the contractor shall be called upon to pay the same on demand. The need for determination of the amount of recovery of any extra cost/expenditure or of any loss/damage suffered by the company shall not however arise in the case of termination of the contract for death/demise of the contractor as stated in clause 10.1(d) of the contract.

e) to give the contractor or his representative of the work 7 (seven) days notice in writing for taking final measurement for the works executed till the date of cancellation or termination of the contract. The Engineer In Charge shall fix the time for taking such final measurement and intimate the contractor in writing. The final measurement shall be carried out at the said appointed time notwithstanding whether the contractor is present or not. Any claim as regards measurement which the contractor is to make shall be made in writing within 7 (seven)

days of taking final measurement by Engineer-In-charge as aforesaid and if no such claim is received, the contractor shall be deemed to have waived all claims regarding above measurements and any claim made thereafter shall not be entertained.

### **10.3 Suspension of Work:**

i) The company shall have power to suspend the work or any part thereof and the Engineer In Charge may direct the contractor in writing to suspend the work, for such period and in such manner as may be specified therein, on account of any default on the part of the contractor, or for proper execution of the work for reasons other than any default on part of the contractor, or on ground of safety of the work.

ii) In the event of suspension for reasons other than any default on the part of the contractor, extension of time shall be allowed by the company equal to the period of such suspension and the contractor shall properly protect and secure the works to the extent necessary during such suspension.

The contractor shall carry out the instructions given in this respect by the Engineer-In Charge & if such suspension exceeds 45 ( forty five ) days, the contractor will be compensated on mutually agreed terms.

**10.4** The work shall, throughout the stipulated period of contract, be carried out with all due diligence on the part of the contractor. In the event of termination or suspension of the contract, on account of default on the part of the contractor, as narrated hereinbefore, the security deposit and other dues of this work or any other work done under this company shall be forfeited and brought under the absolute disposal of the company provided, that the amount so forfeited shall not exceed 10 (ten) percent of the contract value.

### **10.5 Foreclosure of contract:**

If at any time after acceptance of the tender the company decides to abandon for any reason whatsoever the company, through its Engineer In Charge, shall give notice in writing to that effect to the contractor. In the event of abandonment the company shall be liable :-

a) to pay reasonable amount assessed and certified by the Engineer In Charge of the expenditure incurred, if any, by the contractor on preliminary works at site e.g. temporary access roads, temporary construction for labour and staff quarters, office accommodation, storage of materials, water storage tanks and water supply for the work including supply to labour/ staff quarters, office etc.

b) to pay the contractor at the contract rates full amount for works executed and measured at site upto the date of such abandonment.

c) to pay for the materials brought to site or to be delivered at site, which the contractor is legally liable to pay, for the purpose of consumption in works carried out or were to be carried out but for the foreclosure, including the cost of purchase and transportation and cost of delivery of such materials. The materials to be taken over by the company should be in good condition and the company may allow at its discretion the contractor to retain the materials in full or in part if so desired by him and to be transported by the contractor from site to his place at his own cost with due permission of the EIC.

d) to take back the materials issued by the company but remaining unused, if any, in the work on the date of abandonment/reduction in the work, at the original issue price less allowance for any deterioration or damage caused while in custody of the contractor.

e) to pay for the transportation of tools and plants of the contractor from site to contractor's place or to any other destination, whichever is less.

**10.5.01** The contractor shall, if required by the Engineer In Charge, furnish to him books of accounts, papers, relevant documents as may be necessary to enable the Engineer In Charge to assess the amounts payable in terms of clauses 10.5(b) (c) & (e) of the contract. The contractor shall not have any claim for compensation for abandonment of the work, other than those as specified above.

Except in cases where the contract provides for "Performance Test" before issue of Defect Liability certificate, in which case the issue of Defect Liability certificate shall be in accordance with the procedure specified therein, the contractor shall give notice of completion of work, as soon as the work is completed, to the Engineer In Charge. The Engineer In Charge and or any other Officer, nominated for the purpose by the company, shall within 30 (thirty) days from the receipt thereof, inspect the work and ascertain the defects/deficiencies, if any, to be rectified by the contractor as also the items, if any, for which payment shall be made at reduced rate.

If the defects, according to the Engineer In Charge are of a major nature and the rectification of which is necessary for the satisfactory performance of the contract, he shall intimate in writing the defects and instruct the contractor to rectify the defects/remove deficiencies within the period and in the manner to be specified therein. In such cases Defect Liability Certificate will be issued by the EIC after the above rectifications are carried out/ deficiencies are removed by the contractor to the satisfaction of EIC.

In the event there are no defects or the defects/ deficiencies are of a minor nature and the Engineer In Charge is satisfied that the contractor has already made arrangements for rectification, or in the event of contractor's failure to rectify the defects for any reason whatsoever, the defects can be rectified by the company departmentally or by other means and the 50% of the security deposit of the contractor shall be sufficient to cover the cost thereof, he shall issue the Defect Liability Certificate ( Taking Over Certificate with list of defects ) indicating the date of completion of the work, defects to be rectified, if any, and the items, if any, for which payment shall be made at reduced rate indicating reasons therefor and with necessary instructions to the contractor to clear the site/place of work or all debris/ waste materials, scaffoldings, sheds, surplus materials etc. making it clean.

**11.1** In cases where separate period of completion for certain items or groups of items are specified in the contract, separate Defect Liability certificate for such items or groups of items may be issued by the Engineer In Charge after completion of such items on receipt of notice from the contractor only in the event the work is completed satisfactorily in every respect.

Refund of security deposit and payment of final bill shall, however, be made on completion of the entire contract work, but not on completion of such items of work.

## **12. Additional Responsibilities of the Contractor(s)**

The cost on account of the "Additional Responsibilities of the Contractors" under this clause is deemed to be included in the tendered rates.

i) The company reserves the right to let other contractors also works in connection with the Project and the contractor/contractors shall co-operate in the works for the introduction and stores and materials and execution of his/their works.

ii) The contractor/contractors shall keep on the work site during the progress a competent and experienced Resident Engineer exclusively for the work and necessary assistants who shall represent the contractor(s). The contractor shall employ, on the site in connection with the execution and maintenance of the work, the following technical staff :

### **For Buildings Roads, Water Supply & Sanitary Works:**

- |   |   |
|---|---|
| 1) For value of work ranging from Rs.10 lakhs to Rs.20 lakhs. | 1 Experienced Diploma holder.   |
| 2) For value of work above Rs.20 lakhs and upto Rs.1 crore.   | 1 Experienced Graduate Engineer in addition to Diploma holder as per sl.no.4 below. |

- |    |  |  |
|----|--|--|
| 3) | Rs.1 crore & for every additional Rs.2 crores or part thereof.                                 | addition to Graduate Engineer and Diploma holder as per sl.no.1 & 4. |
| 4) | For value of work in excess of Rs.20 lakhs & for every additional Rs.50 lakhs or part thereof. | 1 Diploma holder extra.  |

**For Industrial Structures :**

- |    |  |   |
|----|--|---|
| 1) | For value of work ranging from Rs.5 lakhs to Rs.15 lakhs.  | 1 Experienced Diploma holder.   |
| 2) | For value of work above Rs.15 lakhs and upto Rs.75 lakhs.  | 1 Experienced Graduate Engineer in addition to Diploma holder as per sl.no.4 below.               |
| 3) | For value of work in excess of Rs.75 lakhs & for every additional Rs.1.5 crores or part thereof. | 1 Graduate Engineer extra in addition to Graduate Engineer and Diploma holder as per sl.no.1 & 4. |
| 4) | For value of work in excess of Rs.15 lakhs & for every additional Rs.50 lakhs or part thereof.   | 1 Diploma holder extra.   |

The contractor shall intimate the Engineer In Charge in writing the names, qualifications, experience and full postal address of each and every technical personnel employed at site by him.

The contractor(s) shall not be allowed to execute the work unless he/they engage the required technical staff at site as stated above. The delay on this account, if any, shall be the contractor's responsibility.

Important instructions shall be confirmed to the contractor(s) in writing. If the contractor/contractors in course of the works finds/find any discrepancy between the drawing, forming part of the contract documents and the physical conditions of the locality or any errors or omissions in drawings except those prepared by himself / themselves and not approved by the Engineer In Charge. It shall be his/their duty to immediately inform the Engineer In Charge in writing and the Engineer In Charge shall verify the same. Any work done after such discovery and without intimation as indicated above will be done at the risk of the contractor/contractors.

iii) The contractor / contractors shall employ only competent, skillful and orderly men to do the work. The Engineer In Charge shall have the right to ask the contractor/ contractors to remove from the work site any men of the contractor/contractors who in his opinion is undesirable and the contractor/contractors will have to remove him within 3 (three) hours of such orders.

The contractor shall employ apprentices in the execution of the contract work as required under Apprentices Act.

The contractor shall further be responsible for making arrangements at his own cost, or accommodation and social needs of the staff and workers under his employment.

iv) Precautions shall be exercised at all times by the contractor(s) for the protection of persons (including employees) and property. The safety required or recommended by all applicable laws, codes, statutes and

regulations shall be observed by the contractor(s). In case of accidents, the contractor(s) shall be responsible for compliance with all the requirements imposed by the Workmen's Compensation Act or any other similar laws in force, and the contractor(s) shall indemnify the company against any claim on this account.

All scaffoldings, ladders and such other structures which the workmen are likely to use shall be examined by the Engineer In Charge or his authorised representative whenever they want and the structure must be strong, durable, and safe and of such design as required by Engineer In Charge.

In no case any structure condemned by the Engineer In Charge or his authorised representatives shall be kept on the work and such structure must be pulled down within three hours of such condemnation and any certificate or instructions, however, shall in no way absolve the contractor/contractors from his/their responsibility, as an employer, as the company shall in no way be responsible for any claim.

The contractor / contractors shall at all times exercise reasonable precautions for the safety of employees in the performance of his/their contract and shall comply with all applicable provisions of the safety laws drawn up by the State Govt. or Central Govt. or Municipalities and other authorities in India. The contractor/contractors shall comply with the provision of the safety hand book as approved and amended from time to time by the Government of India.

v) The contractor / contractors shall familiarise themselves with and be governed by all laws and rules of India and Local statutes and orders and regulations applicable to his/ their work.

vi) The contractor shall maintain all records as per the provision made in the various statutes including Contract Labour (Regulation & Abolition) Act, 1970 and the Contract Labour (Regulation & Abolition) Central Rules, 1971, Minimum Wages Act, Workmen Compensation Act etc. and latest amendment thereof. Such records maintained by the contractor shall be opened for inspection by the Engineer In Charge or by the nominated representative of the Principal Employer.

vii) The contractor/ contractors shall provide facilities for the sanitary necessities of all persons employed on the work shall be constructed and maintained in the number, manner and place approved or ordered by the Engineer In Charge. The contractor/contractors shall vigorously prohibit committing of nuisance at any other place. Cost of all works under this item shall be covered by the contractor/contractor's tendered rates.

viii) The contractor/contractors shall furnish to the Engineer In Charge or his authorised representative with work reports from time to time regarding the contractor / contractors organisation and the progress made by him / them in the execution of the work as per the contract.

ix) All taxes, levies, cess, royalties, whether local, municipal, provincial or central pertaining to the the contract are payable during the entire periods of contract, shall be to the contractor/ contractors account and shall be deemed to have been included in the contracted rate for the work to be executed by the contractor. The Company shall not be liable for any taxes or levies etc. whatsoever in connection with this contract.

The company reserves the right to deduct/ withheld any amount towards taxes, levies, etc. and to deal with such amount in terms of the provisions of the Statute or in terms of the direction of any Statutory authority and the company shall only provide with certificate towards such deduction and shall not be responsible for any reason whatsoever.

In case the company land is used for manufacture of bricks or extraction of gravels etc. the contractor will have to pay compensation to the company ( apart from the liability of the contractor to make the payment of royalty etc. to the State Government) at the same rates or royalty fixed by the State Government or an appropriate deduction may be made in the rate to be paid to the contractors.

x) The contractor / contractors shall make his / their own arrangement for all materials, tools, staff and labourer required for the contract, which shall include cost of lead, lift, loading, unloading, railway freight, recruiting expenses and any other charges for the completion of the work to entire satisfaction of the company.

xi) The contractor / contractors shall make their own arrangement for carriage of all materials to the work site at his/their own cost.

xii) The work shall not be sublet to any other party, unless approved by Engineer In Charge, in writing.

xiii) a) No fruit trees or valuable plants or trees with trunk diameter exceeding 150mm shall be pulled, destroyed or damaged by the contractor/contractors or any of his/their employees without the prior permission of the company, failing which the cost of such trees or plants shall be deducted from the contractor/contractors dues at the rate to be decided by the company. The rates quoted are supposed to include clearance of shrubs and jungles and removal of such trees upto 150 mm dia., as will be permitted by the Engineer In Charge in writing.

b) Anything of historical or other interest or of significant value unexpectedly discovered on the site is the property of the employer. The Contractor is to notify the Nodal Officer or his nominee of such discoveries and carry out the Nodal Officer or his nominee's instructions for dealing with him.

xiv) The contractor / contractors shall not pay less than the minimum wages to the labourers engaged by him/them as per Minimum Wages Act or such other legislation or award of the minimum wage fixed by the respective State Govt. or Central Govt. as may be in force.

xv) All accounts shall be maintained properly and the company shall have the right of access and inspection of all such books of accounts etc., relating to payment of labourer considered necessary and the company may arrange for witnessing the payment to the labourer by its representatives.

xvi) The contractor shall in additions to any indemnity provided by the relevant clauses of the agreement or by law, indemnify and keep indemnified for the following :

a) The company or any agent or employee of the company against any action, claim or proceeding relating to infringement or use of any patent or design right and shall pay any royalties or other charges which may be payable in respect of any article or material included in the contract.

However, the amount so paid shall be reimbursed by the company in the event such infringement has taken place in complying with the specific directions issued by the company or the use of such article or material was the result of any drawing and/or specifications issued by the company after submission of tender by the contractor. The contractor must notify immediately after any claim being made or any action brought against the company, or any agent or employee of company in respect of any such matter.

b) The company against all claims, damages or compensation under the provisions of payment of Wages Act, 1938, Minimum Wages Act, 1948, Employer's Liability Act, 1938, The Workmen's Compensation Act, 1923, Industrial Dispute Act, 1947, Mines Act as applicable, Employees State Insurance Act 1948 and Maternity Benefit Act, 1961, Acts regulating P.F. or any modification thereof or any other law relating thereto and rules made thereunder from time to time, as may be applicable to the contract which may arise out of or in consequence of the construction or maintenance or performance of the work under the contract and also against costs, charges and expenses of any suit, action or proceedings arising out of any accident or injury.

c) The company against all losses and claims for injuries or damages to any third party or to any property belonging to any third party which may arise out of or in consequence of the construction or maintenance or performance of the work under the contract and against all claims/demands proceedings/damages, cost charges and expenses whatsoever in respect of or in relation thereto.

xvii) The contractor is under obligation to hand over to the company the vacant possession of the completed building structures failing which the Engineer In Charge can impose a levy upon the contractor upto 5% of the total contract value for the delay in handing over the vacant possession of the completed works after giving a 15 (fifteen) days notice to the contractor.

xviii) a) **INSURANCE** : The contractor shall take full responsibility to take all precautions to prevent loss or damage to the works or part thereof for any reasons whatsoever

(excluding act of God e.g. flood, riots, war, earthquake, etc.) and shall at his own cost repair and make good the loss/damage to the work so that on completion, the work shall be in good order and condition and in conformity with the requirements of the contract and instructions of the Engineer In Charge.

In case of construction works without limiting the obligations and responsibilities under the contract, the contractor shall take insurance policy for the total value of work for the period from commencement to completion including defect liability period against risk of loss/ damage to the extent as permissible under the law of insurance.

The contractor shall arrange necessary insurance and pledge the same in the name of the company and all moneys payable by the insurers shall be recovered by the company which shall be paid to the contractor in installments as may be certified by the Engineer In Charge for the purpose of rebuilding or replacement or repair of the works and/or goods destroyed or damaged for which payment was received from the insurers.

b) Where any company building or part thereof is used, rented or leased by the contractor for the purpose of storing or using materials of combustible nature, the contractor shall take separate insurance policy for the entire building and the policy shall be deposited with the company.

c) The contractor shall at all times during the tenure of the contract indemnify the company against all claims, damages or compensation under the provision of the Workmen's Compensation Act and shall take insurance policy covering all risk, claims, damages, or compensation payable under the Workmen's Compensation Act or under any other law relating thereto.

d) The contractor shall ensure that the insurance policy/ policies is/are kept alive till full expiry of the contract by timely payment of premiums and it/they shall not be cancelled without the approval of the company and a provision is made to this effect in all policies, and similar insurance policies are also taken by his sub-contractors if any. The cost of premium shall be borne by the contractor and it shall be deemed to have been included in the tendered rate.

e) In the event of contractor's failure to effect or to keep in force the insurance referred to above or any other insurance which the contractor is required to effect under the terms of the contract, the company may effect and keep in force any such insurance and pay such premium/premiums as may be necessary for that purpose from time to time and recover the amount thus paid from any moneys due to the contractor.

*THE CLAUSE 12 xviii SHALL BE APPLICABLE FOR WORKS OF ESTIMATED VALUE OF OVER Rs. 50 LAKHS.*

xix) **Setting Out:** The contractor shall be responsible for the contract and proper setting out of the works and correctness of the position, reduced levels, dimensions and alignment of all parts of the work including marking out the correct lay out in reference to the permanent bench mark and reference points. Only one permanent bench mark and basic reference lines shall be marked and shown to the contractor as basic data.

The contractor shall have all necessary instruments, appliances and labour in connection therewith. If at any time during the progress of work any error is detected in respect of the position, levels, dimensions or alignment of any part of the work, the contractor on being required to do so by the Engineer In Charge or his representative shall at the expenses of the contractor rectify such errors to the satisfaction of Engineer In Charge unless such error is due to incorrect data supplied by the Engineer In Charge.

xx) On receipt of Letter of Acceptance of Tender / Work Order the contractor shall forthwith Register and obtain License from the competent authority under the Contract Labour (Regulation & Abolition) Act 1970, the Contract Labour (Regulation & Abolition) Central Rules, 1971 and submit certified copies of the same to the Engineer In Charge and the Principal Employer.

xxi) The contractor shall be registered with the concerned State Govt. and the Central Govt. in respect of Sales Tax Act and the certificate having details of Registration No., period of validity etc. should be submitted to the Engineer In Charge.

xxii) The contractor shall, in connection with works, provide and maintain, at his own cost, all lights, security guards, fencing when and where necessary as required by the Engineer In Charge for the purpose of protection of the works, materials at site, safety of workmen and convenience of the public.

xxiii) All materials ( e.g. stone, moorum and other materials) obtained in the course of execution of the work during excavation and dismantling etc. shall be the property of the company and the same may be issued to the contractors, if required for use in the works at the rates to be fixed by the Engineer In Charge.

xxiv) Unless otherwise specifically provided for, dewatering of excavation pits, working areas etc. shall be the contractor's responsibility and is to be carried out at his own cost as per instructions of EIC. The rates quoted by the contractor shall be deemed to include the dewatering costs.

xxv) Approval by the Nodal Officer/Engineer in Charge or his nominee: The contractor shall submit specifications and drawings showing the proposed temporary work to the Nodal Officer/Engineer-in-Charge or his nominee, who is to approve them if they comply with the specifications and drawings.

The contractor shall be responsible for design of Temporary Works.

The Nodal Officer/Engineer-in-charge or his nominee's approval shall not alter the contractor's responsibility for design of the Temporary Works.

### **13. Defects Liability Period:**

In addition to the defect/s to be rectified by the contractor as per terms of the contract/ work order, the contractor shall be responsible to make good and remedy at his own expense the defect/s mentioned hereunder within such period as may be stipulated by the Engineer In Charge in writing :

a) Any defect/defects in the work detected by the Engineer In Charge within a period of 6 (six) months from the date of issue of Defect Liability certificate / completion certificate.

b) In the case of building works or other works of similar nature any defect in the work detected by the Engineer In Charge within a period of 6 (six) months from the date of issue of Defect Liability certificate/ completion certificate or before the expiry of one full monsoon period i.e. June to October whichever is later in point of time.

**13.1** A programme shall be drawn by the contractor and the Engineer In Charge for carrying out the defects by the contractor detected within the defect liability period and if the contractor fails to adhere to this programme, the Engineer In Charge shall be at liberty to procure proper materials and carry out the rectifications in any manner considered advisable under the circumstances and the cost of such procurement of materials and rectification work shall be chargeable to the contractor and recoverable from any of the pending dues of the contractors.

The defect liability period can be extended by the company on getting request from the contractor only for valid reasons.

There will be no defect liability period for works like Grass Cutting, Jungle Cutting, Surface Dressing & any other work of similar nature to be decided by the Engineer in Charge.

### **14. Operating and Maintenance Manual:**

If "as built" drawings and/or Operating and Maintenance Manual are required the contractor shall supply them by the dates as per instruction of the Engineer-in-charge.

If the contractor does not supply the drawings and/or Manual by the dates as stated above, or they do not receive the Nodal Officer or his nominee's approval, the Nodal Officer or his nominee shall withhold the amount as stated in the agreement.

## **15. Settlement of Disputes/ Arbitration**

**15.1** It is incumbent upon the contractor to avoid litigation and disputes during the course of execution. However, if such disputes take place between the contractor and the department, effort shall be made first to settle the disputes at the company level.

The contractor should make request in writing to the Engineer-in-charge for settlement of such disputes/ claims within 30 (thirty) days of arising of the cause of dispute/ claim failing which no disputes/ claims of the contractor shall be entertained by the company.

**15.2** If differences still persist, the settlement of the dispute with Govt. Agencies shall be dealt with as per the Guidelines issued by the Ministry of Finance, Govt. of India in this regard. In case of parties other than Govt. Agencies, the redressal of the dispute may be sought in the Court of Law.

## SPECIAL NOTES

Excavation :

1. Clearing the site : The area required is to be set out and should be cleared from all obstructions such as stone materials, rubbish of all kinds, vegetations, bushes and trees (removed as directed and roots being entirely grubbed up). No payment shall be made for this to the contractor, In case trees having girth of size 6" or more are cut and removed, the materials shall be the property of the company should be handed over to the engineer-incharge.
2. Setting out : After clearing the site, a central line will be given by the Engineer Incharge and it will be responsibility of the contractor to go ahead with further detailed layout, bench marks etc. permanent bench marking by constructing pillars and central line shall be permanently laid by the contractor at his own cost and shall remain at places till handing over the work.
3. Foundation : Foundation excavation shall include the removal of materials of whatever mentioned and whether wet or dry exactly in accordance with the land levels and contours shown on the plan or as directed by the Engineer incharge. It shall be taken to the exact level of the lowest footing and the site shall be left plumb or cut to slopes as per the instructions of the Engineer incharge, which shall be in writing.

The rates quoted shall be deemed to include dewatering of foundation, trenches as long as water is result of rain, seepage, sub soil water or broken water mains. In case spring water is met, dewatering of which shall be the responsibility of the Management.

Measurement of quantities if not specified shall be base on IS-1200-1974.

4. Concrete for plain and Reinforced cement concrete : as per Is 456-2000.

This specification covers the requirements of ordinary concrete of the specified properties for use in concrete items special requirement if specified shall also apply.

Material ; Cement : Cement shall be ordinary port land cement and should conform to IS 269-1967.

Water ; Water for mixing cement concrete shall not be salty or brackish and shall be clean reasonably clear and free from objectionable quantities of salt and traces of oil, acid and injurious alkali, salts, organic matter and other deleterious materials which will either weaken the concrete or cause efflorescence or attack the steel in R.C.C. water shall be obtained from sources approved by the Engineer. Sources of water shall be maintained at such a depth and the water shall be withdrawn in such a manner as to exclude silt, mud, grass or other foreign materials. Container for transport, storage and handling of waste shall be clean.+

( water fit for drinking is generally be found suitable for mixing concrete).

Water for curing:- As per IS 456-2000.

Fine Aggregate ; Sand for use in concrete work shall be natural sand or a crushed stone screenings, sand shall be clean, well graded, hard, strong, durable and gritty particles free from injurious amount of dust, clay, kankar modules soft or flaky particles, shale, alkali, salts, organic matter, loam, mica or other deleterious materials and shall be approved by the Engineer. The maximum size of particles shall be limited so 5mm (above 3/16").

When the quality of fine aggregate is doubtful, it shall be tested for clay, organic impurities and other deleterious substances as laid down in IS 383-1963.

It shall not contain deleterious materials in such quantity as to reduce the strength or durability of the concrete or attach the reinforcement in case of R.C.C. work. The fineness modules may range between 2.6 to 36.

Coarse Aggregate :

Coarse aggregate shall consist of crushed or broken stone and be hard, strong, dense, durable, clean, of proper gradation and free from skin and coating likely to prevent proper adhesion of mortar. The aggregate shall generally be cubical in shape as far as possible flaky, elongated pieces shall be avoided. Aggregates shall be broken from the best trap granite quartzite gneiss stones in order available in the region approved by the Engineer. Stone shall have not deleterious reaction with cement single of the appropriate grading may be permitted to be substituted for some proportion of the metal without price adjustment if it is shown that thereby strength of concrete is increased and workability improved.

The maximum size of the aggregate should be as large as possible and in no case should exceed  $\frac{1}{4}$  of the minimum thickness of the member provided however this size presents no difficulty in the case of RCC to surround the reinforcement satisfactorily.

Maximum size of Aggregate	40 mm to 80 mm (1 ½" to 3")	20 mm to 40mm (¾" to 1 ½")	5 mm to 20" (3/16"; to ¾")	10 mm to 20" (3/8"- ¾ ")	5 mm to 10 mm (3/16" to 3-14")
20 mm (about ¾")	--	--	100	55-67	33-45
40 " (about 1 ½")	--	40-50	50-60	28-40	18-30
80 " (about 3")	20-36	16-36	35-44	10-30	13-29

In the case of general concrete work maximum size of 40 mm (about 1 ½") is used and in R.C.C. work a maximum size of 20 mm (¾") will be found satisfactory but it should be restricted to 6 mm (about ¼") less than the cover, which is smaller.

Coarse aggregate of a porous nature where absorption of water after 24 hours immersion in water, is more than 5 percent by weight, shall not be used. Limits of deleterious substance shall not exceed, those as in IS 515 – 1959.

Proportion of Mix : M-20 design Mix Concrete as per IS 456-2000.

In ordinary concrete, although proportion of cement to fine and coarse aggregate is specified by volume, the quantity of cement shall be determined by weight assuming one bag of cement weighting 50 kg. (about 10 lbs). Net to be equivalent to 35 litres (about 1.2 cft.) Fine and coarse aggregates shall be measured by dry volume in suitable wooden steel boxes. Due allowance shall be made for bulking in the fine aggregate due to moisture if any, at the time of mixing.

Ingredients required for concrete containing are 50 kg bag of cement for different proportions of mix will be as under ;

Mix	Cement	Aggregate	Coarse Aggregate	Water
1;1:2	50	35 lts.	70 lts.	23 to 27 lts.
1:1/2:3	50	52.5 lts.	105 lts.	23 to 20
1;2:4	50	70 lts.	140 lts.	27 to 32'
1:3:6	50	105 lts.	210 lts.	37.5 to 47.5
1:4:8	50	140 lts.	280 lts.	47.5 to 57
1:5:10	50	175 lts.	350 lts.	56 to 68

The ratio of the volumes of fine aggregate and coarse aggregates may be varied within limits of 1:1/2 to 1:2 ½ as directed by the Engineer to suit the mix size of coarse aggregate, the grading, density, workability and strength without extra cost. But the sum of the volumes of fine and coarse aggregate so adjusted shall, however, be equal to the volume of fine and coarse aggregates give above for the particular mix.

The quantity of water shall be just sufficient, but not more than sufficient to produce a dense concrete of required workability for its purpose. An allowance shall be made for surface moisture present in the aggregate when computing water content as per IS 456 – 1964. In the case of reinforced concrete work, the workability shall be such that the concrete will surround and properly grip all the reinforcement. Water cement ratio will be such as will give concrete just sufficiently wet to be placed and compacted without difficulty.

For vibrated concrete water content may be reduced by 15% to 20% to give required slump. Mixing ; Mechanical mixer should be used for all concrete work. Mixing shall be continued till there is a uniform distribution of materials, colour and uniform coating on coarse aggregate. Mixing shall be done for not less than 1 ½ minutes. The water concrete ratio shall be between 0.55 to 0.64 for 1;2:4 mix as permitted workability (ref. IS 456 appendix –6).

**Compacting :**

The concrete shall be thoroughly compacted during depositing to get a dense concrete. The vibrators shall have not less than 3600 and preferably about 5000 impulses per minute and shall be worked at intervals of 60 minutes use shall be done to make required dense concrete without sinking and segregation of coarse aggregate

**Curing ; -**

The concrete shall be kept continuously wet preferably by ponding water for a period of not less than 14 days. From the date of placing continuously without a break holidays.

**Sampling and testing :**

Sampling of materials and concrete shall be done carefully by the contractor under the direct supervision of departmental staff as per IS 456- 1964 at the cost of the contractor. All necessary labour, materials equipments, etc. for sampling, preparing test cubes, curing etc. shall be provided by the contractor. Compressive strength of concrete shall not be less than those specified in the guide lines for testing of materials incorporated in this document.

**Steel :** Structural steel should conform to IS- 226-1962 Fabrication and erection should conform to IS-800-962. Welding should conform to IS-1956.

**Measurement**

For quantities mentioned in the estimates in case are not specified, should be measured as per IS-1200- 1974. Major earth work measurements are to be made by levels, taken initially and finally.

Note : Testing charges for testing of materials, concrete cubes, shutters of door and windows, piles etc. shall be borne by the contractor.

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## ADDITIONAL SAFETY MEASURES TO BE TAKEN BY THE CONTRACTORS SAFETY CODE

1. Suitable scaffolds should be provided for workman for all works that cannot be safely to be done from the ground or from solid construction except such short period work as can be done safely from ladders. When a ladder is used an extra hand shall be engaged for holding the ladder and if the ladder is used in carrying materials as well, suitable footholds and handholds shall be provided on the ladder and the ladder shall be given an inclination not steeper than  $\frac{1}{4}$  to  $\frac{1}{4}$  horizontal and 1 vertical.
2. Scaffolding or staging more than 12 above the ground or floor suspended from an overhead support of erected with stationary supports shall have a guard rail properly attached, holed, braced and otherwise secured at least 3ft. high above floor or platform of such scaffolding or staging and ends thereof with only such openings as may be necessary for the delivery of materials. Such scaffolding or staging shall be so fastened as to prevent it from swaying from the building or structure.
3. Working platform gangways and stair way should be so constructed that they should not sag unduly or unequally, and if the height or the platform of the gangway or the stair way is more than 12 ft. above ground level or floor level they should be closely boarded should have adequate width and should be suitably fenced as described in (1) above.
4. Every opening in the floor of building or in working platform be provided with suitable means to prevent the fall of persons or materials by providing suitable, fencing or railing whose minimum height shall be 3 ft.
5. Safe means of access shall be provided to all working platform and other working place. Every ladder shall be provided securely fixed no portable single ladder shall be over 30 ft. in length while the width between side rails in rung ladder shall in no case be less than 1  $\frac{1}{2}$ " for ladder up to and including 10 ft. in length. For longer ladders this width should be increased at least  $\frac{1}{4}$  % for each additional foot of length. Uniform spacing step spacing shall not be exceed 12". Adequate precautions shall be taken to prevent danger from electrical equipments. No materials on any of the said of work shall be stacked or placed as to cause danger or ☐anholes☐ence to any person or the public. The contractor shall also provide all necessary fencing and lights to protect the public from accident and shall be bound to bear the expenses of defence of every suit, action or other proceedings at all that may be any person injury sustained owing to neglect of the above precaution and to pay damages and cost which may be brought awarded in any such suit, action or proceedings to any such person or which may with the consent of the contractor, he has paid to compromise any claim by any such persons.
6. All trenches four feet or more in depth, shall at all times be supplied with at least one ladder for each 100 ft. in length or fraction thereof ladder shall be extended from bottom of the trench to at least 3' suitable slope of securely held by timber bracing, so as to avoid the danger of sides to collapse. The excavated materials shall not be placed within 5 ft. of the edge of the trench or half of the trench whichever is more. Cutting shall be done from top to bottom under no circumstance Under mining or under cutting shall be done.
7. Before any demolition work is commenced and also during the process of the work :
  - a. All roads and open areas adjacent to the work site shall either be closed or suitably protected.
  - b. No electric cable or apparatus which is liable to be a source of danger over a cable or apparatus used by the operator shall remain, electrically charged
  - c. All practical steps shall be taken to prevent danger to persons employed from rise of fire explosion or flooding no floor roof or other part of the building shall be so overloading with debris or material as to render it unsafe.
8. All necessary safety equipment as considered adequate by the Engineer Incharge should be kept available for the use of the persons employed on the site and maintained in condition suitable for immediate use and the contractor should take adequate steps to ensure proper use of equipment by the concerned.
  - a. Workers employed on mixing asphaltic materials, cement and lime mortars shall be provided with protective footwear and protective goggles.
  - b. Those engaged in white and mixing or stocking of cement bags or any materials which is injurious to the eye shall be provided with protective goggles.
  - c. Those engaged in welding works shall be provided with protective goggles etc.
  - d. Ston breaker shall be provided with protective goggles and protective clothing and seated at sufficiently safe intervals.
  - e. When worker are employed in sewers and manholes, which are in use, the contractor shall ensure that the man of covers are open and are at least for an hour before the workers are allowed to step into the manhole and the ☐anholes so opened shall be covered with suitable railing and provided with warning signs so boards to prevent to the public.
  - f. The contractor shall not employ below the age of 13 and women on the work of painting with products containing lead in any form whenever man above the age of 1 years are employed for the work of lead painting the following precautions should be taken.
    1. No paint containing lead or lead products should be used except in the form of paste or readymade paint.
    2. Suitable face masks should be supplied for the use of workers when paint is applied in the form of spray or a surface having lead point dry rubbed and scrapped.

3. Overalls shall be supplied by the contractors to the workman and adequate facilities shall be provided to enable the working painters to wash during the process of work.

9. When the work is done near any place where there is risk of drawing necessary equipment should be provided and kept ready. Prompt rescue of any person in danger and adequate provision should be made for prompt first aid and treatment of all injuries likely to be sustained during the course of the work.

10. Use of hoisting machines and tackle including their attachments, anchors and supports shall conform to the following standard or conditions.

1. (a) Those shall be of good mechanical construction, sound material and adequate strength and free from patent defect and shall be kept in good working order.

(b) Every rope used in hoisting or lowering materials or as a means of suspensions shall be of durable quality and adequate strength, and free from patent defect.

2. Every crane driver or hoisting appliance operator shall be properly qualified and no person under the age of 21 years should be in charge of any hoisting machine including any scaffold which or give signals to the operator.

3. In case of every hoisting machine and of every chain ring, hold, shackle, swivel and pulley block use in hoisting or lowering or as means. Every hoisting machine and all gear referred to above shall be plainly marked with the safe working load. In case of hoisting machine having a variable / safe working load of the conditions under which it is applicable shall be clearly indicated. No part of any machine or any gear referred to above in this paragraph shall be loaded beyond the safe working load except for the purpose of testing.

4. In case of departmental machines, the safe working load shall be notified by the Electrical Engineer in charge as regards contractor's machine the contractor shall notify the safe working load of machine to the Engineer in charge. Whenever he brings any machinery to site to work and get verified the Electrical Engineer concerned.

1. Gearing, transmission, electrical wiring and other dangerous part of hoisting appliances should be provided with sufficient safeguard. Hoisting appliances should be provided with such means as will reduce to minimum risk of accidental descent of the load. Adequate precaution should be taken to reduce to the minimum risk of any part of the suspended load becoming accidentally displaced.

When workers employed on electrical installations which are already energized, insulating mats wearing apparels such as gloves, sleeves and boots as may be necessary should be provided. The workers should not wear rings, watches and carry keys or other materials, which are good conductors of electricity.

11. All scaffolds, ladders and other safety devices mentioned or described herein shall be mentioned in safe conditions and no scaffold, ladder or equipment shall be altered or removed while it is used. Adequate washing facilities shall be provided at or near places of work.

13. These safety provisions shall be brought to the notice of all concerned by display on a notice board at a prominent place at the work spot. The persons responsible for compliance of the safety codes shall be named there in by the contractor.

14. To ensure effective enforcement of the rules regulations relating to safety precautions, the arrangements made by the contractor shall be open to inspection by the Labour Officer, Engineer in charge of the department or their representatives.

15. Notwithstanding the above clause from (i) to (xv) there is nothing in those to exempt the contractor from the operations of any other Act or rules in force in Republic of India.

§§ §§§

## SCHEDULE 'C'

### General Specifications

#### 1. Bricks : ( Ref. I.S. : 1077 – 1976 )

Bricks manufactured in Bull's patent kiln trench only shall be used unless otherwise specified, ringing sound when struck and should not break when thrown on the ground or against other bricks, They shall be clean, whole and free from flaws, cracks and under burnt lump of any kind, specially lime, and shall have sharp edges and angles and even surface. Bricks which when soaked in water for 24 hours absorb more water than one fifth of their dry weight shall be rejected. The bricks shall be manufactured from carefully selected good firm loam with necessary admixture of sand.

The common burnt clay bricks shall be classified on the basis of average compressive strength as given below :-

Class designation	(Average Compressive Strength)	
	Not less than ( Kg/cm <sup>2</sup> )	Less than (Kg/cm <sup>2</sup> )
75	75	100
50	50	75
35	35	50

The normal size of burnt bricks shall be 9" x 4.5" x 2.75" with usual variation of 1/8" on either side.

#### 2. Bricks Aggregate for Lime Concrete :

The brick aggregate shall be from hard well burnt brick bats and shall not exceed 1½" in size and shall be free from dust, clay, grass or any other foreign matter.

#### 3. Surkhi :

Surkhi shall be made from well burnt and should pass through a sieve of 1/12" mesh, in no case over burnt bricks to be used for the manufacture of Surkhi.

#### 4. Sand :

Sand shall be clean sharp and coarse and free all impurities and organic matter and be such as to pass through a 64 mesh sieve.

#### 5. Lime :

Lime stone shall be used in the work. It shall be slaked just before. All impurities, ashes, or pieces improperly or carelessly burnt shall be screened or picked out before slaking and removed at once from the work. Lime should pass through a screen 12/12 mesh to the square inch and stored in a dry place.

#### 6. Aggregate for Cement Concrete :

Aggregate for cement concrete shall be from trap, quartzite or hard quartz stone which shall pass through ¾" mesh and on ¼" mesh screens. The aggregate shall be well screened and washed used and shall be free from foreign matters.

#### 7. Cement Mortar :

The mortars shall consist of cement and sand mixed in the proportion defined in the relevant schedule item for the various items of work. Only measured quantity shall be used. Sand and cement shall be spread on a clean dry platform in layers one over the other mixture only when mortar is required for use, and then only in sufficient quantity to moisten the materials.

#### 8. Lime Concrete :

The mixture shall be slaked lime, surkhi and sand in the proportion defined in the relevant schedule item for the various items of work. Ground cinder may be used when directed by the Engineer-in-charge. Lime surkhi and sand are to be mixed dry on a platform of masonry and then sprinkled with necessary quantity of water and ground in mortar mill.

#### 9. Aggregate for Reinforced Cement Concrete :

Aggregate for R.C.C. shall be from trap, quartzite, or hard quartz stone. The aggregates shall pass through mesh and rest on 1/4" mesh screens. It shall be well screened and washed before used and free from foreign matters.

#### 10. Earth work in Excavation :

Excavation shall be strictly as shown in the plans. Bottoms of trenches shall be dressed level. All excavated earth will be placed not less than 5 feet from the edge of the foundation trench or directed by the Executive Engineer. All earth filling in the plinth or foundation basement will be done in not more than 6" layers well watered and rammed.

#### 11. Lime Concrete :

The concrete shall consist of an aggregate of the proportion mentioned in the schedule of items of approved quantities 1/2" gauge and down mixed with lime mortar. The concrete shall be mixed on a level platform. The aggregate shall be first washed clean thoroughly wetted and placed to an even thickness on platform. Dry mortar mixed in proper proportion as specified in schedule of quantities shall then be evenly spread over the aggregate and mixed thoroughly using sufficient water to make the mortar adhere to each piece of the aggregate. When the bed for the concrete is properly wetted, rammed and prepared the concrete shall be laid carefully in position in layer not exceeding 6". The basket etc. shall never be thrown from a high but gently laid with the basket. Each layer shall be well rammed with a heavy wooden hammer or iron hammer till the mortar comes to the surface. No water shall be added during ramming but the surface of each completed layer shall be watered and roughened before the next layer is added. The concrete shall be well rammed and kept wet after the day's work for such time till it is set and given more impression of the rammer when dropped over it. When concrete is to be laid under water or in wet location hydraulic lime rendered hydraulic shall be used.

#### 12. Cement Concrete :

The proportion of the concrete will be the same as specified in the schedule of quantities and will be strictly adhered to. The concrete shall be mixed properly in a power driven mixer in such a manner as to avoid loss of water. The concrete shall be mixed for a minimum period of two minutes or until it is of even colour and uniform consistency throughout. Hard mixed concrete shall contain 10% extra cement and shall be made on hard, clean and even surface. The cement and sand will be mixed dry until the mixture is uniform in colour. It shall then be spread evenly over the coarse aggregate and mixed thoroughly. The water shall then be added and the whole mixture mixed thoroughly until the mass is uniform in colour and consistency. Concrete shall be handled from the place of mixing to the place of final deposit as rapidly as practicable. The concrete once laid shall not be disturbed and shall be kept thoroughly damp by means of well matting and sand. The aggregate should consist of stone ball as of quantity approved by the Executive Engineer and shall consist of graded size 3/4" and down and as per C.P.W.D. specifications.

#### 13. Brick work in Mud Mortar :

The mud to be used for mortar shall be from selected earth of tenacious nature to which sand shall be added in much quantity that dried of the mixture shall not show sign of cracking. The mud shall be well trodden and variation in the consistency of paste will be the adding of sufficient water care being to remove all clods and stones.

14. Bricks work Lime Mortar :

Shall be done with brick soaked in water for not less than 4 hours before use in works. The proportion of mortar will be the same as per schedule of quantity which will be strictly adhered to. The completed work should be perfectly in accordance with the drawing so for the lime level and verticality is concerned, only mortar mixed properly in bull chakhi to be used.

15. Bricks words in Cement Mortar in Foundation plinth & superstructures :

Only selected bricks approved by Executive Engineer shall be used in the masonry. The bricks must be soaked in water for 6 hours before use. There should be proper bonding and shall be carried through the full width of the wall each coarse being truly longitudinal neither horizontal not vertical joints shall be of greater thickness than 1/4". The proportion of mortar will be as specified in the drawing will be laid over the plinth after cleaning on the brick work thoroughly of all its loose mortar stickling on surface as waiting it thoroughly. The concrete shall be with stone ballast of 3/4" size graded, in proportion of 1:2:4 (1 cement : 2 Sand : 4 chips). Cement concrete for D.P.C. should be cured for 5 days before a hot coat bitumen is applied on it. The bitumen painted surface should be immediately sealed with sand.

16. Damp proof course :

Damp proof coarse to a thickness as specified in the drawing will be laid over the plinth after cleaning on the brick work thoroughly of all its loose mortar sticking on surface and wetting it thoroughly. The concrete shall be with stone ballast of 3/4" size graded, in proportion of 1:2:4 (1 cement : 2 Sand : 4 chips). Cement concrete for D.P.C. should be cured for 5 days before a hot coat bitumen is applied on it. The bitumen painted surface should be immediately sealed with sand.

17. Lime Concrete 3" Thick in Floors and with Brick Ballast :

1 1/2" bricks aggregate and down gauge a specified by the Engineer-in-Charge with 50% of lime mortar consisting of lime and sand shall be used. The aggregate and mortar shall be thoroughly mixed before laying and rammed. Consolidation shall be done until a skin of puse mortar covers the surface and completely hide the aggregate. No mortar or water shall be added during ramming the mortar shall be mixed in a Bali Chakey.

18. 1" Patent Stone Flooring 1:2:4 :

The concrete shall consist of 1 cement 2 sand stone ballast 1/2" down gauge. In all cases only measured quantities shall be used. In all first be mixed dry and then with the aggregate. The whole shall then be laid properly with water and then laid in a layer of 1" thick over prepared sub base and beaten thoroughly with wooden straight edge. The surface be finished with a floating coat of neat cement to the satisfaction of the Engineer-in-charge. The finished floors shall be kept wet for at least 7 days.

19. Reinforced Cement Concrete 1:2:4 slabs, Roofing's Lintels Chajja etc. Reinforcement to be done with a net work of M.S. rods as specified under quality schedule or by the Engineer-in-charge. Rods and netting shall be woven by the contractor at his own cost. Every alternative cross over of M.S. rods shall be tied fast with binding wire of approved gauge. The netting shall be of proper size. The concrete shall be of good clean aggregate properly damped with clean water. The size of the stone aggregate to be used shall be 3/4" gauge and below . The proportion shall be 1 cement 2 sand 4 stone ballast. Before laying the concrete the centering and frame works will have to be approved by the Engineer-in-charge or his authorized officer. The concrete shall be well mixed before laying and vibrated properly till mortar comes out to the surface and the reinforcing rods are thoroughly embedded in concrete. Care is to be taken that specified covering is there and no reinforcing material are exposed from outside. The laid concrete should not be disturbed and be kept wet for 10 days. The centring will be removed only after 7 days placing the concrete or as directed by the Executive Engineer.

20. Plaster inside and outside :

Prior to the application of plaster the faces of the wall shall be cleaned and the joints of the bricks work rated out to depth of ½” and properly watered for at least 6 hours. The plaster shall be thoroughly smoothened and subbed with strength edges and wooden flats in a proper workman like manner. Watering, shall be continued for 7 days on the finished surface. The mortar will ordinarily consist of cement and in the proportion as specified in the schedule of quantity which should be strictly adhered. Where lime is also specified the cream of lime shall be prepared by thoroughly slaking required quantity of quick lime with the minimum quantity of water in order to get a thick slurry. The slurry of lime shall then be screened through a clean cloth to remove all dirt and any un-slaked like particulars. Sand shall be measured by volume in suitable size measuring boxes while cement shall be measured by weight taking 1 bag as 1.20 cft. Screened cream of lime and screened sand shall be mixed together in requisite proportion and the where than mixed with necessary of cement. The minimum quantity of water to give a working consistency to the mix should only be added and no more. The plaster shall be applied immediately after mixing maintaining the said precautions as for cement mortar.

21. ½” Cement Plaster Dado 1:3.

All the joints of masonry should raked ¾” deep and the walls should be thoroughly wetted at least 6 hours before the plaster in laid. The plaster should be laid on with some what more than the thickness and leveled and finished with a trowel. The plaster should be kept constantly watered for the 3 weeks. The thread lining is to be done. It should be done before the cement takes initial set.

22. White washing three coats :

White washing shall be prepared from burned shall lime thoroughly mixed with water, it should give a thin creamy consistency. It should then be screened through clean cloth. Clean gum dissolved in hot water or good conjee water shall be added in proportion of tounces to 1 Cit. for each coat is allowed to be applied. The new walls shall be well cleared and brushed. Each coat of white wash should be allowed to dry before applying next coats.

8. Lime Concrete :

The mixture shall be slaked lime, surkhi and sand in the production defined in the relevant schedule item for the various items of work ground cinder may be used when directed by the Engineer-in-charge. Lime surkhi and sand are to be mixed dry on a platform of masonry and then sprinkled with necessary quantity of water and ground in mortar mill.

9. Aggregate for Reinforced Cement Concrete :

Aggregate for R.C.C. shall be from trap, quartz, or hard quartz tone. The aggregates shall pass through mesh and rest on ¼” mesh screens. It shall be well screened and washed before used and free from foreign matters.

10. Earth work in Excavation :

Excavation shall be strictly as shown in the plans. Bottoms of trenches shall be dressed level. All excavated earth will be placed not less than 5 feet from the edge of the foundation trench or directed by the Executive Engineer. All earth filling in the plinth or foundation basement will be done in not more than 6” layers well watered rammed.

11. Lime Concrete :

The concrete shall consist of an aggregate of the proportion mentioned in the schedule of items of approved quantities ½” gauge and down mixed with lime mortar. The concrete shall be mixed on a level platform. The aggregate shall be first washed clean thoroughly wetted and placed to an even thickness on platform. Dry mortar mixed in proper proportion as specified in schedule of quantities shall than be evenly spread over the aggregate and mixed thoroughly using sufficiently water to make the mortar adherent each piece of the aggregate. When the bed for the concrete is properly wetted, rammed and prepared the concrete shall be laid carefully in position in

layer not exceeding 6". The basket etc. shall never be thrown from a high but gently laid with the basket. Each layer shall be well rammed with a heavy wooden hammer or iron hammer till the mortar comes to the surface. No water shall be added during ramming but the surface of each completed layer shall be watered and roughened before the next layer is added. The concrete shall be well rammed and kept wet after the days works for such time till it is set and given more impression of the rammer when dropped over it. When concrete is to be laid under water or in wet location hydraulic lime rendered hydraulic shall be used.

#### 12. Cement Concrete :

The proportion of the concrete will be the same as specified in the schedule of quantities and will be strictly adhered to. The concrete shall be mixed properly in a power driven mixer in such a manner as to avoid loss of water. The concrete shall be mixed for a minimum period of two minutes or until it is of even colour and uniform consistency through out. Hard mixed concrete shall contain 10% extra cement and shall be made on hard, clean and even surface. The cement and sand will be mixed dry until the mixture is uniform in colour. It shall then be spread evenly over the coarse aggregate and mixed thoroughly. The water shall then be added and the whole mixture mixed thoroughly until the mass is uniform in colour and consistency. Concrete shall be handled from the place of mixing to the place of final deposit as rapidly as practicable. The concrete once laid shall not be disturbed and shall be kept thoroughly damp by means of well matting and sand. The aggregate should consist of stone ball as of quantity approved by the Executive Engineer and shall consist of graded size 3/4" and down and as per C.P.W.D. specifications

#### 13. Brick work in Mud Mortar :

The mud to be used for mortar shall be from selected earth of tenacious nature to which sand shall be added in much quantity that dried of the mixture shall not show sign of cracking. The mud shall be well trodden and variation in the consistency of paste will be the adding of sufficient water care being to remove all clods and stones.

#### 14. Bricks work Lime Mortar :

Shall be done with brick soaked in water for not less than 4 hours before use in works. The proportion of mortar will be the same as per schedule of quantity which will be strictly adhered to. The completed work should be perfectly in accordance with the drawing so for the lime level and verticality is concerned, only mortar mixed properly in bull chakhi to be used.

#### 15. Bricks work in Cement Mortar in Foundation plinth & superstructures :

Only selected bricks approved by Executive Engineer shall be used in the masonry. The bricks must be soaked in water for 6 hours before use. There should be proper bonding and shall be carried through the full width of the wall each course being truly longitudinal neither horizontal nor vertical joints shall be of greater thickness than 1/4". The proportion of mortar will be as specified in the drawing will be laid over the plinth after cleaning on the brick work thoroughly of all its loose mortar sticking on surface as waiting it thoroughly. The concrete shall be with stone ballast of 3/4" size graded, in proportion of 1:2:4 (1 cement : 2 Sand : 4 chips). Cement concrete for D.P.C. should be cured for 5 days before a hot coat bitumen is applied on it. The bitumen painted surface should be immediately sealed with sand.

#### 16. Damp proof course :

Damp proof course to a thickness as specified in the drawing will be laid over the plinth after cleaning on the brick work thoroughly of all its loose mortar sticking on surface and wetting it thoroughly. The concrete shall be with stone ballast of 3/4" size graded, in proportion of 1:2:4 (1 cement : 2 Sand : 4 chips). Cement concrete for D.P.C. should be cured for 5 days before a hot coat bitumen is applied on it. The bitumen painted surface should be immediately sealed with sand.

17. Lime Concrete 3" Thick in Floors and with Brick Ballast :

1½" bricks aggregate and down gauge as specified by the Engineer-in-Charge with 50% of lime mortar consisting of lime and sand shall be used. The aggregate and mortar shall be thoroughly mixed before laying and rammed. Consolidation shall be done until a skin of pure mortar covers the surface and completely hides the aggregate. No mortar or water shall be added during ramming the mortar shall be mixed in a Bali Chakey.

18. 1" Patent Stone Flooring 1:2:4 :

The concrete shall consist of 1 cement 2 sand stone ballast ½" down gauge. In all cases only measured quantities shall be used. It shall first be mixed dry and then with the aggregate. The whole shall then be laid properly with water and then laid in a layer of 1" thick over prepared sub base and beaten thoroughly with wooden straight edge. The surface be finished with a floating coat of neat cement to the satisfaction of the Engineer-in-charge. The finished floors shall be kept wet for at least 7 days.

19. Reinforced Cement Concrete 1:2:4 slabs, Roofing's Lintels Chajja etc. Reinforcement to be done with a net work of M.S. rods as specified under quality schedule or by the Engineer-in-charge. Rods and netting shall be woven by the contractor at his own cost. Every alternative cross over of M.S. rods shall be tied fast with binding wire of approved gauge. The netting shall be of proper size. The concrete shall be of good clean aggregate properly damped with clean water. The size of the stone aggregate to be used shall be ¾" gauge and below. The proportion shall be 1 cement 2 sand 4 stone ballast. Before laying the concrete the centering and frame works will have to be approved by the Engineer-in-charge or his authorized officer. The concrete shall be well mixed before laying and vibrated properly till mortar comes out to the surface and the reinforcing rods are thoroughly embedded in concrete. Care is to be taken that specified covering is there and no reinforcing material is exposed from outside. The laid concrete should not be disturbed and be kept wet for 10 days. The centering will be removed only after 7 days placing the concrete or as directed by the Executive Engineer.

20. Plaster inside and outside :

Prior to the application of plaster the faces of the wall shall be cleaned and the joints of the bricks work raked out to depth of ½" and properly watered for at least 6 hours. The plaster shall be thoroughly smoothed and subbed with strength edges and wooden flats in a proper workman like manner. Watering, shall be continued for 7 days on the finished surface. The mortar will ordinarily consist of cement and in the proportion as specified in the schedule of quantity which should be strictly adhered to. Where lime is also specified the cream of lime shall be prepared by thoroughly slaking required quantity of quick lime with the minimum quantity of water in order to get a thick slurry. The slurry of lime shall then be screened through a clean cloth to remove all dirt and any un-slaked lime particulars. Sand shall be measured by volume in suitable size measuring boxes while cement shall be measured by weight taking 1 bag as 1.20 cft. Screened cream of lime and screened sand shall be mixed together in requisite proportion and then mixed with necessary quantity of cement. The minimum quantity of water to give a working consistency to the mix should only be added and no more. The plaster shall be applied immediately after mixing maintaining the said precautions as for cement mortar.

21. ½" Cement Plaster Dado 1:3.

All the joints of masonry should be raked ¾" deep and the walls should be thoroughly wetted at least 6 hours before the plaster is laid. The plaster should be laid on with some what more than the thickness and leveled and finished with a trowel. The plaster should be kept constantly watered for the 3 weeks. The thread lining is to be done. It should be done before the cement takes initial set.

22. White washing three coats :

White washing shall be prepared from burned shell lime thoroughly mixed with water, it should give a thin creamy consistency. It should then be screened through clean cloth. Clean gum dissolved in hot water or good congee water shall be added in proportion of tounces to 1 Cit. for each coat is allowed to be applied. The new walls shall be well cleared and brushed. Each coat of white wash should be allowed to dry before applying next coats.

23. 5" thick trellis work in cement mortar 1:3 :

5" thick Ist class bricks trellis work in cement mortar 1:3 will be done with bricks soaked in water for into less than 4 hours before in work. Watering to be continued on finished trills work for at least 7 days. Freshly mixed mortar shall be used and ½" thick cement plaster as directed Executive Engineer shall be applied.

24. Colour Washing :

The colour washing shall be prepared applied in accordance with the standard specifications for white washing except that the contractors that provide colouring matter specified and ordered by the Engineer-in-charge during use. The colour wash should be stared continuously during use. The colour should be of even the over the whole surface.

25. Lime Concrete Terracing on Roof :

Bricks aggregate 1" and down gauge with 50% of more consisting of 1 lime : 2 surkhi shall be used. The brick aggregate will be well watered before mixing up with mortar. The lime should be thoroughly screened and made from free from kankars. The mortars should be mixed in prilchakey separately and then mixed thoroughly with the aggregate before laying over roof. The mixture should be properly leveled before besting. The concrete should then the thoroughly consolidated by being beaten with wooden mallets ( Thapits). Lime water should be sprinkled at intervals on the terrier to keep it wet while beaten. Proper slopsare to be made towards eaves for flow or the rain water. In no as shall the mixture be allowed to dry until the work is complete. The surface shall be softened by being sprinkled with clean water and the mortar which will rise to this surface during beating shall be smoothed and finished off with lime slurry gur and be light treatment complete. No plastering shall on any account be put on the surface watering shall be continued for 10 days after the completion of the work at the cost of contractor(s). Ghoondi to be made of the same mix as in terrace along with junction of the parapets roof to the design as per the instruction of the Engineer-in-charge.

26. Sal Wood and Window Frames :

The frames shall be made of well seasoned sal wood free from sap bends sun crack, shakes on blemishes of any kind. Alternatively kith seasoned and treated Badam or chuglum free from sap bends flaws sun cracks shakes or blemishes of and kind will be acceptable.

27. Door and Windows shutters :

Pannelled and glazed and battened shutter 1 to 11" thick shall be of Ist class Indian teak wood and 1" to 1 ¼" battened shutters shall be of wood as specified by Executive Engineer. Kiln seasoned and treated Badam wood or chuglum wood will also be acceptable. They shall be framed and put together, planted smooth in all surfaces and finished in accordance with the best class of joinery.

28. Holdfasts :

1" x 1 ½" x 1/8" / 12 x 1 ½" x 1/8" M.S. Flat holfasts shall be set in cement mortar 1: 2 : 4 6Nos. for each door, 4 Nos. for each windows and 2 Nos. for each clearstory window.

29. Pucca Drain :

Earth excavation for cutting trenches for drain shall be done by the contractor and got approved by the Engineer-in-charge. The drain shall be made from well burned brick with cement concrete bed. Size shall be as specified in the schedule. The surface of the top, sides and beds shall cement plaster with smooth surface. Necessary earth fitting by the side of the drain shall also be done.

30. Painting Door and Windows :

Painting two coats over one coat of priming to all doors and windows shall be done. The quality and shade of the paint shall be approved by Engineer-in-charge. The wood surface to be painted shall be thoroughly cleaned and sand paper before painting.

31. Window gratings :

3/4" dia M.S. rounds vertically and 1/4" to 1/8" M.S. flats horizontally shall be fixed to windows. The vertical bars shall be 4" center to center.

32. 1/4" Cement Plaster 1/4 in ceiling :

The surface of the ceiling to be plastered should be thoroughly cleaned and dammed before the plaster laid 1 part of clean cement and 4 parts of screened sand shall be mixed and immediately applied on the surface.

33. Construction brick masonry chullah :

Chullah shall be constructed and 2<sup>nd</sup> class brick masonry in cement mortar 1:6 with 2 holes and iron gratings complete as per design and finish with sand and gobra plaster.

34. Ventilators :

Wiring melted or R.C.C. Jali ventilators of required size shall be fixed in the walls as per specification and drawing.

35. Absorbers Rain Water Pipe :

In order to facilitate painting all pipes will be blocked 1 1/2" from the wall. Absorbers leads and shoes shall be provided of the proper size for the size of rain water pipes the shoes being fixed 6" above ground level.

36. Fan Clamps :

5/8 dia M.S. Fan hooks shall be provided and fixed in the ceiling for Electric Fans.

37. Fly – Proof Doors :

Galvanised iron proof webbing 16 x 16 mesh shall be used. The webbing shall be fixed securely to the styles rails and mounting by G.I. staples at about 6" intervals. The styles rails and mounting around the fly proof webbing shall be moulded.

38. Items not covered by above will be guided by the specification of C.P.W.D. or as decided by the G.M.(Civil) whose interpretation will be final.

## **ANNEXURES.**

**SPECIMEN OF LETTER OF CONTRACTOR'S ACCEPTANCE OF PROVISIONAL  
REDUCTION OF RATE FOR SUBSTANDARD WORK.**

No.

dt.

To

.....  
.....

Sir,

Subject: (Complete name of work).....

Reference: Your letter No.....

I/We have carefully read the terms and conditions offered in your letter dated..... and they are acceptable to me/us.

Pending the decision of the Engineer in Charge of the final rates of payment against the items of work specified in the statement attached to your above letter, which will be final and binding, I/ We agree to the same being paid at the provisional rates indicated against each of the said item of work for the above work as mentioned in your statement.

Yours faithfully,

Contractor(s)

**PROFORMA OF BANK GUARANTEE FOR REMOVAL OF PLANT & EQUIPMENT FROM THE SITE OF COAL INDIA LIMITED/**

**SUBSIDIARY COMPANY.**

In consideration of Coal India Limited/Subsidiary Company (hereafter called "the Company" which expression shall repugnant to the subject or context includes its successors and assigns) having agreed to under the terms & conditions of the Contract No..... dated..... entered into between the company and M/s..... having its Office at..... (hereinafter called "the Contractor") to permit the Contractor to remove the plant & equipment as fully described in the Schedule of the Hypothecation Deed dated..... executed by the Contractor in favour of the Company from the site to any other works of the Contractor on its furnishing the Bank Guarantee for Rs..... we, the ..... Bank (hereinafter referred to as the said Bank) having its Registered Office at ..... do hereby undertake and agree to pay the Company to the extent of Rs. .... on demand stating that the amount claimed by the Company is due and payable by the contractor for its failure in bringing back the said plant & equipment or any part thereof to the site and to unconditionally pay the amount claimed by the company on such demand without any demur to the extent aforesaid.

We, the ..... Bank agree that the Company shall be the sole judge as to whether the said contractor has failed/neglected in bringing back the plant & equipment to the site and the amount has become due for such failure and the decision of the company in this behalf shall be final and binding on us.

We, the said Bank further agree that the Guarantee herein contained shall remain in full force and effect upto..... and any claim received after the said date shall in no case be bind the Bank.

Notwithstanding anything contained herein the liabilities of the said Bank under this Guarantee are restricted to Rs..... and this Guarantee shall come into force from the date thereof and shall remain in full force and effect till ..... unless the written demand or claim under this guarantee is made by the company with us on or before..... all the rights of the Company under this guarantee shall cease to have any effect and we shall be retrieved and discharged our liabilities hereunder.

We, the said Bank lastly undertake not to revoke this guarantee under its currency except with the previous consent of the Company in writing and agree that any change in the constitution of the said Contractor or the said Bank shall not discharge the liabilities hereunder.

This Guarantee is issued by Sri..... who is authorized by the Bank.

Under jurisdiction of ..... Court only.

**PROFORMA OF BANK GUARANTEE IN LIEU OF SECURITY DEPOSIT.**

Bharat Coking Coal Ltd.  
Koyla Bhawan , Koyla Nagar  
Dhanbad  
826005

Dear Sir,

In consideration of M/s. Coal Bharat Coking Coal Ltd. having its Registered Office at Koyla Bhawan Koyla Nagar Dhanbad (hereinafter called "the Company" which expression shall unless repugnant to the subject or context includes its successors and assigns) having agreed under the terms and conditions contained in letter No..... dated..... issued in favour of M/s. .... for ..... (hereinafter referred to as "the contract") to accept the Deed of guarantee as herein provided for Rs..... from the Schedule/ Nationalised Bank in lieu of security deposit to be made by M/s..... (hereinafter called "the Contractor") or in lieu of deduction to be made from the contractor's bill, for the due fulfillment of the terms and conditions contained in the said contract by the contractor, we the ..... Bank (hereinafter referred to as the said Bank) having its Registered Office at..... do hereby undertake and agreed to pay the company to the extent of Rs..... on demand stating that the amount claimed by the company is due and payable by the contractor for the reasons of failure/negligence in performing the terms and conditions contained in the contract by the buyer and to unconditionally pay the amount claimed by the company on demand without any demur to the extent aforesaid.

We, the..... Bank agree that the company shall be the sole judge as to whether the said contractor has failed/neglected in performing any of the terms and conditions of the said contract and the decision of the company in this behalf shall be final and binding on us.

We, the said Bank further agree that the Guarantee herein contained shall remain in full force and effect upto ..... and any claim received after the said date shall in no case bind the Bank.

The Company shall have the fullest liberty without affecting in any way the liability of the Bank under this guarantee or indemnity from time to time vary any of the terms and conditions of the said contract or to extend the time of performance by the said contractor or to postpone any time and from time to time any of the powers exercisable by it against the said contractor and either to enforce or to forbear from enforcing any of the terms and conditions governing the said contract or securities available to the company and the said Bank shall not be released from its liability under these presents.

contd. p/2

Notwithstanding anything contained herein the liability of the said Bank under this guarantee is restricted to Rs..... and this Guarantee shall come into force from the date hereof and shall remain in full force and effect till ..... Unless the written demand or claim under this guarantee is made by the Company with us on or before ..... all rights of the company under this guarantee shall cease to have any effect and we shall be relieved and discharged from our liabilities hereunder.

We the said Bank lastly undertake not to revoke this guarantee during its currency except with the previous consent of the company in writing and agree that any change in the constitution of the said contractor or the said bank shall not discharge our liability hereunder.

This guarantee issued by Sri ..... who is authorised by the Bank.

Under jurisdiction of ..... court only.

**PROFORMA OF BANK GUARANTEE FOR PERFORMANCE**  
**SECURITY OF THE CONTRACT**

To

.....  
.....

Re: Bank Guarantee in respect of Contract No.....

Dated..... Between ..... (name of the )  
and ..... ( name of the Contractor)

M/s. .... (Name and address of the Contractor) (hereinafter called "the Contractor" with M/S. .... (name of the Company) (hereinafter called "the Company") to execute ..... (name of the contract and brief description of work) on the terms and conditions contained in the said contract.

It has been agreed that the Contractor shall furnish the Bank Guarantee from a Nationalised/ Schedule bank for a sum of Rs..... as security for due compliance and performance of the terms and conditions of the said contract.

The ..... (name of the Bank) having its Office at..... has at the request of the Contractor agreed to give the Guarantor hereinafter contained.

We, the ..... Bank (hereinafter called "the Bank" do hereby unconditionally agreed with the Company that if the contractor shall in any way fail to observe or perform the terms and conditions of the said contract or shall commit any breach of its obligation thereunder, the Bank shall on demand and without any objection or demur to pay to the company the said sum of Rs..... or such portion as shall then remain due with interest without requiring the Company to have recourse to any legal remedy that may be available to it to compel the Bank to pay the sum, or failing on the company to compel such payment by the contractor.

Any such demand shall be conclusive as regards the liability of the Contractor to the company and as regards the amount payable by the Bank under this Guarantee. The Bank shall not be entitled to withhold payment on the ground that the Contractor has disputed its liability to pay or has disputed the quantum of the amount or that any arbitration proceeding or legal proceeding is pending between the company and the Contractor regarding the claim.

We, the ..... Bank further agree that the Guarantee shall come into force from the date hereof and shall remain in force and effect till the period that will be taken for the performance of the said Contract which is likely to be ..... day of ..... but if the period of Contract is extended either pursuant to the provisions in the said contract or by mutual agreement between the contractor and the company the Bank shall renew the period of the Bank Guarantee failing which it shall pay to the company the said sum of Rs..... or such lesser amount of the said sum of Rs..... as may be due to the company and as the company may demand.

contd. p/2

This Guarantee shall remain in force until the dues of the company in respect of the said sum of Rs..... and interest are fully satisfied and the Company certifies that the Contract has been fully carried out by the Contractor and discharged the guarantee.

The Bank further agrees with the company that the company shall have the fullest liberty without consent of the Bank and without affecting in any way the obligations hereunder to vary any of the terms and conditions of the said contract or to extend time for performance of the said contract from time to time or to postpone for any time or from time to time any of the powers exercisable by the Company against the contractor and to forebear to enforce any of the terms and conditions relating to the said Contract and the Bank shall not be relieved from its liability by reason of such failure or extension being granted to the Contractor or to any forbearance, act or omissions on the part of the company or any indulgence by the Company to the Contractor or any other matter or thing whatsoever which under the law relating to sureties would but for this provision have the effect or relieving or discharging the Guarantor.

The Bank further agrees that in case this Guarantee is required for a longer period and it is not extended by the Bank beyond the period specified above the Bank shall pay to the company the said sum of Rs..... or such lesser sum as may then be deemed to the Company and as the Company may require.

Notwithstanding anything contained herein the liability of the Bank under this Guarantee is restricted to Rs..... the guarantee shall remain in force till the day ..... of ..... and unless the guarantee is renewed or claim is preferred against the bank within six months from the said date all rights of the Company under this guarantee shall cease and the Bank shall be relieved and discharged from all liabilities hereunder except as provided in the preceding Clause.

This guarantee will not be discharged due to the change in the constitution of the Bank or the Contractor.

The Bank has under its constitution power to give this Guarantee and Sri..... who has signed it on behalf of the Bank has authority to do so.

Dated., this ..... day of .....

Signature of the authorized person

For and on behalf of the Bank

Place

Under jurisdiction of ..... court only.

**(This is applicable for Turn Key Contracts Only)**

**PROFORMA FOR AFFIDAVIT TO BE SUBMITTED BY THE TENDERER****Non Judicial Stamp Paper.****AFFIDAVIT**

I, -----, Partner/Legal Attorney/ Accredited Representative of M/S -----  
 -----, solemnly declare that :

1. We are submitting Tender for the Work -----  
 ----- against Tender Notice No.-----  
 --- dt -----
2. None of the Partners of our firm is relative of employee of Bharat Coking Coal Ltd.
3. All information furnished by us in respect of fulfillment of eligibility criteria and qualification information of this Tender is complete, correct and true.
4. None of the partners of the Firm has either individually or collectively been involved in criminal offences.
5. All documents/ credentials submitted alongwith this Tender are genuine, authentic, true and valid.
6. If any information and document submitted is found to be false/ incorrect any time, department may cancel my Tender and action as deemed fit may be taken against us, including termination of the contract, forfeiture of all dues including Earnest Money and banning / delisting of our firm and all partners of the firm etc.

Signature of the Tenderer

Dated-----

Seal of Notary

**PROFORMA FOR EXECUTION OF AGREEMENT.**

**STAMP PAPER.**

This agreement is made on ..... day of ..... between ( Name of Company ) having its registered office at ..... (hereinafter called the 'COMPANY' which expression shall, unless repugnant to the subject or context, include its successors and assignees) of the one part and ( Name of the Contractor ) carrying on business as a ( partnership/ proprietorship/ Ltd. Co. etc. ) firm under the name and style ..... (hereinafter called the 'said Contractor' which expression shall, unless the context requires otherwise include them and their respective heirs, executors, administrators and legal representatives) of the other part.

Whereas the Company invited tenders for the work of "....." and whereas the said Contractor/ Firm submitted tender for the said work and deposited a sum of Rs..... as Earnest Money and whereas the tender of the said contract has been accepted by the Company for execution of the said work.

**NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:**

- 1) In this agreement words and expressions shall have the same meaning as are respectively assigned to them in the tender papers hereinafter referred to.
- 2) The following documents which are annexed to this agreement should be deemed to form and be read and construed as part of this agreement viz.

- i) Annexure-A Tender Notice (Page .. to ..)
- ii) Schedule –A General Terms & Conditions, Special Conditions and General Technical Specification (Page .... to ...)
- iii) Schedule-B The probable Quantities and Amount (Page ... to ...)
- iv) Schedule-C Negotiation letters –
- iv) Schedule-D Letter of Acceptance/Work Order (Page .. to ..)
- v) Schedule-E Drawings (Page .. to ..)

3) In consideration for the payment of the sum of Rs.....( W/O Value; both in words and figures ) or such other sum as may be arrived at under the clause of the specification relating to Payment by items measurements at unit prices by the Company, the said Contractor shall, subject to the terms & condition contained herein execute and complete the work as described and to the extent of probable quantities as indicated in Schedule B with such variations by way of alteration, addition to or reduction from the said works.

4) The company has received a sum of Rs..... towards Performance Security Deposit (1<sup>st</sup> part of Security Deposit) in the form of Demand Draft / Certified Cheque/ B.G./ *other form (details to be furnished)* .

5) The said contractor hereby covenants with the company that the company shall deduct at 5% of R/A Bills as Retention Money (2<sup>nd</sup> part of security deposit ) to make the total Security as 10%(ten percent) of contract value, as per the terms & condition of the tender/ contract.

IN WITNESS WHEREOF THE parties herein have set their hands and seals the date and year above written.

1 Partner. Signature

2 Partner Signature

On behalf of M/S.....

The Contractor, as one of the constituted attorney,

In the presence of –

1. Name \_\_\_\_\_ Signature

Address :

Occupation :

Signed by Sri .....on behalf of Signature

( Name of Company) in presence of –

1. Name : Signature

2. Address: .

**DECLARATION**

I hereby declare that my / our firm has not been banned or delisted by any Government or Quassi Government agencies or PSU's.

Signature of the Tenderer

# BHARAT COKING COAL LIMITED

(A Subsidiary of Coal India Limited)

Regd. Officer : Koyla Bhawan

OFFICE OF THE GENERAL MANAGER

B.C.C.L., C.V. AREA-XII

P.O.- BARAKAR, DIST-BARDHMAN, (W.B.)

## PART – II

### (PRICE BIDS)

(TO BE SUBMITTED IN SEPARATE ENVELOP )

1. **Name of work** : “Construction of P.C.C. road at Laikdih colony under DBOCP.”

2. Name of Tenderer :

Address :

Contact No. ( Tel / Mob.) :

3. N.I.T. Reference : BCCL/XII/ACE/NIT/2010-11/ 169/682  
(Sl.No.-1)

dated: 26.11.2010

4. Date of Receipt of tender : Up to 3.00 P.M. on 20.12.2010

5. Date of opening of tender : At 3.30 P.M. on 20.12.2010

6. Date of open of Envelope (Part-II) : To be communicated later .

7. Documents issued to : BILL OF QUANTITY – 1 page (page no-64)

SIGNATURE OF ISSUING OFFICER

# **BILL OF QUANTITY**

**FOR**

**“Construction of P.C.C. road at Laikdih colony under DBOCP.”**

<b>Sl.No.</b>	<b>Description of Item</b>	<b>Qty</b>	<b>Unit</b>	<b>Rate</b>	<b>Amount</b>
<b>1/ 2.6.1</b>	Earth work in excavation nby mechanical means (Hydraulic excavator) /manual means over areas (exceeding 30 cm in depth. 1.5m in width as well as 10sqm on plan) including disposal of excavated earth, lead up to 50m and lift up to 1.5m, disposed earth to be leveled and neatly dressed. All kinds of soil.	71.10	Cum	101.85	7241.53
<b>2/ Anlysied</b>	Dry brick flat soling with bricks of CD 50 including filling joints with sand.	474.00	Sqm	111.09	52,656.66
<b>3/ 16.42</b>	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 40 mm nominal size) in pavements, laid to required slope and camber in panels as required including consolidation finishing and tamping complete.	71.10	Cum	3340.25	2,37,491.77
	<b>Total</b>			<b>Rs.</b>	<b>2,97,389.96</b>
			<b>Say</b>	<b>Rs.</b>	<b>2,97,390.00</b>

**Having gone through the Tender documents & elements of work in the bill of quantity :-**

**I / we quote \_\_\_\_\_% ( \_\_\_\_\_ ) above / below the estimated cost.**

**Our quoted offer amounts to Rs. \_\_\_\_\_ ( Rupees \_\_\_\_\_**

**\_\_\_\_\_ ) including the above percentage.**

**Signature & seal of Tenderer**

# **BHARAT COKING COAL LIMITED**

(A Subsidiary of Coal India Limited)

Regd. Officer : Koyla Bhawan

OFFICE OF THE GENERAL MANAGER

B.C.C.L., C.V. AREA-XII

P.O.- BARAKAR, DIST-BARDHMAN, (W.B.)

## **PART – I**

( TO BE SUBMITTED IN SEPARATE ENVELOP )

1. **Name of work** : “Construction of P.C.C road at R.K. Colony, DBOCP under C.V.Area.”

2. Name of Tenderer :

Address :

Contact No. ( Tel / Mob.) :

3. N.I.T. Reference : BCCL/XII/ACE/NIT/2010-11/169/682 dated 26.11.2010  
(Sl.No.-2)

4. Date of Receipt of tender : Up to 3.00 P.M. on 20.12.2010

5. Date of open of Tender : At 3.30 P.M. on 20.12.2010

6. Details of E.M.D. : No. Date

7. Money Receipt No. : No Date  
(for issue of tender paper)

8. Documents issued to Tenderers : i) Tender Document Part-I: 62 pages(page 1 to 62 )  
( including NIT- 2 pages)  
ii) Tender document Part-II: 2 pages ( page 63 to 64)  
(Total 64 pages)

SIGNATURE OF ISSUING OFFICER

**BHARAT COKING COAL LIMITED**  
(A Subsidiary of Coal India Ltd)  
**OFFICE OF THE GENERAL MANAGER**  
**CHANCH-VICTORIA AREA-XII**  
**P.O.-BARAKAR - 713324**  
**DIST-BARDHMAN ( W.B.)**  
Phone : 06540-272126 ; FAX 0341-2520063

Ref. No. BCCL/XII/ACE/NIT/2010-11/169/682

Date :26.11.2010

**NOTICE INVITING TENDERS**

Sealed percentage rate tender in two parts (part I & II) are invited from experienced and eligible contractors for the following work of

Sl. No.	Name of the work	Estimated value	EMD	Time of completion	Cost of Tender document
1.	Construction of P.C.C road at Laikdih colony under DBOCP	Rs.2,97,390.00	Rs. 2975.00	2 months	Rs. 250.00
2.	Construction of P.C.C Road at R.K colony, DBOCP under C.V. Area	Rs.3,12,448.00	Rs. 3125.00	2 months	Rs. 250.00

Availability of tender documents from : **16.12.2010 to 18.12.2010**

Tender documents will be issued on all working days during working hours except on Sundays & holidays. In the event of the specified date for submission/opening of bids being declared a holiday the bids will be received/opened on the appointed time on the next working day.

Time and date of receipt/opening of tender - **3.00 PM/3.300 P.M.** respectively on **20.12.2010.**

**1) Eligibility criteria :-**

a) The intending tenderer must have in his/their name as a prime contractor experience of having successfully completed similar works during last 7 (seven) years ending last day of month previous to the one in which bid applications are invited (i.e. eligibility period) any one of the following(in case the bidder is not a prime contractor but a sub-contractor the bidder experience as sub-contractor will be taken into account if the contract in support of qualification is a sub-contract in compliance with the provision of such sub-contract in the original contract awarded to the prime contractor) :-

Three similar completed works each costing not less than the amount equal to 40% of the estimated cost.OR

Two similar completed works each costing not less than the amount equal to 50% of the estimated cost.OR

One similar completed work costing not less than the amount equal to 80% of the estimated cost.

Similar work means : **Any civil construction/Maintenance work..**

b) Average annual financial turnover of civil works during the last 3 (three) years, ending 31<sup>st</sup> March of the previous financial year, should be at least 30% of the estimated cost.

The intending tenderer must submit documentary evidence in support of (1) (a) , (b) as above in the form of certified copy of work order, completion certificate, payment certificates/ vouchers etc. indicating the period of work for which the payment has been made, duly signed by him/them.

Note:- (i) Provision under eligibility criteria 1. (a) shall also include those similar work which have been started earlier than eligibility period of tender but completed during the eligibility period as per NIT.

(ii) As per eligibility criteria specified under Sl.No.1(a). Pre-qualification shall be done based on experience of successfully completed works and not on experience of work in progress.

2) The tender documents can be had from the office of the Area civil Engineer, BCCL, Chanch Victoria Area-XII , P.O.- Barakar, Dist-Bardhman (West Bengal) during the period mentioned above on deposition of requisite cost of tender paper in form of cash or bank draft of any Nationalized/Schedule bank in favour of B.C.C.L., Area No-12, payable at Dhanbad.

3) Completed sealed tender documents (part I & II) should be submitted at the same time. Part-I shall consist of terms and conditions of the tender, additional terms and conditions if any, technical bid and credentials. Part-II shall consist of tender documents as sold to the tenderers duly filled in for rates, amounts etc. i.e. price bid.

The Earnest money deposit is to be submitted in a separate Envelope altogether super scribing "Earnest Money Deposit", and not inside the envelope containing Part-I or Part-II of the Bid. The Part-I & Part-II should also be put into separate sealed envelopes super-scribed as such. Thereafter all the three envelopes should be submitted in a sealed envelope with appropriate superscription.

**Contd. Page-2**

The tender will be received on the date given above **upto 3.00 P.M. in the office of the General Manager , Chanch Victoria Area-XII and will be opened at 3.30 P.M.** on the same day in presence of the intending tenderer or their authorized representative **in the Office of the Area Civil Engineer , Chanch Victoria Area-XII** . Only part-I will be opened on this date. The part-II will be opened only after the department is satisfied that the criteria fixed are fulfilled and also the earnest money is deposited i.e. on acceptance of part-I.

- 4) In case where tender documents are requested for transmission by post, these should be dispatched by registered A.D. The department is not responsible for any postal delay in such cases.
- 5) The earnest money is to be deposited as per detail given in the tender documents.
- 6) Sales Tax clearance certificate & Sales Tax/Vat Registration (TIN) certificate is to be furnished.
- 7) The tenderers have to submit Permanent Account No. of Income Tax (PAN No.)..
- 9) Conditional tenders will not be accepted.
- 9) Issuance of tender documents does not mean that the parties are considered qualified.
- 10) Every tenderer is required to give an Affidavit in the proforma given in the tender document on non-judicial stamp paper.
- 11) The experience as given in the eligibility criteria should be in the name and style in which tender is filled. The experience in the name of some other firm/company will not be considered for this purpose.
- 12) The validity of the tender will be 120 days from the date of opening price bid or revised price bid if any.
- 13) The management of BCCL reserves right to reject any or all tender or split the work among two or more tenderers with out assigning any reasons whatsoever.
- 14) **Other details may be obtained from detailed tender notice/tender documents/website <http://bccl.empdi.co.in>.**
- 17) In case tender document is downloaded the tenderers are required to deposit along with their tender, a Bank Draft of any Nationalized / Schedule Bank in favour of B.C.C.L. Area-12 payable at Dhanbad exclusively towards the cost of Tender Document for the amount indicated as above, in a separate envelope. Any Bank Draft, prepared after the scheduled closure of sale of Tender Documents may be liable for rejection.
- 18) The contents of the Tender Documents available in our offices, shall be deemed as authentic .The bidder will be required to submit an undertaking that they will accept the tender document as available in the web-site and their tender shall be rejected if any tempering is there in the tender document thus submitted.

Sd/  
Area Civil Engineer  
Chanch Victoria Area-XII

Copy to :-

- 1) The Chief Vigilance Officer, BCCL, Koyla Bhawan..
- 2) All CGMs/GMs/of Areas of BCCL.
- 3) GM, Chanch Victoria Area-XII.
- 4) GM (Civil), BCCL, Koyla Nagar.
- 5) GM(System) – with request to upload the NIT in Co's Website (C.D. containing NIT document is being sent separately together with a forwarding letter).
- 6) Addl. GM, Chanch Victoria Area-XII.
- 7) A.F.M., Chanch Victoria Area-XII.
- 8) All P.O.s of Chanch Victoria Area-XII.
- 9) Builders Association of India, Central Akashkinaree Kanta, Katras Garh, Dhanbad-828113.
- 10) PRO, BCCL, Koyala Bhawan – for kind information that C.D. containing NIT document for uploading on the company's website is being sent to GM (System), BCCL, Koyala Bhawan.
- 11) Notice Board.

## DETAILED TENDER NOTICE

1. Sealed tenders in prescribed forms and parts with the name of works superscribed as per NIT

N.I.T. Ref. No. \_\_\_\_\_ as per NIT \_\_\_\_\_ on each of the envelopes are invited from bonafide and experienced contractors and will be received at \_\_\_\_\_ as per NIT \_\_\_\_\_ Dhanbad upto 3.00 P.M. on as per NIT \_\_\_\_\_. All

tenders will be opened at 3.30 P.M. on as per NIT \_\_\_\_\_ in the presence of the intending tenderers or their authorized representatives who wish to be present. In case where the tender is in two parts, only Part-I, will be opened on the above day and time.

2 (a) Tenders should be submitted in the prescribed form in time. These forms together with the proposed contract document including specifications and tender drawings ( if available ) may be obtained from the above office during normal working hours on payment of Rs. \_\_\_\_\_ as per NIT \_\_\_\_\_ (non-refundable) (Rupees as per NIT only ) as Application Fee for each set. The payment may be made either in Cash or by Bank Draft drawn in favour of Bharat Coking Coal Ltd. On Nationalized Bank payable at Dhanbad. General specification and description of work is enclosed with the tender document.

2 (b) **Any Bids received after the deadline prescribed at Clause 1 above due to any reasons what soever will not be accepted. In the event of the specified date for the submission of bids being declared a holiday by the employer, the bids will be received up to the appointed time on the next working day.**

2 I Tenders thus submitted shall consist of the following:

3 Complete set of tender documents as sold, duly filled in and signed on all pages and at different places as required of the tender documents including Part I & Part II of the tenders as per the tender notice as applicable.

ii) Sales-tax clearance certificate copy attested by a Gazetted Officer of the Govt. (Central or State)&TIN No.

iii). PAN (Permanent I. Tax Account Number )

iii) Earnest money deposit (as specified hereafter)

iv) Power of Attorney in the case the tender is signed by an authorized representative of the tenderer.

v) Full name and address of the tenderer shall be written on the bottom left hand corner of the sealed covers.

vi) Every Tenderer will have to submit a declaration in support of the authenticity of the credentials submitted by him along with the Tender in the form of an AFFIDAVIT as per the format provided at ANNEXURE VI.

2 (d) The tender document in which the tender is submitted by the tenderer shall become the property of the Company and the Company shall have no obligation to return the same to the tenderer.

2 (e) The Tender shall be submitted,

### EITHER

\* in Two Envelope System with the first envelope containing credentials ( duly authenticated by the bidder ) in support of his qualifications in accordance with the eligibility criteria along with the EMD in a separate envelope and the original tender document issued to the bidder duly signed by authorized signatory of the bidder on all pages as proof of accepting the conditions of the contract ( excluding the price bid ) and the second envelope comprising of priced bill of quantities superscribing Envelope I , II and EMD on the cover.

**OR**

\* in two parts as indicated in the Notice Inviting Tenders. Part-I shall consist of any deviations from terms & conditions of the tender and additional terms & conditions and if asked for, technical bid and credentials (documentary evidence in support of eligibility criteria and bid assessment duly authenticated by the bidder) and the original tender document issued to the bidder duly signed by authorized signatory of the bidder on all pages as proof of accepting the conditions of contract (excluding the price bid).

Part II shall consist of tender documents as sold to the tenderers duly filling in rates, amounts etc. i.e. price bid.

The Earnest Money Deposit is to be submitted in a separate Envelope altogether; super-scribing "Earnest Money Deposit"; and not inside the envelope containing Part I or part II of the Bid.

The bidders, who will download the tender documents from the website of the company, will be required to pay the cost of tender documents (Application Fee) by Bank Draft as per NIT at the time of submission of tenders.

The bidders will be required to submit an undertaking that they will accept the tender documents as available in the website and their tender shall be rejected if any tampering in the tender document is found to be done at the time of opening of tender.

The Bank Draft towards the cost of tender documents ( Application Fee ) and the undertaking of the tenderer as above shall be submitted in a separate envelope marked "Cost of Tender Documents and the Undertaking" and not with Part-I/ EMD.

In case of any discrepancy between the tender documents downloaded from the web site and the master copy available in the office, the latter shall prevail and will be binding on the tenderers. No claim on this account will be entertained.

The Part I & Part II should also be put into separate sealed envelopes superscribed as such. Thereafter all the three envelopes (four envelopes in case of Bidders using downloaded Bid document) should be submitted in a sealed envelope with appropriate superscription.

The date of opening of the Second Envelope or Part II of the tenders shall be communicated in due course after consideration of First Envelope or Part-I.

**(\* STRIKE OUT WHICHEVER IS NOT APPLICABLE AS PER THE ESTIMATED VALUE OF THE WORK )**

**2 (f)** Each bidder shall submit only one bid for one package. A bidder who submits or participates in more than one bid (other than as sub-contractor or in case of alternatives that have been permitted or requested) will cause all the proposals with the bidders' participation to be disqualified.

**3.** Earnest Money/ Bid Security @1% of the estimated cost (rounded off to nearest hundred rupees subject to maximum of Rs. 50 lakhs) is to be deposited in the form of irrevocable Bank Guarantee (from Scheduled Bank/ Branch acceptable to the owner) with validity 28 days beyond the validity of the Bid in the format given in the Bid Document in a separate envelope alongwith the tender. Certified Cheques and Demand Drafts will also be acceptable as Earnest Money/ Bid Security drawn in favour of Bharat Coking Coal Limited on any scheduled Bank payable at its branch at Dhanbad. For works valued upto Rs. 5 lakhs the earnest money may be deposited in cash or in the aforesaid form. In case of earnest money deposit by cash, cash receipt is to be submitted in a separate envelope alongwith the tender. Earnest Money/ Bid Security of the unsuccessful bidder shall be refunded as promptly as possible after opening of Price Bid and finalisation of the tender and shall bear no interest.

**4.** No tender shall be considered unless accompanied by the said Earnest Money.

**5.** The earnest money will be retained in the case of successful tenderer and refunded to the unsuccessful tenderer in due course and will not carry any interest. The unsuccessful bidder for this purpose means the bidder who have not qualified for opening of Part-II (Price Bid) and those who have not emerged as L-1 tenderer after opening of price bid. The earnest money deposited by the successful tenderer will be dealt with as provided elsewhere in the tender documents.

**6 (a)** Site Investigation Report: The contractor, in preparing the bid, shall rely on the site investigation report referred to in the bid document, supplemented by any information available to the bidder.

**6 (b).** Every tenderer is expected, before quoting his rates, to go through the requirements of materials/workmanship under specification/requirements and conditions of contract and to inspect the site/area of the proposed work.

In case of item rate tender a schedule of quantities is enclosed with the tender document. He should quote specific rate for each item in the schedule and the rates shall be in rupees and paise. The rates shall be written both in words and figures and the unit in the words and the amount against each item totaled. In the event of any discrepancy between the description in words and figures, the description in words will prevail. The rates for the work should be inclusive of all incidentals, overheads, all taxes, Octroi's, duties, leads, lifts, carriage, tools & plant etc. as required for execution and completion of the work. It shall be deemed that the tenderer has visited the site/area and got fully acquainted with the working conditions and other prevalent conditions and fluctuations thereto whether they actually visited the site/area or not and have taken all the above factors into account while quoting his rates.

**7 (a)** Corrections where unavoidable, shall be made by crossing out and rewriting duly authenticated with full signature and date by the tenderer. Erasing or over-writing in the tender documents may disqualify the tender.

**7 (b)** The tender shall be submitted either in English or in Hindi.

**7 (c)** Cost of Bidding: The bidder shall bear all costs associated with the preparation and submission of his bid and the Employer will in no case be responsible and liable for those cost

**8.** The tenderer shall closely study all specification in detail, which govern the rates for which he is tendering.

**9.** Sales-tax clearance certificate for the last financial year or the last assessment whichever is later or proof of filing the returns for the previous financial year should accompany the tender.

**10.** The work should be completed within as per NIT from expiry of ten (10) days from the issue of letter of acceptance of tender/work order or handing over the site or handing over reasonable number of working drawings to the contractor or the period of mobilisation allowed in the work order for starting the work in special circumstances, whichever is latest.

**11.** On completion of the work all rubbish, debris, brick bats etc. shall be removed by the contractor(s) at his/their own expense and the site cleaned and handed over to the company and he/they shall intimate officially of having completed the work as per contract.

**12.** The Company does not bind itself to accept the lowest tender and reserves the right to reject any or all the tenders without assigning any reasons whatsoever and to split up the work between two or more tenderers or accept the tender in part and not in its entirety.

**13.** The tenderer(s) will indicate the equipment/machinery/ vehicles he/they is/are going to use on this job and also give adequate evidence of experience in doing similar works and financial capacity to complete the work in time.

**14.** The tenderer(s) should also state what technical/ supervisory personal he/they would be employing for supervising the work.

**14 (a).** Full information should be given by the tenderer in respect of following:

i) If an individual:                      Full name.  
    Postal Address.  
    Place of Business.

ii) If proprietary firm:                      Name of the Proprietor.  
    Full postal address of Firm/ Proprietors.

- |                           |   |
|---------------------------|---|
| iii) If partnership firm: | Full name of partners.<br>Full postal addresses of the registered office of firm & the partners.<br>Registered partnership Deed.  |
| iv) In case of Company:   | Date and place of registration.<br>Memorandum & Articles of Association.<br>Name of all the Directors.<br>Full postal address of the registered office & all Directors.   |
| v) Joint Venture          | Two or three companies/ contractors participating in the tender as Joint Venture should submit Firm-wise participation details, Banker's name, execution of work with details of contribution of each and all other relevant details. |

**Notes: Joint ventures must comply the following requirements:**

- i) Following are the minimum qualification requirements for joint ventures:
  - a) The qualifying criteria parameter i.e. experience, financial resources etc. of the individual partners of the J.V. will be added together and the total criteria should not be less than as spelt out in qualification criteria.
- ii) The formation of joint venture or change in the joint venture character/ partners after submission of the bid and any change in the bidding regarding joint venture will not be permitted.
- iii) Any bid shall be signed so as to legally bind all partners jointly and severally and any bid shall be submitted with a copy of the Joint Venture Agreement (JV Agreement) providing the joint and several liabilities with respect to the contract.
- iv) The pre-qualification of a joint venture does not necessarily pre-qualify any of its partners individually or as a partner in any other joint venture or association. In case of dissolution of a joint venture, each one of the constituent firms may pre-qualify if they meet all the pre-qualification requirements, subject to written approval of the employer.
- v) The bid submission must include documentary evidence to the relationship between joint venture partners in the form of JV Agreement to legally bind all partners jointly and severally for the proposed agreement which should set out the principles for the constitution, operation, responsibilities regarding work and financial arrangements, participation (percentage share in the total ) and liabilities ( joint and several ) in respect of each and all of the firms in the joint venture. Such JV Agreement must evidence the commitment of the parties to bid for the facilities applied for (if pre-qualified) and to execute the contract for the facilities if their bid is successful.
- vi) One of the partners responsible for performing a key component of the contract shall be designated as Lead Partner. This authorization shall be evidenced by submitting with the bid a Power of Attorney signed by legally authorized signatories of all the partners.
- vii) The JV Agreement must provide that the Lead Partner shall be authorized to incur liabilities and receive instructions for and on behalf of any and all partners of the Joint Venture and the entire execution of the contract shall be done with active participation of the Lead Partner.
- viii) The contract agreement should be signed jointly by each Joint Venture Partners.
- ix) An entity can be a partner in only one Joint Venture. Bid submitted by Joint Ventures including the same entity as partner will be rejected.

x) The J. V. agreement may specify the share of each individual partner for the purpose of execution of this contract. This is required only for the sole purpose of apportioning bid the value of the contract to that extend to individual partner for subsequent submission in other bids if the intends to do so for the purpose of the qualifications in that tender.

**14(b) Change in Constitution of the Contracting Agency:**

Prior approval in writing of the company shall be obtained before any change is made in the constitution of the contracting agency, otherwise it will be treated as a breach of Contract.

**15.** Canvassing in connection with the tenders in any shape or form is strictly prohibited and tenders submitted by such tenderers who resort to canvassing shall be liable for rejection.

**16 (a)** Every Tenderer will have to submit a declaration in support of the authenticity of the credentials submitted by him along with the Tender in the form of an AFFIDAVIT as per the format provided at ANNEXURE VI.

**16 (b)** If a Tenderer deliberately provides wrong information or submits false credentials in support of his qualifications, the Company reserves the right to terminate/rescind the contract, forfeit the EMD and other dues of the contractor and to take any other action as may be deemed fit.\*

**\* (STRIKE OUT WHICHEVER IS NOT APPLICABLE )**

**17 (a)** An intending tenderer, after obtaining tender documents on payment of Application Fee, having doubts as to the meaning of any part of the tender documents may submit to the official inviting tender a written request for interpretation or clarification thereof. Any interpretation or clarification of the tender documents by formal addendum if issued by the official inviting tender, shall be final and valid and binding on the company and the tenderers.

**17(b)** A pre-bid meeting may be held ( if the subsidiary company feels it necessary ) on ..... at..... Hrs at the Office of the ..... to clarify the issues and to answer questions on any matter that may be raised at that stage.

*(Pre-bid meeting will be held for turnkey civil works only.).*

**18. Tender Evaluation & Bid Assessment:**

The Tenders received will be scrutinised and evaluated by a duly constituted Tender Committee.

The Tender Committee will examine the Comparative Statements prepared by the concerned technical department and will satisfy itself that all aspects/conditions of each offer has been properly evaluated with respect to financial implications etc.

Tenders received without Earnest Money will be rejected.

The deviations from the commercial terms & conditions & the Tender specifications are scrutinised before opening of price bids. Normally no deviations in the commercial terms & conditions will be accepted.

However, the Tender Committee may decide to scrutinise the different conditions given by the tenderers and formulate and freeze the acceptable conditions and intimate all the tenderers about the same and give them an opportunity to revise their price bid if necessary before opening the same.

The Price Bids are opened at the time and place fixed for the same in presence of the tenderers & committee members and due information for opening of Price Bid is to be given to all concerned. In case where the tenderes are given opportunity to revise their Price Bids, only the revised price bids are opened and the original Price Bids are to be kept in tact in the custody of the company.

The Price Bids of the tenderers will have no condition. The Price Bids which are incomplete & not submitted as per instructions given in the Tender Document will be rejected.

Bidders who meet the minimum qualifications criteria will be qualified only if their available bid capacity is more than the updated estimated value. The available bid capacity will be calculated as under:

$$\text{Assessed Available Bid capacity} = (A \times N \times 2 - B)$$

where,

**A**= Maximum value of Civil Engineering Works executed in any one year during the last five years (updated to present level @ 5% per calendar year) taking into account the completed as well as works in progress.

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

**B**= Value at present price level, of existing commitments and on going works to be completed during the next .....months (period of completion of works for which bids are invited)

Financial turn over and cost of completed works of previous works shall be given a weightage of 5% per year (average annual rate of inflation) to bring them at current price level, while evaluating the **qualification requirement and bid assessment of the bidders**.

Even though the bidders meet the above qualifying criteria, they are subject to be disqualified if they made misleading or false representation in the forms, statement and attachment submitted in proof of qualifying requirement.

Information on Bid Capacity (works for which bids have been submitted and works which are yet to be completed) as on the date of this bid.:

#### 1 (A) Existing commitments and on going works.

Description of work	Place & State	Contract No.& Date	Name and address of Employer	Value of Contract (Rs.lakh)	Stipulated period of completion	Value of works remaining to be completed	Anticipated date of completion
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)

#### 1 (B) Works for which bids already submitted.

Description of work	Place & State	Estimated value of works (Rs.lakhs)	Stipulated period of completion	Date when decision is expected	Remarks if any
(1)	(2)	(3)	(4)	(5)	(6)

**2. Works performed as prime contractor (In the same name) on works of a similar nature over the last seven years \*\***

Project Name	Name of employer	Description of work	Contract No.	Value of contract (Rs.lakh)	Date of issue of work order	Stipulated period of completion	Actual date of completion	Remarks explaining reasons for delay and work completed

**3. Quantities of work executed as prime contractor (in the same name and style) in the last seven years\*\*:**

*(Table given below is a typical example & the contents may vary depending upon the nature & scope of work)*

Year	Name of the work	Quantity of work performed(cum)			Remarks (indicate contract ref.)
		Cement concrete (Including RCC & PCC)	Masonry	Earth Work	
19... - 20....					
20... - 20....					
20... - 20....					
20... - 20....					
20... - 20....					

1. Enclose a certificate(s) from Engineer(s)-in-charge.
2. Immediately preceding the financial year in which bids are received.

*(THE SYSTEM OF DETERMINATION OF BID ASSESSMENT CAPACITY AS ABOVE WILL BE USED ONLY IN CASE OF WORKS OF ESTIMATED VALUE OF OVER Rs. 1 CRORE.)*

No document presented by the bidder after the closing date & time of the bid will be taken into account unless it is of purely technical nature which has no bearing financially on the contract & which does not seek major changes in the technical specifications given in the bid documents. If a bidder offers a rebate unilaterally after the closing date & time of the bid, it will not be taken into account for evaluating purposes by the Tender Committee, but if that bidder emerges as the lowest evaluated, the rebate offered will be taken into account for determination of the total offer.

If the bid of the successful bidder is seriously unbalanced in relation to the estimate of the cost of work to be performed under the contract, the company may require the bidder to produce detailed price analysis for any or all items of the Bill of quantities to demonstrate the internal consistency of these prices with the construction method and the schedule proposed. After evaluation of the price analysis, the company may require that the amount of the performance security/security deposit is increased at the expense of the successful bidder to a level sufficient to protect the company against financial loss in the event of default on the part of the successful bidder under the contract.

**19. Negotiations:**

Work will be awarded to the lowest bidder (L1) without post tender negotiations if the rates are reasonable.

**20. Banned or delisted Contractors:**

The bidders would give a declaration that they have not been banned or delisted by any Govt. or Quasi Govt. agencies or PSU's. If a bidder has been banned or delisted by any Govt. or Quasi Govt. agencies or PSU's this fact must be clearly stated and it may not necessarily be a cause for disqualification. If the declaration is not given, the bid will be rejected as non-responsive.

**21.** On receipt of letter for acceptance of the tender issued by the Company, the successful tenderer shall execute/accept contract agreement/work order in the company's prescribed form for the due fulfillment of the contract. Failure to enter into the required contract/accept the work order issued by the company within the specified period in the work order shall entail cancellation of letter of acceptance of tender/work order and forfeiture of the earnest money. The written contract/ work order to be entered into between the contractor and the company shall be the foundation of the rights of both the parties and the contract shall not be deemed to be executed until the contract/ work order is signed/ accepted by both the parties i.e. Contractor and the Company.

**22(a)** The validity period of the tenders shall be 4 (four) months from the date of opening of price bid or revised price bid, if any.

The tenderer shall not, during the said period or within the period extended by mutual consent, revoke or cancel his tender or alter the tender or any terms/conditions thereof without consent in writing of the company. In case the tenderer violates to abide by this, the Company will be entitled to forfeit the Earnest Money and reject the tender.

**22 (b)** The Company reserves the right to postpone the date of receipt and opening of tenders or to cancel the tenders without assigning any reason whatsoever.

**23.** The Company reserves its right to allow Public Enterprises purchase preference facility as admissible under prevailing policy.

**24.** This detailed Tender Notice shall be deemed to be part of the Contract Agreement/Work Order.

**25.** No subletting of work as a whole by the contractor is permissible. Subletting of work in piece rated jobs is permissible with the prior approval of the department.

The Contract Agreement will specify major items of supply or services for which the contractor proposes to engage sub-contractor/sub-vendor. The contractor may from time to time propose any addition or deletion from any such list and will submit proposals in this regard to the Engineer-in -Charge/Designated Officer in charge for approval well in advance so as not to impede the progress of work. Such approval of the Engineer in Charge / Designated Officer in Charge will not relieve the contractor from any of his obligations, duties and responsibilities under the contract.

**26.** In case the contractor enters into any litigation, such action should have to be taken in a court of law with jurisdiction over the place where the subject work is to be executed.

## GENERAL TERMS AND CONDITIONS

### 1. Definitions

- i) **"Employer"** or "Company" means the Coal India Limited or any of its subsidiaries who will employ the contractor represented by the appropriate authority.
- ii) **"Principal Employer"** means the Coal India Limited or any of its subsidiaries or the officer nominated by the Company to function on its behalf.
- iii) The word **"Contractor/ Contractors"** wherever occurs means the successful tenderer/ tenderers who has/have deposited the necessary Earnest money and has/have been given written intimation about the acceptance of tender and shall include legal representative of such individual or persons composing a firm or a company or the successors and permitted assignees of such individual, firm or Company, as the case may be.
- iv) **"Site"** means the land and places including any building and erection thereon, over, under, in or through which the Permanent works or Temporary works designed by the Engineer in Charge are to be executed and any other lands and places provided by the Employer for working space or any other purpose as may be specifically designated in the Contract as forming part of the site.
- v) The term **"Sub-Contractor"** as employed herein, includes those having a direct contract with Contractor either on piece rate, item rate, time rate or any other basis and it includes one who furnishes work to a special design according to the plans or specifications of this work but does not include one who merely supplies materials.
- vi) **"Accepting Authority"** shall mean the management of the company and includes an authorized representative of the company or any other person or body of persons empowered in this behalf by the company.
- vii) **"Engineer-in-charge"** shall mean the officer nominated by the company in the Civil Engineering cadre/ discipline who is competent to direct supervisors and authorised to be in charge of the works for the purpose of this contract. The Engineer in Charge /Designated Officer in Charge who is of an appropriate seniority, will be responsible for supervising and administering the contract, certifying payments due to the contractor, valuing variations to the contract, awarding extension of time and valuing compensation events. The Engineer in Charge /Designated Officer in Charge may further appoint his representatives i.e. another person/Project Manager or any other competent person and notify to the contractor who is directly responsible for supervising the work being executed at the site, on his behalf under their Delegation of Powers of the company. However, overall responsibility, as far as the contract is concerned, will be that of the Engineer in Charge/Designated Officer in Charge.
- viii) The **"Contract"** shall mean the notice inviting tender, the tender as accepted by the Company, the work order issued to the contractor, and the formal contract agreement executed between the company and the contractor together with the documents referred to therein including general terms and conditions, special conditions, if any, scope of work, frozen terms & conditions/technical parameters/scope of work and revised offer, if any, specifications, drawings, including those to be submitted during progress of work, schedule of quantities with rates and amounts.
- ix) A **"Day"** shall mean a day of 24 hours from midnight to midnight.
- x) The **"Work"** shall mean the works required to be executed in accordance with the contract/work order or parts thereof as the case may be and shall include all extra or additional, altered or substituted works or any work of emergent nature, which in the opinion of the Engineer-in-charge, become necessary during the progress of the works to obviate any risk or accident or failure or become necessary for security.
- xi) **"Schedule of Rates"** referred to in this conditions shall mean the standard schedule of rates prescribed by the company and the amendments issued from time to time.

xii) **"Contract amount"** shall mean:

a) in the case of turnkey contracts the total sum for which tender is accepted by the company.

b) in the case of other types of contracts the total sum arrived at based on the individual rates quoted by the tenderer for the various items shown in the "Schedule of Quantities" of the tender document as accepted by the Company with or without any alteration as the case may be.

xiii) **"Written notice"** shall mean a notice or communication in writing and shall be deemed to have been duly served if delivered in persons to the individual or to a member of the contractors firm or to an office of the company for whom it is intended, or if delivered at or sent by registered mail to the last business address known to him who gives the notice.

xiv) **"The constructional plant"** means all appliances, tools, plants or machinery or whatsoever nature required in or about the execution, completion or maintenance of the works but does not include materials or other things intended to form part of the permanent work.

xv) **"Letter of Acceptance of Tender"** means letter giving intimation to the tenderer that his tender has been accepted in accordance with the provisions contained in that letter.

xvi) **"Department"** means the Civil Engineering Department of Coal India Limited or any of its subsidiary companies/units represented by the appropriate authority.

xvii) **"Act of insolvency"** means as it is designed by Presidency Town Insolvency Act or Provincial Insolvency Act or any act amending such originals.

xviii) The words indicating the singular only also include the plural and vice-versa where the context so requires.

## **2. Contract Documents:**

The following documents shall constitute the contract documents :

- i) Notice Inviting Tender/Detailed Tender Notice.
- ii) Articles of Agreement / Letter of Acceptance of Tender/ Work Order.
- iii) General Terms & Conditions of contract/ Commercial Terms & Conditions of contract.
- iv) Additional Terms & Conditions of contract, if any.
- v) Specifications.
- vi) Schedule of quantities (or Bill of Quantities)/ Schedule of work/ Scope of work and schedule of deviation (*to be provided by the contractor.*)
- vii) Frozen terms & conditions / technical parameters/ scope of work and revised offer, if any.
- viii) Contract drawings and work programme.
- ix) Safety Code etc. forming part of the tender.

**N.B. Deviations:** Deviations sought by the bidders, whether they are technical or commercial deviations, must only be given in the schedules prescribed for them. Any willful attempt by the bidders to camouflage the deviations by giving them in the covering letter or in any other documents than the prescribed schedules may render the bid itself as non-responsive.

**2.1** The contractor shall enter into and execute contract agreement in the prescribed form (ref. format at ANNEXURE VII ). The cost of the stamp papers for the contract agreement shall be borne by the contractor. Two sets of contract document/agreements shall be prepared and signed by both the parties One of the sets shall be stamped "Original" and the other "Duplicate". The duplicate copy will be supplied to the contractor free of cost and the original is to be retained by the company. For any additional copies required by the contractors the price to be charged would be that of the cost of the Tender Document ( Application Fee ).

All additional copies should be certified by the Engineer in Charge.

The contractor shall keep copy of these documents on the site/place of work in proper manner so that these are available for inspection at all reasonable times by the Engineer-in-charge, his representatives or any other officials authorised by the company for the purpose.

**2.2** The contract document shall not be used by the contractor for any purpose other than this contract and the contractor shall ensure that all persons employed for this contract strictly adhere to this and maintain secrecy, as required of such documents.

**2.3 Tender Evaluation & Bid Assessment**  
***[ Refer clause 18 of Detailed Tender Notice ]***

**2.4. Abnormally High Rate (AHR) & Abnormally Low Rate (ALR) Items.**

Abnormally High Rates & Abnormally Low Rates, if quoted by the contractor, in item rate tenders will be identified & dealt with as under:

- i) For identification of AHR & ALR items the ceiling of +/- 20% respectively, when compared with the updated estimated rate, will be considered.
- ii) Variation in Quantity on quoted rate during execution for AHR & ALR items shall be permitted upto +/-25% ( +25% for AHR & -25% for ALR ) of the quantity provided for items of work below plinth level & +/- 5% of the quantity provided for items of work above plinth level respectively.
- iii) Quantity variation beyond the limit mentioned at ii) above shall be dealt by arriving at new rate based on prevalent market rates of materials & labour analysed as per standard analysis of rate of N.B.O./ C.P.W.D. Payment of extra quantity over the permitted quantity of +/-25% and +/-5%(as the case may be) would be made on the basis of the new analysed rate.
- iv) For identified abnormally low rate ( ALR ) items, the contractor will be required to deposit with the company the difference in amount calculated between the departmental justified rate multiplied by the quantity of a particular ALR item and the ALR rate quoted by the contractor multiplied by the quantity of the same item.

The total amount to be deposited will be the sum total of all the identified ALR items calculated as per the method outlined above.

The amount so retained will be refunded on successful completion of individual ALR items of work.

**2.5 Negotiations:**  
***[ Refer clause 19 of Detailed Tender Notice ]***

**2.6 Acceptance of Offer :**

Letter of Acceptance is an acceptance of offer by the company and it need not be accepted by the tenderer. But the tenderer should acknowledge the receipt of the order within 15 days of mailing of work order and any delay in acknowledging the receipt will be treated as a breach of contract and compensation for the loss caused by such breach will be declared by the company by forfeiting EMD .

**2.7 Banned or delisted Contractors: *[ Refer clause 20 of Detailed Tender Notice ]***

### **3. Discrepancies in contract documents & Adjustments thereof**

The documents forming part of the contract are to be treated as mutually explanatory of one another and in case of discrepancy between schedule of quantity, the specifications and/or drawing, the following order of preference shall be observed;

- a) Description in Bill of Quantities of work.
- b) Particular specification and special conditions, if any
- c) Drawings.
- d) General specifications.

**3.1** In the event of varying or conflicting provision in any of the document(s) forming part of the contract, the Accepting Authority's decision/clarification shall hold good with regard to the intention of the document or contract as the case may be.

**3.2** Any error in description, quantity or rate in Bill of Quantities or any omission there from, shall not vitiate the contract or release the contractor from discharging his obligations under the contract including execution of work according to the Drawings and Specifications forming part of the particular contract document.

**3.3** Any difference detected in the tender/ tenders submitted resulting from :

- a) discrepancy between description in words and figures, the rate which corresponds to the amount worked out by the contractor shall be taken as correct.
- b) discrepancy in the amount quoted by the contractor due to calculation mistake of the unit rate and quantity, the unit rate shall be regarded as firm and amount corrected.
- c) when the amount of an item is not worked out by the contractor or it does not correspond with the rates written either in figures or words, then the rates quoted by the Contractor in words shall be taken as correct.
- d) in the case of percentage rate tender, the Contractors are required to quote their rates both in amount as well as in the percentage below/above the rates entered in the Schedule. In such cases in the event of Arithmetical error committed in amount by the contractor, the tender percentage and not the amount should be taken into account.
- e) discrepancy in totaling or carry forward in the amount quoted by the contractor shall be corrected.

The tendered sum so corrected and altered shall be substituted for the sum originally tendered and considered for acceptance instead of the original sum quoted by the tenderer alongwith other tender/tenders. Rounding off to the nearest rupee should be done in the final summary of the amount instead of in totals of various sections of the offer.

### **4. Security Deposit:**

**4.1.1** Security Deposit shall consist of two parts;

- a) Performance Security to be submitted at award of work and
- b) Retention Money to be recovered from running bills.

The security deposit shall bear no interest.

**4.1.2** Performance Security should be 5% of contract amount and should be submitted within 28 days of receipt of LOA by the successful bidders in any of the form given below

- a Bank Guarantee in the form given in the bid document
- Govt. Securities, FDR or any other form of deposit stipulated by the owner
- Demand Draft drawn in favour of ..... Coalfields Ltd on any Scheduled Bank payable at its Branch at.....

The Earnest Money/ Bid Security deposited in the form of Bank Guarantee shall be discharged when the Bidder has signed the Agreement and furnished the required Performance Security/ Security Deposit. The bid security deposited in the form of Demand draft/ cash shall be adjusted against the security deposit.

- If performance security is provided by the successful bidders in the form of bank guarantee it shall be issued either -
- (a) at Bidder's option by a nationalized/ Scheduled Indian Bank or
  - (b) by a foreign bank located in India and acceptable to the employer.
  - (c) the validity of the Bank Guarantee shall be for a period of one year or ninety days beyond the period of contract, whichever is more.

Failure of the successful bidder to comply with the requirement as above shall constitute sufficient ground for cancellation of the award of work and forfeiture of the bid security.

**4.2.1** All running on account bills shall be paid at 95% (ninety five percent) of work value. This 5% (five percent) deduction towards Retention Money will be the second part of security deposit.

**4.2.2** . 5% Performance Security should be refunded within 14 days of the issue of defect liability certificate (taking over certificate with a list of defects). Retention Money should be refunded after issue of No Defect Certificate. Retention Money should be deducted at 5% from running bills.

**4.3** The Bank Guarantee towards security deposit shall be acceptable only for values above Rs.50, 000/- and the Bank Guarantee shall also be valid for a minimum period of one year or ninety days beyond the period of contract, whichever is more.. Bank Guarantee is to be submitted in the format prescribed by the company. Bank Guarantee shall be irrevocable and will be from amongst the list of Banks ( Scheduled Banks ) provided in the bid document.

**4.4** The Company shall be at liberty to deduct/appropriate from the security deposit such sums as are due and payable by the contractor to the company as may be determined in terms of the contract, and the amount appropriated from the security deposit shall have to be restored by further deduction from the contractors subsequent on account running bills, if any.

The refund of security deposit shall be subject to company's right to deduct/ appropriate its due against the contractor under this contract or under any other contract.

**4.5** On completion of the entire work and issue of defect liability certificate (taking over certificate with a list of defects) by the Engineer-in-charge, one half of the security deposit remaining with the company shall be refunded. The other half shall be refunded to the contractor after issue of No Defect Certificate by the Engineer-in-Charge. on the expiry of Defect Liability Period of six months , subject to the following conditions:

- a) Any defect/defects in the work, if detected after issue of defect liability certificate is/are rectified to the satisfaction of the Engineer-in-Charge within the said period.
- b) In the case of building work or other work of similar nature, the refund shall be made on the expiry of the said six months period or at the end of one full monsoon period i.e. June to September, whichever is later in point of time and any defects such as leakages in roof, effloresces in walls, dampness, defects in drainage etc. should be rectified to the satisfaction of Engineer-in-Charge.

## **5. Deviations/Variations in Quantities and Pricing**

The quantities given in the "Schedule of Quantities" are based on estimates and are meant to indicate the extent of the work and to provide a uniform basis for tendering and any variation either by addition or omission shall not vitiate the contract.

**5.1** The company through its Engineer In Charge or his representative shall, without radically changing the original scope and nature of the work, under contract, have power to make any alterations in or additions to or

substitution of the original specifications, drawings, designs and instructions that may appear to be necessary or advisable during the progress of the work.

The contractor shall be bound to carry out the works in accordance with the instructions given to him in writing by the Engineer In Charge or his representative on behalf of the company. Such altered or additional or substituted work, which shall form part of the original contract, shall be carried out by the contractor on the same terms and conditions in all respects on which they agreed to do the main work and at the same rate/rates as are specified in the contract/ work-order.

**5.2** The right is reserved to cancel any items of work included in the contract agreement or portion thereof in any stage of execution if found necessary to the work and such omission shall not be a waiver of any condition of the contract nor invalidate any of the provisions thereof.

**5.3** If the additional, altered or substituted work includes any class of work for which rate/rates is/are not specified in the contract/work order, rates for such items shall be determined by the Engineer In Charge as follows:

- a) In the case of percentage tenders, if the rate for the item of work executed is available in the company's approved SOR, it will be paid at the schedule rate plus or minus the accepted percentage as per contract,
- b) In case of item rate tenders, the rate for extra item shall be derived from the rate for similar item or near similar item of work available in the agreement schedule of work or by analysis of rates as at (c) below and the lower rate out of the above two shall be considered.
- c) In case the rate for extra item is to be derived by analysis of rate, the same shall be done by analysis on prevalent market rate of materials and labour based on standard norms of analysis of rate of N.B.O./C.P.W.D.
- d) In case of combined tender with partly item rate for non-schedule items & partly percentage tenders for SOR items, the rate for extra item shall be derived as at (b) above in case of non-schedule items rates and in case of percentage rates for SOR items the rate for extra item shall be derived as at (a) above.

In case of any difference between the contractor and the Engineer-In Charge as to the fixation of rates, the matter shall be referred to the accepting authority of the company i.e. CGM(C)/GM(C)/CE(C) of the company or Staff Officer(C) for the work awarded at Company Hqrs. level and Area level respectively, whose decision shall be final and binding on the contractor.

**5.4** Payment for such deviated items (additional/ altered / substituted items of work or excess quantities of work beyond +/- 25% of the agreement schedule) shall be made in the contractors running on account bills, till the revised estimate regularising these items are sanctioned by the competent authority of the company, at the provisional rates and shall not exceed :

- a) 75% of the rate recommended by the Engineer In Charge to the accepting authority of the company i.e. CGM(C)/GM(C)/ CE(C) of the company or SO(C) of the Area , if the rate is directly available in the SOR of the company.
- b) 50% of the rate recommended by the Engineer In Charge to the accepting authority of the company, i.e. CGM(C)/ GM(C)/ CE(C) of the company or SO(C) of the Area , if it is analysed item rates based on prevalent market rates of materials and labour following NBO/CPWD norms.

**5.5** *The time for completion of the originally contracted work shall be extended by the company in the proportion that the additional work (in value) bears to the original contracted work (in value) plus 25% of the time calculated as explained above or such further additional time as may be considered reasonable by the Engineer in Charge.*

**5.6** The company through its Engineer In Charge or his representative, on behalf of the company, shall have power to omit any part of the work in case of non-availability of a portion of the site or for any other reason and the contractor shall be bound to carry out the rest of the work in accordance with the instructions given by the Engineer In Charge. No claim from the Contractor shall be entertained/ accepted on these grounds.

**5.7** In the event of any deviation being ordered which in the opinion of the contractor changes radically the original scope/nature of the contract, the contractor shall under no circumstances suspend the work, either original or altered or substituted, and the dispute/disagreement as to the nature of deviation and the rate/rates to be paid for such deviations shall be resolved separately with the company as per the procedures/ norms laid down hereafter.

## **6. Time for Completion of Contract, Extension thereof, Defaults and Compensation for Delay**

Time is the essence of the contract and as such all works shall be completed within the time stipulated in the contract/work order.

Immediately after the contract is executed/the work order is issued, the Engineer In Charge and the contractor shall agree upon a detailed time and progress chart prepared based on BAR CHART/ PERT CPM techniques on the basis of a construction schedule submitted by the contractor at the time of executing contract showing the order in which the work is proposed to be carried out within the time specified in the contract document/work order.

For the purpose of this detailed time and progress chart, the work shall be deemed to have commenced on the expiry of 10 (ten) days from the issue of Letter of Acceptance of Tender/Work Order or handing over the site of work or handing over reasonable number of working drawings to the contractor or the period of mobilisation allowed in the work order for starting the work in special circumstances, whichever is later.

**6.1** If the contractor, without reasonable cause or valid reasons, commits default in commencing the work within the aforesaid time limit, the company shall without prejudice to any other right or remedy, be at liberty, by giving 15 days notice in writing to the contractor to commence the work, to forfeit the Earnest Money deposited by him and to rescind the Letter of Acceptance of Tender/Work Order.

Additionally, the Company will reserve the right to debar such defaulting Contractors from participating in future Tenders for a minimum period of 1 (One) year.

**6.2** If the contractor fails to maintain the required progress in terms of the agreed time and progress chart or to complete the work and clear the site on or before the contract or extended date of completion, he shall without prejudice to any other right or remedy available under the law to the company on account of such breach, pay as compensation (Liquidated Damages) @ half percent (1/2%) of the contract price per week of delay. The aggregate of such compensation/ compensations shall not exceed 10 (ten) percent of the total value as shown in the contract.

This will also apply to items or group of items for which separate period of completion has been specified. The amount of compensation may be adjusted or setoff against any sum payable to the contractor under this or any other contract with the company.

**6.2.1** The company, if satisfied, that the works can be completed by the contractor within a reasonable time after the specified time of completion, may allow further extension of time at its discretion with or without the levy of L.D. In the event of extension granted being with L.D, the company will be entitled without prejudice to any other right or remedy available in that behalf, to recover from the contractor as agreed damages equivalent to half percent of the contract value of the works for each week or part of the week subject to a ceiling of 10% of the contract price.

**6.2.2** The company, if not satisfied that the works can be completed by the contractor, and in the event of failure on the part of the contractor to complete work within further extension of time allowed as aforesaid, shall be entitled, without prejudice to any other right, or remedy available in that behalf, to rescind the contract.

**6.2.3** The company, if not satisfied with the progress of the contract and in the event of failure of the contractor to recoup the delays in the mutually agreed time frame, shall be entitled to terminate the contract.

**6.2.4** In the event of such termination of the contract as described in clauses 6.2.2 or 6.2.3 or both, the company, shall be entitled to recover L.D. upto ten percent (10%) of the contract value and forfeit the security deposit made by the contractor besides getting the work completed by other means at the risk and cost of the contractor.

**6.3** a) The company may at its sole discretion, waive the payment of compensation on request received from the contractor indicating valid and acceptable reasons if the entire work is completed within the date as specified in the contract/work order or as validly extended date without stipulating any compensation for delay. **or**

b) If the progress of the work or of any portion of the work is unsatisfactory, the Engineer In-charge shall be entitled, after giving the contractor 15 days' notice in writing, to employ another Agency for executing the job or to carry out the work departmentally either wholly or partly debiting the contractor with the cost involved in engaging another Agency or the cost involved in executing the work departmentally, as the case may be. The certificate to be issued by the Engineer In-charge for the cost of the work so done shall be final and conclusive and the extra cost, if any, shall be borne by the contractor.

**6.4** Extension of date of completion: On occurrences of any events causing delay as stated here-under, the contractor shall intimate immediately in writing to the Engineer In Charge.

a) Force Majeure :

- i) Natural phenomena, including but not limited to abnormally bad weather, unprecedented flood and draught, earthquakes & epidemics.
- ii) Political upheaval, civil commotion, strikes, lockouts, acts of any Govt. (domestic/foreign) including but not limited to war, proprieties, quarantine embargoes

The successful bidder/ contractor will advise in the event of his having to resort to this clause by a registered letter duly certified by the local chamber of commerce or statutory authorities, the beginning and end of the cause of delay, within fifteen days of the occurrence and cessation of such Force Majeure condition.

In the event of delay due to Force Majeure for more than one month the contract may be terminated at the discretion of the company. Termination under such circumstances will be without any liability on either side.

b) Serious loss or damage by fire

c) Non-availability of stores which are the responsibility of the company to supply as per contract

d) Non-availability of working drawings in time, which are to be made available by the company as per contract during progress of the work

e) Delay on the part of the contractors or tradesmen engaged by the company not forming part of the contract, holding up further progress of the work

f) Non-availability or breakdown of tools and plant to be made available or made available by the company

g) The execution of any modified or additional items of work or excess quantity of work.

h) Any other causes which, at the sole discretion of the company, is beyond the control of the contractor.

**6.4.1 A HINDRANCE REGISTER** shall be maintained by both department and the contractor at site to record the various hindrances, as stated above, encountered during the course of execution.

Hindrance register will be signed by both the parties. The contractor may also record his observations in the Hindrance Register. In case the contractor has a different opinion for hindrance and a dispute arises then the matter would be referred to the EIC and or the next higher authority whose decision would be final & binding on the contractor & the decision to be communicated within 15 days.

**6.4.2** The contractor shall request the company in writing for extension of time within 15 days of happening of such event causing delay stating also, the period for which extension is required. The company may, considering the genuinity of the request, give a reasonable extension of time for completion of the work. Such extension shall be communicated to the contractor in writing by the company through the Engineer In Charge within 1(one) month of the date of receipt of such request.

**6.4.3** The opinion of the Engineer-in-charge, whether the grounds shown for the extension of time are or are not reasonable, is final. If the Engineer-in-charge is of the opinion that the grounds shown by the contractor are not reasonable and declines to the grant of extension to time, the contractor can not challenge the soundness of the opinion by reference to arbitration.

The opinion of the Engineer-in-charge that the period of extension granted by him is proper or necessary is not, however, final. If the contractor feels that the period of extension granted is inadequate he can appeal to the CGM(Civil)/ GM(Civil)/ CE(Civil) of the company for consideration on the question whether the period of extension is or is not proper or necessary.

**6.4.4** Provisional extension of time may also be granted by the Engineer In Charge during the course of execution, on written request for extension of time within 15(fifteen) days of happening of such events as stated above, reserving the company's right to impose/ waive penalty at the time of granting final extension of time as per contract agreement.

**6.4.5** When the period fixed for the completion of the contract is about to expire, the question of extension of the contract may be considered at the instance of the Contractor or the Department or of both. The extension will have to be by party's agreement, express or implied.

In case the contractor does not apply for grant of extension of time within 15(fifteen) days of the hindrance occurring in execution of the work and the department wants to continue with the work beyond the stipulated date of completion for reason of the work having been unavoidably hindered, the Engineer-in-charge can grant extension of time even in the absence of application from the contractor.

Such extension of time granted by the Engineer In Charge is valid provided the contractor accepts the same either expressly or implied by his actions before and subsequent to the date of completion. Such extension of time shall be without prejudice to Company's right to levy compensation under the relevant clause of the contract.

The contractor shall however use his best efforts to prevent or make good the delay by putting his endeavors constantly as may be reasonably required of him to the satisfaction of the Engineer In Charge.

## **7. Material Supply & other facilities**

**7.1\*** The company does not undertake any responsibility for supply of any materials to the contractor.

**7.2** If the steel is issued by the department, the wastage of steel shall be the barest minimum. The wastage allowed from theoretical quantity will be upto a maximum of 5% to cover the wastage due to cutting into pieces,

bending and other factors. No cut pieces or scrap less than 2 mtr. in length will be taken by the department. Efforts should be made to use the cut pieces of 2 mtr. or above length as far as possible.

If the wastage of steel is more than the permissible variation mentioned above the cost of excess wastage made by the contractor shall be recovered at double the issue rates indicated above, or 115% of prevailing market rate including sales tax and general tax during the period of work, whichever is more.

No allowances shall be entertained on account of Rolling Margin for the steel either issued by the department or procured by the contractor.

**7.3** If the cement is issued by the department, the variation of 5% will be permitted over the theoretical consumption of cement for value of work upto Rs.10.00 lakhs and 3% for value of work above Rs.10.00 lakhs. In the event of cement consumed is more/less than specified above, the recovery for the quantity of cement consumed in excess or less than the specified quantity shall be made at double the issue rate or 115% of prevailing market rate including sales tax and general tax during the period of work, whichever is more.

**7.4** In case the department is not able to supply cement/steel as per the provisions of the contract, the Engineer In Charge may allow, with the approval of CGM(Civil)/ GM(Civil)/ CE(Civil) of the company, the contractor in writing for procurement of cement/ steel from the approved sources and the extra on this account including transport charges, if any, over the issue rate shall be reimbursed to the contractor on production of authentic documents. Transportation of cement/ steel from the place of purchase to the site of work and proper storage of cement/steel at site shall be contractor's responsibility. He should maintain proper account of cement/steel issued/procured by him and should allow inspection of his godown and his cement/steel account by the concerned Engineer-in-charge or any other authorised officers of the company. Contractor should draw materials from the company on the basis of actual requirement as assessed by the Engineer In Charge on "as and when required" basis.

**7.5** Recovery of cost of materials issued on sale A/c will be made as per actual consumption basis but the Engineer In Charge will have the discretion for making full recovery while processing a particular bill or asking for the return of the balance materials if the work is not progressing satisfactorily.

The contractor shall keep accurate record of materials issued by the company, maintain proper account for the materials received and consumed in the work and shall be open to check by the Engineer In Charge or his authorised representative. The contractor shall ensure that such materials are consumed for the contract works only and the Register for the aforesaid account shall be signed both by the representatives of Engineer In Charge and the contractor.

**7.6** All materials, tools and plants brought to site by the contractor including the materials supplied by the company shall be deemed to be held in lien by the company and the contractor shall not have the right to remove the same from the site, without the written permission of the Engineer In Charge. The company shall not however be liable for any loss, theft or damage due to fire or other cause during this period of lien, the responsibility for which shall lie entirely on the contractor.

**7.7** The contractor shall bear the cost of loading, transportation to site, unloading, storing under cover as required etc. as may be necessary for the use and keeping the materials in good condition.

**7.8** Any surplus materials issued by the company, remaining after completion or termination of the contract, shall be returned by the contractor at his cost to the place of issue and the Engineer In Charge shall accept the same at the rate not exceeding the rate at which these were originally issued taking into consideration the deterioration or damage, if any, that may have been caused during the custody of the contractor. In the event, the contractor fails to return the surplus materials out of those supplied by the company, the Engineer In Charge may, in addition to any other liability which the contractor would incur in this regard, by giving notice in writing require the contractor to pay the amount at double the issue rate for such unreturned surplus materials or 115% of the prevailing market rate including Sales Tax & General Tax during the period of work, whichever is more.

**7.9** On completion or on termination of the contract and on complete recovery of secured advance paid by the company, if any, in respect of materials brought to site, the contractor with due permission of the Engineer In Charge shall be entitled to remove at his expenses all surplus materials originally supplied by him and upon such removal, the same shall become the property of the contractor.

**7.10** All charges on account of octroi, terminal or sales tax and other duties on materials obtained for the works from any source (excluding materials supplied by the company) shall be borne by the contractor.

**7.11** The contractor shall arrange necessary electricity at his own cost for the work and his own establishment. However, if available and feasible the company may arrange electricity at one point near the work site and necessary recovery of cost of energy consumed will be made at rates prescribed by the company from time to time. Energy meter for this purpose shall be provided by the contractor.

**7.12** The contractor shall arrange necessary water for the work and his own establishment. However, if available and feasible the company may arrange water at one point near the work site for which recovery @ 1% of the contract value of work done will be made from the contractor's bills.

**7.13** Coal required for manufacturing of bricks to be used in the work will be issued @ 25 tonnes per one lakh of bricks on payment at the rate prevailing on the date of issue. Requirement of coal may vary depending on the quality of coal. Transportation of coal and the charges thereof shall be contractor's responsibility.

**7.14** Explosives, detonators and other inflammable materials shall not be used in the execution of the work at site by the contractor without prior written permission of the Engineer In Charge. Transportation and storage of such materials shall be done in specified manner in accordance with the law in force. The contractor shall also obtain licence under such laws for, transportation, storage, use and all other operations, connected with the handling of the same.

## **8. Quality Assurance - Materials and Workmanship**

The contractor shall carry out and complete the work in every respect in accordance with the contract and shall ensure that the work conforms strictly to the drawings, specifications, instructions of the Engineer In Charge. The Engineer In Charge may issue, from time to time, further drawings, detailed instructions/ directions in writing to the contractor. All such drawings, instructions/directions shall be consistent with the contract documents and should be reasonably inferable therefrom, alongwith clarifications/ explanations thereof, if necessary.

**8.1** For Quality Assurances of all the Civil Engineering Works the norms/ guidelines laid down by the company herein and elsewhere will form part of the contract for the purpose of quality of works.

**8.2** The contractor shall be responsible for correct and complete execution of the work in a workman like manner with the materials as per specification which shall be subject to the approval of the company. All work under execution in pursuance of the contract shall be open to inspection and supervision by the Engineer In Charge or by his authorised representative or any other official of higher rank or any other person authorised by the company in his behalf & the contractor shall allow the same.

**8.3** All materials to be provided by the contractor shall be in conformity with the specifications/schedule of work as per the contract and the contractor shall furnish proof, if so required by the Engineer In Charge to his satisfaction that the materials do so comply.

**8.4** The contractor shall immediately after the award of work draw up a schedule giving dates for submission of samples as required or necessary as per the specification for approval of Engineer In Charge who shall approve, if found acceptable, promptly so that there is no delay in the progress of the work of the contractor or of the work of any of the sub-contractor.

On receipt of samples as per schedule, the Engineer In Charge shall arrange to examine/test with reasonable promptness ensuring conformity of the samples with the required specification and complying with the requirements as per contract documents keeping in view that the work shall be in accordance with the samples approved by him. The contractor shall not start bringing materials at the site unless the respective samples are approved. Materials con-forming to approved samples shall only be brought to site.

Samples are to be supplied by the contractor at his own cost. The cost involved in tests shall be borne by the contractor. If any test is ordered by the Engineer In Charge which is to be carried out by any independent person or agency at any place other than the site even then the cost of materials and testing charge etc. shall be borne by the contractor. If the test shows that the materials are not in accordance with the specifications, the said materials shall not be used in the work and removed from the site at contractors cost.

**8.5** The company, through the Engineer In Charge, shall have full powers to reject any materials or work due to a defect therein for not conforming to the required specification, or for materials not being of the required quality and standard or for reasons of poor workmanship or for not being in accordance with the sample approved by him. The contractor shall forthwith remedy the defect/replace the materials at his expense and no further work shall be done pending such rectification/replacement of materials, if so instructed by the Engineer In Charge.

In case of default on the part of the contractor, the Engineer In Charge shall be at liberty to procure the proper materials for replacement and/or to carry out the rectifications in any manner considered advisable under the circumstances and the entire cost & delay for such procurement/rectification shall be borne by the contractor.

**8.6** The Engineer In Charge shall be entitled to have tests carried out for any materials, according to the standard practice followed for such tests, other than those for which satisfactory proof has already been furnished by the contractor who shall provide at his expense all facilities which the Engineer In Charge may require for the purpose.

The cost of any other tests, if so required by the Engineer In Charge, shall be borne by the contractor only, if the test shows the workmanship or materials not to be in accordance with the provision of the contract or the instruction of Engineer In Charge, but otherwise by the company.

**8.7** Access to the works: The Engineer-in-charge and any person authorised by the company shall at all times have access to the works and to all workshops and places where work is being prepared or from where materials, manufactured articles are being obtained for the works and the contractor shall afford every facility for and every assistance in or in obtaining the right to such access.

**8.8 Inspection of works:** i) No work shall be covered up or put out of view without the approval of the Engineer-in-charge or the Engineer-in-charge's representative or any other officer nominated by the company for the purpose and the contractor shall afford full opportunity for the EIC or EIC's representative or any other officer nominated by the company for the purpose to examine and measure any work which is about to be covered up or put out of view and to examine foundations before permanent work is placed thereon. the contractor shall give due notice to the Engineer-in-charge's representative whenever any such work or foundations is ready or about to be ready for examination and the Engineer-in-charge's representative shall, without unreasonable delay, unless he considers it unnecessary and advises the contractor accordingly, attend for the purpose of examining and measuring such work or foundations.

ii) The contractor shall uncover any part or parts of the works or making openings in or through the same as the Engineer In Charge may from time to time direct and shall reinstate and make good such part or parts to the satisfaction of Engineer-in-charge.

If any such part or parts have been covered up or put out of view after compliance with the requirement of sub-clause above and are found to be executed in accordance with the contract, the expenses of uncovering, making openings in or through and making good the same shall be borne by the Employer, but in any other cases all costs shall be borne by the contractor.

#### **8.9 Removal of Improper Work and Materials:**

- i) The Engineer-in-charge shall during the progress of the works have power to order in writing from time to time :
- a) The removal from the site, of any materials which in the opinion of Engineer-in-charge, are not in accordance with the contract/ work order/ approved sample.
  - b) The substitution with proper and suitable materials.

c) The removal and proper re-execution, notwithstanding any previous test thereof or interim payment therefrom, of any work which in respect of materials or workmanship is not in accordance with the contract.

ii) In case of default on the part of the contractor in carrying out such order, the Engineer-in-charge shall be entitled to employ and pay other agency to carry out the same and all expenses consequent thereon shall be recoverable from the contractor or may be deducted from any amount due or which may become due to the contractor.

**8.10 Devaluation of Work :** In lieu of rejecting work done or materials supplied not in conformity with the contract/work order/approved samples, the Engineer-in-charge or any other officer nominated by the company for the purpose may allow such work or materials to remain, provided the Engineer In Charge/ the officer nominated by the company is satisfied with the quality of any materials, or the strength and structural safety of the work, and in that case shall make such deduction for the difference in value, as in his opinion may be reasonable.

**8.11 Final Inspection of Work:** The Engineer-in-charge and any other officer nominated by the company for the purpose shall make final inspection of all work included in the contract/work order, or any portion thereof, or any completed structure forming part of the work of the contract, as soon as practicable after notification by the contractor that the work is completed and ready for acceptance. If the work is not acceptable to the Engineer-in-charge at the time of such inspection, he shall inform the contractor in writing as to the particular defects to be remedied before final acceptance can be made.

**8.12 Defects appearing after acceptance:** Any defects which may appear within the defect liability period and arising, in the opinion of the Engineer-in-charge, from lack of conformance with the drawings and specifications, shall, if so required by the Engineer-in-charge in writing, be remedied by the contractor at his own cost within the time stipulated by the Engineer-in-charge. If the contractor fails to comply, the Engineer-in-charge may employ other persons to remedy the defects and recover the cost thereof from the dues of the contractor.

**8.13 Site Order Book :** A Site Order Book is a Register duly certified by the Engineer-in-charge regarding number of pages it contains, each page being numbered, name of work, name of contractor, reference of contract/ work order and the aforesaid certificate should be recorded on its first page.

Site Order Books shall be maintained on the sites of works and should never be removed therefrom under any circumstances. It shall be the property of the company. The Engineer In Charge or his authorised representative shall duly record his observations regarding any work which needs action on the part of the contractor like, improvement in the quality of work, failure to adhere to the scheduled programme etc. as per contract/work order. The contractor shall promptly sign the site order book and note the orders given therein by the EIC or his representative and comply with them. The compliance shall be reported by the contractor in writing to EIC in time so that it can be checked.

The Site Order Book will be consulted by the Engineer In Charge at the time of making both running on account and final bills of the contractor. A certificate to this effect should be given in the Measurement books by the Engineer In Charge or his representative.

**8.14 Samples and Testing of Materials:** All the materials to be procured by the contractor and to be used in work shall be approved by the Engineer In Charge in advance, and shall pass the tests and analysis required by him, which will be as specified in the specifications of the items concerned and or as specified by BIS or the IRC standard specifications acceptable to the Engineer In Charge. The method of sampling and testing shall be as per the relevant BIS, IRC and other relevant standards and practices. Minor minerals like sand, stone chips etc. shall be conforming to relevant BIS standards. All bought out items including Cement and Steel shall be procured from such manufacturers who hold valid license conforming to relevant BIS standards for manufacturing of such items.

**8.15 Storage of Materials :** Materials shall be so stored as to ensure the preservation of the quality and fitness for the

work. When considered necessary by the Engineer-in-charge, they shall be placed on wooden platforms or other hard, clean

surfaces and not directly on the ground.

Materials shall be placed under cover when so directed and the contractor shall erect and maintain at his own cost temporary weather-proof sheds at the work site for the purpose. Stored materials shall be so located as to facilitate prompt inspection. All stored materials shall be inspected at the time of use in the work, even though they may have been inspected and approved before being placed in storage or during storage.

**8.16 Defective Materials:** All materials not conforming to the requirements of the specifications shall be considered as defective, and all such materials, whether in place or not shall be rejected. They shall be removed immediately by the contractor at his expenses and replaced with acceptable material.

No rejected material, the defects of which have been subsequently corrected, shall be used on the work until approval in writing has been given by the Engineer In Charge. Upon failure on the part of the contractor to comply with any instruction of the Engineer-in-charge made under the provisions of this article within the time stipulated by the Engineer-in-charge, the Engineer-in-charge shall have authority to remove and replace defective material and recover the cost of removal and replacement from the contractor.

Further all such defective material lying at site not removed and replaced within 30 days after issue of notice by the Engineer-in-charge, if the Engineer-in-charge so decides, shall dispose off such material in any manner without any further written notice to the contractor.

## **9. Measurement and Payments**

Except where any general or detailed description of the work in the Bill of Quantities or specifications of the contract/work order provides otherwise, measurement of work done shall be taken in accordance with the relevant standard method of measurement published by the Bureau of Indian Standards(BIS) and if not covered by the above, other relevant Standards/practices shall be followed as per instructions of the Engineer In Charge.

**9.1** All items of work carried out by the contractor in accordance with the provision of the contract having a financial value shall be entered in the Measurement Book as prescribed by the company so that a complete record of the measurements is available for all the works executed under the contract and the value of the work executed can be ascertained and determined therefrom. Measurements of completed work / portion of completed work shall be recorded only in the Measurement Books.

**9.2** Measurement shall be taken jointly by the Engineer-in-Charge or his authorised representative and by the contractor or his authorised representative.

**9.3** Before taking measurements of any work, the Engineer In Charge or the person deputed by him for the purpose shall intimate the contractor to attend or to send his representative to attend the measurement. Every measurement thus taken shall be signed and dated by both the parties on the site on completion of the measurement. If the contractor objects to any measurements, a note to that effect shall be made in the Measurement Book / Log Book and signed and dated by both the parties.

**9.4** The measurement of the portion of work/items of work objected to, shall be re-measured by the Engineer In Charge himself or the authority nominated by the company for the purpose in the presence of the contractor or his authorised representative and recorded in the M.B. which shall be signed and dated by both the parties. Measurements so recorded shall be final and binding upon the contractor and no claim whatsoever shall thereafter be entertained.

In case the contractor or his authorised representative does not attend to the joint measurements at the prefixed date and time after due notice, the measurements taken by the Engineer In Charge or his representative shall be final and binding on the contractor.

Measurement of the extra items of work or excess quantities of work duly authorised in writing by the Engineer In Charge shall also be taken and recorded in the M.B. based on the existing items in the SOR of the company and if such items do not exist in the company's SOR, the description of the work shall be as per actual execution. Payment for such extra items will be based on the rates to be derived as described in the relevant clauses of the contract/ work-order

**9.5** No work shall be covered up or put out of view without the approval by the Engineer In Charge and recording of measurements and check measurement thereof duly accepted by the contractor. The contractor shall provide full opportunity to the Engineer In Charge or his representative to examine and measure all works to be covered up and to examine the foundations before covering up.

The contractor shall also give notice to Engineer In Charge whenever such works or foundations are ready for examination and the Engineer In Charge shall without unreasonable delay arrange to inspect and to record the measurements, if the work is acceptable and advise the contractor regarding covering of such works or foundations.

**9.6** In case of items which are claimed by the contractor but are not admissible according to the department, measurements of such items, will be taken by for record purposes only and without prejudice so that in case it is subsequently decided by the department to admit the contractor's claims, there should be no difficulty in determining the quantities of such work. A suitable remark should, however, be made against such measurements to guard against payment in the ordinary way.

**9.7 Payments:** The running on account payments may be made once in a month or at intervals stipulated in the work order/ contract agreement.

**9.7.01** Running on account bill/bills for the work executed/ materials supplied in accordance with the work order/ contract shall be prepared on the basis of detailed measurements recorded as described hereinbefore and processed for payments.

**9.7.02** Payment of on account bill shall be made on the Engineer In Charge's certifying the sum to which the contractor is considered entitled by way of interim payment for the following :

a) The work executed as covered by the bill/bills after deducting the amount already paid, the security deposit and such other amounts as may be deductible or recoverable in terms of the work order/ contract.

b) (i) Payment for excess quantity of work done with the written instructions of the Engineer In Charge for items already appearing in the bill of quantities of work with approved rates, will be made alongwith the on account bills only upto 10% of the quantity provided in the agreement subject to overall value of work not exceeding the agreement value.

(ii) The CGM(Civil)/ GM(Civil)/ CE(Civil) of the company and / or the Staff Officer(C) of the Area may authorise interim payment for excess work done upto 20 % of the quantity of work provided in the Bill of Quantity of the work awarded from Company level and Area level respectively subject to overall value of work done does not exceed the contract value.

c) Extra items of work executed will be paid on specific written authorisation of CGM (Civil)/ GM(C)/ CE(C) of the company or Staff Officer (Civil) of the Area provided that the value of such extra items of work when added together is not more than 10% of the contract value and the total gross payment including excess quantity does not exceed the contract value.

Balance amount on account of excess quantity and extra items of work executed shall be paid after the deviation estimate / revised estimate regularising the extra items and excess quantities of work is sanctioned by the competent authority of the company with the concurrence of the Finance Department of the company.

d) On the Engineer In Charge's certificate of completion in respect of the work covered by the contract / final measurements of the work certified by the Engineer In Charge or his representative.

**9.7.03** The measurements shall be entered in the M.B for the work done upto the date of completion and evaluated based on the approved rates for the items in the contract agreement/sanctioned revised estimate. In case of extra items of work, the rates shall be derived as stated in the relevant clause of the contract.

The payments shall be released against the final bill subject to all deductions which may be made on account of materials supplied, water supply for construction, supply of electricity and any other dues payable by

the contractor to the company, and further subject to the contractor having given to the Engineer In Charge a no claim certificate.

The contractor shall indemnify the company against proof of depositing royalty on account of minor minerals used in the work before the final bill is processed for payments. The final payment to be made will also be subject to Clause-4.5 of the General Terms & Conditions of the contract.

**9.7.04** Any certificate given by the Engineer In Charge for the purpose of payment of interim bill/bills shall not of itself be conclusive evidence that any work/materials to which it relate is/are in accordance with the contract and may be modified or corrected by the Engineer In Charge by any subsequent certificate or by the final certificate.

**9.7.05** The company reserve the right to recover/enforce recovery of any over payments detected after the payment as a result of post payment audit or technical examination or by any other means, notwithstanding the fact that the amount of disputed claims, if any, of the contractor exceeds the amount of such overpayment and irrespective of the facts whether such disputed claims of the contractor are the subject matter of arbitration or not.

The amount of such over payments shall be recovered from subsequent bills under the contract, failing that from contractor's claim under any other contract with the company or from the contractor's security deposit or the contractor shall pay the amount of over payment on demand. In case of contractor's non-payment on such demand, the same should be realised from the contractor's dues, if any, with Coal India Limited or any of its subsidiaries.

**9.7.06** The contractors are required to execute all works satisfactorily and according to the specifications laid down in the contract/ work order. If certain items of work, executed by the contractor, are below specifications, the contractor should re-do them according to the specifications and instructions of EIC and if the contractor fails to rectify the defect within the time and in the manner specified by the EIC, the work shall be got re-done or rectified by the department at the risk and cost of the contractor. Engineer In Charge may accept such work of below specifications provided the department is satisfied with the quality of such works and the strength/ structural safety of such works. In that case Engineer In Charge shall make such deductions for the difference in value, as in his opinion is reasonable and is approved by the accepting authority of the company i.e. CGM(C)/ GM(C)/ CE(C) of the company in this case or any other officer nominated by CGM(C)/ GM(C)/ CE(C) for the purpose.

**9.7.07 Payment Stage: The payment stage involved will be as under,**

- i) Signature of EA(Civil)/ Sr. Overseer(C) / Overseer(C) in MB's both in pages recording measurements, abstract of bill & the duly filled in bill form.
- ii) Signature of Engineer(C)/ EE(C) with appropriate check measurements in the MB's and the bill form.
- iii) Signature of Sr. EE(C)/ SE(C) with appropriate check measurements in MB's and the bill form.
- iv) Signature of Engineer in Charge as per definition as at clause 1(vii) of the General Terms and Conditions, as a token of acceptance for payment of the bill. The EIC may sign in the abstract of the bill in the MB & the bill form. In between stage iii) and iv) accountal checking may be made by the concerned Accounts Officer/ Accountant.

**9.7.08 Secured Advance:** Secured advance can be paid for items of materials required for execution of the work and covered under categories A & B and supplied by the contractor at work site, supported by necessary vouchers, challans, test certificates etc. after execution of indemnity bond as per prescribed Form of the company on non-judicial stamp paper of prescribed value.

This advance shall be recovered in four equal installments or as per consumption whichever is higher. Engineer In Charge shall recover at his discretion all or any part of secured advance paid, if in his opinion the work is not progressing satisfactorily or the security of these materials at site is not adequately taken care of by the contractor. Secured advance shall be payable for contracts of value above Rs.10.00 lakhs only.

Secured advance for structural steel sections, reinforcement steel and cement, collected at site, will be paid upto 75% of the corresponding stock yard prices of SAIL for the corresponding steel items and Govt. approved/ D.G.S.D. prices for cement, if the same exist.

In case of non-availability of Govt. approved prices of cement & steel and for the materials falling under Category - A and B the secured advance will be paid at the basic rate available in the approved schedule of rates of

the company plus or minus the overall percentage on which the work was awarded, provided such rate is not more than 60% of the quoted rate of the contractor for the actual work.

At any point of time the outstanding recoverable secured advance shall not be more than 10% of the contract value.

Items against which secured advance can be granted:

### **Category-A**

#### **Civil:**

1. Bricks
2. Stone and brick aggregate
3. Stones
4. Finished products of brass, iron and steel such as doors & windows frames, wire mesh, gate, GI Sheets.
5. Pre-cast R.C.C. products such as pipes, jali, water storage tanks etc.
6. Doors & Window fittings.
7. Pipes and sanitary fittings of CI, SCI & HCI

#### **Electrical :**

1. Steel conduits
2. G.I. Pipes
3. I.C. Boards
4. Switchgears (Air circuit breakers and Air break switches)
5. C.I. Boxes.
6. A.C.S.R. Conductors
7. A.C. Plant & Machinery
8. Pumps
9. Generating sets (without oil)

Items against which secured advance can be granted:

### **Category- B**

#### **Civil:**

1. Glazed tiles, terrazzo tiles and similar articles.
2. Marble slabs
3. Asbestos cement products
4. Finished timber products such as doors, windows, flush doors, particle boards (subject to mandatory test being satisfactory) etc.
5. Bitumen in sealed drums
6. Bitumen felt
7. Polythene pipes and fittings and tanks
8. Sanitary fittings and pipes of S.W., porcelain and chinaware materials
9. Laminated / Safety, one way vision, and bullet proof glasses.
10. Chemical required for anti-termite treatment (in sealed drums)
11. Paints, varnishes, distempers, pigment, spirits etc.

**Electrical:**

1. Transformers
2. Oil-filled switch gears.
3. L.T. & H.T.Cables
4. Fans
5. Storage and Dry Batteries
6. Insulation tapes
7. Epoxy cable compounds
8. Electric light fittings
9. Wooden battens, casing & capping and wooden boards
10. Flexible wires
11. PVC materials
12. Oil and lubricants
13. Rubber materials
14. Glass wool, thermocole & other insulating materials
15. Porcelain H.T. and L.T. insulators.

In addition to indemnity bond, for materials listed under Category-B, the contractor shall be required to provide necessary insurance cover of equivalent value of materials.

Items against which no secured advance shall be granted:

**Civil:**

1. Glass products other than those indicated in Category-B.
2. Sand and moorum
3. Chemical compounds other than those indicated in Category-B.

**Electrical:**

1. Glass gloves and shades
2. Bulbs and tubes
3. Petrol and diesel
4. Freon and other refrigeration gases.

**9.8** Income tax deduction @ 2% ( Two percent ) of the gross value of each bill or at the rate as amended from time to time, shall be made unless exempted by the competent authority of the Income Tax Department

Sales tax on works contract shall be payable by the contractor. If, however, the company is asked to make deduction from the contractor's bills, the same shall be done and a certificate to this effect shall be issued to the contractor for dealing with the State Govt. and the company does not take any responsibility to do anything further in this regard.

**9.9** No interest shall be payable on the amounts withheld, under the terms of the Contract Agreement/Work-order.

**10. Termination, Cancellation, Suspension and Foreclosure of Contract**

The company shall, in addition to other remedial steps to be taken as provided in the conditions of contract be entitled to cancel the contract in full or in part, if the contractor :-

a) makes default in proceeding with the works with due diligence and continues to do so even after a notice in writing from the Engineer In Charge, then on the expiry of the period as specified in the notice

**Or**

b) commits default/breach in complying with any of the terms and conditions of the contract and does not remedy it or fails to take effective steps for the remedy to the satisfaction of the Engineer In Charge, then on the expiry of the period as may be specified by the Engineer In Charge in a notice in writing.

**Or**

c) obtains a contract with the company as a result of ring tendering or other non-bonafide methods of competitive tendering

Or

d) shall offer or give or agree to give any person in the service of the company or to any other person on his behalf any gift or consideration of any kind as an inducement or reward for act/acts of favour in relation to the obtaining or execution of this or any other contract for his company.

Or

e) fails to complete the work or items of work with individual dates of completion, on or before the date/dates of completion or as extended by the company, then on the expiry of the period as may be specified by the Engineer In Charge in a notice in writing.

Or

f) transfers, sublets, assigns the entire work or any portion thereof without the prior approval in writing from the Engineer In Charge. The Engineer In Charge may by giving a written notice, cancel the whole contract or portion of it in default.

**10.1** The contract shall also stand terminated under any of the following circumstances :

a) If the contractor being an individual in the case of proprietary concern or in the case of a partnership firm any of its partners is declared insolvent under the provisions of Insolvency Act for the time being in force, or makes any conveyance or assignment of his effects or composition or arrangement for the benefit of his creditors amounting to proceedings for liquidation or composition under any Insolvency Act.

b) In the case of the contractor being a company, its affairs are under liquidation either by a resolution passed by the contractors company or by an order of court, not being a voluntary liquidation proceedings for the purpose of amalgamation or reorganisation, or a receiver or manager is appointed by the court on the application by the debenture holders of the contractor's company, if any.

c) If the contractor shall suffer an execution being levied on his/their goods, estates and allow it to be continued for a period of 21 (twenty-one) days.

d) On the death of the contractor being a proprietary concern or of any of the partners in the case of a partnership concern and the company is not satisfied that the legal representative of the deceased proprietor or the other surviving partners of the partnership concern are capable of carrying out and completing the contract. The decision of the company in this respect shall be final and binding which is to be intimated in writing to the legal representative or to the partnership concern.

**10.2** On cancellation of the contract or on termination of the contract, the Engineer In Charge shall have powers:

a) to take possession of the site and any materials, constructional plant, equipments, stores etc. thereon.

b) to carry out the incomplete work by any means at the risk and cost of the contractor.

c) to determine the amount to be recovered from the contractor for completing the remaining work or in the event the remaining work is not to be completed the loss/damage suffered, if any, by the company after giving credit for the value of the work executed by the contractor upto the time of cancellation less on a/c payments made till date and value of contractor's materials, plant, equipments, etc. taken possession of after cancellation.

d) to recover the amount determined as above, if any, from any money due to the contractor on any account or under any other contract and in the event of any shortfall, the contractor shall be called upon to pay the same on demand. The need for determination of the amount of recovery of any extra cost/expenditure or of any loss/damage suffered by the company shall not however arise in the case of termination of the contract for death/demise of the contractor as stated in clause 10.1(d) of the contract.

e) to give the contractor or his representative of the work 7 (seven) days notice in writing for taking final measurement for the works executed till the date of cancellation or termination of the contract. The Engineer In Charge shall fix the time for taking such final measurement and intimate the contractor in writing. The final measurement shall be carried out at the said appointed time notwithstanding whether the contractor is present or not. Any claim as regards measurement which the contractor is to make shall be made in writing within 7 (seven)

days of taking final measurement by Engineer-In-charge as aforesaid and if no such claim is received, the contractor shall be deemed to have waived all claims regarding above measurements and any claim made thereafter shall not be entertained.

### **10.3 Suspension of Work:**

i) The company shall have power to suspend the work or any part thereof and the Engineer In Charge may direct the contractor in writing to suspend the work, for such period and in such manner as may be specified therein, on account of any default on the part of the contractor, or for proper execution of the work for reasons other than any default on part of the contractor, or on ground of safety of the work.

ii) In the event of suspension for reasons other than any default on the part of the contractor, extension of time shall be allowed by the company equal to the period of such suspension and the contractor shall properly protect and secure the works to the extent necessary during such suspension.

The contractor shall carry out the instructions given in this respect by the Engineer-In Charge & if such suspension exceeds 45 ( forty five ) days, the contractor will be compensated on mutually agreed terms.

**10.4** The work shall, throughout the stipulated period of contract, be carried out with all due diligence on the part of the contractor. In the event of termination or suspension of the contract, on account of default on the part of the contractor, as narrated hereinbefore, the security deposit and other dues of this work or any other work done under this company shall be forfeited and brought under the absolute disposal of the company provided, that the amount so forfeited shall not exceed 10 (ten) percent of the contract value.

### **10.5 Foreclosure of contract:**

If at any time after acceptance of the tender the company decides to abandon for any reason whatsoever the company, through its Engineer In Charge, shall give notice in writing to that effect to the contractor. In the event of abandonment the company shall be liable :-

a) to pay reasonable amount assessed and certified by the Engineer In Charge of the expenditure incurred, if any, by the contractor on preliminary works at site e.g. temporary access roads, temporary construction for labour and staff quarters, office accommodation, storage of materials, water storage tanks and water supply for the work including supply to labour/ staff quarters, office etc.

b) to pay the contractor at the contract rates full amount for works executed and measured at site upto the date of such abandonment.

c) to pay for the materials brought to site or to be delivered at site, which the contractor is legally liable to pay, for the purpose of consumption in works carried out or were to be carried out but for the foreclosure, including the cost of purchase and transportation and cost of delivery of such materials. The materials to be taken over by the company should be in good condition and the company may allow at its discretion the contractor to retain the materials in full or in part if so desired by him and to be transported by the contractor from site to his place at his own cost with due permission of the EIC.

d) to take back the materials issued by the company but remaining unused, if any, in the work on the date of abandonment/reduction in the work, at the original issue price less allowance for any deterioration or damage caused while in custody of the contractor.

e) to pay for the transportation of tools and plants of the contractor from site to contractor's place or to any other destination, whichever is less.

**10.5.01** The contractor shall, if required by the Engineer In Charge, furnish to him books of accounts, papers, relevant documents as may be necessary to enable the Engineer In Charge to assess the amounts payable in terms of clauses 10.5(b) (c) & (e) of the contract. The contractor shall not have any claim for compensation for abandonment of the work, other than those as specified above.

## 11. Completion Certificate / Defect Liability Certificate

Except in cases where the contract provides for "Performance Test" before issue of Defect Liability certificate, in which case the issue of Defect Liability certificate shall be in accordance with the procedure specified therein, the contractor shall give notice of completion of work, as soon as the work is completed, to the Engineer In Charge. The Engineer In Charge and or any other Officer, nominated for the purpose by the company, shall within 30 (thirty) days from the receipt thereof, inspect the work and ascertain the defects/deficiencies, if any, to be rectified by the contractor as also the items, if any, for which payment shall be made at reduced rate.

If the defects, according to the Engineer In Charge are of a major nature and the rectification of which is necessary for the satisfactory performance of the contract, he shall intimate in writing the defects and instruct the contractor to rectify the defects/remove deficiencies within the period and in the manner to be specified therein. In such cases Defect Liability Certificate will be issued by the EIC after the above rectifications are carried out/ deficiencies are removed by the contractor to the satisfaction of EIC.

In the event there are no defects or the defects/ deficiencies are of a minor nature and the Engineer In Charge is satisfied that the contractor has already made arrangements for rectification, or in the event of contractor's failure to rectify the defects for any reason whatsoever, the defects can be rectified by the company departmentally or by other means and the 50% of the security deposit of the contractor shall be sufficient to cover the cost thereof, he shall issue the Defect Liability Certificate ( Taking Over Certificate with list of defects ) indicating the date of completion of the work, defects to be rectified, if any, and the items, if any, for which payment shall be made at reduced rate indicating reasons therefor and with necessary instructions to the contractor to clear the site/place of work or all debris/ waste materials, scaffoldings, sheds, surplus materials etc. making it clean.

**11.1** In cases where separate period of completion for certain items or groups of items are specified in the contract, separate Defect Liability certificate for such items or groups of items may be issued by the Engineer In Charge after completion of such items on receipt of notice from the contractor only in the event the work is completed satisfactorily in every respect.

Refund of security deposit and payment of final bill shall, however, be made on completion of the entire contract work, but not on completion of such items of work.

## 12. Additional Responsibilities of the Contractor(s)

The cost on account of the "Additional Responsibilities of the Contractors" under this clause is deemed to be included in the tendered rates.

i) The company reserves the right to let other contractors also works in connection with the Project and the contractor/contractors shall co-operate in the works for the introduction and stores and materials and execution of his/their works.

ii) The contractor/contractors shall keep on the work site during the progress a competent and experienced Resident Engineer exclusively for the work and necessary assistants who shall represent the contractor(s). The contractor shall employ, on the site in connection with the execution and maintenance of the work, the following technical staff :

### **For Buildings Roads, Water Supply & Sanitary Works:**

- |   |   |
|---|---|
| 1) For value of work ranging from Rs.10 lakhs to Rs.20 lakhs. | 1 Experienced Diploma holder.   |
| 2) For value of work above Rs.20 lakhs and upto Rs.1 crore.   | 1 Experienced Graduate Engineer in addition to Diploma holder as per sl.no.4 below. |

- |    |  |   |
|----|--|---|
| 3) | For value of work in excess of Rs.1 crore & for every additional Rs.2 crores or part thereof.  | 1 Graduate Engineer extra in addition to Graduate Engineer and Diploma holder as per sl.no.1 & 4. |
| 4) | For value of work in excess of Rs.20 lakhs & for every additional Rs.50 lakhs or part thereof. | 1 Diploma holder extra.   |

**For Industrial Structures :**

- |    |  |   |
|----|--|---|
| 1) | For value of work ranging from Rs.5 lakhs to Rs.15 lakhs.  | 1 Experienced Diploma holder.   |
| 2) | For value of work above Rs.15 lakhs and upto Rs.75 lakhs.  | 1 Experienced Graduate Engineer in addition to Diploma holder as per sl.no.4 below.               |
| 3) | For value of work in excess of Rs.75 lakhs & for every additional Rs.1.5 crores or part thereof. | 1 Graduate Engineer extra in addition to Graduate Engineer and Diploma holder as per sl.no.1 & 4. |
| 4) | For value of work in excess of Rs.15 lakhs & for every additional Rs.50 lakhs or part thereof.   | 1 Diploma holder extra.   |

The contractor shall intimate the Engineer In Charge in writing the names, qualifications, experience and full postal address of each and every technical personnel employed at site by him.

The contractor(s) shall not be allowed to execute the work unless he/they engage the required technical staff at site as stated above. The delay on this account, if any, shall be the contractor's responsibility.

Important instructions shall be confirmed to the contractor(s) in writing. If the contractor/contractors in course of the works finds/find any discrepancy between the drawing, forming part of the contract documents and the physical conditions of the locality or any errors or omissions in drawings except those prepared by himself / themselves and not approved by the Engineer In Charge. It shall be his/their duty to immediately inform the Engineer In Charge in writing and the Engineer In Charge shall verify the same. Any work done after such discovery and without intimation as indicated above will be done at the risk of the contractor/contractors.

iii) The contractor / contractors shall employ only competent, skillful and orderly men to do the work. The Engineer In Charge shall have the right to ask the contractor/ contractors to remove from the work site any men of the contractor/contractors who in his opinion is undesirable and the contractor/contractors will have to remove him within 3 (three) hours of such orders.

The contractor shall employ apprentices in the execution of the contract work as required under Apprentices Act.

The contractor shall further be responsible for making arrangements at his own cost, or accommodation and social needs of the staff and workers under his employment.

iv) Precautions shall be exercised at all times by the contractor(s) for the protection of persons (including employees) and property. The safety required or recommended by all applicable laws, codes, statutes and

regulations shall be observed by the contractor(s). In case of accidents, the contractor(s) shall be responsible for compliance with all the requirements imposed by the Workmen's Compensation Act or any other similar laws in force, and the contractor(s) shall indemnify the company against any claim on this account.

All scaffoldings, ladders and such other structures which the workmen are likely to use shall be examined by the Engineer In Charge or his authorised representative whenever they want and the structure must be strong, durable, and safe and of such design as required by Engineer In Charge.

In no case any structure condemned by the Engineer In Charge or his authorised representatives shall be kept on the work and such structure must be pulled down within three hours of such condemnation and any certificate or instructions, however, shall in no way absolve the contractor/contractors from his/their responsibility, as an employer, as the company shall in no way be responsible for any claim.

The contractor / contractors shall at all times exercise reasonable precautions for the safety of employees in the performance of his/their contract and shall comply with all applicable provisions of the safety laws drawn up by the State Govt. or Central Govt. or Municipalities and other authorities in India. The contractor/contractors shall comply with the provision of the safety hand book as approved and amended from time to time by the Government of India.

v) The contractor / contractors shall familiarise themselves with and be governed by all laws and rules of India and Local statutes and orders and regulations applicable to his/ their work.

vi) The contractor shall maintain all records as per the provision made in the various statutes including Contract Labour (Regulation & Abolition) Act, 1970 and the Contract Labour (Regulation & Abolition) Central Rules, 1971, Minimum Wages Act, Workmen Compensation Act etc. and latest amendment thereof. Such records maintained by the contractor shall be opened for inspection by the Engineer In Charge or by the nominated representative of the Principal Employer.

vii) The contractor/ contractors shall provide facilities for the sanitary necessities of all persons employed on the work shall be constructed and maintained in the number, manner and place approved or ordered by the Engineer In Charge. The contractor/contractors shall vigorously prohibit committing of nuisance at any other place. Cost of all works under this item shall be covered by the contractor/contractor's tendered rates.

viii) The contractor/contractors shall furnish to the Engineer In Charge or his authorised representative with work reports from time to time regarding the contractor / contractors organisation and the progress made by him / them in the execution of the work as per the contract.

ix) All taxes, levies, cess, royalties, whether local, municipal, provincial or central pertaining to the the contract are payable during the entire periods of contract, shall be to the contractor/ contractors account and shall be deemed to have been included in the contracted rate for the work to be executed by the contractor. The Company shall not be liable for any taxes or levies etc. whatsoever in connection with this contract.

The company reserves the right to deduct/ withheld any amount towards taxes, levies, etc. and to deal with such amount in terms of the provisions of the Statute or in terms of the direction of any Statutory authority and the company shall only provide with certificate towards such deduction and shall not be responsible for any reason whatsoever.

In case the company land is used for manufacture of bricks or extraction of gravels etc. the contractor will have to pay compensation to the company ( apart from the liability of the contractor to make the payment of royalty etc. to the State Government) at the same rates or royalty fixed by the State Government or an appropriate deduction may be made in the rate to be paid to the contractors.

x) The contractor / contractors shall make his / their own arrangement for all materials, tools, staff and labourer required for the contract, which shall include cost of lead, lift, loading, unloading, railway freight, recruiting expenses and any other charges for the completion of the work to entire satisfaction of the company.

xi) The contractor / contractors shall make their own arrangement for carriage of all materials to the work site at his/their own cost.

xii) The work shall not be sublet to any other party, unless approved by Engineer In Charge, in writing.

xiii) a) No fruit trees or valuable plants or trees with trunk diameter exceeding 150mm shall be pulled, destroyed or damaged by the contractor/contractors or any of his/their employees without the prior permission of the company, failing which the cost of such trees or plants shall be deducted from the contractor/contractors dues at the rate to be decided by the company. The rates quoted are supposed to include clearance of shrubs and jungles and removal of such trees upto 150 mm dia., as will be permitted by the Engineer In Charge in writing.

b) Anything of historical or other interest or of significant value unexpectedly discovered on the site is the property of the employer. The Contractor is to notify the Nodal Officer or his nominee of such discoveries and carry out the Nodal Officer or his nominee's instructions for dealing with him.

xiv) The contractor / contractors shall not pay less than the minimum wages to the labourers engaged by him/them as per Minimum Wages Act or such other legislation or award of the minimum wage fixed by the respective State Govt. or Central Govt. as may be in force.

xv) All accounts shall be maintained properly and the company shall have the right of access and inspection of all such books of accounts etc., relating to payment of labourer considered necessary and the company may arrange for witnessing the payment to the labourer by its representatives.

xvi) The contractor shall in additions to any indemnity provided by the relevant clauses of the agreement or by law, indemnify and keep indemnified for the following :

a) The company or any agent or employee of the company against any action, claim or proceeding relating to infringement or use of any patent or design right and shall pay any royalties or other charges which may be payable in respect of any article or material included in the contract.

However, the amount so paid shall be reimbursed by the company in the event such infringement has taken place in complying with the specific directions issued by the company or the use of such article or material was the result of any drawing and/or specifications issued by the company after submission of tender by the contractor. The contractor must notify immediately after any claim being made or any action brought against the company, or any agent or employee of company in respect of any such matter.

b) The company against all claims, damages or compensation under the provisions of payment of Wages Act, 1938, Minimum Wages Act, 1948, Employer's Liability Act, 1938, The Workmen's Compensation Act, 1923, Industrial Dispute Act, 1947, Mines Act as applicable, Employees State Insurance Act 1948 and Maternity Benefit Act, 1961, Acts regulating P.F. or any modification thereof or any other law relating thereto and rules made thereunder from time to time, as may be applicable to the contract which may arise out of or in consequence of the construction or maintenance or performance of the work under the contract and also against costs, charges and expenses of any suit, action or proceedings arising out of any accident or injury.

c) The company against all losses and claims for injuries or damages to any third party or to any property belonging to any third party which may arise out of or in consequence of the construction or maintenance or performance of the work under the contract and against all claims/demands proceedings/damages, cost charges and expenses whatsoever in respect of or in relation thereto.

xvii) The contractor is under obligation to hand over to the company the vacant possession of the completed building structures failing which the Engineer In Charge can impose a levy upon the contractor upto 5% of the total contract value for the delay in handing over the vacant possession of the completed works after giving a 15 (fifteen) days notice to the contractor.

xviii) a) **INSURANCE** : The contractor shall take full responsibility to take all precautions to prevent loss or damage to the works or part thereof for any reasons whatsoever

(excluding act of God e.g. flood, riots, war, earthquake, etc.) and shall at his own cost repair and make good the loss/damage to the work so that on completion, the work shall be in good order and condition and in conformity with the requirements of the contract and instructions of the Engineer In Charge.

In case of construction works without limiting the obligations and responsibilities under the contract, the contractor shall take insurance policy for the total value of work for the period from commencement to completion including defect liability period against risk of loss/ damage to the extent as permissible under the law of insurance.

The contractor shall arrange necessary insurance and pledge the same in the name of the company and all moneys payable by the insurers shall be recovered by the company which shall be paid to the contractor in installments as may be certified by the Engineer In Charge for the purpose of rebuilding or replacement or repair of the works and/or goods destroyed or damaged for which payment was received from the insurers.

b) Where any company building or part thereof is used, rented or leased by the contractor for the purpose of storing or using materials of combustible nature, the contractor shall take separate insurance policy for the entire building and the policy shall be deposited with the company.

c) The contractor shall at all times during the tenure of the contract indemnify the company against all claims, damages or compensation under the provision of the Workmen's Compensation Act and shall take insurance policy covering all risk, claims, damages, or compensation payable under the Workmen's Compensation Act or under any other law relating thereto.

d) The contractor shall ensure that the insurance policy/ policies is/are kept alive till full expiry of the contract by timely payment of premiums and it/they shall not be cancelled without the approval of the company and a provision is made to this effect in all policies, and similar insurance policies are also taken by his sub-contractors if any. The cost of premium shall be borne by the contractor and it shall be deemed to have been included in the tendered rate.

e) In the event of contractor's failure to effect or to keep in force the insurance referred to above or any other insurance which the contractor is required to effect under the terms of the contract, the company may effect and keep in force any such insurance and pay such premium/premiums as may be necessary for that purpose from time to time and recover the amount thus paid from any moneys due to the contractor.

*THE CLAUSE 12 xviii SHALL BE APPLICABLE FOR WORKS OF ESTIMATED VALUE OF OVER Rs. 50 LAKHS.*

xix) **Setting Out:** The contractor shall be responsible for the contract and proper setting out of the works and correctness of the position, reduced levels, dimensions and alignment of all parts of the work including marking out the correct lay out in reference to the permanent bench mark and reference points. Only one permanent bench mark and basic reference lines shall be marked and shown to the contractor as basic data.

The contractor shall have all necessary instruments, appliances and labour in connection therewith. If at any time during the progress of work any error is detected in respect of the position, levels, dimensions or alignment of any part of the work, the contractor on being required to do so by the Engineer In Charge or his representative shall at the expenses of the contractor rectify such errors to the satisfaction of Engineer In Charge unless such error is due to incorrect data supplied by the Engineer In Charge.

xx) On receipt of Letter of Acceptance of Tender / Work Order the contractor shall forthwith Register and obtain License from the competent authority under the Contract Labour (Regulation & Abolition) Act 1970, the Contract Labour (Regulation & Abolition) Central Rules, 1971 and submit certified copies of the same to the Engineer In Charge and the Principal Employer.

xxi) The contractor shall be registered with the concerned State Govt. and the Central Govt. in respect of Sales Tax Act and the certificate having details of Registration No., period of validity etc. should be submitted to the Engineer In Charge.

xxii) The contractor shall, in connection with works, provide and maintain, at his own cost, all lights, security guards, fencing when and where necessary as required by the Engineer In Charge for the purpose of protection of the works, materials at site, safety of workmen and convenience of the public.

xxiii) All materials ( e.g. stone, moorum and other materials) obtained in the course of execution of the work during excavation and dismantling etc. shall be the property of the company and the same may be issued to the contractors, if required for use in the works at the rates to be fixed by the Engineer In Charge.

xxiv) Unless otherwise specifically provided for, dewatering of excavation pits, working areas etc. shall be the contractor's responsibility and is to be carried out at his own cost as per instructions of EIC. The rates quoted by the contractor shall be deemed to include the dewatering costs.

xxv) Approval by the Nodal Officer/Engineer in Charge or his nominee: The contractor shall submit specifications and drawings showing the proposed temporary work to the Nodal Officer/Engineer-in-Charge or his nominee, who is to approve them if they comply with the specifications and drawings.

The contractor shall be responsible for design of Temporary Works.

The Nodal Officer/Engineer-in-charge or his nominee's approval shall not alter the contractor's responsibility for design of the Temporary Works.

### **13. Defects Liability Period:**

In addition to the defect/s to be rectified by the contractor as per terms of the contract/ work order, the contractor shall be responsible to make good and remedy at his own expense the defect/s mentioned hereunder within such period as may be stipulated by the Engineer In Charge in writing :

a) Any defect/defects in the work detected by the Engineer In Charge within a period of 6 (six) months from the date of issue of Defect Liability certificate / completion certificate.

b) In the case of building works or other works of similar nature any defect in the work detected by the Engineer In Charge within a period of 6 (six) months from the date of issue of Defect Liability certificate/ completion certificate or before the expiry of one full monsoon period i.e. June to October whichever is later in point of time.

**13.1** A programme shall be drawn by the contractor and the Engineer In Charge for carrying out the defects by the contractor detected within the defect liability period and if the contractor fails to adhere to this programme, the Engineer In Charge shall be at liberty to procure proper materials and carry out the rectifications in any manner considered advisable under the circumstances and the cost of such procurement of materials and rectification work shall be chargeable to the contractor and recoverable from any of the pending dues of the contractors.

The defect liability period can be extended by the company on getting request from the contractor only for valid reasons.

There will be no defect liability period for works like Grass Cutting, Jungle Cutting, Surface Dressing & any other work of similar nature to be decided by the Engineer in Charge.

### **14. Operating and Maintenance Manual:**

If "as built" drawings and/or Operating and Maintenance Manual are required the contractor shall supply them by the dates as per instruction of the Engineer-in-charge.

If the contractor does not supply the drawings and/or Manual by the dates as stated above, or they do not receive the Nodal Officer or his nominee's approval, the Nodal Officer or his nominee shall withhold the amount as stated in the agreement.

## **15. Settlement of Disputes/ Arbitration**

**15.1** It is incumbent upon the contractor to avoid litigation and disputes during the course of execution. However, if such disputes take place between the contractor and the department, effort shall be made first to settle the disputes at the company level.

The contractor should make request in writing to the Engineer-in-charge for settlement of such disputes/ claims within 30 (thirty) days of arising of the cause of dispute/ claim failing which no disputes/ claims of the contractor shall be entertained by the company.

**15.3** If differences still persist, the settlement of the dispute with Govt. Agencies shall be dealt with as per the Guidelines issued by the Ministry of Finance, Govt. of India in this regard. In case of parties other than Govt. Agencies, the redressal of the dispute may be sought in the Court of Law.

## SPECIAL NOTES

Excavation :

1. Clearing the site : The area required is to be set out and should be cleared from all obstructions such as stone materials, rubbish of all kinds, vegetations, bushes and trees (removed as directed and roots being entirely grubbed up). No payment shall be made for this to the contractor, In case trees having girth of size 6" or more are cut and removed, the materials shall be the property of the company should be handed over to the engineer-incharge.
2. Setting out : After clearing the site, a central line will be given by the Engineer Incharge and it will be responsibility of the contractor to go ahead with further detailed layout, bench marks etc. permanent bench marking by constructing pillars and central line shall be permanently laid by the contractor at his own cost and shall remain at places till handing over the work.
5. Foundation : Foundation excavation shall include the removal of materials of whatever mentioned and whether wet or dry exactly in accordance with the land levels and contours shown on the plan or as directed by the Engineer incharge. It shall be taken to the exact level of the lowest footing and the site shall be left plumb or cut to slopes as per the instructions of the Engineer incharge, which shall be in writing.

The rates quoted shall be deemed to include dewatering of foundation, trenches as long as water is result of rain, seepage, sub soil water or broken water mains. In case spring water is met, dewatering of which shall be the responsibility of the Management.

Measurement of quantities if not specified shall be base on IS-1200-1974.

6. Concrete for plain and Reinforced cement concrete : as per Is 456-2000.

This specification covers the requirements of ordinary concrete of the specified properties for use in concrete items special requirement if specified shall also apply.

Material ; Cement : Cement shall be ordinary port land cement and should conform to IS 269-1967.

Water ; Water for mixing cement concrete shall not be salty or brackish and shall be clean reasonably clear and free from objectionable quantities of salt and traces of oil, acid and injurious alkali, salts, organic matter and other deleterious materials which will either weaken the concrete or cause efflorescence or attack the steel in R.C.C. water shall be obtained from sources approved by the Engineer. Sources of water shall be maintained at such a depth and the water shall be withdrawn in such a manner as to exclude silt, mud, grass or other foreign materials. Container for transport, storage and handling of waste shall be clean.+

( water fit for drinking is generally be found suitable for mixing concrete).

Water for curing:- As per IS 456-2000.

Fine Aggregate ; Sand for use in concrete work shall be natural sand or a crushed stone screenings, sand shall be clean, well graded, hard, strong, durable and gritty particles free from injurious amount of dust, clay, kankar modules soft or flaky particles, shale, alkali, salts, organic matter, loam, mica or other deleterious materials and shall be approved by the Engineer. The maximum size of particles shall be limited so 5mm (above 3/16").

When the quality of fine aggregate is doubtful, it shall be tested for clay, organic impurities and other deleterious substances as laid down in IS 383-1963.

It shall not contain deleterious materials in such quantity as to reduce the strength or durability of the concrete or attach the reinforcement in case of R.C.C. work. The fineness modules may range between

2.6 to 36.

Coarse Aggregate :

Coarse aggregate shall consist of crushed or broken stone and be hard, strong, dense, durable, clean, of proper gradation and free from skin and coating likely to prevent proper adhesion of mortar. The aggregate shall generally be cubical in shape as far as possible flaky, elongated pieces shall be avoided. Aggregates shall be broken from the best trap granite quartzite gneiss stones in order available in the region approved by the Engineer. Stone shall have not deleterious reaction with cement single of the appropriate grading may be permitted to be substituted for some proportion of the metal without price adjustment if it is shown that thereby strength of concrete is increased and workability improved.

The maximum size of the aggregate should be as large as possible and in no case should exceed  $\frac{1}{4}$  of the minimum thickness of the member provided however this size presents no difficulty in the case of RCC to surround the reinforcement satisfactorily.

Maximum size of Aggregate	40 mm to 80 mm (1 ½" to 3")	20 mm to 40mm (¾" to 1 ½")	5 mm to 20" (3/16"; to ¾")	10 mm to 20" (3/8"- ¾ ")	5 mm to 10 mm (3/16" to 3-14")
20 mm (about ¾")	--	--	100	55-67	33-45
40 " (about 1 ½")	--	40-50	50-60	28-40	18-30
80 " (about 3")	20-36	16-36	35-44	10-30	13-29

In the case of general concrete work maximum size of 40 mm (about 1 ½") is used and in R.C.C. work a maximum size of 20 mm (¾") will be found satisfactory but it should be restricted to 6 mm (about ¼") less than the cover, which is smaller.

Coarse aggregate of a porous nature where absorption of water after 24 hours immersion in water, is more than 5 percent by weight, shall not be used. Limits of deleterious substance shall not exceed, those as in IS 515 – 1959.

Proportion of Mix : M-20 design Mix Concrete as per IS 456-2000.

In ordinary concrete, although proportion of cement to fine and coarse aggregate is specified by volume, the quantity of cement shall be determined by weight assuming one bag of cement weighting 50 kg. (about 10 lbs). Net to be equivalent to 35 litres (about 1.2 cft.) Fine and coarse aggregates shall be measured by dry volume in suitable wooden steel boxes. Due allowance shall be made for bulking in the fine aggregate due to moisture if any, at the time of mixing.

Ingredients required for concrete containing are 50 kg bag of cement for different proportions of mix will be as under ;

Mix	Cement	Aggregate	Coarse Aggregate	Water
1;1:2	50	35 lts.	70 lts.	23 to 27 lts.
1:1/2:3	50	52.5 lts.	105 lts.	23 to 20
1;2:4	50	70 lts.	140 lts.	27 to 32'
1:3:6	50	105 lts.	210 lts.	37.5 to 47.5
1:4:8	50	140 lts.	280 lts.	47.5 to 57
1:5:10	50	175 lts.	350 lts.	56 to 68

The ratio of the volumes of fine aggregate and coarse aggregates may be varied within limits of 1:1/2 to 1:2 ½ as directed by the Engineer to suit the mix size of coarse aggregate, the grading, density, workability and strength without extra cost. But the sum of the volumes of fine and coarse aggregate so adjusted shall, however, be equal to the volume of fine and coarse aggregates give above for the particular mix.

The quantity of water shall be just sufficient, but not more than sufficient to produce a dense concrete of required workability for its purpose. An allowance shall be made for surface moisture present in the aggregate when computing water content as per IS 456 – 1964. In the case of reinforced concrete work, the workability shall be such that the concrete will surround and properly grip all the reinforcement. Water cement ratio will be such as will give concrete just sufficiently wet to be placed and compacted without difficulty.

For vibrated concrete water content may be reduced by 15% to 20% to give required slump. Mixing ; Mechanical mixer should be used for all concrete work. Mixing shall be continued till there is a uniform distribution of materials, colour and uniform coating on coarse aggregate. Mixing shall be done for not less than 1 ½ minutes. The water concrete ratio shall be between 0.55 to 0.64 for 1;2:4 mix as permitted workability (ref. IS 456 appendix –6).

**Compacting :**

The concrete shall be thoroughly compacted during depositing to get a dense concrete. The vibrators shall have not less than 3600 and preferably about 5000 impulses per minute and shall be worked at intervals of 60 minutes use shall be done to make required dense concrete without sinking and segregation of coarse aggregate

**Curing ; -**

The concrete shall be kept continuously wet preferably by ponding water for a period of not less than 14 days. From the date of placing continuously without a break holidays.

**Sampling and testing :**

Sampling of materials and concrete shall be done carefully by the contractor under the direct supervision of departmental staff as per IS 456- 1964 at the cost of the contractor. All necessary labour, materials equipments, etc. for sampling, preparing test cubes, curing etc. shall be provided by the contractor. Compressive strength of concrete shall not be less than those specified in the guide lines for testing of materials incorporated in this document.

**Steel :** Structural steel should conform to IS- 226-1962 Fabrication and erection should conform to IS-800-962. Welding should conform to IS-1956.

**Measurement**

For quantities mentioned in the estimates in case are not specified, should be measured as per IS-1200- 1974. Major earth work measurements are to be made by levels, taken initially and finally.

Note : Testing charges for testing of materials, concrete cubes, shutters of door and windows, piles etc. shall be borne by the contractor.

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## ADDITIONAL SAFETY MEASURES TO BE TAKEN BY THE CONTRACTORS SAFETY CODE

1. Suitable scaffolds should be provided for workman for all works that cannot be safely to be done from the ground or from solid construction except such short period work as can be done safely from ladders. When a ladder is used an extra man shall be engaged for holding the ladder and if the ladder is used in carrying materials as well, suitable footholds and handholds shall be provided on the ladder and the ladder shall be given an inclination not steeper than  $\frac{1}{4}$  to  $\frac{1}{4}$  horizontal and 1 vertical.
2. Scaffolding or staging more than 12 above the ground or floor suspended from an overhead support of erected with stationary supports shall have a guard rail properly attached, holed, braced and otherwise secured at least 3ft. high above floor or platform of such scaffolding or staging and ends thereof with only such openings as may be necessary for the delivery of materials. Such scaffolding or staging shall be so fastened as to prevent it from swaying from the building or structure.
3. Working platform gangways and stair way should be so constructed that they should not sag unduly or unequally, and if the height or the platform of the gangway or the stair way is more than 12 ft. above ground level or floor level they should be closely boarded should have adequate width and should be suitably fenced as described in (1) above.
4. Every opening in the floor of building or in working platform be provided with suitable means to prevent the fall of persons or materials by providing suitable, fencing or railing whose minimum height shall be 3 ft.
5. Safe means of access shall be provided to all working platform and other working place. Every ladder shall be provided securely fixed no portable single ladder shall be over 30 ft. in length while the width between side rails in rung ladder shall in no case be less than 1  $\frac{1}{2}$ " for ladder up to and including 10 ft. in length. For longer ladders this width should be increased at least  $\frac{1}{4}$  % for each additional foot of length. Uniform spacing step spacing shall not be exceed 12". Adequate precautions shall be taken to prevent danger from electrical equipments. No materials on any of the said of work shall be stacked or placed as to cause danger or ☐anholes☐ence to any person or the public. The contractor shall also provide all necessary fencing and lights to protect the public from accident and shall be bound to bear the expenses of defence of every suit, action or other proceedings at all that may be any person injury sustained owing to neglect of the above precaution and to pay damages and cost which may be brought awarded in any such suit, action or proceedings to any such person or which may with the consent of the contractor, he has paid to compromise any claim by any such persons.
6. All trenches four feet or more in depth, shall at all times be supplied with at least one ladder for each 100 ft. in length or fraction thereof ladder shall be extended from bottom of the trench to at least 3' suitable slope of securely held by timber bracing, so as to avoid the danger of sides to collapse. The excavated materials shall not be placed within 5 ft. of the edge of the trench or half of the trench whichever is more. Cutting shall be done from top to bottom under no circumstance Under mining or under cutting shall be done.
7. Before any demolition work is commenced and also during the process of the work :
  - a. All roads and open areas adjacent to the work site shall either be closed or suitably protected.
  - b. No electric cable or apparatus which is liable to be a source of danger over a cable or apparatus used by the operator shall remain, electrically charged
  - c. All practical steps shall be taken to prevent danger to persons employed from rise of fire explosion or flooding no floor roof or other part of the building shall be so overloading with debris or material as to render it unsafe.
8. All necessary safety equipment as considered adequate by the Engineer Incharge should be kept available for the use of the persons employed on the site and maintained in condition suitable for immediate use and the contractor should take adequate steps to ensure proper use of equipment by the concerned.
  - a. Workers employed on mixing asphaltic materials, cement and lime mortars shall be provided with protective footwear and protective goggles.
  - b. Those engaged in white and mixing or stocking of cement bags or any materials which is injurious to the eye shall be provided with protective goggles.
  - c. Those engaged in welding works shall be provided with protective goggles etc.
  - d. Ston breaker shall be provided with protective goggles and protective clothing and seated at sufficiently safe intervals.
  - e. When worker are employed in sewers and manholes, which are in use, the contractor shall ensure that the man of covers are open and are at least for an hour before the workers are allowed to step into the manhole and the ☐anholes so opened shall be covered with suitable railing and provided with warning signs so boards to prevent to the public.
  - f. The contractor shall not employ below the age of 13 and women on the work of painting with products containing lead in any form whenever man above the age of 1 years are employed for the work of lead painting the following precautions should be taken.
    1. No paint containing lead or lead products should be used except in the form of paste or readymade paint.
    2. Suitable face masks should be supplied for the use of workers when paint is applied in the form of spray or a surface having lead point dry rubbed and scrapped.

3. Overalls shall be supplied by the contractors to the workman and adequate facilities shall be provided to enable the working painters to wash during the process of work.

9. When the work is done near any place where there is risk of drawing necessary equipment should be provided and kept ready. Prompt rescue of any person in danger and adequate provision should be made for prompt first aid and treatment of all injuries likely to be sustained during the course of the work.

10. Use of hoisting machines and tackle including their attachments, anchors and supports shall conform to the following standard or conditions.

1. (a) Those shall be of good mechanical construction, sound material and adequate strength and free from patent defect and shall be kept in good working order.

(b) Every rope used in hoisting or lowering materials or as a means of suspensions shall be of durable quality and adequate strength, and free from patent defect.

2. Every crane driver or hoisting appliance operator shall be properly qualified and no person under the age of 21 years should be in charge of any hoisting machine including any scaffold which or give signals to the operator.

3. In case of every hoisting machine and of every chain ring, hold, shackle, swivel and pulley block use in hoisting or lowering or as means. Every hoisting machine and all gear referred to above shall be plainly marked with the safe working load. In case of hoisting machine having a variable / safe working load of the conditions under which it is applicable shall be clearly indicated. No part of any machine or any gear referred to above in this paragraph shall be loaded beyond the safe working load except for the purpose of testing.

4. In case of departmental machines, the safe working load shall be notified by the Electrical Engineer in charge as regards contractor's machine the contractor shall notify the safe working load of machine to the Engineer in charge. Whenever he brings any machinery to site to work and get verified the Electrical Engineer concerned.

1. Gearing, transmission, electrical wiring and other dangerous part of hoisting appliances should be provided with sufficient safeguard. Hoisting appliances should be provided with such means as will reduce to minimum risk of accidental descent of the load. Adequate precaution should be taken to reduce to the minimum risk of any part of the suspended load becoming accidentally displaced.

When workers employed on electrical installations which are already energized, insulating mats wearing apparels such as gloves, sleeves and boots as may be necessary should be provided. The workers should not wear rings, watches and carry keys or other materials, which are good conductors of electricity.

11. All scaffolds, ladders and other safety devices mentioned or described herein shall be mentioned in safe conditions and no scaffold, ladder or equipment shall be altered or removed while it is used. Adequate washing facilities shall be provided at or near places of work.

13. These safety provisions shall be brought to the notice of all concerned by display on a notice board at a prominent place at the work spot. The persons responsible for compliance of the safety codes shall be named there in by the contractor.

14. To ensure effective enforcement of the rules regulations relating to safety precautions, the arrangements made by the contractor shall be open to inspection by the Labour Officer, Engineer in charge of the department or their representatives.

15. Notwithstanding the above clause from (i) to (xv) there is nothing in those to exempt the contractor from the operations of any other Act or rules in force in Republic of India.

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## SCHEDULE 'C'

### General Specifications

#### 1. Bricks : ( Ref. I.S. : 1077 – 1976 )

Bricks manufactured in Bull's patent kiln trench only shall be used unless otherwise specified, ringing sound when struck and should not break when thrown on the ground or against other bricks, They shall be clean, whole and free from flaws, cracks and under burnt lump of any kind, specially lime, and shall have sharp edges and angles and even surface. Bricks which when soaked in water for 24 hours absorb more water than one fifth of their dry weight shall be rejected. The bricks shall be manufactured from carefully selected good firm loam with necessary admixture of sand.

The common burnt clay bricks shall be classified on the basis of average compressive strength as given below :-

Class designation	(Average Compressive Strength)	
	Not less than ( Kg/cm <sup>2</sup> )	Less than (Kg/cm <sup>2</sup> )
75	75	100
50	50	75
35	35	50

The normal size of burnt bricks shall be 9" x 4.5" x 2.75" with usual variation of 1/8" on either side.

#### 2. Bricks Aggregate for Lime Concrete :

The brick aggregate shall be from hard well burnt brick bats and shall not exceed 1½" in size and shall be free from dust, clay, grass or any other foreign matter.

#### 3. Surkhi :

Surkhi shall be made from well burnt and should pass through a sieve of 1/12" mesh, in no case over burnt bricks to be used for the manufacture of Surkhi.

#### 4. Sand :

Sand shall be clean sharp and coarse and free all impurities and organic matter and be such as to pass through a 64 mesh sieve.

#### 5. Lime :

Lime stone shall be used in the work. It shall be slaked just before. All impurities, ashes, or pieces improperly or carelessly burnt shall be screened or picked out before slaking and removed at once from the work. Lime should pass through a screen 12/12 mesh to the square inch and stored in a dry place.

#### 6. Aggregate for Cement Concrete :

Aggregate for cement concrete shall be from trap, quartzite or hard quartz stone which shall pass through ¾" mesh and on ¼" mesh screens. The aggregate shall be well screened and washed used and shall be free from foreign matters.

#### 7. Cement Mortar :

The mortars shall consist of cement and sand mixed in the proportion defined in the relevant schedule item for the various items of work. Only measured quantity shall be used. Sand and cement shall be spread on a clean dry platform in layers one over the other mixture only when mortar is required for use, and then only in sufficient quantity to moisten the materials.

#### 8. Lime Concrete :

The mixture shall be slaked lime, surkhi and sand in the proportion defined in the relevant schedule item for the various items of work. Ground cinder may be used when directed by the Engineer-in-charge. Lime surkhi and sand are to be mixed dry on a platform of masonry and then sprinkled with necessary quantity of water and ground in mortar mill.

#### 9. Aggregate for Reinforced Cement Concrete :

Aggregate for R.C.C. shall be from trap, quartzite, or hard quartz stone. The aggregates shall pass through mesh and rest on 1/4" mesh screens. It shall be well screened and washed before used and free from foreign matters.

#### 10. Earth work in Excavation :

Excavation shall be strictly as shown in the plans. Bottoms of trenches shall be dressed level. All excavated earth will be placed not less than 5 feet from the edge of the foundation trench or directed by the Executive Engineer. All earth filling in the plinth or foundation basement will be done in not more than 6" layers well watered and rammed.

#### 11. Lime Concrete :

The concrete shall consist of an aggregate of the proportion mentioned in the schedule of items of approved quantities 1/2" gauge and down mixed with lime mortar. The concrete shall be mixed on a level platform. The aggregate shall be first washed clean thoroughly wetted and placed to an even thickness on platform. Dry mortar mixed in proper proportion as specified in schedule of quantities shall then be evenly spread over the aggregate and mixed thoroughly using sufficient water to make the mortar adhere to each piece of the aggregate. When the bed for the concrete is properly wetted, rammed and prepared the concrete shall be laid carefully in position in layer not exceeding 6". The basket etc. shall never be thrown from a high but gently laid with the basket. Each layer shall be well rammed with a heavy wooden hammer or iron hammer till the mortar comes to the surface. No water shall be added during ramming but the surface of each completed layer shall be watered and roughened before the next layer is added. The concrete shall be well rammed and kept wet after the day's work for such time till it is set and given more impression of the rammer when dropped over it. When concrete is to be laid under water or in wet location hydraulic lime rendered hydraulic shall be used.

#### 12. Cement Concrete :

The proportion of the concrete will be the same as specified in the schedule of quantities and will be strictly adhered to. The concrete shall be mixed properly in a power driven mixer in such a manner as to avoid loss of water. The concrete shall be mixed for a minimum period of two minutes or until it is of even colour and uniform consistency throughout. Hard mixed concrete shall contain 10% extra cement and shall be made on hard, clean and even surface. The cement and sand will be mixed dry until the mixture is uniform in colour. It shall then be spread evenly over the coarse aggregate and mixed thoroughly. The water shall then be added and the whole mixture mixed thoroughly until the mass is uniform in colour and consistency. Concrete shall be handled from the place of mixing to the place of final deposit as rapidly as practicable. The concrete once laid shall not be disturbed and shall be kept thoroughly damp by means of well matting and sand. The aggregate should consist of stone ball as of quantity approved by the Executive Engineer and shall consist of graded size 3/4" and down and as per C.P.W.D. specifications.

#### 13. Brick work in Mud Mortar :

The mud to be used for mortar shall be from selected earth of tenacious nature to which sand shall be added in much quantity that dried of the mixture shall not show sign of cracking. The mud shall be well trodden and variation in the consistency of paste will be the adding of sufficient water care being to remove all clods and stones.

14. Bricks work Lime Mortar :

Shall be done with brick soaked in water for not less than 4 hours before use in works. The proportion of mortar will be the same as per schedule of quantity which will be strictly adhered to. The completed work should be perfectly in accordance with the drawing so for the lime level and verticality is concerned, only mortar mixed properly in bull chakhi to be used.

15. Bricks words in Cement Mortar in Foundation plinth & superstructures :

Only selected bricks approved by Executive Engineer shall be used in the masonry. The bricks must be soaked in water for 6 hours before use. There should be proper bonding and shall be carried through the full width of the wall each coarse being truly longitudinal neither horizontal not vertical joints shall be of greater thickness than 1/4". The proportion of mortar will be as specified in the drawing will be laid over the plinth after cleaning on the brick work thoroughly of all its loose mortar stickling on surface as waiting it thoroughly. The concrete shall be with stone ballast of 3/4" size graded, in proportion of 1:2:4 (1 cement : 2 Sand : 4 chips). Cement concrete for D.P.C. should be cured for 5 days before a hot coat bitumen is applied on it. The bitumen painted surface should be immediately sealed with sand.

16. Damp proof course :

Damp proof coarse to a thickness as specified in the drawing will be laid over the plinth after cleaning on the brick work thoroughly of all its loose mortar sticking on surface and wetting it thoroughly. The concrete shall be with stone ballast of 3/4" size graded, in proportion of 1:2:4 (1 cement : 2 Sand : 4 chips). Cement concrete for D.P.C. should be cured for 5 days before a hot coat bitumen is applied on it. The bitumen painted surface should be immediately sealed with sand.

17. Lime Concrete 3" Thick in Floors and with Brick Ballast :

1 1/2" bricks aggregate and down gauge a specified by the Engineer-in-Charge with 50% of lime mortar consisting of lime and sand shall be used. The aggregate and mortar shall be thoroughly mixed before laying and rammed. Consolidation shall be done until a skin of puse mortar covers the surface and completely hide the aggregate. No mortar or water shall be added during ramming the mortar shall be mixed in a Bali Chakey.

18. 1" Patent Stone Flooring 1:2:4 :

The concrete shall consist of 1 cement 2 sand stone ballast 1/2" down gauge. In all cases only measured quantities shall be used. In all first be mixed dry and then with the aggregate. The whole shall then be laid properly with water and then laid in a layer of 1" thick over prepared sub base and beaten thoroughly with wooden straight edge. The surface be finished with a floating coat of neat cement to the satisfaction of the Engineer-in-charge. The finished floors shall be kept wet for at least 7 days.

19. Reinforced Cement Concrete 1:2:4 slabs, Roofing's Lintels Chajja etc. Reinforcement to be done with a net work of M.S. rods as specified under quality schedule or by the Engineer-in-charge. Rods and netting shall be woven by the contractor at his own cost. Every alternative cross over of M.S. rods shall be tied fast with binding wire of approved gauge. The netting shall be of proper size. The concrete shall be of good clean aggregate properly damped with clean water. The size of the stone aggregate to be used shall be 3/4" gauge and below . The proportion shall be 1 cement 2 sand 4 stone ballast. Before laying the concrete the centering and frame works will have to be approved by the Engineer-in-charge or his authorized officer. The concrete shall be well mixed before laying and vibrated properly till mortar comes out to the surface and the reinforcing rods are thoroughly embedded in concrete. Care is to be taken that specified covering is there and no reinforcing material are exposed from outside. The laid concrete should not be disturbed and be kept wet for 10 days. The centring will be removed only after 7 days placing the concrete or as directed by the Executive Engineer.

20. Plaster inside and outside :

Prior to the application of plaster the faces of the wall shall be cleaned and the joints of the bricks work rated out to depth of ½” and properly watered for at least 6 hours. The plaster shall be thoroughly smoothened and subbed with strength edges and wooden flats in a proper workman like manner. Watering, shall be continued for 7 days on the finished surface. The mortar will ordinarily consist of cement and in the proportion as specified in the schedule of quantity which should be strictly adhered. Where lime is also specified the cream of lime shall be prepared by thoroughly slaking required quantity of quick lime with the minimum quantity of water in order to get a thick slurry. The slurry of lime shall then be screened through a clean cloth to remove all dirt and any un-slaked like particulars. Sand shall be measured by volume in suitable size measuring boxes while cement shall be measured by weight taking 1 bag as 1.20 cft. Screened cream of lime and screened sand shall be mixed together in requisite proportion and the where than mixed with necessary of cement. The minimum quantity of water to give a working consistency to the mix should only be added and no more. The plaster shall be applied immediately after mixing maintaining the said precautions as for cement mortar.

21. ½” Cement Plaster Dado 1:3.

All the joints of masonry should raked ¾” deep and the walls should be thoroughly wetted at least 6 hours before the plaster in laid. The plaster should be laid on with some what more than the thickness and leveled and finished with a trowel. The plaster should be kept constantly watered for the 3 weeks. The thread lining is to be done. It should be done before the cement takes initial set.

22. White washing three coats :

White washing shall be prepared from burned shall lime thoroughly mixed with water, it should give a thin creamy consistency. It should then be screened through clean cloth. Clean gum dissolved in hot water or good conjee water shall be added in proportion of tounces to 1 Cit. for each coat is allowed to be applied. The new walls shall be well cleared and brushed. Each coat of white wash should be allowed to dry before applying next coats.

8. Lime Concrete :

The mixture shall be slaked lime, surkhi and sand in the production defined in the relevant schedule item for the various items of work ground cinder may be used when directed by the Engineer-in-charge. Lime surkhi and sand are to be mixed dry on a platform of masonry and then sprinkled with necessary quantity of water and ground in mortar mill.

9. Aggregate for Reinforced Cement Concrete :

Aggregate for R.C.C. shall be from trap, quartz, or hard quartz tone. The aggregates shall pass through mesh and rest on ¼” mesh screens. It shall be well screened and washed before used and free from foreign matters.

10. Earth work in Excavation :

Excavation shall be strictly as shown in the plans. Bottoms of trenches shall be dressed level. All excavated earth will be placed not less than 5 feet from the edge of the foundation trench or directed by the Executive Engineer. All earth filling in the plinth or foundation basement will be done in not more than 6” layers well watered rammed.

11. Lime Concrete :

The concrete shall consist of an aggregate of the proportion mentioned in the schedule of items of approved quantities ½” gauge and down mixed with lime mortar. The concrete shall be mixed on a level platform. The aggregate shall be first washed clean thoroughly wetted and placed to an even thickness on platform. Dry mortar mixed in proper proportion as specified in schedule of quantities shall than be evenly spread over the aggregate and mixed thoroughly using sufficiently water to make the mortar adherent each piece of the aggregate. When the bed for the concrete is properly wetted, rammed and prepared the concrete shall be laid carefully in position in

layer not exceeding 6". The basket etc. shall never be thrown from a high but gently laid with the basket. Each layer shall be well rammed with a heavy wooden hammer or iron hammer till the mortar comes to the surface. No water shall be added during ramming but the surface of each completed layer shall be watered and roughened before the next layer is added. The concrete shall be well rammed and kept wet after the day's work for such time till it is set and given more impression of the rammer when dropped over it. When concrete is to be laid under water or in wet location hydraulic lime rendered hydraulic shall be used.

#### 12. Cement Concrete :

The proportion of the concrete will be the same as specified in the schedule of quantities and will be strictly adhered to. The concrete shall be mixed properly in a power driven mixer in such a manner as to avoid loss of water. The concrete shall be mixed for a minimum period of two minutes or until it is of even colour and uniform consistency through out. Hard mixed concrete shall contain 10% extra cement and shall be made on hard, clean and even surface. The cement and sand will be mixed dry until the mixture is uniform in colour. It shall then be spread evenly over the coarse aggregate and mixed thoroughly. The water shall then be added and the whole mixture mixed thoroughly until the mass is uniform in colour and consistency. Concrete shall be handled from the place of mixing to the place of final deposit as rapidly as practicable. The concrete once laid shall not be disturbed and shall be kept thoroughly damp by means of well matting and sand. The aggregate should consist of stone ball as of quantity approved by the Executive Engineer and shall consist of graded size 3/4" and down and as per C.P.W.D. specifications

#### 13. Brick work in Mud Mortar :

The mud to be used for mortar shall be from selected earth of tenacious nature to which sand shall be added in much quantity that dried of the mixture shall not show sign of cracking. The mud shall be well trodden and variation in the consistency of paste will be the adding of sufficient water care being to remove all clods and stones.

#### 14. Bricks work Lime Mortar :

Shall be done with brick soaked in water for not less than 4 hours before use in works. The proportion of mortar will be the same as per schedule of quantity which will be strictly adhered to. The completed work should be perfectly in accordance with the drawing so for the lime level and verticality is concerned, only mortar mixed properly in bull chakhi to be used.

#### 15. Bricks work in Cement Mortar in Foundation plinth & superstructures :

Only selected bricks approved by Executive Engineer shall be used in the masonry. The bricks must be soaked in water for 6 hours before use. There should be proper bonding and shall be carried through the full width of the wall each course being truly longitudinal neither horizontal nor vertical joints shall be of greater thickness than 1/4". The proportion of mortar will be as specified in the drawing will be laid over the plinth after cleaning on the brick work thoroughly of all its loose mortar sticking on surface as waiting it thoroughly. The concrete shall be with stone ballast of 3/4" size graded, in proportion of 1:2:4 (1 cement : 2 Sand : 4 chips). Cement concrete for D.P.C. should be cured for 5 days before a hot coat bitumen is applied on it. The bitumen painted surface should be immediately sealed with sand.

#### 16. Damp proof course :

Damp proof course to a thickness as specified in the drawing will be laid over the plinth after cleaning on the brick work thoroughly of all its loose mortar sticking on surface and wetting it thoroughly. The concrete shall be with stone ballast of 3/4" size graded, in proportion of 1:2:4 (1 cement : 2 Sand : 4 chips). Cement concrete for D.P.C. should be cured for 5 days before a hot coat bitumen is applied on it. The bitumen painted surface should be immediately sealed with sand.

17. Lime Concrete 3" Thick in Floors and with Brick Ballast :

1½" bricks aggregate and down gauge as specified by the Engineer-in-Charge with 50% of lime mortar consisting of lime and sand shall be used. The aggregate and mortar shall be thoroughly mixed before laying and rammed. Consolidation shall be done until a skin of pure mortar covers the surface and completely hides the aggregate. No mortar or water shall be added during ramming the mortar shall be mixed in a Bali Chakey.

18. 1" Patent Stone Flooring 1:2:4 :

The concrete shall consist of 1 cement 2 sand stone ballast ½" down gauge. In all cases only measured quantities shall be used. It shall first be mixed dry and then with the aggregate. The whole shall then be laid properly with water and then laid in a layer of 1" thick over prepared sub base and beaten thoroughly with wooden straight edge. The surface be finished with a floating coat of neat cement to the satisfaction of the Engineer-in-charge. The finished floors shall be kept wet for at least 7 days.

19. Reinforced Cement Concrete 1:2:4 slabs, Roofing's Lintels Chajja etc. Reinforcement to be done with a net work of M.S. rods as specified under quality schedule or by the Engineer-in-charge. Rods and netting shall be woven by the contractor at his own cost. Every alternative cross over of M.S. rods shall be tied fast with binding wire of approved gauge. The netting shall be of proper size. The concrete shall be of good clean aggregate properly damped with clean water. The size of the stone aggregate to be used shall be ¾" gauge and below. The proportion shall be 1 cement 2 sand 4 stone ballast. Before laying the concrete the centering and frame works will have to be approved by the Engineer-in-charge or his authorized officer. The concrete shall be well mixed before laying and vibrated properly till mortar comes out to the surface and the reinforcing rods are thoroughly embedded in concrete. Care is to be taken that specified covering is there and no reinforcing material is exposed from outside. The laid concrete should not be disturbed and be kept wet for 10 days. The centering will be removed only after 7 days placing the concrete or as directed by the Executive Engineer.

20. Plaster inside and outside :

Prior to the application of plaster the faces of the wall shall be cleaned and the joints of the bricks work raked out to depth of ½" and properly watered for at least 6 hours. The plaster shall be thoroughly smoothed and subbed with strength edges and wooden flats in a proper workman like manner. Watering, shall be continued for 7 days on the finished surface. The mortar will ordinarily consist of cement and in the proportion as specified in the schedule of quantity which should be strictly adhered to. Where lime is also specified the cream of lime shall be prepared by thoroughly slaking required quantity of quick lime with the minimum quantity of water in order to get a thick slurry. The slurry of lime shall then be screened through a clean cloth to remove all dirt and any un-slaked lime particulars. Sand shall be measured by volume in suitable size measuring boxes while cement shall be measured by weight taking 1 bag as 1.20 cft. Screened cream of lime and screened sand shall be mixed together in requisite proportion and then mixed with necessary quantity of cement. The minimum quantity of water to give a working consistency to the mix should only be added and no more. The plaster shall be applied immediately after mixing maintaining the said precautions as for cement mortar.

21. ½" Cement Plaster Dado 1:3.

All the joints of masonry should be raked ¾" deep and the walls should be thoroughly wetted at least 6 hours before the plaster is laid. The plaster should be laid on with some what more than the thickness and leveled and finished with a trowel. The plaster should be kept constantly watered for the 3 weeks. The thread lining is to be done. It should be done before the cement takes initial set.

22. White washing three coats :

White washing shall be prepared from burned shell lime thoroughly mixed with water, it should give a thin creamy consistency. It should then be screened through clean cloth. Clean gum dissolved in hot water or good congee water shall be added in proportion of tounces to 1 Cit. for each coat is allowed to be applied. The new walls shall be well cleared and brushed. Each coat of white wash should be allowed to dry before applying next coats.

23. 5" thick trellis work in cement mortar 1:3 :

5" thick Ist class bricks trellis work in cement mortar 1:3 will be done with bricks soaked in water for into less than 4 hours before in work. Watering to be continued on finished trills work for at least 7 days. Freshly mixed mortar shall be used and ½" thick cement plaster as directed Executive Engineer shall be applied.

24. Colour Washing :

The colour washing shall be prepared applied in accordance with the standard specifications for white washing except that the contractors that provide colouring matter specified and ordered by the Engineer-in-charge during use. The colour wash should be stared continuously during use. The colour should be of even the over the whole surface.

25. Lime Concrete Terracing on Roof :

Bricks aggregate 1" and down gauge with 50% of more consisting of 1 lime : 2 surkhi shall be used. The brick aggregate will be well watered before mixing up with mortar. The lime should be thoroughly screened and made from free from kankars. The mortars should be mixed in prilchakey separately and then mixed thoroughly with the aggregate before laying over roof. The mixture should be properly leveled before besting. The concrete should then the thoroughly consolidated by being beaten with wooden mallets ( Thapits). Lime water should be sprinkled at intervals on the terrier to keep it wet while beaten. Proper slopsare to be made towards eaves for flow or the rain water. In no as shall the mixture be allowed to dry until the work is complete. The surface shall be softened by being sprinkled with clean water and the mortar which will rise to this surface during beating shall be smoothed and finished off with lime slurry gur and be light treatment complete. No plastering shall on any account be put on the surface watering shall be continued for 10 days after the completion of the work at the cost of contractor(s). Ghoondi to be made of the same mix as in terrace along with junction of the parapets roof to the design as per the instruction of the Engineer-in-charge.

26. Sal Wood and Window Frames :

The frames shall be made of well seasoned sal wood free from sap bends sun crack, shakes on blemishes of any kind. Alternatively kith seasoned and treated Badam or chuglum free from sap bends flaws sun cracks shakes or blemishes of and kind will be acceptable.

27. Door and Windows shutters :

Pannelled and glazed and battened shutter 1 to 11" thick shall be of Ist class Indian teak wood and 1" to 1 ¼" battened shutters shall be of wood as specified by Executive Engineer. Kiln seasoned and treated Badam wood or chuglum wood will also be acceptable. They shall be framed and put together, planted smooth in all surfaces and finished in accordance with the best class of joinery.

28. Holdfasts :

1" x 1 ½" x 1/8" / 12 x 1 ½" x 1/8" M.S. Flat holfasts shall be set in cement mortar 1: 2 : 4 6Nos. for each door, 4 Nos. for each windows and 2 Nos. for each clearstory window.

29. Pucca Drain :

Earth excavation for cutting trenches for drain shall be done by the contractor and got approved by the Engineer-in-charge. The drain shall be made from well burned brick with cement concrete bed. Size shall be as specified in the schedule. The surface of the top, sides and beds shall cement plaster with smooth surface. Necessary earth fitting by the side of the drain shall also be done.

30. Painting Door and Windows :

Painting two coats over one coat of priming to all doors and windows shall be done. The quality and shade of the paint shall be approved by Engineer-in-charge. The wood surface to be painted shall be thoroughly cleaned and sand paper before painting.

31. Window gratings :

3/4" dia M.S. rounds vertically and 1/4" to 1/8" M.S. flats horizontally shall be fixed to windows. The vertical bars shall be 4" center to center.

32. 1/4" Cement Plaster 1/4 in ceiling :

The surface of the ceiling to be plastered should be thoroughly cleaned and dammed before the plaster laid 1 part of clean cement and 4 parts of screened sand shall be mixed and immediately applied on the surface.

33. Construction brick masonry chullah :

Chullah shall be constructed and 2<sup>nd</sup> class brick masonry in cement mortar 1:6 with 2 holes and iron gratings complete as per design and finish with sand and gobra plaster.

34. Ventilators :

Wiring melted or R.C.C. Jali ventilators of required size shall be fixed in the walls as per specification and drawing.

35. Absorbers Rain Water Pipe :

In order to facilitate painting all pipes will be blocked 1 1/2" from the wall. Absorbers leads and shoes shall be provided of the proper size for the size of rain water pipes the shoes being fixed 6" above ground level.

36. Fan Clamps :

5/8 dia M.S. Fan hooks shall be provided and fixed in the ceiling for Electric Fans.

37. Fly – Proof Doors :

Galvanised iron proof webbing 16 x 16 mesh shall be used. The webbing shall be fixed securely to the styles rails and mounting by G.I. staples at about 6" intervals. The styles rails and mounting around the fly proof webbing shall be moulded.

38. Items not covered by above will be guided by the specification of C.P.W.D. or as decided by the G.M.(Civil) whose interpretation will be final.

## **ANNEXURES.**

**SPECIMEN OF LETTER OF CONTRACTOR'S ACCEPTANCE OF PROVISIONAL  
REDUCTION OF RATE FOR SUBSTANDARD WORK.**

No.

dt.

To

.....  
.....

Sir,

Subject: (Complete name of work).....

Reference: Your letter No.....

I/We have carefully read the terms and conditions offered in your letter dated..... and they are acceptable to me/us.

Pending the decision of the Engineer in Charge of the final rates of payment against the items of work specified in the statement attached to your above letter, which will be final and binding, I/ We agree to the same being paid at the provisional rates indicated against each of the said item of work for the above work as mentioned in your statement.

Yours faithfully,

Contractor(s)

**PROFORMA OF BANK GUARANTEE FOR REMOVAL OF PLANT & EQUIPMENT FROM THE SITE OF COAL INDIA LIMITED/**

**SUBSIDIARY COMPANY.**

In consideration of Coal India Limited/Subsidiary Company (hereafter called "the Company" which expression shall repugnant to the subject or context includes its successors and assigns) having agreed to under the terms & conditions of the Contract No..... dated..... entered into between the company and M/s..... having its Office at..... (hereinafter called "the Contractor") to permit the Contractor to remove the plant & equipment as fully described in the Schedule of the Hypothecation Deed dated..... executed by the Contractor in favour of the Company from the site to any other works of the Contractor on its furnishing the Bank Guarantee for Rs..... we, the ..... Bank (hereinafter referred to as the said Bank) having its Registered Office at ..... do hereby undertake and agree to pay the Company to the extent of Rs. .... on demand stating that the amount claimed by the Company is due and payable by the contractor for its failure in bringing back the said plant & equipment or any part thereof to the site and to unconditionally pay the amount claimed by the company on such demand without any demur to the extent aforesaid.

We, the ..... Bank agree that the Company shall be the sole judge as to whether the said contractor has failed/neglected in bringing back the plant & equipment to the site and the amount has become due for such failure and the decision of the company in this behalf shall be final and binding on us.

We, the said Bank further agree that the Guarantee herein contained shall remain in full force and effect upto..... and any claim received after the said date shall in no case be bind the Bank.

Notwithstanding anything contained herein the liabilities of the said Bank under this Guarantee are restricted to Rs..... and this Guarantee shall come into force from the date thereof and shall remain in full force and effect till ..... unless the written demand or claim under this guarantee is made by the company with us on or before..... all the rights of the Company under this guarantee shall cease to have any effect and we shall be retrieved and discharged our liabilities hereunder.

We, the said Bank lastly undertake not to revoke this guarantee under its currency except with the previous consent of the Company in writing and agree that any change in the constitution of the said Contractor or the said Bank shall not discharge the liabilities hereunder.

This Guarantee is issued by Sri..... who is authorized by the Bank.

Under jurisdiction of ..... Court only.

**PROFORMA OF BANK GUARANTEE IN LIEU OF SECURITY DEPOSIT.**

Bharat Coking Coal Ltd.  
Koyla Bhawan , Koyla Nagar  
Dhanbad  
826005

Dear Sir,

In consideration of M/s. Coal Bharat Coking Coal Ltd. having its Registered Office at Koyla Bhawan Koyla Nagar Dhanbad (hereinafter called "the Company" which expression shall unless repugnant to the subject or context includes its successors and assigns) having agreed under the terms and conditions contained in letter No..... dated..... issued in favour of M/s. .... for ..... (hereinafter referred to as "the contract") to accept the Deed of guarantee as herein provided for Rs..... from the Schedule/ Nationalised Bank in lieu of security deposit to be made by M/s..... (hereinafter called "the Contractor") or in lieu of deduction to be made from the contractor's bill, for the due fulfillment of the terms and conditions contained in the said contract by the contractor, we the ..... Bank (hereinafter referred to as the said Bank) having its Registered Office at..... do hereby undertake and agreed to pay the company to the extent of Rs..... on demand stating that the amount claimed by the company is due and payable by the contractor for the reasons of failure/negligence in performing the terms and conditions contained in the contract by the buyer and to unconditionally pay the amount claimed by the company on demand without any demur to the extent aforesaid.

We, the..... Bank agree that the company shall be the sole judge as to whether the said contractor has failed/neglected in performing any of the terms and conditions of the said contract and the decision of the company in this behalf shall be final and binding on us.

We, the said Bank further agree that the Guarantee herein contained shall remain in full force and effect upto ..... and any claim received after the said date shall in no case bind the Bank.

The Company shall have the fullest liberty without affecting in any way the liability of the Bank under this guarantee or indemnity from time to time vary any of the terms and conditions of the said contract or to extend the time of performance by the said contractor or to postpone any time and from time to time any of the powers exercisable by it against the said contractor and either to enforce or to forbear from enforcing any of the terms and conditions governing the said contract or securities available to the company and the said Bank shall not be released from its liability under these presents.

contd. p/2

Notwithstanding anything contained herein the liability of the said Bank under this guarantee is restricted to Rs..... and this Guarantee shall come into force from the date hereof and shall remain in full force and effect till ..... Unless the written demand or claim under this guarantee is made by the Company with us on or before ..... all rights of the company under this guarantee shall cease to have any effect and we shall be relieved and discharged from our liabilities hereunder.

We the said Bank lastly undertake not to revoke this guarantee during its currency except with the previous consent of the company in writing and agree that any change in the constitution of the said contractor or the said bank shall not discharge our liability hereunder.

This guarantee issued by Sri ..... who is authorised by the Bank.

Under jurisdiction of ..... court only.

**PROFORMA OF BANK GUARANTEE FOR PERFORMANCE**  
**SECURITY OF THE CONTRACT**

To

.....  
.....

Re: Bank Guarantee in respect of Contract No.....

Dated..... Between ..... (name of the )  
and ..... ( name of the Contractor)

M/s. .... (Name and address of the Contractor) (hereinafter called "the Contractor" with M/S. .... (name of the Company) (hereinafter called "the Company") to execute ..... (name of the contract and brief description of work) on the terms and conditions contained in the said contract.

It has been agreed that the Contractor shall furnish the Bank Guarantee from a Nationalised/ Schedule bank for a sum of Rs..... as security for due compliance and performance of the terms and conditions of the said contract.

The ..... (name of the Bank) having its Office at..... has at the request of the Contractor agreed to give the Guarantor hereinafter contained.

We, the ..... Bank (hereinafter called "the Bank" do hereby unconditionally agreed with the Company that if the contractor shall in any way fail to observe or perform the terms and conditions of the said contract or shall commit any breach of its obligation thereunder, the Bank shall on demand and without any objection or demur to pay to the company the said sum of Rs..... or such portion as shall then remain due with interest without requiring the Company to have recourse to any legal remedy that may be available to it to compel the Bank to pay the sum, or failing on the company to compel such payment by the contractor.

Any such demand shall be conclusive as regards the liability of the Contractor to the company and as regards the amount payable by the Bank under this Guarantee. The Bank shall not be entitled to withhold payment on the ground that the Contractor has disputed its liability to pay or has disputed the quantum of the amount or that any arbitration proceeding or legal proceeding is pending between the company and the Contractor regarding the claim.

We, the ..... Bank further agree that the Guarantee shall come into force from the date hereof and shall remain in force and effect till the period that will be taken for the performance of the said Contract which is likely to be ..... day of ..... but if the period of Contract is extended either pursuant to the provisions in the said contract or by mutual agreement between the contractor and the company the Bank shall renew the period of the Bank Guarantee failing which it shall pay to the company the said sum of Rs..... or such lesser amount of the said sum of Rs..... as may be due to the company and as the company may demand.

contd. p/2

This Guarantee shall remain in force until the dues of the company in respect of the said sum of Rs..... and interest are fully satisfied and the Company certifies that the Contract has been fully carried out by the Contractor and discharged the guarantee.

The Bank further agrees with the company that the company shall have the fullest liberty without consent of the Bank and without affecting in any way the obligations hereunder to vary any of the terms and conditions of the said contract or to extend time for performance of the said contract from time to time or to postpone for any time or from time to time any of the powers exercisable by the Company against the contractor and to forebear to enforce any of the terms and conditions relating to the said Contract and the Bank shall not be relieved from its liability by reason of such failure or extension being granted to the Contractor or to any forbearance, act or omissions on the part of the company or any indulgence by the Company to the Contractor or any other matter or thing whatsoever which under the law relating to sureties would but for this provision have the effect or relieving or discharging the Guarantor.

The Bank further agrees that in case this Guarantee is required for a longer period and it is not extended by the Bank beyond the period specified above the Bank shall pay to the company the said sum of Rs..... or such lesser sum as may then be deemed to the Company and as the Company may require.

Notwithstanding anything contained herein the liability of the Bank under this Guarantee is restricted to Rs..... the guarantee shall remain in force till the day ..... of ..... and unless the guarantee is renewed or claim is preferred against the bank within six months from the said date all rights of the Company under this guarantee shall cease and the Bank shall be relieved and discharged from all liabilities hereunder except as provided in the preceding Clause.

This guarantee will not be discharged due to the change in the constitution of the Bank or the Contractor.

The Bank has under its constitution power to give this Guarantee and Sri..... who has signed it on behalf of the Bank has authority to do so.

Dated., this ..... day of .....

Signature of the authorized person

For and on behalf of the Bank

Place

Under jurisdiction of ..... court only.

**(This is applicable for Turn Key Contracts Only)**

**PROFORMA FOR AFFIDAVIT TO BE SUBMITTED BY THE TENDERER****Non Judicial Stamp Paper.****AFFIDAVIT**

I, \_\_\_\_\_, Partner/Legal Attorney/ Accredited Representative of M/S \_\_\_\_\_  
 \_\_\_\_\_, solemnly declare that :

7. We are submitting Tender for the Work \_\_\_\_\_  
 \_\_\_\_\_ against Tender Notice No. \_\_\_\_\_  
 --- dt \_\_\_\_\_
8. None of the Partners of our firm is relative of employee of Bharat Coking Coal Ltd.
9. All information furnished by us in respect of fulfillment of eligibility criteria and qualification information of this Tender is complete, correct and true.
10. None of the partners of the Firm has either individually or collectively been involved in criminal offences.
11. All documents/ credentials submitted alongwith this Tender are genuine, authentic, true and valid.
12. If any information and document submitted is found to be false/ incorrect any time, department may cancel my Tender and action as deemed fit may be taken against us, including termination of the contract, forfeiture of all dues including Earnest Money and banning / delisting of our firm and all partners of the firm etc.

Signature of the Tenderer

Dated-----

Seal of Notary

**PROFORMA FOR EXECUTION OF AGREEMENT.**

**STAMP PAPER.**

This agreement is made on ..... day of ..... between ( Name of Company ) having its registered office at ..... (hereinafter called the 'COMPANY' which expression shall, unless repugnant to the subject or context, include its successors and assignees) of the one part and ( Name of the Contractor ) carrying on business as a ( partnership/ proprietorship/ Ltd. Co. etc. ) firm under the name and style ..... (hereinafter called the 'said Contractor' which expression shall, unless the context requires otherwise include them and their respective heirs, executors, administrators and legal representatives) of the other part.

Whereas the Company invited tenders for the work of "....." and whereas the said Contractor/ Firm submitted tender for the said work and deposited a sum of Rs..... as Earnest Money and whereas the tender of the said contract has been accepted by the Company for execution of the said work.

**NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:**

- 1) In this agreement words and expressions shall have the same meaning as are respectively assigned to them in the tender papers hereinafter referred to.
- 2) The following documents which are annexed to this agreement should be deemed to form and be read and construed as part of this agreement viz.

- i) Annexure-A Tender Notice (Page .. to ..)
- ii) Schedule –A General Terms & Conditions, Special Conditions and General Technical Specification (Page .... to ...)
- iii) Schedule-B The probable Quantities and Amount (Page ... to ...)
- iv) Schedule-C Negotiation letters –
- iv) Schedule-D Letter of Acceptance/Work Order (Page .. to ..)
- v) Schedule-E Drawings (Page .. to ..)

3) In consideration for the payment of the sum of Rs.....( W/O Value; both in words and figures ) or such other sum as may be arrived at under the clause of the specification relating to Payment by items measurements at unit prices by the Company, the said Contractor shall, subject to the terms & condition contained herein execute and complete the work as described and to the extent of probable quantities as indicated in Schedule B with such variations by way of alteration, addition to or reduction from the said works.

4) The company has received a sum of Rs..... towards Performance Security Deposit (1<sup>st</sup> part of Security Deposit) in the form of Demand Draft / Certified Cheque/ B.G./ *other form (details to be furnished)* .

5) The said contractor hereby covenants with the company that the company shall deduct at 5% of R/A Bills as Retention Money (2<sup>nd</sup> part of security deposit ) to make the total Security as 10%(ten percent) of contract value, as per the terms & condition of the tender/ contract.

IN WITNESS WHEREOF THE parties herein have set their hands and seals the date and year above written.

1 Partner. Signature

2 Partner Signature

On behalf of M/S.....

The Contractor, as one of the constituted attorney,

In the presence of –

1. Name \_\_\_\_\_ Signature

Address :

Occupation :

Signed by Sri .....on behalf of

Signature

( Name of Company) in presence of –

1. Name : Signature

2. Address: .

**DECLARATION**

I hereby declare that my / our firm has not been banned or delisted by any Government or Quassi Government agencies or PSU's.

Signature of the Tenderer

# BHARAT COKING COAL LIMITED

(A Subsidiary of Coal India Limited)

Regd. Officer : Koyla Bhawan  
OFFICE OF THE GENERAL MANAGER

B.C.C.L., C.V. AREA-XII  
P.O.- BARAKAR, DIST-BARDHMAN, (W.B.)

## PART – II

### (PRICE BIDS)

(TO BE SUBMITTED IN SEPARATE ENVELOP )

1. **Name of work** : “Construction of P.C.C road at R.K. Colony, DBOCP under C.V.Area.”

2. Name of Tenderer :

Address :

Contact No. ( Tel / Mob.) :

3. N.I.T. Reference : BCCL/XII/ACE/NIT/2010-11/ 169/682  
(Sl.No.-2)

dated: 26.11.2010

4. Date of Receipt of tender : Up to 3.00 P.M. on 20.12.2010

5. Date of opening of tender : At 3.30 P.M. on 20.12.2010

6. Date of open of Envelope (Part-II) : To be communicated later .

7. Documents issued to : BILL OF QUANTITY – 1 page (page no-64)

SIGNATURE OF ISSUING OFFICER

# **BILL OF QUANTITY**

**FOR**

**“Construction of P.C.C road at R.K. Colony, DBOCP under C.V.Area.”**

<b>Sl.No.</b>	<b>Description of Item</b>	<b>Qty</b>	<b>Unit</b>	<b>Rate</b>	<b>Amount</b>
<b>1/ 2.6.1</b>	Earth work in excavation nby mechanical means (Hydraulic excavator) /manual means over areas (exceeding 30 cm in depth. 1.5m in width as well as 10sqm on plan) including disposal of excavated earth, lead up to 50m and lift up to 1.5m, disposed earth to be leveled and neatly dressed. All kinds of soil.	74.70	Cum	101.85	7608.19
<b>2/ Anlysied</b>	Dry brick flat soling with bricks of CD 50 including filling joints with sand.	498.00	Sqm	111.09	55322.82
<b>3/ 16.42</b>	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 40 mm nominal size) in pavements, laid to required slope and camber in panels as required including consolidation finishing and tamping complete.	74.70	Cum	3340.25	2,49,516.67
	<b>Total</b>			<b>Rs.</b>	<b>3,12,447.68</b>
			<b>Say</b>	<b>Rs.</b>	<b>3,12,448.00</b>

**Having gone through the Tender documents & elements of work in the bill of quantity :-**

**I / we quote \_\_\_\_ % ( \_\_\_\_\_ ) above / below the estimated cost.**

**Our quoted offer amounts to Rs. \_\_\_\_\_ ( Rupees \_\_\_\_\_**

**\_\_\_\_\_ ) including the above percentage.**

Signature & seal of Tenderer