



CIVIL FACTORY AND DESIGNS

Phone: 04172- 212026/254694 Fax : 04172 -241102

Email : ccdurai@bhelrpt.co.in

BAP: CF&D:16 / 3811

December 7, 2009

To

Dear Sir(s),

Sub: **Civil maintenance works in factory up to March 2010** - Reg.

Ref: Tender Notice No .BAP: CF: 33 / 2009 – 2010 Dt 07.12.2009.

We herewith enclose the document for the above work. You are required to submit most competitive offer in a sealed cover so as to reach the office of Sr DGM (Civil Projects & Services) before 15.00 Hrs. **The tender shall be opened at 15.00 Hrs. on the same day.**

Name of work	Civil maintenance works in factory up to March 2010				
EMD amount	Rs 40,000.00	Dt. of Opening	22.12.2009	Period of Contract	Up to 31.03.2010

THE SUCCESSFUL TENDERER IS REQUIRED TO START THE WORK IMMEDIATELY AND COMPLETE THE WORK WITHIN THE STIPULATED TIME. UNDER ANY CIRCUMSTANCES NO EXTENSION OF TIME WILL BE GRANTED. ANY DELAY BEYOND THE DUE DATE OF COMPLETION WILL BE SUBJECT TO LIQUIDATED DAMAGES.

- The successful tenderer has to remit Security Deposit as mentioned in the Page -2.

- We hope to receive your offer on the due date of opening and in case you are not interested to quote, then You please state the reasons and return back the documents.

- Increasing the rates subsequent to opening of tender is not admissible and the tender is liable for cancellation / forfeiture of EMD if any. The rates quoted in the tender shall remain valid for a period of Three Months from the date of opening the tender.

- No deviations to the tender conditions will normally be accepted.

Thanking you,

Yours faithfully,

For and on behalf of BHEL,

(V.RAJENDRAN)

Manager (Civil Project & Services)

Encl.: Tender Document

(Contd.....2)



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Earnest Money Deposit : (Clause 8.1)

- (i) The Earnest Money Deposit for the above work is given in the above column and will be accepted as CASH (at BHEL Cash Office, Ranipet – 6) (as permissible under Income tax Act) or PAY ORDER or DEMAND DRAFT drawn in favour of, BHEL / RANIPET – 6 payable at SBI / BHEL Project, Mukundarapuram (Bank Code No : 7013).
- (ii) The EMD will be refunded to unsuccessful tenderers within 15 days of acceptance of award of work by the successful tenderer. **The same will be refunded thro Electronic Fund Transfer only.** Other modes of refund like Demand draft, Cheque, Pay order etc., will not be made.
- (iii) For successful Tender, the EMD shall be converted / adjusted against the Security Deposit.
- (iv) The EMD shall not carry any interest
- (v) Without EMD, your tender will not be considered

Security Deposit : (Clause 8.2)

- (i) The rate of security deposit will be as below (w.r.t. Total contract value):
- Up to Rs 10 lakhs : **10%**
 - Above Rs 10 Lakhs Up to Rs 50 lakhs : **Rs 1 Lakh + 7.50% of the amount exceeding Rs 10 Lakhs**
 - Above Rs 50 Lakhs : **Rs 4 lakhs + 5.00% of the amount exceeding Rs 50 Lakhs**
- (ii) 50% of SD should be deposited before start of the work. Balance SD will be recovered at the rate of 10% from running bills. Anyhow the contract value not exceeding Rs 10 Lakhs can be started before SD is collected, provided the payment can be released only after collection / recovery of initial 50% SD.
- (iii) The SD shall not carry any interest.
- (iv) SD may be furnished in any one of the following forms :
- Cash (as permissible under Income tax Act)
 - Pay order or Demand draft drawn in favour of, BHEL / RANIPET – 6 payable at SBI / BHEL Project, Mukundarapuram (Bank Code No : 7013).
 - Local cheques of scheduled banks, subject to realization.
 - Securities available from post offices such as National Savings Certificates, Kisan Vikas patras etc., (Certificates should be held in the name of Contractor furnishing the security and duly pledged in favour of BHEL and discharged on the back)
 - Bank guarantee from scheduled banks / Public financial institutions as defined in the Companies act. The Bank guarantee format should have the approval of BHEL.
 - Fixed Deposit Receipt issued by scheduled banks / Public financial institutions as defined in the Companies act. The FDR should be in the name of the contractor, A/c BHEL, duly discharged on the back.
- (v) Refund of SD : 50% of SD may be refunded to the contractor in respect of all contract on satisfactory completion of work and after payment of final bill and the balance 50% on expiry of the maintenance period, provided that the contractor shall have rendered a " No Demand" certificate. In case of work where maintenance period is not involved 100% of the SD may be refunded after payment or final bill provided that the contractor shall have rendered a " No Demand" certificate.

(Contd.....3)



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Electronic Fund Transfer (EFT Form) : (as per CVC guide lines)

- The enclosed EFT form should be duly filled and submitted along with tender documents. Without EFT form your tender will not be considered and will be rejected.
- **Suppose if you already submitted the EFT form to BHEL(Ranipet) this may be ignored.**

Advance payment :

- No advance payment shall be paid to the contractor.
- **For payment, M Book system shall be adopted as per the norms of the company**

General :

- The envelop / cover containing duly filledin tender documents along with necessary enclosures should neatly be indicated the following :
 - a. Name of work : To be mentioned in the left hand side top corner of the envelop in first line.
 - b. Tender Notice No : To be mentioned in the left hand top corner of the envelop in second line.
 - c. To be addressed to : **Sri V.Rajendran, - To be mentioned in the right side
Manager, middle or bottom of the envelop
Civil Projects & Services,
BHEL / BAP / Ranipet – 632 406.
Vellore Dist., / Tamil Nadu.**
 - d. From / self address : To be mentioned in the left hand side bottom corner of the envelop.

Encl : (i) Bill of Quantities
(ii) Special conditions of contract.



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SPECIAL CONDITIONS OF CONTRACT

- 1 The tenderer shall quote a percentage above or below or at par, the rates shown in the Bill of Quantities based on CPWD DSR 2007. The percentage quoted shall be clearly written both in words and figures.
- 2 The quoted percentage will apply to the individual items uniformly .
- 3 The above rates does not include PF & ESI remittance .The tenderer shall quote inclusive of PF & ESI contribution to their workers.
- 4 Items of work other than those mentioned in Bill of Quantities will have to be carried out at the rates to be fixed by this organisation .The same offered percentage will be applicable with reference to CPWD DSR 2007.
- 5 Power and water will be available free of charges from the nearest tapping point subject to availability. The contractor should make necessary arrangement for tapping the same.
- 6 Safety precautions should be taken while doing the work. You will have to follow all safety requirements to carry out the work inside the factory premises.
- 7 All materials shall confirm to the latest IS/IRC specifications
- 8 All the works to be carriedout strictly as per the specifications laid down in Tamil Nadu Building practice and also satisfying relevant IS/IRC specifications.
- 9 Cement, Reinforcement steel, Structural steel and AC sheet will be issued at free of cost. Cement and Reinforcement steel will be issued free of cost for theoretical consumption and at a recovery rate of Rs. 6,325.00 / MT and Rs. 41,975.00 / MT respectively. Structural steel and AC sheets will also be issued free of cost for theoretical consumption and at a recovery rate of Rs. 46,500.00 / MT and Rs. 140.00 / Sqm respectively. Upto 5% over and above the theoretical consumption beyond which penal recovery will be effected at the double the rates specified above.
- 10 Once the work is completed the contractor should remove all the unwanted materials from the site time to time and it should be disposed off as per the instructions of Engineer-in-charge without any further delay.
- 11 All the rates are inclusive of scaffolding charges ,sundries & contingencies , carriage of materials ,cost of brush ,sand paper, ladder, gum, putty, turpentine, caustic soda or washing soda, mixing charges etc., complete.
- 12 All works shall be carried out as per standard specifications and instructions of Engineer-in-charge.
- 13 Base preparation, mixing ratio,etc. shall be as per the recommendations of the manufacturer.



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- 14 All materials, colour, shade, brand, etc. shall be got approved from the Engineer-in-charge before the start of the work and shall confirm to the latest IS/IRC specifications..
 - 15 The current minimum wages per day for USW is Rs.149.00/day
 - 16 Coefficient of consumption for paint, distemper, cement, etc. shall be as per CPWD 2007 data.
 - 17 The contractor have to follow all statutory requirements like PF ,ESI etc.,through out the contract period.
 - 18 The General conditions of contract in force shall apply to this contract.
 - 19 The contracator is required to engage a Degree / Diploma holder Engineer through out the contract period.
 - 21 Time is essence of the contract. Any delay beyond the delivery date will be subjected to LD.
 - 22 The tenderer may visit the site and assess location before quoting the rate.
 - 23 **CONTRACT CONDITIONS ON TAXES & DUTIES**
 - a. The Tenderer shall have been Registered under Excise, Sales Tax, Tamil Nadu VAT, Service Tax regulations if applicable and provide a copy of such registration to BHEL as part of the tender document. In case of fresh registration/amendment thereon, the same shall be carried out before start of the work. PAN no shall be submitted as part the tender document. (copy to be enclosed)
 - b. Service Tax shall be paid by the service provider namely the Tenderer.
 - c. Required Tax Invoice as per the existing provisions to be issued in required parts duly signed by the Competent/Authorized Official of the Contractor to BHEL
 - d. If due to deficiency in the document submitted, BHEL could not avail CENVAT, VAT Credit, the credit amount will be recovered from the amount due to the Tenderer .
 - e. If payment of statutory dues are not made in accordance with the applicable provisions of the relevant Act within the time specified and Penalty, Interest etc paid/payable by the Contractor, the same shall not be reimbursed by BHEL and the entire implication is only to be born by the Contractor. The Tenderer shall clearly indicate the rate of applicable taxes and duties for the work to be executed.
 - f. The Tenderer shall indicate all exemptions on account of thrushold limits or special notification under any stature. Any modification theron shall also be intimated immediately on changes.



Bharat Heavy Electricals Limited
Boiler Auxiliaries Plant
Ranipet - 632 406

Tamil Nadu, India

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g. The quote submitted shall include all taxes and duties of whatsoever in nature but exclusive of Service Tax which shall be quoted separately if applicable. The existing rate shall be quoted clearly. If reduced rates are applicable on account of material, labour if any the same shall be indicated clearly. After tender opening addition of any tax & duty is not admissible.

h. f any composition scheme is to be availed by the Tenderer, the all relevant terms and conditions shall be indicated clearly in the offer. The required compliance under relevant statue shall be carried out.

i. Any statutory variation will be to the account of BHEL. But if the variation is effective during the delayed/extended period of execution for reasons attributable to the vendor, the same shall be born by the vendor only.

GENERAL CONDITIONS OF CONTRACT
FOR
LUMP SUM, ITEM RATE AND
PERCENTAGE CONTRACT

SPECIMEN

civ 02

GCC



Bharat Heavy Electricals Limited
BOILER AUXILIARIES PLANT
RANIPET - 632406

**GENERAL CONDITIONS OF CONTRACT
FOR
LUMP SUM, ITEM RATE AND
PERCENTAGE CONTRACT**



Bharat Heavy Electricals Limited

**BOILER AUXILIARIES PLANT
RANIPET - 632 406.**

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CHAPTER - I

DEFINITIONS IN THE CONTRACT AS HEREINAFTER DEFINED

The following terms shall have the meanings hereby assigned to them, except here the context otherwise requires :-

- a. **'CONTRACT'** means and includes the conditions of contract, the documents forming the tender and acceptance, thereof, specifications, drawings, bill of quantities, schedule of rates and prices if any, general and special conditions of contract, schedules A,B,C,D and or general summary attached to the form of tender and contract agreements. All these terms and conditions and documents as applicable taken together shall be deemed to form one contract and thereby complementary to one another.
- b. **'TENDER DOCUMENTS'** means and includes the form of tender, the applicable schedules A, B, C, D and / or general summary, general and special conditions of contract and specifications and drawings as given to the contractors on payment.
- c. **'THE CONTRACTOR'** means the person or persons, firm or company whether incorporated or not, whose tender is being accepted and includes the contractor's legal / personal representatives, successors and permitted assignees.
- d. **'THE WORK'** means the work described in the tender documents and / or individual work orders, drawings and specifications as may be issued from time to time to the contractor by the Engineer - In - Charge within the powers conferred upon them including modified or additional works and obligations to be carried out either at the site or at any factory, workshop or any other place as required for the performance of the contract.
- e. **'THE SITE'** means the lands and other places on, under, in or through which the work has to be executed under the contract and any other lands and places provided by the company for the purpose of carrying out the contract.
- f. **'THE COMPANY'** referred to as BHEL in this contract shall mean M/s. Bharat Heavy Electricals Limited including its Board of Directors, Director, Executive Director, Group General Manager, General manager, Dy. General Manager and / or the Officers of the company including Sr. Manager, Manager, Dy. Manager, Sr. Engineer and Engineer authorised on behalf of Bharat Heavy Electricals Limited, Boiler Auxiliaries Plant, Ranipet.
- g. **'THE ACCEPTING OFFICER'** means the official who signs the contract agreement on behalf of Bharat Heavy Electricals Limited and includes his successors.
- h. **'ENGINEER-IN-CHARGE'** means the Officer / Engineer of BHEL who is in charge of works under the contract and includes such other Officer / Engineer as may be notified by BHEL from time to time.
- i. **'APPROVED AND DIRECTED'** means approval and / or directions of the Officers / Engineers of BHEL issued from time to time with regard to the contract.

- j. In the case of Lump-sum Contracts '**CONTRACTOR'S PERCENTAGE**' means the percentage offered by the Contractor as addition to our deduction from the cost of building, or other works listed in Schedule "A" to provide a Lump-sum quotation for performance of the contract inclusive of all extra costs, profit, establishment charges, carriage, insurance etc., complete.
- In the case of percentage Rate "Contracts Contractor's Percentage" shall, if the context so permits mean the uniform percentage tendered by the Contractor and accepted by the Accepting Officer; and the expression '**CONTRACT RATE**' shall likewise mean the rates in the BHEL Schedule of Rate applicable as on date as adjusted by the said Contractor's percentage, if any.
- k. '**THE CONTRACT SUM**' means the sum accepted or the sum calculated in accordance with the prices accepted in the tender and / or the contract rates as payable to the contractor for the execution and full completion of the work.
- l. The '**FINAL SUM**' means the actual amount payable under the Contract by BHEL, to the Contractor for the entire Execution and full completion of the work.
- m. The '**DATE OF COMPLETION**' is the date or dates for completion of the whole or any part of the work as the case may be set out in or ascertained in accordance with the individual work orders of the tender documents, or any subsequent agreed amendments thereto.
- n. A '**WEEK**' means seven days without regard to the number of hours worked or not in any day in that week.
- o. A '**DAY**' means a day of 24 (Twenty Four) hours irrespective of the number of hours worked or not in that day.
- p. A '**WORKING DAY**' means any day other than the holidays declared by BHEL, Ranipet.
- q. '**DEVIATION ORDER**' means an order given by the Engineer-in-Charge to effect an alternation addition or deduction which does not radically affect the scope or nature of the contract.
- r. '**EMERGENCY WORKS**' means any urgent measures which in the opinion of the Engineer-In-Charge, become necessary during the progress of the work to obviate any risk of accident or failure which become necessary for security.
- s. '**PROVISIONAL SUM**' or "Provisional Lump-sum" means a Lump-sum included by the BHEL in the tender documents and represents the estimated value of work for which details are not available at the time of inviting the tender.
- t. '**PROVISIONAL ITEMS**' means items for which approximate quantities have been included in the tender documents.
- u. '**DAY WORK**' means an item of work requiring the employment of labour with or without materials as the case may be which in the opinion of the Engineer-in-charge, is not capable of being evaluated by the accepted methods of measurement or assessment and is paid for on the basis of the actual labour and materials utilised on the particular item of work referred to.

- v. Heading of these terms and conditions shall not affect the interpretation or construction thereof.
- w. The '**DATE OF CONTRACT**' shall mean the date / dates on which the parties to the contract have signed the contract agreement.
- x. **MAINTENANCE PERIOD / GUARANTEE PERIOD** shall mean the period during which the contractor shall remain liable for satisfactory performance of the work under the contract, repair or replacement of any part of the work performed under the contract.
- y. '**COST**' shall mean and include any liability, expenditure, overhead costs whether on the site or off the site incurred by BHEL.

The contractor shall be deemed to have carefully examined all the documents to his satisfaction. If he shall have no doubt as to the manner of the contract document, he shall obtain the details/clarification from BHEL before signing the contract.

MANNER OF EXECUTION OF CONTRACT

The contract shall be deemed to have come into force from the date of Letter of Intent unless otherwise provide in the Letter of Intent. Unless and untill the contract agreement is executed, the Letter of Intent read in conjunction with the tender documents will constitute a binding contract.

CONTRACTOR / TENDER

ACCEPTING OFFICER

CHAPTER - II

SCOPE OF CONTRACT

2. Heading to the Contract

The heading to these conditions shall not affect the interpretation thereof.

3. Contract Documents

The Accepting Officer shall furnish to the Contractor on demand "FREE OF COST" three copies of signed Drawings and one copy of the signed agreement comprising of preamble to agreement, General and Special Specification, Schedule A,B,C & D etc., (but excluding General Conditions of Contract and Drawings) and three copies of all further drawing issued the progress of work.

However, for any additional copies of the agreement of drawings required by the Contractor, the same will be supplied on payment of the Specified cost.

The Contractor shall keep one copy of all the Drawings and of the Specifications on the site and the Engineer-in-Charge or his representative shall be at all reasonable times have access to them.

None of these documents shall be used by the contractor for any purpose other than that of this contract.

3a. Secrecy

The Contractor shall take necessary steps to ensure that all persons employed on any work in connection with this contract have noted that the Indian Officials Secrets Act 1923 (XIX of 1923) applies to them and shall continue so to apply even after the execution of such work under the contract.

All classified documents furnished to the contractor shall be returned to the Engineer-in-charge on the completion of works or the earlier determination of the Contract.

4. Works to be Carried Out

The Contract shall, except as provided under Schedules "B" and "C" included all labour materials, tools, plant, equipment, and transport which may be required in preparation for and in the entire execution and full completion of the work. Schedule "A" shall be deemed to have been prepared in accordance with good practice and recognised principles and unless otherwise stated, the descriptions given therein shall be held to include waste on materials carriage and cartage, lead, hoisting, setting, fitting in position and all other labour necessary in and for the entire execution and full completion aforesaid. Any error in description or quantity in Schedule "A" or any omission therefrom shall not vitiate the Contract or release the Contractor from the execution of the whole or any part of the work comprised therein according to the Drawings and Specifications, or from any of his obligations under the Contract.

The insertion of the name of any firm of suppliers in the Tender Documents is for the purpose of obtaining a particular class or quality of materials or workmanship but the articles or materials specified may be obtained from any other firm subject to prior written approval of the Engineer-in-Charge.

In the case of a discrepancy between Schedule "A" the specification and / or the Drawings, the Accepting Officer shall be the sole deciding authority as to which shall prevail and his decision shall be final and conclusive. If neither Drawings nor specifications contain any mention of minor details of construction, which is in the opinion of the Accepting Officer, whose decision shall be final and conclusive, are reasonable and obviously and fairly intended for the satisfactory completion of the work, such details shall be provided by the Contractor without any extra cost as if they were specially mentioned and shall be deemed to be included in the contract.

The Contractor will be deemed to have satisfied himself as to the nature of the site, local facilities of access and all matters affecting the execution and completion of the work. No extra charges consequent on any mis-understanding in these respects or otherwise will be allowed.

5. Provisional Items

The full amount of provisional Lump-sums and the value annexed to each provisional item inserted in the Tender Documents shall be deducted from the contract sum and the value of work ordered and executed there under shall be ascertained by measurement or valuation as for deviations.

No work under these items is to be begun without instructions in writing from the Engineer-in-charge.

The extent of quantities or items described as "Provisional" shall not be held to guarantee or limit the amount and description of the work to be executed by the Contractor either in respect of the items concerned or the work as a whole.

No addition or deduction shall be made by the Contractor to the amount of the provisional Lump-sum as included in the tender documents.

6. Deviations

The contractor shall not make any alteration in addition to or omission from the work as described in the tender documents except in pursuance of the written instructions of the Engineer-in-charge. No such deviation from the work described in the tender documents shall be valid unless the same has been specifically confirmed and accepted by the Accepting Officer in writing and incorporated in the contract.

The Accepting Officer may deviate either by way of addition or deduction, from the work so described, provided that the contract sum be not thereby varied on the whole by more than percentage set out in the tender documents. The value of all additions and deductions will be added to or, deducted from the contract sum, when ever the Accepting Officer intends to exercise such a right, his intentions shall specify the deviations which are to be made, the Lump-sum assessment or the proposed basis of payment, the extra time allowed, if any, and the date for completion of the entire contract.

Any objection by the Contractor to any matter concerning the order shall be notified by him in writing to the Engineer-in-charge within seven days from the date of such order, but under no circumstances shall the work be stopped (unless so ordered by the Engineer-in-charge) owing to differences or controversy that may arise from such an objection. In the absence such notification of objection by the contractor, he will be deemed to have accepted the order and the conditions stated therein. In the event of the contractor failing to agree with the Engineer-in-charge regarding the terms of the proposed deviation, the objection shall be referred to the Head of Civil Engineering Department whose decision shall be final, conclusive and binding on the contractor.

7. Time

Time is the essence of the contract and is specified in the tender documents or in each individual Work Order.

As soon as possible after the contract is let or any substantial Work Order is placed and before work order is to begin, the Engineer-in-charge and the Contractor shall agree to a Time and progress Chart. The Chart shall be prepared in direct relation to the time stated in the tender documents or the Work Order for the completion of the individual items there of and the contract or order as a whole. It shall indicate the fore cast of the dates for the commencement of the various trade processes or sequence of the work, and shall be amended as may be required by agreement between the Engineer-in-charge and the Contractor within the limitation of the time imposed in the tender, document or order.

In the absence of any specific Time and Progress chart to be agreed to between the Contractor and Engineer-in-charge the contractor shall ensure and maintain uninterrupted progress of the work such that the entire work shall be completed within the time imposed in the Tender documents or Order and that the proportion of the work completed upto any time in relation to the entire work to be under the Contract or Order shall not be less than the proportion that the time elapsed bears to the total time of completion provided in the Tender documents or Order.

The Contractor shall suspend the execution of the work, or any part or parts thereof whenever call upon in writing by the Engineer-in-charge to do so, and shall not resume work there on until so directed in writing by the Engineer-in-charge. The Contractor will be allowed an extension of time for completion not less than the period of suspension. However, no other claim in this respect for compensation or otherwise however will be admitted. Provided the cause for suspension is not attributable to any default of the contractor's part to proceed with or fulfil the contractual obligations. This may also be extended to allow for alteration of work made by the deviation order.

8. Stores and Materials

8.1 Materials to be supplied by the Contractor

The Contractor shall at his own cost and expense provide all materials required for the work other than those listed in Schedule-B which are to be supplied by Bharat Heavy Electricals Ltd.

All materials to be provided by the Contractor shall be brand new and in conformity with the specifications laid down in the contract and the Contractor shall if requested by the Engineer-in-charge furnish proof, to the satisfaction of the Engineer-in-charge, that the materials so comply.

The Contractor shall at his own cost and expense and without delay, supply to the Engineer-in-charge samples of materials proposed to be used in the works. The Engineer-in-charge shall within seven days of supply of samples or within such further period as he may require and intimate to the Contractor in writing, inform the Contractor whether samples are approved by him or not. If samples are not approved, the Contractor shall forthwith arrange to supply to the Engineer-in-charge for his approval fresh samples complying with the specification laid down in the contract.

The Engineer-in-charge shall have full powers to require removal of any or all of the materials brought to site by the Contractor which are not brand new and not in accordance with the contract specifications or do not conform in character or quality to samples approved by him. In case of default on the part of the Contractor in removing rejected materials, the Engineer-in-charge shall be at liberty to have them removed by other means at the Contractor's expense and risk. The Engineer-in-charge shall have full power to require other proper materials to be substituted for rejected materials and in the event of the contractor refusing to comply, he may cause the same to be procured by other means. All costs charges and expenses which may attend such substitution shall be borne by the contractor. All charges on account of Octroi, terminal or sales tax and other duties on material obtained for the works from any source (excluding materials supplied by BHEL) shall be borne by the Contractor.

The Engineer-in-charge shall be entitled to have tests carried out as specified in the Contract for any materials supplied by the Contractor other than those for which, as stated above, satisfactory proof has already been furnished, at the cost of the Contractor and the Contractor shall provide at his expense all facilities which the Engineer-in-charge may require for the purpose.

8.2 Materials to be supplied by BHEL

Materials which BHEL are prepared to supply are shown in Schedule-B which also stipulates place of issue and rate(s) to be charged in respect thereof soon after acceptance of the tender the Contractor shall agree in writing with the Engineer-in-charge on a phased programme of his requirements with regard to deliver of materials.

In the event of delay in supply of any Stores and materials mention in Schedule-B the contractor shall be entitled to reasonable extension of time as provided for under condition-9 but no claim for compensation or damage on any ground whatsoever shall be entertained by BHEL.

For the materials listed in Schedule-B the contractor shall give a reasonable notice in writing of his requirement to the Engineer-in-charge in accordance with the phased programme.

All materials issued to the Contractor by BHEL for incorporation or fixing in the works shall on completion or on fore-closure of the works and before submission of bills, be returned by the Contractor at his expense, at the place of issue, after making due allowance for actual consumption reasonable wear and tear and for waste. In the Contractor is required to deliver such materials at a place other than the place less the transportation charges which would have been incurred by the Contractor had such materials been delivered at the place of issue, shall be borne by BHEL.

The Contractor shall bear the cost of loading, transporting to site, unloading storing under covered area as necessary, assembling and joining the several parts together as necessary and incorporating or fixing materials in the work including all preparatory work of whatever description as may be required, and of closing preparing, loading and returning empty cases or containers to the place of issue.

If, in the opinion of the Engineer-in-charge (which shall be final and conclusive) any stores supplied by BHEL have either during currency of the work or after completion of the work whilst under custody, of the contractor, become damaged to such an extent that they cannot be usefully utilised, either in the same work or in other works, the Engineer-in-charge shall not accept the stores and in the rates specified in the contract. The contractor shall not be entitled to any claim whatsoever on this account.

The Engineer-in-charge shall have access to the stores where materials issued by BHEL as per schedule -B of the contract is stored to ensure the balance stock of material on hand after taking into consideration the materials used on the work is as per the issue and usage. If there be any discrepancy, the cost towards the same will be recovered at the double recovery rate indicated for the material concerned. This is without prejudice to and in addition to the overall reconciliation of materials to be made at the completion of work.

If on completion of works, the Contractor fails to return surplus materials out of those supplies by BHEL then, in addition to any other liability which the Contractor would incur, the Engineer-in-charge may, be written notice to the Contractor, require him to pay within a fortnight of receipt of the notice for such un-returned surplus materials given in sub para-4.

The Contractor shall have to build a weather-proof shed ^{for} or the storage of Cement (required for 15 days consumption of the work).

8.3 General

Materials required for the works, whether brought by the Contractor or supplied by BHEL shall be stored by the Contractor only at places approved by the Engineer-in-charge. Storage and safe custody of materials shall be at the risk and the responsibility of the Contractor.

Officials concerned with contract shall be entitled at any time to inspect and examine any materials intended to be used in or in the works either on the site or at factory or workshop or other places where such materials are assembled, fabricated or manufactured or at any place(s) where these are lying or from which these are being obtained and the Contractor shall give such facilities as may be required for such inspection and examination.

All materials brought to the site shall not be removed off the site without the prior written approval of the Engineer-in-charge. But whenever the works are finally completed and advance if any, in respect of any such materials is fully recovered the Contractor shall at his own expense forthwith remove from the site all surplus materials originally supplied by him and upon such removal the same shall revert in and become the property of the Contractor.

Should the Engineer-in-charge consider at any time during the construction or re-construction prior to the expiry of the MAINTENANCE PERIOD that the stores or materials provided by the Contractor are unsound or of a quality inferior to that contracted for or otherwise not in accordance with Contract (in respect where of the decision of the Engineer-in-charge shall be final and conclusive) the Contractor shall on demand in writing from the Engineer-in-charge specifying the Stores or materials complained of notwithstanding that the same may have been inadvertently passed, certified and paid for, forthwith remove the Stores or materials so specified and provide other proper and suitable stores or materials at his own expense, to the entire satisfaction of the Engineer-in-charge and in the event of his failing to do so within a period to be specified by the Engineer-in-charge in his demand aforesaid the Engineer-in-charge may replace with others the Stores or materials complained of at the risk and expense in all respects of the Contractor. The liability of the Contractor under this condition shall not extend beyond the maintenance period aforesaid except as regards Stores or materials which the Engineer-in-charge shall have previously given notice of to be Contractor to replace.

9. Delay and Extension of Time

If, in the opinion of Engineer-in-charge the work is delayed :

- i) by reason of abnormally bad weather, OR
- ii) by reason of serious loss or damage by fire OR
- iii) by reason of Civil commotion local combination of workmen, strike or lockout, affecting any of the trades employed on the work, OR
- iv) by delay on the part of the agency or tradesman engaged by BHEL in executing work not forming part of this Contract OR
- v) by reason of any other cause which in the absolute discretion of the Engineer-in-charge is (when he is the Accepting Officer of the Contract), beyond the Contractor's reasonable control, then in such cases the Accepting Officer, on the recommendation of the Engineer-in-charge or higher authority may make fair and reasonable extension in the completion dates of the individual items of work of the Contract as a whole. Such extension which will be communicated to the Contractor by the Engineer-in-charge in writing shall be final and binding on the Contractor. No other claim in this respect for compensation or otherwise howsoever is admissible. Upon the happening of any such event causing delay, the Contractor shall immediately give notice thereof in writing to the Engineer-in-charge but shall nevertheless use constantly his best endeavour to prevent or make good the delay and shall do all that may reasonably be required to the satisfaction of the Engineer-in-charge to proceed with the work.

10. Patent Rights

The Contractor shall fully indemnify BHEL or the agent, servant, employee of BHEL against any action, claim or proceeding relating to infringement or the use of any patent or design or any alleged patent or design rights, and shall pay any royalties which may be payable in respect of any article / or part thereof included in the Contractor. In the event of any claim, being made or action brought against BHEL or any agent, or servant or employee of BHEL in respect of the matters aforesaid, the Contractor shall immediately be notified thereof for taking necessary action provided that payment of indemnity shall not apply when such infringement has taken place in complying with the specific directions issued by the BHEL but the Contractors shall pay any royalties payable in respect of any such use.

11. Octroi and Other Duties

All changes on account of Octroi, Terminal or Sales Tax and / or other duties on materials obtained for the Work (excluding materials provided by BHEL on payment) shall be borne by the Contractor.

12. Royalties

Royalties fixed from time to time as per prevalent local rules will be recovered for materials, which the Contractor may be allowed to remove from quarries situated on land which is in charge of the BHEL authorities.

13. Plant and Equipment

The Contractor, shall at his own expense, supply all tools, plant and equipment (here-in-after referred to as T & P) required for the execution of the contract other than those listed in Schedule - C which subject to their availability may be hired by BHEL to the Contractor or issued free for use in the execution of the work, as specified in Tender documents.

14. Assignments or Transfer of Contract

The Contractor shall not without the prior written approval of the Accepting Officer assign or transfer the Contract or any part thereof, or any share, or interest there in to any other person. No sum of money which may become payable under the Contract shall be payable to any person other than the Contractor unless the prior written approval of the Accepting Officer to the assignment or transfer of such money is given.

14 (a) Sub - Contract

The Contractor shall not sub-let any portion of the Contract without the prior written approval of the Accepting Officer.

15. Compliance to the Regulations and Bye - Laws

The Contractor shall conform to the provision of any statute relating to the work and regulations and bye-laws of any local authority and of any water and lighting Companies or Undertakings with whose system the work is proposed to be connected. He shall, before making any variation from the drawings or the specifications that may be necessitated for such connections give the Engineer-in-charge notice, specifying the variation proposed to be made and the reasons there for and shall not carryout any such variation until he has received instructions from the Engineer-in-charge in respect thereof. The Contractor shall be bound to give all notice required by Statute Regulations of Bye-laws as aforesaid and to pay all fees and taxes payable to any authority in respect thereof.

16. BLANK

17. BLANK

CHAPTER – III

PERFORMANCE OF THE CONTRACT

18. Security Deposit

18.1.1 Security Deposit should be collected from the successful tenderer. The rate of Security Deposit will be as below:

Upto Rs. 10 lakhs	10%
Above Rs. 10 lakhs up to Rs.50 lakhs	1 lakh+7.5% of the amount Exceeding Rs. 10 lakhs.
Above Rs. 50 lakhs	Rs.4 lakhs + 5% of the amount Exceeding Rs. 50 lakhs.

The security Deposit should be collected before start of the work by the contractor.

18.1.2 Security Deposit may be furnished in any one of the following:

- i) Pay Order, Demand Draft in favour of BHEL.
- ii) Local cheques of scheduled banks, subject to realization.
- iii) Securities available from Post Offices such as National Savings Certificates, Kisan Vikas Patras etc.
(Certificates should be held in the name of Contractor furnishing the security and duly pledged in favour of BHEL and discharged on the back).
- iv) Bank Guarantee from Scheduled Banks / Public Financial Institutions as defined in the Companies Act subject to a maximum of 50% of the total security deposit value. The balance 50% has to be remitted either by cash or in the other form of security. The Bank Guarantee format should have the approval of BHEL.
- v) Fixed Deposit Receipt issued by Scheduled Banks / Public Financial Institutions as defined in the Companies Act. The FDR should be in the name of the contractor, A/C BHEL, duly discharged on the back.
- vi) Security deposit can also be recovered at the rate of 10% from the running bills. However in such cases at least 50% of the Security Deposit should be collected before start of the work and the balance 50% may be recovered from the running bills.
- vii) EMD of the successful tenderer shall be converted and adjusted against the security deposit.
- viii) The security deposit shall not carry any interest.

NOTE: Acceptance of Security Deposit against Sl. No. (iv) and (vi) above will be subject to hypothecation or endorsement on the documents in favour of BHEL. However, BHEL will not be liable or responsible in any manner for the collection of interest or renewal of the documents or in any other matter connected therewith.

CONTRACTOR

- 18.1.3** Security deposit shall not be refunded to the contractor except in accordance with the terms of the contract.
- 18.1.4** All compensation or other sums of money payable by the contractor to BHEL, under the terms of this contract or under any other contract with BHEL, may be deducted from the security deposit or realized by the sale of the securities or from the interest arising there from or from any sums which may be due or may become due to the contractor payable by BHEL on any account whatsoever against this contract or any other contract with BHEL, and in the event of his security deposit being reduced by reason of such deduction or sale as aforesaid, the contractor shall within seven days thereafter make good in cash or in securities endorsed as aforesaid, any sum or sums by which the security deposit has been so reduced.
- 18.1.5** 50% of the security deposit may be refunded on completion of the work after payment of the final bill and the balance 50% of the security deposit is refundable only after the expiry of the maintenance period of six (6) months from date of completion of work as stipulated in the contract concerned.

19. Orders under the Contract

All orders, notices, etc., to be given under the contract shall be in writing, typescript or printed and if sent by registered post to the address given in the tender of the Contractor, shall be deemed to have been served on the date when in the ordinary course they would have been delivered to him.

The Contractor shall carry out without delay all orders given to him.

20. Admission to Site

The contractor shall not enter on (other than for inspection purposes) or take possession of the site unless permitted to do so by the Engineer-in-charge. The portions of the site to be occupied by the Contractor will be clearly defined and marked on the site plan, and the contractor will on account be allowed to extend his operations beyond these areas. The Contractor shall provide if necessary or required at the site, temporary access there to and shall alter, modify and maintain the same as required from time to time. He shall out and clear away the access route when no longer required restoring the area to its original condition.

The Engineer-in-charge shall have power to execute other works (whether or not connected with the work, in the contract agreement) on the site contemporaneously with the execution of the original work and contractor shall give reasonable facilities for this purpose.

BHEL reserves the right of taking over, at any time, any portion of the site which they may require and the contractor shall at his own expense clear such portion forthwith. No photographs of the site or of the work or any part here of shall be taken published or otherwise circulated without the prior approval of the Engineer-in-charge.

No such approval shall ~~however~~ ^{however} exempt the Contractor from complying with any statutory provision in regard to the taking and publication of such photographs.

BHEL Officials connected with the Contract shall have the right of entry to the site at all times.

Engineer-in-charge shall have the power to exclude from the site any person whose admission there to may, in his opinion be undesirable for any reason whatsoever

The Contract shall be governed by the security regulations of BHEL including the entry exit timings, use of roads as may be in force from time to time. The Contractor should follow these regulations strictly and no claims for any additional payment whatsoever will be entertained under by circumstances.

21. Contractors Supervision

The Contractors shall either himself supervise the execution of the Contractor or shall appoint a competent Agent approved by the Engineer-in-charge to act in his stead. The Contractor shall employ an Engineer/Agent having atleast a Degree of Bachelor of Civil Engineer from a recognised University/on any work with a Contract value exceeding rupees two lakhs, and having atleast a Diploma in civil Engineering from a recognised college, on work with a contract value exceeding Rs. 50,000/- but not exceeding rupees two lakhs.

The Employment of an Engineer/Agent as aforesaid shall not be necessary if the Contractor himself is in possession of a recognised technical qualification and is, in opinion of the Engineer-in-charge, capable of the receiving instructions of the Engineer-in-charge and of the executing the work to the satisfaction of the Engineer-in-charge. If the Contractor fails to appoint a suitable Engineer/Agent as aforesaid, the Engineer-in-charge shall have full powers to suspend the execution of work and stop payment of any advances that may have become due until such date as a suitable Engineer/Agent is appointed and the Contractor shall be held responsible for the delay caused to the work and no extension of time on this account shall be given to him as stipulated in condition (9) above.

Orders given to the Contractor's Agent Engineer shall be considered to have the same force as if they had been given contractor himself.

The Contractor or his Agent shall be in attendance at the site during all working hours and shall superintend the executing of work with such additional assistance in each trade as the Engineer-in-charge may consider necessary.

The Contractor or his accredited agent shall attend when required and without making any claim for doing so, either the Office of the Engineer-in-charge or the work site to receive instructions.

The Engineer-in-charge shall have full powers, and without assigning any reason to require the Contractor immediately to cease to employ in connection with the

Contract any Agent, servant or employee whose continued employment is, in his opinion undesirable

The contractor shall not be allowed any compensation on this account.

22. Labour

The contractor shall employ labour in sufficient number either directly or through sub-contractors to maintain the required rate of progress and of quality ensure workmanship of the degree specified in the contract and to the satisfaction of the Engineer-in-charge. The contractor shall comply with all labour laws in force from time to time.

23. Safety Rules

The Contractor shall comply with all safety rules of BHEL.

24. Water

The Contractor shall allow in his Tender and provide at his cost all water required for the work or his employees on the work, together with all pipes and fittings or other means that may be necessary or required to ensure a proper and ample supply of water for all purposes connected with the work.

In the event of a provision existing in the Tender documents for supply of water on payment by Bharat Heavy Electricals Limited, water will be supplied from the BHEL supply system or other sources at any points fixed by the Engineer-in-charge on the site of work. The contractor shall make necessary arrangement for lifting pumping carrying or conveying the water as required at his own cost. The levy of water charges to be borne by the contractor in such case shall be specifically mentioned in the Tender documents.

25. Temporary workshops, store Etc,

The Contractor shall, during the progress of the work provide, erect and maintain at his own expense all necessary temporary workshops, offices etc., required for the proper and efficient execution of the work. The planning, siting, and erection of these buildings shall have the approval of the Engineer-in-charge and the Contractor shall all at times keep them tidy and in a clean and sanitary condition to the entire satisfaction of the Engineer-in-charge.

On completion of the work all such temporary building shall be cleared away and the site restored and left in a clean and tidy condition to the entire satisfaction of the Engineer-in-charge.

26. Tool and Plant on site

All tools, plant and equipment brought to the site shall not be removed from the site without the prior written approval of the Engineer-in-charge when the work is finally completed or the contract is determined for reasons other than the default of the contractor he shall forthwith remove from the site all tool, plant, equipment etc., (other than those as may have been provided by BHEL)

27. Statments of Hire Charges

A monthly detailed statement of the hire charge incurred in respect of BHEL tools, plant, equipments etc., shall be given to the Contractor by the Engineer-in-charge.

28. Precaution Against risks

The Contractor shall be responsible for providing at his own expense, for all precaution to prevent loss or damage and for the necessary steps to be taken for the said purpose until the works have been handed over complete, in all respects to the Engineer-in-charge.

The Contractor shall provide all watchman necessary for the protection of the site, the work, the materials, tools, plant, equipment and anything else lying on the site during the progress of the work. He shall solely be responsible for and shall take all reasonable and proper steps for protecting, securing, lighting and watching all places on or about the work and the site which may be dangerous to any person whomsoever.

29. Notices and fees

The Contractor shall give all notices required by any Statutory provision or by the regulations and/or bye-laws of any local / or of any same are or will be connected. The contractor shall pay and indemnify BHEL against any statutory fees and charges payable under such Acts. Regulation and / or bye-laws in respect of the work and shall make and supply all drawings and plans required in connection with any such notice.

30. Setting out of the works and Protective and Maintaining signals and works

The Engineer-in-charge shall supply dimensioned drawings, levels and other information necessary to enable the contractor to set out the work. the contractor shall at his own expense set accurately according to the drawings and figured dimension thereon, all the work comprised in the contract and any extras or additions there to and shall be solely responsible for their being so set out and executed.

All bench marks, pegs, signals on the surface alignment stones, milestones and all similar marks whether put in by BHEL Authorities for the purpose of checking the Contractor's work or in the nature of permanent survey marks will during the tenure of the contract, be under the care of the Contractor who shall at his own expense take all proper and reasonable precautions and care to preserve and maintain them in their true position. In the event of these marks being disturbed or obliterated by accident or due to any other cause whatsoever, the same may, if deemed necessary be replaced by the Engineer-in-charge at the Contractor's expense and the cost thereof deducted from any money then or thereafter becoming due to the Contractor.

Where requested by the Contractor, the level marks, centre line and chainage pegs corresponding to those shown on the Drawing will be pointed out to the Contractor on the ground but all bench marks or chainage pegs additional to those shown on the Drawing will be set out by BHEL authorities.

31. Site Drainage

All water that may accumulate on the site during the progress of the work, or in trenches and excavations shall be removed to the entire satisfaction of the Engineer-in-charge and at Contractor's expense.

32. Excavation, Relics, etc.

Materials of any kind obtained from excavation on the site shall remain the property of BHEL and shall be disposed off as Engineer-in-charge directs.

All gold, silver, oil and other minerals of any description and all precious stones coins treasures, relics, antiquities and other similar items which may be found in or upon the site shall be the property of Bharat Heavy Electricals Limited and the contractors shall duly preserve the same to the satisfaction of the BHEL and shall from time to time deliver the same to such person or persons as the BHEL may appoint to receive the same.

33. Foundations

The Contractor shall not lay any foundations until the excavations for the same have been examined and approved in writing by the Engineer-in-charge.

34. Covering - in work

The Contractor shall give reasonable notice in writing to the Engineer-in-charge whenever any work is to be permanently covered up or concealed, whether by earth or other means so that it can finally be inspected or measured, if necessary. In default of so doing, the Contractor shall if required by the Engineer-in-charge uncover such work at his own expense.

35. Approval of Works by Stages

All work embracing more than one process shall be subject to examination and approval at each stage thereof and the Contractor shall give due notice in writing to the Engineer-in-charge when each stage is ready. In default of such notice being received, the Engineer-in-charge shall be entitled to approve the quality and extent thereof at any time he may choose and in the event of any dispute, the decision of the Engineer-in-charge thereon shall be final conclusive.

36. Execution of the work

The work shall be executed in a workman like manner and to the satisfaction in all respects of the Engineer-in-charge.

The Engineer-in-charge will communicate or confirm his instructions to the Contractor in respect of the execution of the works in a "Work Site Order Book" maintained at his office and the Contractor shall visit this office daily and shall confirm receipt of such instruction by signing the relevant entries in this book. Such entries will rank as order to notices in writing the intent and meaning of these conditions.

37. Day Work

No day - work shall be performed without the prior written instructions of the Accepting Officer.

The Contractor shall give to the Engineer-in-charge reasonable notice of the start of any work ordered to be executed by day-work and shall deliver to the Engineer-in-charge within two days of the end of each pay week a return in duplicate giving full detailed accounts of labour and materials for the payweek. One copy of each of these returns, if found correct will be certified by the Engineer-in-charge and returned to the Contractor and must be produced at the time of adjustment of accounts.

An Invoice in duplicate signed by the Contractor or his agent shall be sent with each delivery of materials for day-work and the Contractor will be furnished with receipt signed by the Engineer-in-charge specifying the description, quantities, weight or measurement (as the case may be) of the articles approved, reference will be made in this receipt in the return aforesaid and the Contractor's Bill.

In the case of Lumpsum Contracts, the rates to be charged and the percentage addition for profit and establishment charges etc. will be agreed upon between the Accepting Officer and the Contractor prior to the execution of the work.

38. Inspection of the Work

BHEL Officers concerned with the contract shall have power at any time to inspect and examine any part of the work and the Contractor shall give such facilities as may be required to be given for such inspection and examination.

Should Engineer-in-charge consider, at any time during the expiry of the maintenance period, that any work has been executed with unsound, imperfect or unskilled workmanship or of a quality inferior to that contracted for or not otherwise in accordance with the contract (in respect). Whereof the decision of the Engineer-in-charge shall be final and conclusive the contractor shall, on demand in writing from the Engineer-in-charge specifying the fault notwithstanding that the same may have been inadvertently passed, certified and paid for, forthwith rectify or removed and reconstruct the work so specified in whole or in part as the case may require at his own expense to the entire satisfaction of the Engineer-in-charge and in the event of his failing to do so within a period to be specified by the Engineer-in-charge in his demand as aforesaid, the Engineer-in-charge whose decision shall be final and binding may carry out the work by other means at the risk and expense in all respects of the Contractor. However, the liability of the Contractor under this condition shall not extend beyond the maintenance period except as regards workmanship which the Engineer-in-charge shall have previously given notice of to the Contractor to rectify.

39. Responsibility for Building

In the event of any building or part of any building being handed over to the Contractor for the execution of work there to under the provisions of the Contract he shall give a written receipt for all fixtures, glass etc., and he shall be required to make good at his own expense all damages resulting from the cause whatsoever while in his charge and on completion of the work to deliver the said building or part

thereof in a clean state complete in every particular to the entire satisfaction of the Engineer-in-charge.

40. Insurance

The Contractor shall within one month after the date of acceptance of the Contract, insure the work against loss or damages to the contract works, temporary work and materials erected in performance of the contract "all risks" basis from the time of arrival on site until taken over by BHEL on completion of the Contract.

The cover shall also include whenever necessary the risks of testing including breakdown or explosion of plant and machinery undergoing testing, trial and commissioning operations. The insurance shall also specifically cover removal of debris cost. The sum insured shall represent the estimated full value of the contract work inclusive of value of free supply materials by BHEL, transport charges, customs dues, express freight, overtime charges, cost of erection, value of constructional plants and machinery; removal of the debris and excavation of costs. Where the contract includes a maintenance period, the insurance cover shall specifically include the Contractor's liabilities during the maintenance period. The insurance shall also be extended to cover third party personal injury and property damage for a sum to be specified by BHEL. The insurance shall be effected in the name of BHEL and the Contractor shall submit to BHEL a draft of the insurance policy for approval. The policy when issued will be lodged with BHEL together with receipts of premium for such insurance and the contractor shall maintain such policies in force until the obligations of the Contractor are fully discharged.

If the Contractor fails to comply with the terms of this condition the Accepting Officer may insure the work and may deduct the amount of premiums from any money that may become payable to the Contractor or may at his discretion refuse payment of any advances to the Contractor until the Contractor shall have complied with the terms of this condition. This provision does not, however, absolve the Contractor of his responsibility for taking up the insurance. The Contractor is, therefore, primarily responsible for the insurance in time.

41. Damage and Loss to Private Property and Injury to Workmen

The Contractor shall at his own expense reinstate and make good to the satisfaction of the Engineer-in-charge and pay compensation for any injury, loss or damage occasioned to any property or rights whatever including property and rights of BHEL (or agents, servants or employees of BHEL) the injury loss or damage arising out of or in any way in connection with the execution of the contract and further the Contractor shall indemnify BHEL against all claims enforceable against BHEL or any agent, servant, or employee of BHEL a private person, in respect of any such injury (including injury resulting in death loss or damage to any person) who so ever or property, including all claims which may arise under the Workmen's Compensation Act or otherwise, or which would be enforceable against BHEL.

42. Completion

The works shall be completed to the entire satisfaction of the Engineer-in-charge and in accordance with the Contractor's forecast of Time and progress where operative, and all unused stores and materials, tools, plants equipment, temporary Building and things shall be removed from the site and work cleared of rubbish and all

waste materials and levelled up clean and tidy to the satisfaction of the Engineer-in-charge at the Contractor's expense and/or before the Schedule date of completion.

The BHEL shall have power to take over from the Contractor from time to time such sections of the Work as have been completed to the satisfaction of the Engineer-in-charge. In such an event, the contractor is not entitled for any extension of time or any other compensation for executing the balance work.

In case the Contractor fails to remove any of his properties, assets or fails to clear the rubbish and waste materials within 30 days of the completion of the contract, it is lawful for the contractee, that is BHEL to take such action as it deems fit to clear, dispose of such properties, assets or such waste materials and charge the Contractor any expenses incurred thereon.

The Engineer-in-charge shall certify to the Contractor the date on which the work is completed and the state thereof.

The Engineer-in-charge shall also certify to the Contractor the state of the work at the end of maintenance period, where applicable.

43. Compensation for delay

If the Contractor fails to maintain the required progress in terms of condition 7 or to complete the work and clear the site on or before the contracted or extended period of completion, he shall, without prejudice to any other right or remedy of the BHEL on account of such breach pay as agreed compensation an amount calculated as stipulated below or such smaller amount as may be fixed by the BHEL on the contract value of the work for every week that the progress remains below that specified in condition 7 or that the work remains incomplete.

This will also to items or groups of items for which separate period of completion has been specified.

For the purpose the term "Contract Value" shall be the value at contract rates of the work or ordered.

- | | |
|----------------------------------------------------------------------------------------------|------------------------|
| a) Completion period (as originally stipulated) not exceeding 6 months | at 1 per cent per week |
| b) Completion period (as originally stipulated) exceeding 6 months and not exceeding 2 Years | at ½ per cent per week |
| c) Completion period (as originally stipulated) exceeding 2 years | at ¼ per cent per week |

Provided always that the total amount of compensation for delay to be paid under this condition shall not exceed the under noted percentage of the contract value or of the item or group of items of work for which a separate period of completion is given :

- | | |
|-------------------------------------------------------------------------------------------------------|-------------|
| a) ^{Completion} Complete period (as originally stipulated) not exceeding 6 months | 10 per cent |
|-------------------------------------------------------------------------------------------------------|-------------|

- | | |
|----------------------------------------------------------------------------------------------|-------------|
| b) Completion period (as originally stipulated) exceeding 6 months and not exceeding 2 Years | 7½ per cent |
| c) Completion period (as originally stipulated) exceeding 2 years | 5 per cent |

The amount of compensation may be adjusted or set-off against any sum payable to the contractor under this or any other contract with the BHEL.

44. Laws Governing the Contract

This Contract shall be governed by the Indian Laws for the time being in force.

45. Cancellation of Contract for Corrupt Acts

The Accepting Officer, whose decision shall be final and conclusive, shall without prejudice to any other right or remedy which shall have accrued or shall accrue thereafter to Bharat Heavy Electricals Limited, cancel the Contract in any of the following cases and the contractor shall be liable to make payment to BHEL for any loss or damage resulting from any such cancellation for default. If the Contractor shall :

- a) Offer or give or agree to give to any person in BHEL service any gift or consideration of any kind as an inducement or reward for doing or for bearing to do or for having done or forborne to do a day act in relation to the obtaining or execution of this or any other contract for BHEL service OR
- b) Enter into a contract with BHEL in connection with which commission has been paid or agreed to be paid by him or with his knowledge, unless the particulars of any such commission and the terms of payment thereof have previously been disclosed in writing to the Accepting Officer, OR
- c) Obtain a contract with BHEL as a result of ring tendering or by non-bonafide methods of competitive tendering without first disclosing the fact in writing to the Accepting Officer.

46. Cancellation of Contract for Insolvency, Assignment or Transfer or Sub-Letting of Contract

The Accepting Officer, without prejudice to any other or remedy which shall accrue thereafter to BHEL shall cancel the contract in any of the following cases :

If the Contractor

- a) being an individual, or if a firm any partner thereof shall at any time be adjudged bankrupt or have a receiving order or orders for administration, of his Estate made against him or shall take and proceedings, for liquidation or composition under any Bankruptcy Act for the time being in force or make any conveyance of assignment of his effects composition or arrangement for the benefit of his credit or purport to do so, or if any application be made under any Bankruptcy Act for the time being in force for sequestration of his Estate or if a trust deed be granted by him on behalf of his creditors, OR

- b) being a company shall pass a resolution or the court shall make an order for the liquidation of its affairs, or a Receiver or Manager on behalf of the debentures holders shall be appointed or circumstances shall arise which entitle the court or debentures holders to appoint a Receiver or Manager OR
- c) assigns, transfer, sub-lets or attempts to assign, transfer or sub-let any portion of the work without the prior written approval of the Accepting Officer OR
- d) Shall suffer an execution being levied on his goods and allow it to be continued for a period of 21 days.

Whenever the Accepting Officer, exercises his authority to cancel the contract under this condition, he may complete the work by any means at the Contractor's risk and expense provided always to that in the event of the cost of completion (as certified by Engineer-in-charge which is final and conclusive) being less than the contract cost, the advantage shall accrue to the BHEL and that if the cost of completion exceeds the moneys due to the Contractor under the contract, the contractor shall either pay the excess amount ordered by the Engineer-in-charge or the same shall be recovered from the Contractor by other means.

Engineer-in-charge will have powers to take possession of the site and any materials constructional plant, implements, stores, etc. thereon and carry out the work by any means at the risk and cost of the Contractor.

In case the BHEL completes the work under the provisions of this condition the cost of such completion to be taken into account in determining the excess cost to be charged to the contractor under this condition shall consist of the cost of materials purchased and or labour provided by the BHEL with an addition of such percentage or cover superintendence and establishment charges as may be decided by the General Manager whose decision shall be final and conclusive.

In the Contractor fails to pay the excess sum within a period of 30 days, the Engineer-in-charge shall have the right to sell any or all of the Contractor's unused materials, constructional plant implements, temporary buildings etc. and apply the proceeds of sale thereof towards the satisfaction of any sum due from the Contractor under the contract and if thereafter be any balance outstanding from the Contractor, it shall be recovered in accordance with the provisions of the Contract.

47. Cancellation of contract in part or Full for Contractor's Default

If the contractor :

- a) makes default in commencing the work within a reasonable time from the date of handing over of the site and continue in that state a reasonable notice from Engineer-in-charge OR
- b) in the opinion of the Engineer-in-charge at any time, whether before or after the date extended date for completion, make default in proceeding with the work, without due diligence and continue in the state after a notice of seven days from Engineer-in-charge OR
- c) fails to comply with any of the terms and conditions of the contract or after 7 days notice in writing with orders properly issued thereunder. OR

- d) fails to complete the work order and items of work individual dates for completion and clear the site on or before the date of completion or fails to achieve the progress at set out under clause 7 of these General conditions of contract.

The Accepting Officer may, prejudice to any other right or remedy which shall have accrued or shall accrue after B H E L, Cancel the contract as a whole or in part there or only such work order items of work in default from the contract. Whenever the Accepting officer exercises his authority to cancel the contract as a whole or in part under this condition he may complete the work at the contractor's risk and cost provided always that in the event of the cost of completion (as certified by Engineer-in-charge which is final and conclusive) being less than the contract cost the advantage shall accrue to the BHEL if the cost of completion exceeds, the money due to the contractor under this contract the contractor shall either pay the excess amount ordered by General Manager or the same shall be recovered from the contractor by other means. Engineer-in-charge will have power to take possession of site and materials, constructional plant, implements, stores etc there on.

In case the BHEL completes the work or any part there of under the provisions of the condition the of such completion to be taken in to account in determining the excess cost to be charged to the contract under this condition shall consist of the cost of materials purchased and / or labour provided by the BHEL. with an addition of such percentage to cover superintendance and establishment charges as may be decided by the General Manager whose decision shall be final and conclusive.

If the contract fails to pay the excess sum within a period of 30 days the Engineer-in-charge shall have the right to sell any or of the contractor's unused materials, construction plant, implements, temporary buildings etc and apply the proceeds of sale there of towards the satisfaction of any sum due from the contractor under the contract and if ^{there} ~~not~~ after be any balance out-standing from the contract, it shall be recovered in accordance with the provisions of the contract.

48. Termination of Contract for death

Without prejudice to any of the rights or remedies under this contract. if the contractor dies, the Accepting officer shall have the option of terminating the contract without compensation to the contractor.

49. Special Powers of Determination

If at any time after the acceptance of the tender BHEL shall for any reason whatsoever not require the whole or any part of the work to be ^{carried out} ~~done~~ General Manager shall give notice in writing of the fact to the contractor who shall have no claim to any payment of compensation or otherwise howsoever on account of any profit or advantage which he might have derived from the execution of the work in full but which he ^{did} ~~did~~ not derive in consequence of the foreclosing of the work.

He shall be paid at contract rates for the full amount of the executed including such additional works, e, g. clearing of site, etc., as may be rendered necessary by the said foreclosing. He shall also be allowed a reasonable payment (as decided by the Accepting office) for any expenses sustained on account of labour and materials collected but which could not be utilised on the work, as verified by the Engineer-in-charge. Neither shall the contractor have any claim for compensation on account of any alterations have been made in the original specifications drawings, designs and instructions, involving any curtailment of the work as original contemplated.

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CHAPTER - IV

VALUATION AND PAYMENT

5). Records and Measurements :

All items having a financial value shall be entered in the BHEL Measurement Book so that a complete record is obtained of all works performed under the contract.

Buildings, etc., priced in schedule 'A' as a unit Lump-sum will be entered by number at the unit Lump-sum.

Work carried out for agreed Lump-sum will be described and similarly recorded.

Lump-sum omissions will be entered for deduction. Measurement shall be restricted to that required to ascertain the financial liability of BHEL under the contract.

Work which fails to be measured in detail shall be measured physically, without reference to any local custom that may obtain excepting where it may otherwise be directed in the tender documents. The measurements shall be taken jointly by any person duly authorised on the part of the BHEL and by the contractor.

The engineer-in-charge shall give reasonable notice in writing to the contractor of appointment of measurement.

The contractor shall without extra charge, provide assistance with appliance and other things necessary for measurement.

The contractor shall bear all the cost of measurements of his work.

measurements shall be entered in the BHEL measurement book and signed and dated by both parties each day at the site on completion of measurement. If the contractor objects to any of the measurements recorded on behalf of the BHEL. A note to that effect to be made in the BHEL measurement book or against the item or items objected to; and such note shall be signed and dated by both the parties engaged in taking the measurement.

If as a result of such objection, it becomes necessary to re-measure the work wholly or in part, the expense of such measurement shall be borne by the party requiring the measurement.

Measurement to be re-taken provided that a net error is found by this re-measurement to amount to less than 5% (Five percent) of the value as recorded by the first measurement. But where the net errors amount to 5% and over of the said value, then the cost is to be borne by the other party. In any case if the net value of errors found exceeded to Rs 500 the expense or re-measurement is said to be borne by the other party. If the contractor's representative fails to attend when required, the engineering-in-charge shall have power to proceed by himself to take measurement and in that case those measurements shall be considered as accepted by the contractor as final. The contractor shall, once in every month, submit to the engineer-in-charge with a copy to the accepting officer details of his claims for the work done by him up to and including the previous month which are not covered by his contract agreement in any of the following respects.

- a) Deviation from the items and specifications provided in the contract documents.
- b) Extra Items / Items of work.
- c) Quantities in excess of those provided in the contract schedule.
- d) Items in respect of which rates have not been settled. He should, in addition furnish a clear certificate to the effect that the claims submitted by him as aforesaid cover all his claims and that no further claims shall be raised by him in respect of work done up to and including the period under report.

Except where any general to detailed description of the work in quantities expressly shows to contrary, schedule of quantities shall be deemed to have been prepared and measurements shall be taken in accordance with the procedure set forth in the schedule of rates specification not withstanding any provision in the relevant standard method of measurement or any general or local custom. In the case of items which are not covered by the schedule of rates / specification, measurement shall be taken in accordance with relevant standard method of measurement issued by the Indian Standard institution or as per Standard engineering practice.

52 Valuation of Deviations

Rates for deviated items of work will be fixed as follows :

- 1) For any item of work required to be carried out after the contract has been awarded and which is not covered by Contractor's Schedule but is covered by B.H.E.L. schedule of Rates the payable for such a fresh item will be derived from B.H.E.L. Schedule by the method of proportion as follows:
 - a) In the same proportion to the BHEL Schedule of rates as the tendered rate for the nearest analogous item of work in contractor's schedule bears to rate for the particular analogous item of work in BHEL schedule of rates. However in case of nearest analogous item of work in contract schedule forms part of individual chapter of the BHEL schedule of rates the above proportion will be worked out only for such items which are found both in contract schedule and BHEL Schedule of rates as group of items under the chapter.
 - b) If a single appropriate analogous item of work is not available in both schedule (contractor's and BHEL schedule) then the method of proportion will be applied to the nearest analogous group items available in both the schedule referred to i.e. in the same proportion as the total tendered cost of that particular group of item (the sum of the products of the tendered rates and the quantities for which orders are placed) bears to the total cost of the same items and quantities and BHEL Schedule of Rates.
 - c) If even an appropriate analogous group of items is not available in contractor's schedule and BHEL Schedule, then the methods of proportion will be applied to all those items of the whole work, which are available in both the schedule and for which orders have been placed on the contractor i. e., in the same proportion as the total cost of all

these items of work (the work of the products of the tendered rates and the quantities for which order are placed) bears to the total cost of the same items and quantities at the BHEL schedule of rates.

The selection of analogous items or analogous group of items referred to above shall be done by the Engineer-in-charge. Where the rates for deviated items or new items of work can be derived by the selection of different analogous items or analogous group of items, the lowest of all such derived rates shall be taken as the correct rate.

In the case of the contracts for which the Engineer-in-charge is the Accepting officer all disputes regarding the settlement of rates of deviated or new items or work shall be referred to the Head of Civil Engineering Department whose decision shall be final and conclusive as the case may be.

II. If any work not covered by any of the foregoing is ordered of the contractor, the basis of payment shall be decided by the Accepting Officer whose decision shall be final and conclusive and binding on the parties.

53. Reimbursement / Refund on variation in Price, Materials

If after submission of the tender and / or during the progress of the works, the price of any material (not being a material supplied from the BHEL store in accordance with the conditions of the contract) is increased or decreased by an Act of Legislature (central or state) and / or any notification thereunder or on account of new duties or levies such as octroi or on account of increase or decrease in such duties affecting the price of materials required for incorporation in the works and made from materials of which the price has increased or decreased as aforeaid and the contractor has thereupon to pay in respect of such material or item a price which is higher or lower than the price of that material or item as prevailing immediately before the passing of such act or levying, increasing / decreasing of such duty, the BHEL shall increase in price or the duty reimbursed to the contractor the increase in price or additional or increased duty paid by the contractor and in case of decrease in price the BHEL shall be entitled to a refund of the reduction in the price or the reduction in duty. This will be applicable only for material which are directly incorporated on the work. The contractor shall however indicate the assumption he has made while submitting the tender. However no reimbursement or refund shall be made if the increase / decrease is not more than + 10% of the said price, and if so the reimbursement or refund shall be made only / on the excess over \pm 10% provide always that any such increase shall not be payable if, in the opinion of the Accepting officer (whose decision shall be and conclusive) the increase is attributable to the delay in the execution of the contract with the control of the contractor or that any such increase has become operative after the contracted/ or extended dated of completion of the works or items of work in question.

The Contractor shall, for the purpose of this condition, keep such books of account and other document as are necessary to show the amount of any increase or any reduction available and shall allow inspection of the same by any duly authorised representative of the BHEL and further shall at the request of the Engineer-in-charge furnish for verification such other information as the Engineer-in-charge may require.

The Contractor shall within a reasonable time of his becoming, aware of any alteration in the prices of any such materials give notice thereof in writing to the Engineer-in-charge stating that the rate is submitted in pursuance to this condition together with all information relating thereto which he may be in a position to supply.

Advance on account

No payment shall be made for work estimated to cost less than Rupees ONE THOUSAND till after the whole of the work shall have been completed and a certificate of completion given by the Competent authority.

In the case of work estimated to cost more than Rupees FIVE THOUSAND the contractor may at intervals of less than one month or as otherwise provided for in the Contract documents, counting from the date on which order to commence work is given by Engineer-in-charge submit claims on BHEL forms for payment of advances on account of work done and of materials delivered in connection with the Contract.

The Contractor shall be paid in respect of such claims to the extent approved and passed by the Engineer-in-charge subject to a maximum of 90% of the value of the work actually executed to the satisfaction of the Engineer-in-charge. The certificate of the Engineer-in-charge regarding such approval and passing of the sums so payable shall be final and conclusive against the contractor.

Notes :

"After the full amount of Security Deposit is made up through the 10% deduction from On account bills, 100% payment of all subsequent bills may be made to the contractor.

The Contractor may also be paid during the progress of the work 75% of the value of any materials which are in the opinion of the Engineer-in-charge in accordance with the Contract, and are actually required for incorporation in the work and which have reasonably been brought to the site in connection therewith and are adequately stored and / or protected against damage by weather or other causes, but which have not at the time of payment of the advance been incorporated the work on furnishing a formal hypothecation deed. Payment of such advances, however shall be purely at the discretion of the Accepting Officer provided always that payment shall not be made under these periodical certificate in respect of materials like lime, cement, timer, sand, kankar, etc.

Any sums, due from the Contractor on account of Tools and Plant, stores or any other items provided by BHEL shall be deducted from the respective advances. The Engineer-in-charge shall from time to time certify the sums payable to the Contractor after retaining the reserves.

Any certificate relating to work done or materials delivered may be modified or corrected by any subsequent interim certificate or by the final certificate of the Engineer-in-charge supporting an advance payment shall itself be conclusive evidence that any any work or materials it relates are in accordance with the contract. All such intermediate payments shall be regarded as advance against the final payment only and shall not be considered an admission of the performance of the contract or any part thereof in any respect or the accruing of any claim whatsoever.

Such intermediate payment shall not conclude determine or affect in any way the powers of the Engineer-in-charge as to the final settlement and adjustment or the account or otherwise or in any way vary or affect the contract.

55. Final Bill

As soon as possible after the completion of the work to the satisfaction of the Engineer-in-charge, the contract shall forward a certified final account on BHEL forms, in duplicate.

It shall be accompanied by all abstracts, vouchers, etc., in support thereof and shall be prepared in the manner prescribed by the Engineer-in-charge.

No claims will be entertained after the receipt of the final bill.

The Contractor shall be entitled to be paid the final sum less the value of payments already made on account, subject to certification of the final bill by the Engineer-in-charge. Any sums due from the Contractor on account of Tools and Plant, Stores or any other items provided by BHEL not yet recovered from the contractor shall be deducted from the final sum aforesaid.

No charge shall be allowed to the Contractor on account of the preparation of the final bill.

56. Payment of Bills

All payment to be made to the Contractor under this contract shall be by "Crossed Cheque" marked "A/c payee only" (within a reasonable time after the certification by the Engineer-in-charge) at the Nationalised Banks/Scheduled banks or their subsidiaries located in the station where either the work is executed or service rendered or at their branch nearest to the station where the Office of the Engineer-in-charge is located.

57. Recovery from Contractor

Whenever under the contract any sum of money shall be recovered from or payable by the Contractor the same may be deducted any sum then due or which at any time thereafter may become due to the Contractor under the contract or under any other contract with BHEL or from his Security Deposit or he shall pay the claim on demand.

58. Post Technical Audit of work and Bills

BHEL reserve the right to carry out a post-payment audit and technical examination of the work and final bill including all supporting vouchers, abstracts etc., and to enforce recovery of any sums becoming due as a result thereof in the manner provided in the preceding sub-paragraphs provided. However, no such recovery shall be enforced after three years of passing the final bill.

59. Refund of Security Deposit

50% of the Security deposit mentioned in condition 18 above, may be refunded to the Contractor in respect of all contract on completion of work and after payment of final bill and the balance 50% on expiry of the maintenance period, provided the

Contractor shall have rendered a "No - Demand" Certificate. In case of work where maintenance period is not involved 100% of the Security Deposit may be refunded after payment or final bill provided that the Contractor shall have rendered a "No Demand" Certificate.

60. Arbitration

Except where otherwise provided for in the contract all questions and disputes relating to the meaning of the specifications, designs, drawings and Instructions herein before mentioned and as to the quality of workmanship or materials used on the work or as to any other question, claim matter or thing whatsoever in any way arising out of or relating to the contract, designs, drawings, specifications, estimates, instructions, orders or there conditions or otherwise concerning the work or failure to execute the same whether arising during the progress of the work or after the completion or abandonment thereof shall be referred to the sole arbitration of the General Manager of BHEL and if General Manager is unable or unwilling to act, to the sole arbitration of same other persons appointed by the General Manager, willing to act as such arbitrator.

The cases referred to arbitration shall be other than those for which the decision of the Accepting Officer, or Engineer-in-charge as the case may be, is expressed in the contract to be final and conclusive. There will be no objection if the arbitration, so appointed is an employee of BHEL and that he had to deal with the matters to which the contract relates and that in the course of his duties as such he had expressed views on all or any of the matters in dispute or difference.

The arbitrator to whom the matter is originally referred being transferred or vacating his office or being unable to act for any reason, such General Manager as aforesaid at the time of such transfer, vacation of office or inability to act, shall appoint another person to act as arbitrator in accordance with the terms of the contract. Such person shall be entitled to proceed with the reference from the stage at which it was left by his predecessor.

Subject as aforesaid the provision of the Arbitration Act, 1940 or any statutory modification or re-enactment thereof and the rules made thereunder and for the time being in force shall apply to the arbitration proceeding under this clause.

It is a term of the contract that the party involving arbitration shall specify the dispute or disputes to be referred to arbitration under this clause together with the amount or amount claimed in respect of each dispute.

The arbitrator(s) may from time to time with consent of the parties enlarge the time, for making and publishing the award.

The work under the Contractor shall if reasonably possible continue, during the arbitration proceedings and no payment due or payable to the Contractor shall be withheld on account of such proceedings.

The Arbitrator shall be deemed to have entered on the reference on the date he issues notices to both the parties fixing the date of first hearing.

The Arbitration shall give a separate award in respect of each dispute or difference referred to him.

The venue of arbitration shall be such place as may be fixed by the Arbitrator in his sole discretion.

The award of the Arbitration shall be final, conclusive and binding on all parties to this contract.

In the event of disputes or differences arising between one public sector enterprise and a Govt. Department or between two public sector enterprises the above stipulations shall not apply, the provisions of BPF Office memorandum No. BPF/CL001/76MAN/2(1.10) 75 - BPE (GM - 1) dated 1st January 1976 or its amendments for arbitration shall be applicable.

61. Jurisdiction of Court

For the purpose of Court proceeding if any, same shall be in the Court having jurisdiction over Ranipet - 632 406. (Vellore District, Tamilnadu).

62. Taxes etc. -

All taxes, duties, levies that are payable to the Government or to any other authorities in respect of the works under the contractor at the time of contract or becomes payable in future shall be exclusively borne by the contractor and the BHEL is not liable for any reimbursement / Payment thereof.

ANNEXURE - I

TERMS AND CONDITIONS REGARDING COMPLIANCE WITH VARIOUS LABOUR LAWS BY THE CONTRACTORS FOR BHEL

{Please See Condition - 22}

1. The Contractor shall not employ in connection with the work any person who has not completed 18 years of age.
2. The Contractor shall in respect of labour employed by him either directly or through sub-contractor's comply with or cause to be complied with the following statutory provisions and rules and in regard to all matters provided therein.
 - a) The Contract Labour (Regulation & Abolition) Act 1970 and the related Tamilnadu rules.
 - b) The Minimum wages Act 1948 and the related Tamilnadu Rules.
 - c) The payment of wages Act 1936 and the related Tamilnadu Rules.
 - d) The factories Act 1948 and teh related Tamilnadu Rules.
 - e) The Employees' Provident Fund & Miscellaneous Provisions Act 1952.
 - f) The Employees State Insurance Act 1948.
 - g) The workman's Compensation Act 1923.
 - h) The Industrial Disputes Act 1947 and any other Law or modifications to the above or to the rules made there under from time to time.
 - i) Paymet of Bonus Act 1985.

REGISTRATION AND LICENSING

3. Every Contractor shall register his name with the Welfare Section of BHEL before taking up the work awarded to him by giving the following information and getting a code Number :-
 - a) The Name of the Contractor.
 - b) Nature of Contract Work.
 - c) Period of Work.
 - d) Number of maximum labour employed by him on anyone day.
 - e) Licence No. & Date (applicable in case of Contractors employing 20 or moreworkers)
 - f) Whether enrolled for PF, ESI, etc., and enrolment No.

This information is called for the purpose of informing the Inspectorate of Factories whenever they call for information regarding Contracts.

4. The Contractor employing 20 or more workmen is required to obtain licence from the authorities (The Deputy Chief Inspector of Factories / Assistant Commissioner of Labour as the case may be). This licence shall be amended and /or renewed wherever there is an increase in the workmen employed by him or in the event of contract being extended or renewed. The Contractor shall inform the licence number to the BHEL Management before taking up the work.
5. The Contractor (licensed or unlicensed) shall promptly furnish every information and document required by BHEL authorities for the purpose of fulfilling their obligations as principal Employer and / or occupier of the factory and shall render all necessary assistance for the same.

WAGES

6. The Contractor shall pay wages to the workmen employed by him at the rate which shall not be less than the minimum wages applicable under Law from time to time.
7. The Contractor shall fix wage periods in respect of which wages shall be payable. No wage period shall exceed one month.
8. The Contractor shall ensure payment of wages to the Contract labour employed by him within three days from the end of wage period in case the wage period, is one week or a fortnight and in all other cases before 10th day of the following month.
9. All payment of wages shall be made on working days at the work site and during the working time and on dates notified in advance. In case the work is completed before the expiry of the wage period, final payment shall be made within 48 hours of the last working day.
10. Where the employment of any works is terminated by or on behalf of the Contractor, the wages earned by him shall be paid before the expiry of the second working day from the day on which his employment is terminated.
11. Wages due to every worker shall be paid to him direct or to the person authorities by him in this behalf. All wages shall be paid in current coin or currency or in both.
12. The Contractor shall ensure the disbursement of wages in the presence of such authorised representatives of BHEL Management.
13. The above payment shall be verified by the authorised Officers/ representative of BHEL with the following certificates on the payment sheet
 Certified that the amount shown in Column No..... has been paid to the workmen concerned in my presence on..... at
14. A certificate of payment shall be furnished in duplicate by the Contractor to the Engineer-in-charge each month in Form "A" enclosed.

15. A Notice of showing the wage period and the place and time of disbursement of wages shall be displayed at the place of work and a copy to be sent to the welfare department by the Contractor under acknowledgement.
16. Notices showing the rates of wages, weekly rest days, wage period, hours of work, date of payment of wages, and addressed of the Inspectors having jurisdiction the date of unpaid wages shall be displayed in Tamil and English in conspicuous places at the establishment and at worksite the contractor. The contractor shall inform the BHEL Management every month the details of contract labour engaged for each contract in the following form :-
 - a) Serial Number
 - b) Location
 - c) Period of Work
 - d) No. of Contract labour engaged during the work
 - e) No. of days worked
 - f) No. of Mandays worked
 - g) Wages paid to his workers

The above statement shall be furnished to BHEL Management at the end of every month.

REGISTERS AND RECORDS AND COLLECTION OF STATISTICS

17. The following documents/formats under contract labour (Regulation and Abolition) Act 1970 and Tamil Nadu Rules there under shall be maintained by each Contractor.
 - a) Register of Persons employed by the Contractor.
 - b) Employment Card
 - c) Service Certificate
 - d) Muster Roll, Wage Register, Deduction Register, Wage Slip, Over Time Register, Register of Fines, Register of Advances etc.
18. The Contractor shall display the abstract of the contract labour (Regulation and Abolition) Act and the Rules there under both in English and in Tamil.
19. Half Yearly Return shall be sent by the Contractor in duplicate to the Licensing Officer.
20. The Contractor shall submit the returns required under the Contract Labour (Regulation and Abolition) Act 1970 periodically to BHEL Management.
21. The Contractor shall without fail give upto date information in writing of the attendance of the workers employed by him.

22. The Contractor shall ensure that his workers keep and produce their Employment Card when coming to duty and take them back when leaving duty.
23. All the above registers and records shall be preserved in original for a period of Three years. All the Registers, Records and notice maintained under the Act and rules shall be produced on demand by Inspector or any authority under the Act.

WORKING HOURS AND WORKING CONDITIONS

24. NO WORKER SHALL BE REQUIRED OR ALLOWED TO WORK ON SUNDAY UNLESS HE HAS OR WILL HAVE A HOLIDAY ON ANYONE OF THE THREE DAYS BEFORE OR AFTER THE SAID DAY.
25. The contractor shall inform BHEL Management in the prescribed form details of the contract workers scheduled to work on Sunday, the day of rest and also indicate the substituted holiday in lieu thereof. This shall be intimated two days in advance before his workmen are booked for work on Sunday.
26. The contract labour working for more than nine hours in any day or for more than 48 hours in any week shall be paid wages at the rate of twice the ordinary rates of wages in accordance with the provisions of section 59 of the factories Act 1948
27. The contractor shall provide all safety devices and personal protective equipment to his workmen at his own cost and shall ensure that his workmen wear/use such devices or equipment provided to them while doing the work and there should not be any relaxation on this.
28. The contractor shall give four paid National Holidays to his workers, viz. 26th January, 1st May, 15th August and 2nd October.
29. The contractor shall ensure that his workmen vacate the premises after the shift is over.
30. No woman worker shall be required or allowed to work in the factory except between the hours of 6.00 a.m and 7.00 p.m
31. The contractor shall comply with the provisions relating to welfare and Health facilities as provided in the contract labour (Regulation and Abolition) Act 1970 read with the Tamilnadu contract labour Rules 1975.

NOTICES OF ACCIDENTS

32. Notwithstanding any thing contrary to this , in the event of accident the contractor shall be required to fill injury report and submit the Engineer-in-charge immediately and ensure the compliance of ESI/Workmen's Compensation Act, Factories Act and Rules made there under. He shall also maintain a register of accident as per Act.
33. The contractor shall get the contract labour engaged by him insured under workmen's Compensation Policy from General Insurance Corporation of India before actually starting the work of contract. The Insurance coverage should

be for the entire period of contract. The contractor shall comply with the provision of the Workmen's Compensation Act 1923 [This should be read in conjunction with the provision of ESI Act]

34. The contractor shall ensure that all his workmen are covered under the Employees State Insurance Act and produce to BHEL such Registration Number/ Enrolment Number before executing the contract work.
35. The contractor shall regularly pay the amount of contribution i.e. employers contribution as well as employees contribution in pursuance of the above scheme as fixed from time to time. The contribution payable presently is 1.75% of wages to be recovered from the workmen and 4.75% of wages to be contributed by the contractor. Contribution recovered from employee and contribution made by the contractor may be rounded to the next higher multiples of five paise.
36. The contractor shall take note of any amendment that may be brought forth in the above contribution rate and accordingly.
37. The contractor shall ensure that his workmen are covered under the EPF & miscellaneous Provision Act 1952 and accordingly produce to the BHEL Management the registration / enrolment number before awarding of contract work. As per the existing provision every worker who has completed three months continuous service or has actually worked for not less than 60 days within a period of three months or less shall be entitled and required to become a member of the fund. The employees' contribution payable at present is 12% of wage which will be recovered by the contractor from the wages of his workmen and the contractor should pay equal contribution. The contractor is also liable to pay any administrative charges in this behalf that may be decided from time to time, it will be the responsibility of the contractor to ensure such contribution payable in respect of workmen employed through sub-contractors also.
38. The contractor shall take note of any amendment in the rate of contribution payable under the scheme from time to time.
39. The contractor shall within seven days of the close of every month submit to BHEL a statement showing the amount of contribution payable/paid for employees engaged by him or through him and shall also furnish to BHEL such information as Principal Employer is required to furnish under the provision of the ESI Act and PF as well as the schemes made thereunder to the authorities concerned.
40. Whenever any sum of money is found to be recoverable from or payable by the contractor under the above Acts the same shall be deducted from any sum that may be due or which at any time thereafter may become due to the contractor under this contract or under any other contract or from his security deposit in case the recoveries are not sufficient to satisfy the claims, the contractor shall pay the balance thereof on demand. In case any recoveries are made this clause shall as may be required to replace the shortage caused by such recoveries in the amount of Security Deposit.

41. The contractor shall abide by all the labour and other laws applicable to contract:labour/worken under this contract and shall at all times keep BHEL Indemnified against all losses, claims, prosecutions under any law.
42. in case of non compliance of any of the provisions of the Acts and in case BHEL Haveing complied with the same BHEL will be entitled to recover the same from the contractor / sub contractor.
43. Non exercise of any of the power of or rights available to BHEL here under or under any law, shall not any way operate as waiver thereof.

ACCEPTING OFFICER

FORM - IV

(See Rule 21(1) of Tamil Nadu Contract Labour Rules)

Application for Licence

01. Name and Address of the Contractor
(including his Father's Name in case of
Individuals) :
02. Date of Birth and age (in case of
Individuals) :
03. Particulars of Establishment where
Contract Labour is to be employed :
- a) Name and Address of the
Establishment :
- b) Type of business, trade industry
manufacture :
- c) Number and date of certificate of
Registration of occupation, which is
carried on the Establishment under
the Act. :
- d) Name and address of the Principal
Employer :
04. Particulars of contract labour :
- a) Nature of work in which contract
labour is employed or is to be
employed in the establishment :
- b) Duration of the proposed contract
work (give particulars of proposed
date of commencing and ending) :
- c) Name and address of the agent or
Manager of contractor at the worksite :
- d) Maximum No. of contract labour
proposed to be employed in the
establishment on any date :

- 05. Whether the contractor was convicted of any offence within the preceeding five years, if so give details :
- 06. Whether there was any order against the contractor revoking or suspending licence or forfeiting security deposit in respect of an earlier contract if so the date of such order :
- 07. Whether the contractor has worked in any other establishment within the past five years, if so, give details of the principal employer Establishment and nature of work :
- 08. whether a certificate by the principal Employer in form V is enclosed :
- 09. Amount of licence fee paid No of Treasury challan and Date :
- 10. Particulars of security deposit if any, requested to be adjusted, including Treasury Receipt number :
- 11. The amount of security deposit or balance if any after adjustment of amount to be refunded under rule 31 deposited with treasury Receipt Number and date :

DECLARATION

I hereby declare that the details above are correct to the best of my knowledge and belief.

PLACE :
DATED :

SIGNATURE OF THE APPLICANT
[CONTRACTOR]

NOTE : The application should be accompanied by a treasury Receipt for the appropriate amount and a certificate in Form V From the principal employer.

(To be filled in the office of the Licensing officer)

Date of receipt of the application with challan for fees / security Deposit.

SIGNATURE OF THE LICENSING OFFICER

CONTRACTOR

FORM - XIII

(See Rule 75 of Tamil Nadu Contract Labour Rules 1975)

Register of workman employed by contractor

Name and Address of the Contractor :

Name and location of work :

Name and address of establishment in /under
which contract is carried on :

Name and address of Principal Employer :

01. Serial Number :

02. Name and surname of workman :

03. Age and sex :

04. Father's / Husband's Name :

05. Nature of Employment /Designation :

06. Permanent Home address of workman
(village Taluk and District) :

07. Local Addresss :

08. Date of commencement of Employment :

09. Signature or Thump Impression of workman :

10. Date of termination of Employment :

CONTRACTOR

FORM - XIV

(See Rule 76 of Tamil Nadu Contract Labour Rules)

EMPLOYMENT CARD

Name and Address of contractor : Name and address of
Establishment in/under which
contract is
carried on _____

Nature of work and location of work : Name and address of
Principal Employer

01. Name of the workmen :

02. Sl. No. of register of workmen employed :

03. Name of Employment/Designation :

04. Wage rate (with particulars of unit in case of
Piece work) :

05. Wage period :

06. Tenure of Employment :

07. Remarks :

SIGNATURE OF CONTRACTOR

CONTRACTOR

FORM - XV

{See Rule 77 of Tamil Nadu Contract Labour Rules}

SERVICE CERTIFICATE

Name and Address of the contractor : Name and address of
Establishment in/under which
contract is
carried on _____

Name and location of the work :

Name and address of the workman : Name and address of Principal
Employer

Age or Date of Birth :

Identification marks :

Father's / Husband's Name :

Sl.No	Total period for which employed		Nature of work done		Rate of wage (with particulars units in case of piece of work	Remarks
	From	To	(4)	(5)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)

SIGNATURE

CONTRACTOR

FORM - XVI

(See Rule 78 [1] [a] [i] of Tamil Nadu Contract Labour Rules)

MUSTER ROLL

Name and Address of contractor : Name and address of Establishment in/under which contract is carried on _____

Nature of location of the work : Name and address of Principal Employer _____

For the Month of _____

Sl. No	Name of workmen	Father's/Husbands Name	Sex	Dates					Remarks	
				1	2	3	4	5		
(01)	(02)	(03)	(04)	(05)	(06)					

SIGNATURE OF CONTRACTOR

CONTRACTOR

FORM - XVII

(See Rule 78(1) (a) (i) of Tamil Nadu Contract Labour Rules)

Register of wages

Name and Address of the Contractor :

Nature and location of work :

Name and address of establishment in/under
which contractor is carried on :

Name and address of Principal Employer :

Wage Period : MONTHLY

01. Serial Number :

02. Name of workman :

03. Sl. No. in Register of workman :

04. Designation / Nature of work done :

05. No. of days worked :

06. Units work done :

07. Daily rate of wages / Piece rate :

08. Basic wages :

09. Dearness allowance :

10. Overtime :

11. Other cash Payment
(Nature of payment to be indicated) :

12. Total :

13. Deductions, If any [indicate nature] :

14. Net amount paid :

15. Signature / Thumb impresion of workman :

16. Initials of contractor or his representative :

CONTRACTOR

FORM - XIX

(See Rule 78(1) (b) of Tamil Nadu Contract Labour Rules)

Wage Slip

Name and Address of the Contractor : Name and Father's /
Husband Name of the
workman _____

Name and location of work : For the week / Fortnight /
Month ending

01. No. of days worked :

02. No. of units worked in
case of piece rate workers :

03. Rate of daily wages /piece rate :

04. Amount of over time wages :

05. Gross wages Payable :

06. Deductions, if any :

07. Net amount of wages paid :

**INITIALS OF THE CONTRACTOR OR
HIS REPRESENTATIVE**

CONTRACTOR

FORM - XX

(See Rule 78(1) (a) (ii) of Tamil Nadu Contract Labour Rules)

Register of deductions for damage or loss

Name and Address of the Contractor :

Nature and location of work :

Name and address of establishment in/under
which contractor is carried on :

Name and address of Principal Employer :

01. Serial Number :

02. Name of workman :

03. Father's / Husband's Name :

04. Designation / Nature of employment :

05. Particular of damage or loss :

06. Date of damage or loss :

07. Whether workman showed cause
against deduction :

08. Name of person in which presence
employee's explanation was heard :

09. Amount of deduction imposed :

10. No. of instalments imposed : Date of Recovery

11. First Instalments :

12. Final Instalments :

13. Remarks :

CONTRACTOR

FORM - XXI.

(See Rule 78(1) (a) (ii) of Tamil Nadu Contract Labour Rules)

Register of Fines

Name and Address of the Contractor :

Nature and location of work :

Name and address of establishment in/under
which contractor is carried on :

Name and address of Principal Employer :

01. Serial Number :

02. Name of workman :

03. Father's / Husband's Name :

04. Designation / Nature of employment :

05. Act / Omission for which fine imposed :

06. Date of offence :

07. Whether workman showed cause against
fine :

08. Name of the person in whose presence
employee's explanation was heard :

09. Wage period & Wage payable :

10. Amount of fine imposed :

11. Date on which fine realised :

12. Remarks :

FORM - XXII

(See Rule 78 (1) (a) (ii) of Tamil Nadu Contract Labour Rules)

Register of Advance

- Name and Address of the Contractor :
- Nature and location of work :
- Name and address of establishment in/under which contractor is carried on :
- Name and address of Principal Employer :
01. Serial Number :
02. Name of workman :
03. Father's / Husband's Name :
04. Designation / Nature of employment :
05. Wage period and wages payable :
06. Date and amount of advance given :
07. Purposes (s) for which advance made :
08. No. of instalments by which advance to be repaid :
09. Date and amount of each instalment repaid :
10. Date on which instalment was repaid :
11. Remarks :

CONTRACTOR

FORM - XXIII

(See Rule 78(1) (a) (iii) of Tamil Nadu Contract Labour Rules)

Register of Overtime

Name and Address of the Contractor :

Nature and location of work :

Name and address of establishment in/under
which contractor is carried on :

Name and address of Principal Employer :

01. Serial Number :

02. Name of workman :

03. Father's / Husband's Name :

04. Sex :

05. Designation / Nature of employment :

06. Dates on which overtime worked :

07. Total overtime worked or production
in case of piece -rated :

08. Normal rate of wages :

09. Overtime rate of wages :

10. Overtime earning :

11. Date on which Overtime wages paid :

12. Remarks :

CONTRACTOR

PAYMENT CERTIFICATE

FORM "A"

Certified that :

1. I as contractor of
have made payment to all contract Labourers in full in respect of contract
No. as per terms of my contract
and in no case less than the rates applicable upto the period ending.
2. The above payment have been made by me in the presence of the au-
thorised representative of
of for
Employees amounting to Rs
3. The necessary payment registers attendance register / Form 12 . Leave
register / book under Laboure and industrial Law and other relevant records
have been maintained by me and available with me for production as and
when required .
4. No payment is due / outstanding to any contract Labourers engaged by
me in respect of the aforesaid contract upto the period ending
.....

CONTRACTOR

NAME :
DATE :

SUPERVISOR

NAME :
DESIGN :
DATE :

COUNTERSIGNED
OFFICER INCHARGE

NAME :
DESIGN :
DEPT. :

CONTRACTOR

ANNEXUR II
SAFETY RULES
(See Condition 2)

A BHEL SAFETY CODE

A

1. Suitable scaffolds shall be provided for workmen for all work that cannot safely be done from the ground, or from solid construction except such short period of work as can be done safely from ladder. When a ladder is used an extra mazdoor shall be engaged for holding the ladder and if the ladder is used for carrying materials as well suitable footholds and handholds shall be provided on the ladder and the ladder shall be give an inclination not steeper than $\frac{1}{4}$ to 1 ($\frac{1}{2}$ horizontal and 1 vertical)
2. Scaffolding or staging more than 3.25 metres above the ground or floor, swing or suspended from an overhead support or erected with stationary support, shall have a guard rail properly attached, bolted braced and otherwise secured atleast 1 metre high above the floor or platform of such scaffolding or staging and extending along the entire length of the outside and ends thereof with only such opening 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 stairways shall be so constructed that they do not sag unduly or unequally, and if height of a platform or gangway or stairway is more than 3.25 metres above ground level or floor level it shall be closely boarded, have adequate width and be suitably fenced, as described in 2 above.
4. Every opening in floor of a building or in a working platform shall be provided with suitable means to prevent fall of persons or materials by providing suitable fencing or railing with a minimum height of 1 metre.
5. Safe means of access shall be provided to all working platform and other working places. Every ladder shall be securely fixed, no portable single ladder shall be over 9 metres in length. Width between side rails in a rung ladder shall in no case be less than 30 cm for ladders upto and including 3 metres in length, For longer ladder this width shall be increased by atleast 6mm for each additional 30cm of length. Uniform step spacing shall not exceed 30cm.

Adequate precautions shall be taken to prevent danger from electrical equipment. No materials on any of the sites shall be so stacked or placed as to cause danger or inconvenience to any person or the public. The contractor shall provide all necessary fencing and light to protect public from the accident and shall be bound to bear expenses of defence of every suit-action or other proceeding at law that may be brought by any person for injury sustained owing to neglect of the above precautions, and pay any damages and cost which may be awarded in any such suit, action or proceeding to any such person or which may with the consent of the contractor be paid to compromise any claim by such person.

6. Excavation and Trenching

All trenches 1.5 metres or more in depth, shall at all time be supplied with atleast one ladder for each 30m length or fraction there of ladder shall be extended from bottom of trench to atleast 1 metre above surface of the ground . Sides of the trench 1.5 metres or more in depth shall be stepped back to give suitable slope or securely held by timber bracing,so as to avoid the danger of sides collapsing . Excavated materials shall not be placed within 1.5 metres of the edge of trench or half the depth of trench, whichever is more. Cutting shall be from top to bottom under no circumstances shall under mining or under - cutting be done.

7. Demolition :

Before any demolition work is commenced and also during the progress of work.

- a) All roads and open areas adjacent to the work site shall 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 person employed from the risk of fire or explosion ,or flooding no floor , or roof or other part of building shall be so overloaded with debris or materials as to render it unsafe.
8. All necessary personal safety equipment as considered adequate by the Engineer-in-charge shall be /available for use of person employed on the site and maintained in a condition suitable for immediate use and the contractor shall take adequate steps to ensure proper use of equipment by those concerned.
- a) Workers employed on mixing asphaltic materials cement and lime mortars concrete shall be provided with protective footwear and protective gloves.
 - b) Those engaged in handling any material which is injurious to the eye shall be provided with protective goggles.
 - c) Those engaged in welding work shall be provided with welder's protective eye shells
 - d) Stone breaker shall be protective goggles and protective clothing and seated at sufficiently safe intervals.
 - e) When workers are employed in sewers and manholes which are in use , the contractor shall ensure that manhole covers are opened and manholes are ventiled atleast for an hour before the workers are allowed to get into them manholes so opened shall be cordoned off with suitable railing and provided with warning signals or boards to prevent accident to public.
 - i) No paint containing lead or lead products shall be except in the form of paste or ready-made paint.
 - ii) Suitable face masks shall be supplied for use by workers when paint applied in the form of spray or surface having lead paint is dry rubbed and scrapped .

f) The contractor shall not employ men below the age of 18 and women on the work of painting with products containing lead in any form. Whenever men above the age of 18 are employed on the work of lead painting the following precaution shall be taken :

A f i) No paint containing lead or lead products shall be used except in the form of paste or ready-made paint.

ii) Suitable face masks shall be supplied for use by workers when paint is applied in the form of spray or surface having lead paint is dry rubbed and scrapped

iii) Overalls shall be supplied by the contractor to workmen and adequate facilities shall be provided to enable working painters to wash during or cessation of work.

9. When work is done near any place where is risk of drowning ,all necessary equipment shall be provided and kept ready for use and all necessary steps taken for prompt rescue of any person in danger and adequate provision made for prompt first aid treatment of all injuries likely to be sustained during the during the course of the work.

10. Use of hoisting machine and tackles including their attachments,anchorage and support shall conform to the following

a)

i) These shall be of good mechanical construction, sound materials and adequate strength and free from defects and shall be kept in good working order.

ii) Every rope used in hoisting or lowering materials or as a means of suspension shall be of durable quality and adequate strength and free from defects.

b) Every crane driver or hoisting appliance operator shall be properly qualified and no person under the age of 21 yrs shall be incharged of any hoisting machine including any scaffolding winch or give signals to operator.

c) In case of every hoisting machine and or every chain ,ring , hook, shackle swivel and pull block used in hoisting or lowering as means of suspension safe working load shall be ascertained by adequate means. Every hoisting machine and all gear referred to above shall have the safe working load plainly marked there on. In case of a hoisting machine having a variable safe working load,each safe working load at the condition under which it is applicable shall be clearly indicated. No part of any machine or gear referred to above in this paragraph shall be loaded be yond the safe working load except for the purpose of testing.

d) In case of department machine ,safe working load shall be notified by the Engineer-in-charge. As regards contractor's machine the contractor shall notify safe working load of each machine to the Engineer-in-charge when ever he brings it to site of work and get it verified by the Engineer-in-charge.

11. Motors , gearing , transmission electric wiring and other dangerous parts of hoisting appliances shall be provided with efficient safeguards, hoisting appliances shall be provided with such means as will reduce to the minimum risk of accident descent of load . Adequate precaution shall be taken to reduce to the minimum risk of any part of a suspended load becoming accidentally displaced. When workers are employed on electrical installations which are already energised insulating mats, working apparel such as gloves, sleeves and boots as may be necessary shall be provided. Workers shall not wear any rings watches ,carry keys or other materials which are good conductors of electricity.
12. All scaffolds , ladders and other safety devices mentioned or described here in shall be maintained in a safe condition and no scaffold , ladder or equipment shall be altered or removed while it is use. Adequate washing facilities shall be provided at or near the places of work.
13. These safety provision shall be brought to the notice of all concerned by display on a notice board at a prominent place at the workspot persons responsible for ensuring compliance with the safety code shall be named thereon by the contractor.
14. To ensure effective enforcement of the rules and regulations relating to safety precaution , arrangement made by the contractor shall be open to inspection by the Engineer-in-charge or his representation and the inspecting officers as defined in the contractor's Labour Regulations.
15. Notwithstanding to the above conditions 1 to 14, the contractor is not exempted from the operation of any other Act or Rule in force.

B. GENERAL SAFETY PRECAUTIONS TO BE FOLLOWED AT WORK SITES DURING EXECUTION

The following safety measures should be strictly adhered to during execution of works at sites.

1. Providing the working platform with toe-board and handrail for continuous working at heights.
2. Providing safety belt and lifeline at all times for men working at heights.
3. Providing dust or fume respirator in places where dust and fume concentration exists
4. Providing goggles and welding screens.
5. Providing acid and alkali proof rubber gloves for handling acids, alkali and chemicals, which are corrosive.
6. Providing rubber gloves for working on electrical works.
7. Ensuring proper lashing of the components while being transported in vehicles.
8. The vehicles must have side supports or have body to support the materials conveyed.
9. The materials should not be allowed to extend or overflow the sides of vehicles.
10. Materials should not be allowed to overhang from the rear edge of the body of the vehicle.
11. Driver of the vehicle must possess license.
12. Vehicle must not be overloaded prescribed limits.
13. Red flags and lights for parts projecting from the body of the vehicle must be provided.
14. The speed restrictions within the factory must be strictly adhered to.
15. The gas cylinders must always be handled on trolleys or kept tied down not in use. They should never be rolled as Roller for conveying.
16. Cylinders should not be used without regulators.
17. All excavations may be barricaded and red belts/ lamps must be provided .
18. All electrical connections must be properly earthed.
19. No work should be taken up for execution inside shop floor, without obtaining necessary work permit.
20. Providing helmet for high level work.
21. The contractor should maintain a register regarding the driver license particulars.
22. All Personnel Protective Equipments (PPE) conform to standard specification as per the details given in the code of conduct.
 - (i) Safety helmets confirming to IS-2925: 1984
 - (ii) Safety Belts confirming to IS-3521: 1983
 - (iii) Safety Shoes confirming to IS-1989: 1978
 - (iv) Eye and face protection devices confirming to IS – 8520:1977 & IS – 8940:1978
 - (v) Hand and body protective devices confirming to: IS – 2573: 1975
IS – 6994: 1973
IS – 8807: 1978
IS – 8519: 1977

Contractor including the subcontractors, agents and labours engaged on work are required to scrupulously adhere to the safety regulations, safety precautions and measures. Any violation thereof will invite punitive action being taken against them. Also contractors with frequent violations of safety regulations will not be entrusted with further work in this organization.

General:

All tools, tackles, lifting appliances, material handling equipment, scaffolds, cradles, safety nets, ladders, equipment etc., used by the contractor shall be of safe design and construction. These shall be tested and certificate of fitness obtained, before putting them to use and from time to time as instructed by authorized BHEL official who shall have the right to ban the use of any item.

C. SAFETY PRECAUTION TO BE OBSERVED WHILE TRANSPORTING MATERIALS

I. Vehicle

1. Vehicle carrying materials should have proper registration documents and must be produced on demand by our Security staff.
2. The light on right side i.e. over the driver's cabin shall be in working condition
3. Both the head light as well as park lamps must be in working condition.

II. Movement of Vehicle

1. The vehicle should not travel at more than 20KMPH in our premises.
2. The driver of the vehicle must possess heavy duty licence and produce on demand by the Security Staff.
3. Vehicles carrying inflammable liquids in the tanks containers should have grounding chain or the tank container should be coated with insulating materials to avoid static electricity.
4. In road junction , speed breaker and Railway crossing the speed should be lowered and vehicles should proceed cautiously.
5. The driving should be ' keep to the left ' at all places.
6. The vehicles should not parked on the road which could obstruct the vehicular traffic.
7. No person other than driver should be allowed to sit or stand on the prime mover or trailer.
8. The vehicle should pass only through the approved routes. Short cuts should be forbidden.
9. There must be a safe distance behind another moving truck.
10. The driver should avoid making quick starts, jerk stop or quick turns at excessive speed .

III Shipping

1. Strong side supports should be provided on both sides of the trailer. The side supports should be fixed in such a way that it cannot be removed even temporarily.
2. Adequate packing must be given for easy slinging operations. The packing materials should be good enough to withstand the load.
3. The stacking of loads on the truck should be evenly placed. The load should not be heaped together or dumped over the chassis.
4. The load on the truck should not be beyond its standard capacity. The carrying capacity must be clearly marked on the trailers also.
5. The loaded materials should be fastened tightly with "WIRE ROPE". Manila rope or coir rope should not at all be used. There must be side packing such as gunny or rubber tyre between the sharp edges of the job and wire rope in order to avoid cut in the wire rope.
6. There must be minimum two fastening and it should be more in case of lengthier loads.
7. The wire rope should be in sound condition i.e there should not be links, knots or bristles etc.
8. The wire rope ends should be clamped with 'U' clamps.
9. The loose pieces should be bundled before loading on the truck.
10. There must be red flags or red lamps for the lengthly loads which extend beyond chassis.
11. The materials should not be stacked too high to avoid hitting against live electric lines.
12. The load should not be overhanging more than 0.9 metres from the end of body.
13. While transporting the scraps, there must be wire net cover to prevent falling of scrap.

IV General

1. The vehicles should not be moved directly inside the production building in case the materials are to be unloaded there. But the vehicles should be parked outside the building and the driver should ascertain the passage as well as the unloading points, with the help of the shop officials. This will avoid the congestion or blocking of traffic in the gangway.

BHARAT HEAVY ELECTRICALS LIMITED

BOILER AUXILIARIES PLANT

RANIPET - 632406

ESTIMATE

ESTIMATE REF NO : CF/RB/09/27

NAME OF WORK : CIVIL MAINTENANCE WORKS IN FACTORY UPTO MARCH 2010.

CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
2.1.1	001	EARTHWORK IN SURFACE EXCAVATION NOT EXCEEDING 30CM IN DEPTH BUT EXCEEDING 1.5M IN WIDTH AS WELL AS 10SQM ON PLAN INCLUDING DISPOSAL OF EXCAVATED EARTH UPTO 50M AND LIFT UPTO 1.5M, DISPOSED SOIL TO BE LEVELLED AND NEATLY DRESSED FOR ALL KINDS OF SOIL.		SQM	20.74	
2.2.1	002	EARTHWORK IN ROUGH EXCAVATION, BANKING EXCAVATED EARTH IN LAYERS NOT EXCEEDING 20CM IN DEPTH, BREAKING CLOUDS WATERING, ROLLING EACH LAYER WITH 0.5 TONNE ROLLER OR WOODEN OR STEEL RAMPERS, AND ROLLING EVERY 3RD AND TOP-MOST LAYER WITH POWER ROLLER OF MINIMUM 8 TONNES AND DRESSING UP IN EMBANKMENTS FOR ROADS, FLOOD BANKS, MARGINAL BANKS AND GUIDE BANKS OR FILLING UP GROUND DEPRESSIONS, LEAD UPTO 50M AND LIFT UPTO 1.5M FOR ALL KINDS OF SOIL.		CUM	157.55	.00
2.3.1	003	BANKING EXCAVATED EARTH IN LAYERS NOT EXCEEDING 20CM IN DEPTH, BREAKING CLOUDS WATERING, ROLLING EACH LAYER WITH 0.5 TONNE ROLLER OR WOODEN OR STEEL RAMPERS, AND ROLLING EVERY 3RD AND TOP-MOST LAYER WITH POWER ROLLER OF MINIMUM 8 TONNES AND DRESSING UP IN EMBANKMENTS FOR ROADS, FLOOD BANKS, MARGINAL BANKS AND GUIDE BANKS , LEAD UPTO 50M AND LIFT UPTO 1.5M FOR ALL KINDS OF SOIL.		CUM	99.45	.00
2.6.1	004	Earth work in excavation by means mechanical means (Hydraulic excavator/manual means) over areas (exceeding 30cm in depth. 1.5m in width as well as 10 sqm on plan) including disposal of excavated earth, lead upto 50m and lift upto 1.5m; disposed earth to be levelled and neatly dressed in all kind of soil.		CUM	101.85	.00
2.7.1	005A	EARTHWORK IN EXCAVATION by mechanical means (Hydraulic excavator/ manual means) OVER AREAS (EXCEEDING 30CM IN		CUM	152.60	.00

CONTRACTOR/ TENDERER

ACCEPTING OFFICER

BHARAT HEAVY ELECTRICALS LIMITED

BOILER AUXILIARIES PLANT

RANIPET - 632406

ESTIMATE

ESTIMATE REF NO : CF/RB/09/27

NAME OF WORK : CIVIL MAINTENANCE WORKS IN FACTORY UPTO MARCH 2010.

CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE		AMOUNT	
					RS	P	RS	P
		DEPTH 1.5M IN WIDTH AS WELL AS 10SQM ON PLAN) INCLUDING DISPOSAL OF EXCAVATED EARTH UPTO 50M AND LIFT UPTO 1.5M, DISPOSED EARTH TO BE LEVELLED AND NEATLY DRESSED. ORIDNARY ROCK						
2.7.2	005B	HARD ROCK (REQUIRING BLASTING)		CUM	252.20			.00
2.7.3	005C	HARD ROCK (BLASTING PROHIBITED)		CUM	325.25			.00
2.8.1	006	EARTHWORK EXCAVATION by mechanical means (Hydraulic excavator/ manual) means IN FOUNDATION TRENCHES OR DRAINS (NOT EXCEEDING 1.5M IN WIDTH OR 10 SQM ON PLAN) INCLUDING DRESSING OF SIDES AND RAMMING OF BOTTOMS, LIFT UPTO 1.5M, INCLUDING GETTING OUT THE EXCAVATED SOIL AND DISPOSAL OF SURPLUS EXCAVATED SOIL AS DIRECTED, WITHIN A LEAD OF 50M FOR ALL KINDS OF SOIL.		CUM	103.40			.00
2.9.1	007A	EXCAVATION WORK IN FOUNDATION TRENCHES OR DRAINS NOT EXCEEDING 1.5M IN WIDTH OR 10 SQM ON PLAN INCLUDING DRESSING OF SIDES AND RAMMING OF BOTTOMS, LIFT UPTO 1.5M, INCLUDING GETTING OUT THE EXCAVATED SOIL AND DISPOSAL OF SURPLUS EXCAVATED SOIL AS DIRECTED, WITHIN A LEAD OF 50M. ORIDNARY ROCK		CUM	162.65			.00
2.9.2	007B	HARD ROCK (REQUIRING BLASTING)		CUM	272.95			.00
2.9.3	007C	HARD ROCK (BLASTING PROHIBITED)		CUM	332.45			.00
2.24.1	008	EXTRA RATE FOR QUANTITIES OF WORKS EXECUTED IN OR UNDER WATER AND/OR LIQUID MUD, INCLUDING PUMPING OUT WATER AS REQUIRED. (20% EXTRA OVER THE RATE OF RELAVANT ITEM AS ABOVE)		METR	0.20			.00
2.25	009	FILLING AVAILABLE EXCAVATED EARTH (EXCLUDING ROCK) IN TRENCHES, PLINTH, SIDES OF FOUNDATIONS ETC., IN LAYERS NOT EXCEEDING 20CM IN DEPTH,		CUM	45.70			.00

CONTRACTOR/ TENDERER

ACCEPTING OFFICER

BHARAT HEAVY ELECTRICALS LIMITED

BOILER AUXILIARIES PLANT

RANIPET - 632406

ESTIMATE

ESTIMATE REF NO : CF/RB/09/27

NAME OF WORK : CIVIL MAINTENANCE WORKS IN FACTORY UPTO MARCH 2010.

CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE		AMOUNT	
					RS	P	RS	P
		CONSOLIDATING EACH DEPOSITED LAYER BY RAMMING AND WATERING, LEAD UPTO 50M AND LIFT UPTO 1.5M.						
2.26.1	010A	EXTRA FOR EVERY ADDITIONAL LIFT OF 1.5M OR PART THEREOF IN ALL KINDS OF SOIL		CUM	18.90			.00
2.26.2	010B	ORDINARY OR HARD ROCK		CUM	33.85			.00
2.27	011	SUPPLYING AND FILLING IN PLINTH WITH GOOD RIVER SAND UNDER FLOORS INCLUDING, WATERING, RAMMING, CONSOLIDATING AND DRESSING COMPLETE		CUM	301.50			.00
2.28.1	012	SURFACE DRESSING OF THE GROUND INCLUDING REMOVING VEGETATION AND IN-EQUALITIES NOT EXCEEDING 15CM DEEP AND DISPOSAL OF RUBBISH, LEAD UPTO 50M AND LIFT UPTO 1.5M IN ALL KINDS OF SOIL.		SQM	5.12			.00
2.31	013	CLEARING JUNGLE INCLUDING UPROOTING OF RANK VEGETATION, GRASS, BRUSH WOOD, TREES AND SAPLINGS OF GIRTH UPTO 30CM MEASURED AT A HEIGHT OF 1M ABOVE GROUND LEVEL AND REMOVAL OF RUBBISH UPTO A DISTANCE OF 50M OUTSIDE THE PERIPHERY OF THE AREA CLEARED.		SQM	2.63			.00
2.32	014	CLEARING JUNGLE INCLUDING UPROOTING OF RANK VEGETATION, GRASS, BRUSH WOOD, TREES AND SAPLINGS OF GIRTH UPTO 30CM MEASURED AT A HEIGHT OF 1M ABOVE GROUND LEVEL AND REMOVAL OF RUBBISH UPTO A DISTANCE OF 50M OUTSIDE THE PERIPHERY OF THE AREA CLEARED.		SQM	1.36			.00
2.33.1	015A	FELLING TREES OF THE GIRTH (MEASURED AT A HEIGHT OF 1M ABOVE GROUND LEVEL) INCLUDING CUTTING OF TRUNKS AND BRANCHES REMOVING THE ROOTS AND STACKING OF SERVICEABLE MATERIAL AND DISPOSAL OF UNSERVICEABLE MATERIAL. BEYOND 30CM GIRTH UPTO AND INCLUDING 60CM GIRTH		EACH	81.70			.00

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BHARAT HEAVY ELECTRICALS LIMITED

BOILER AUXILIARIES PLANT

RANIPET - 632406

ESTIMATE

ESTIMATE REF NO : CF/RB/09/27

NAME OF WORK : CIVIL MAINTENANCE WORKS IN FACTORY UPTO MARCH 2010.

CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE		AMOUNT	
					RS	P	RS	P
2.33.2	015B	BEYOND 60CM GIRTH UPTO AND INCLUDING 120CM GIRTH		EACH	359.80			.00
2.33.3	015C	BEYOND 120CM GIRTH UPTO AND INCLUDING 240CM GIRTH		EACH	1658.85			.00
2.33.4	015D	ABOVE 240 CM GIRTH.		EACH	3330.20			.00
DSR2002 X1.1	016	PROVIDING AND LAYING ON TERRACE UPTO FLOOR FIVE LEVEL LIME CONCRETE WITH GRADED BRICK AGGREGATE 25MM NOMINAL SIZE AND 50% MORTAR COMPRISING OF 1 LIME PUTTY : 2 SURKI.		CUM	2551.60			.00
4.1.2	017A	PROVIDING AND LAYING IN POSITION CEMENT CONCRETE OF SPECIFIED GRADE EXCLUDING THE COST OF CENTRING AND SHUTTERING - ALL WORK UPTO PLINTH LEVEL. 1:1.5:3 (1 CEMENT : 1.5 COARSE SAND : 3 GRADED STONE AGGREGATE 20MM NOMINAL SIZE)		CUM	1557.80			.00
4.1.3	017B	1:2:4 (1 CEMENT : 2 COARSE SAND : 4 GRADED STONE AGGREGATE 20MM NOMINAL SIZE)		CUM	1599.85			.00
4.1.4	017C	1:2:4 (1 CEMENT : 2 COARSE SAND : 4 GRADED STONE AGGREGATE 40MM NOMINAL SIZE)		CUM	1536.50			.00
4.1.9	017D	1:4:8 (1 CEMENT : 4 FINE SAND : 8 GRADED STONE AGGREGATE 40MM NOMINAL SIZE)		CUM	1415.55			.00
4.1.11	017E	1:5:10 (1 CEMENT : 5 FINE SAND : 10 GRADED STONE AGGREGATE 40MM NOMINAL SIZE)		CUM	1406.20			.00
4.2.1	018A	1:1:2 (1 CEMENT : 1 COARSE SAND : 2GRADED STONE AGGREGATE 20MM NOMINAL SIZE)		CUM	1900.80			.00
4.2.2	018B	1:1.5:3 (1 CEMENT : 1.5 COARSE SAND : 3 GRADED STONE AGGREGATE 20MM NOMINAL SIZE)		CUM	1879.45			.00

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ESTIMATE REF NO : CF/RB/09/27

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CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
4.2.3	018C	1:2:4 (1 CEMENT : 2 COARSE SAND : 4 GRADED STONE AGGREGATE 20MM NOMINAL SIZE)		CUM	1921.50	.00
4.5.1	019	PROVIDING AND FIXING UPTO FLOOR FIVE LEVEL PRECAST CEMENT CONCRETE STRING OR LACING COURSES, COPINGS, BED PLATES, ANCHOR BLOCKS, PLAIN WINDOW SILLS, SHELVES, LOUVERS, STEPS, STAIR CASES, ETC, INCLUDING HOISTING AND SETTING IN POSITION WITH CEMENT MORTAR 1:3 (1 CEMENT : 3 COARSE SAND), COST OF REQUIRED CENTRING, SHUTTERING AND FINISHING SMOOTH WITH 6MM THICK CEMENT PLASTER 1:3 (1 CEMENT : 3		CUM	2845.95	.00
4.10	020	PROVIDING AND LAYING DAMP-PROOF COURSE 40MM THICK WITH CEMENT CONCRETE 1:2:4 (1 CEMENT : 2 COARSE SAND : 4 GRADED STONE AGGREGATE 12.5MM NOMINAL SIZE)		SQM	76.81	.00
4.11	021	PROVIDING AND LAYING DAMP-PROOF COURSE 50MM THICK WITH CEMENT CONCRETE 1:2:4 (1 CEMENT : 2 COARSE SAND : 4 GRADED STONE AGGREGATE 12.5MM NOMINAL SIZE)		SQM	95.17	.00
4.12	022	EXTRA FOR PROVIDING AND MIXING WATER PROOFING MATERIAL "IMPERMO" OR EQUIVALENT IN CEMENT CONCRETE WORK @ 1KG PER 50 KG OF CEMENT		KG	27.45	.00
5.1.1	023A	PROVIDING AND LAYING IN POSITION SPECIFIED GRADE REINFORCED CEMENT CONCRETE EXCLUDING THE COST OF CENTRING, SHUTTERING, FINISHING AND REINFORCEMENT - ALL WORK UPTO PLINTH LEVEL. 1:1:2 (1 CEMENT : 1 COARSE SAND : 2 GRADED STONE AGGREGATE 20MM NOMINAL SIZE)		CUM	1681.35	.00
5.1.2	023B	1:1.5:3 (1 CEMENT : 1.5 COARSE SAND : 3 GRADED STONE AGGREGATE 20MM NOMINAL SIZE)		CUM	1660.00	.00
5.1.3	023C	1:2:4 (1 CEMENT : 2 COARSE SAND : 4 GRADED STONE AGGREGATE 20MM NOMINAL		CUM	1702.00	.00

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ESTIMATE

ESTIMATE REF NO : CF/RB/09/27

NAME OF WORK : CIVIL MAINTENANCE WORKS IN FACTORY UPTO MARCH 2010.

CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE		AMOUNT	
					RS	P	RS	P
		SIZE)						
5.2.1	024A	PROVIDING AND LAYING IN POSITION SPECIFIED GRADE REINFORCED CEMENT CONCRETE EXCLUDING THE COST OF CENTRING, SHUTTERING, FINISHING AND REINFORCEMENT - ALL WORK UPTO FLOOR FIVE LEVEL. 1:1:2 (1 CEMENT : 1 COARSE SAND : 2 GRADED STONE AGGREGATE 20MM NOMINAL SIZE)		CUM	2041.70			.00
5.2.2	024B	1:1.5:3 (1 CEMENT : 1.5 COARSE SAND : 3 GRADED STONE AGGREGATE 20MM NOMINAL SIZE)		CUM	2020.35			.00
5.2.3	024C	1:2:4 (1 CEMENT : 2 COARSE SAND : 4 GRADED STONE AGGREGATE 20MM NOMINAL SIZE)		CUM	2062.40			.00
5.8	025	REINFORCED CEMENT CONCRETE WORK IN VERTICAL AND HORIZONTAL FINS INDIVIDUALLY OR FORMING BOX LOUVERS, FACIAS AND EAVES BOARDS UPTO FLOOR FIVE LEVEL EXCLUDING THE COST OF CENTRING, SHUTTERING, FINISHING AND REINFORCEMENT WITH 1:1.5:3 (1CEMENT : 1.5 COARSE SAND : 3 GRADED STONE AGGREGATE 20MM NOMINAL SIZE)		CUM	1856.75			.00
5.9.1	026A	CENTRING AND SHUTTERING INCLUDING STRUTTING, PROPPING, ETC, AND REMOVAL OF FORM FOR THE FOLLOWINGS. FOUNDATIONS, FOOTINGS, BASES OF COLUMNS, ETC. FOR MASS CONCRETE		SQM	119.25			.00
5.9.2	026B	WALLS (ANY THICKNESS) INCLUDING ATTACHED PILASTERS, BUTTERESSES, PLINTH AND STRING COURSES, ETC.		SQM	180.40			.00
5.9.3	026C	SUSPENDED FLOORS, ROOFS, LANDINGS, BALCONIES AND ACCESS PLATFORM		SQM	187.35			.00
5.9.5	026D	LINTELS, BEAMS, PLINTH BEAMS, GIRDERS, BRESSUMERS AND CANTILEVERS		SQM	162.65			.00

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CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE		AMOUNT	
					RS	P	RS	P
5.9.6	026E	COLUMNS, PILLARS, PIERS, ABUTMENTS, POSTS AND STRUTS		SQM	238.40			.00
5.9.19	026F	WEATHER SHADE, CHAJJAS, CORBELS, ETC INCLUDING EDGES		SQM	329.80			.00
5.16	027	PROVIDING, HOISTING AND FIXING UPTO FLOOR FIVE LEVEL PRECAST REINFORCED CEMENT CONCRETE IN SHELVES INCLUDING SETTING IN CEMENT MORTAR 1:3 (1 CEMENT : 3 COARSE SAND), COST OF REQUIRED CENTRING, SHUTTERING AND FINISHING WITH NEAT CEMENT PUNNING ON EXPOSED SURFACES BUT EXCLUDING THE COST OF REINFORCEMENT WITH 1:2:4 (1 CEMENT : 2 COARSE SAND : 4 GRADED STONE AGGREGATE 12.5MM NOMINAL SIZE)		CUM	4871.70			.00
5.17	028	PROVIDING HOISTING AND FIXING UPTO FLOOR FIVE LEVEL PRECAST REINFORCED CEMENT CONCRETE IN VERTICAL & HORIZONTAL FINS INDIVIDUALLY OR FORMING BOX LOUVERS SETTING IN CEMENT MORTAR 1:2 (1 CEMENT : 2 COARSE SAND) INCLUDING THE COST OF REQUIRED CENTRING, SHUTTERING AND FINISHING SMOOTH WITH 6MM THICK CEMENT PLASTER 1:3 (1 CEMENT : 3 FINE SAND) ON EXPOSED SURFACES COMPLETE BUT EXCLUDING THE COST OF REINFORCEMENT WITH 1:2:4 (1 CEMENT : 2 COARSE SAND : 4 GRADED STONE AGGREGATE 20MM NOMINAL SIZE)		CUM	4295.36			.00
5.18.1	029A	PROVIDING PRECAST CEMENT CONCRETE JALI 1:2:4 (1 CEMENT : 2 COARSE SAND : 4 STONE AGGREGATE 6MM NOMINAL SIZE) REINFORCED WITH 1.6MM DIA MILD STEEL WIRE INCLUDING CENTRING AND SHUTTERING, ROUGHENING CLEANING, FIXING AND FINISHING IN CEMENT MORTAR 1:3 (1 CEMENT : 3 FINE SAND) ETC. COMPLETE EXCLUDING PLASTERING OF THE JAMBS, SILLS AND SOFFITS. 50 MM THICK		SQM	350.70			.00

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CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE		AMOUNT
					RS	P	RS
5.18.2	029B	40 MM THICK		SQM	295.55		.00
5.18.3	029C	25 MM THICK		SQM	268.85		.00
5.22.3	030	REINFORCEMENT FOR RCC WORK INCLUDING STRAIGHTENING, CUTTING, BENDING, PLACING IN POSITION AND BINDING ALL COMPLETE FOR MILD STEEL AND COLD TWISTED BARS		KG	6.19		.00
5.27	031	PROVIDING AND FILLING IN POSITION BITUMEN MIX FILLER OF PROPORTION 80 KG OF HOT BITUMEN, 1 KG. OF CEMENT AND 0.25 CUM OF COARSE SAND FOR EXPANSION JOINTS.		CM	98.68		.00
5.33	032A	PROVIDING AND LAYING IN POSITION MACHINE BATCHED, MACHINE MIXED AND MACHINE VIBRATED DESIGN MIX CEMENT CONCRETE OF SPECIFIED GRADE FOR REINFORCED CEMENT CONCRETE STRUCTURAL ELEMENTS, EXCLUDING THE COST OF CENTRING, SHUTTERING, FINISHING AND REINFORCEMENT, INCLUDING ADMIXTURES IN RECOMMENDED PROPORTIONS (ALL WORKS UPTO FLOOR V LEVEL LEVEL - M25 REINFORCED CEMENT CONCRETE BY USING 410 KG OF CEMENT PER CUM OF CONCRETE .		CUM	2023.60		.00
5.34.1	032B	EXTRA FOR TO PROVIDE - M30 REINFORCED CEMENT CONCRETE USING 420 KG OF CEMENT PER CUM OF CONCRETE INSTEAD OF M-25 GRADE BMC/RMC FOR ALL WORKS UPTO FLOOR V LEVEL		CUM	2.75		.00
6.1.2	033A	BRICK WORK IN CM 1:6 WITH LOCALLY AVAILABLE BEST COUNTRY BRICKS ALL WORKS UPTO PLINTH LEVEL		CUM	1798.00		.00
6.4.2	033B	BRICK WORK IN C.M 1:6 WITH LOCALLY AVAILABLE BEST COUNTRY BRICKS FOR ALL WORKS FROM PLINTH LEVEL TO UPTO FLOOR V LEVEL		CUM	2033.65		.00
6.12.2	034A	HALF BRICK MASONRY IN CM 1:4 WITH LOCALLY AVAILABLE BEST COUNTRY BRICKS		SQM	215.23		.00

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CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE		AMOUNT	
					RS	P	RS	P
		ALL WORKS UPTO PLINTH LEVEL						
6.13.2	034B	HALF BRICK MASONRY IN C.M 1:4 WITH LOCALLY AVAILABLE BEST COUNTRY BRICKS FOR ALL WORKS FROM PLINTH LEVEL TO UPTO FLOOR V LEVEL		SQM	247.68			.00
7.1.1	035	RANDOM RUBBLE MASONRY WITH HARD STONE IN FOUNDATION AND PLINTH INCLUDING LEVELLING UP WITH CEMENT CONCRETE 1:6:12 (1 CEMENT :6 COARSE SAND : 12 GRADED STONE AGGREGATE 20MM NOMINAL SIZE) AT PLINTH LEVEL WITH CEMENT MORTAR 1:6.		CUM	1411.55			.00
11.3.1	036A	Cement concrete flooring 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate) finished with a floating coat of neat cement including cement slurry, but excluding the cost of nosing of steps etc. complete. 40MM THICK WITH 20MM NOMINAL SIZE STONE AGGREGATE		SQM	104.89			.00
DATA	037	40MM THICK RED OXIDE FLOORING UNDER LAYER OF 30MM THICK CEMENT CONCRETE 1:2:4 (1 CEMENT : 2 COARSE SAND : 4 GRADED STONE AGGREGATE 12.5MM NOMINAL SIZE) AND TOP LAYER OF 10MM THICK PLASTER OF CEMENT RED OXIDE MIX (USING 3.5 KG OF RED OXIDE OF IRON PER 50KG OF CEMENT) 1:3 (1 CEMENT : 3 COARSE SAND) FINISHED WITH A FLOATING COAT OF NEAT CEMENT RED OXIDE MIX OF SAME PROPORTION INCLUDING CEMENT SLURRY, BUT EXCLUDING THE COST OF NOSING OF STEPS ETC. COMPLETE		SQM	325.06			.00
11.4	038	52MM THICK CEMENT CONCRETE FLOORING WITH "HARDCRETE" CONCRETE HARDNER TOPPING UNDER LAYER 40MM THICK CEMENT CONCRETE 1:2:4 (1 CEMENT : 2 COARSE SAND : 4 GRADED STONE AGGREGATE 12.5MM NOMINAL SIZE) AND TOP LAYER OF 12MM THICK HARDCRETE CEMENT HARDENER		SQM	166.89			.00

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CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE		AMOUNT	
					RS	P	RS	P
		CONSISTING OF MIX 1:2 (1 CEMENT HARDENER MIX : 2 STONE AGGREGATE 6MM NOMINAL SIZE) BY VOLUME WITH WHICH						
11.7	039	CEMENT CONCRETE PAVEMENT WITH 1:2:4 (1 CEMENT : 2 COARSE SAND : 4 GRADED STONE AGGREGATE 20MM NOMINAL SIZE) INCLUDING FINISHING COMPLETE		CUM	2038.35			.00
11.8	040	EXTRA FOR MAKING CHEQUERS OF APPROVED PATTERN ON CEMENT CONCRETE FLOORS, STEPS, LANDING, PAVEMENTS, ETC		SQM	13.15			.00
11.11(AV)	041	40MM THICK MARBLE CHIPS FLOORING RUBBED AND POLISHED TO GRANOLITHIC FINISH, UNDER LAYER 28MM THICK CEMENT CONCRETE 1:2:4 (1 CEMENT : 2 COARSE SAND : 4 GRADED STONE AGGREGATE 12.5MM NOMINAL SIZE) AND TOP LAYER 12MM THICK FOR ALL SHADES OF MARBLE CHIPS OF SIZES FROM 7MM TO 10MM NOMINAL SIZE LAID IN CEMENT MARBLE POWDER MIX 3:1 (3 CEMENT : 1 MARBLE POWDER) BY WEIGHT IN PROPORTION OF 2:3 (2 CEMENT MARBLE POWDER MIX : 3 MARBLE CHIPS) BY VOLUME INCLUDING CEMENT SLURRY ETC. COMPLETE		SQM	296.03			.00
11.16(AV)	042	PRECAST TERRAZO TILES 22MM THICK WITH GRADED MARBLE CHIPS OF SIZE UPTO 12MM LAID IN FLOORS, AND LANDINGS, JOINTED WITH NEAT CEMENT SLURRY MIXED WITH PIGMENT TO MATCH THE SHADE OF THE TILES INCLUDING RUBBING AND POLISHING COMPLETE WITH PRECAST TILES ON 20MM THICK BED OF CEMENT MORTAR 1:4 (1 CEMENT : 4 COARSE SAND) FOR ALL SHADES		SQM	463.34			.00
11.36	043	PROVIDING AND FIXING FIRST QUALITY CERAMIC GLAZED WALL TILES CONFORMING TO IS 15622 (MINIMUM THICKNESS TO BE SPECIFIED BY THE MANUFACTURE) OF APPROVED MAKE IN ALL COLOURS AND SHADES AS APPROVED BY ENGINEER-IN-CHARGE IN SKIRTING, RISERS OF STEPS AND DADOS OVER 12MM THICK BED OF CM 1:3 (1 CEMENT : 3 COARSE SAND) AND JOINTING WITH GREY CEMENT SLURRY @		SQM	492.26			.00

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					RS	P	RS	P
		3.3KG PER SQM INCLUDING POINTING IN WHITE CEMENT MIXED WITH PIGMENT OF MATCHING SHADE COMPLETE.						
11.37	044	PROVIDING AND LAYING CERAMIC GLAZED FLOOR TILES 300 X 300 MM (THICKNESS TO BE SPECIFIED BY THE MANUFACTURER) OF FIRST QUALITY CONFORMING TO IS 15622 OF APPROVED MAKE IN ALL COLOURS AND SHADES AS APPROVED BY ENGINEER-IN-CHARGE LAID ON 20MM THICK CM 1:4 (1 CEMENT : 4 COARSE SAND) INCLUDING POINTING THE JOINTS WITH WHITE CEMENT AND MATCHING PIGMENT ETC. COMPLETE.		SQM	534.31			.00
12.20	045	Providing and laying clay tiles (as per approved pattern 20mm nominal thickness and of approved size) on roofs jointed with cement mortar 1:4 (1 cement :4 coarse sand) mixed with 2% intergral water proofing compound laid over a bed of 20mm thick cement mortar 1:4 (1 cement: 4 coarse sand) and finished neat complete.		SQM	288.24			.00
DSR2002X1.5'	046	Lime concrete terracing on roofs, average thickness 10cm laid to fall with 25mm nominal size brick aggregate and 50% lime mortar 1:2 (1 lime putty : 2 surkhi) rammed and finished with gur and belgiri treatment complete and covered with flat brick tiles of class designation 100 grouted with cement mortar 1:3 (1 cement : fine sand) mixed with 2% of integral water proofing compound by weight of cement, over 12mm layer of cement mortar 1:3 (1 cement : 3 fine sand) and finished neat : With F.P.S brick tiles		SQM	413.03			.00
12.41	047A	PROVIDING AND FIXING ON WALL FACE UNPLASTICISED- RIGID PVC RAIN WATER PIPES CONFORMING TO IS 13592 TYPE A INCLUDING JOINTING WITH SEAL RING CONFORMING TO IS 5382 LEAVING 10MM GAP FOR THERMAL EXPANSION OF SINGLE SOCKETED PIPES		RM	95.00			.00

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CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE		AMOUNT	
					RS	P	RS	P
		75MM DIAMETER						
12.40.2	047B	110 MM DIAMETER		RM	163.40			.00
12.42.5.1	048A	PROVIDING AND FIXING ON WALL FACE UNPLASTICISED- -PVC MOULDED FITTINGS/ACCESSORIES FOR UNPLASTICISED - RIGID PVC RAIN WATER PIPES CONFORMING TO IS 13592 TYPE A INCLUDING JOINTING WITH SEAL RING CONFORMING TO IS 5382 LEAVING 10MM GAP FOR THERMAL EXPANSION OF SINGLE SOCKETED PIPES 75MM BEND 87.5`.		EACH	88.40			.00
12.42.5.2	048B	110MM BEND 87.5`		EACH	134.20			.00
12.42.6.1	048C	75MM PLAIN SHOE		EACH	152.25			.00
12.42.6.2	048D	110MM PLAIN SHOE		EACH	263.10			.00
13.1.1	049A	12MM CEMENT PLASTER OF MIX 1:4 (1 CEMENT : 4 COARSE SAND)		SQM	49.22			.00
13.1.2	049B	1:6 (1 CEMENT : 6 COARSE SAND)		SQM	49.00			.00
13.2.1	050A	15MM CEMENT PLASTER ON ROUGH SIDE OF SINGLE OR HALF BRICKWALL OF MIX 1:4 (1 CEMENT : 4 COARSE SAND)		SQM	56.47			.00
13.2.2	050B	1:6 (1 CEMENT : 6 COARSE SAND)		SQM	56.28			.00
13.3.1	051A	20MM CEMENT PLASTER OF MIX 1:4 (1 CEMENT : 4 COARSE SAND)		SQM	66.37			.00
13.3.2	051B	1:6 (1 CEMENT : 6 COARSE SAND)		SQM	66.09			.00
13.16.1	052	6MM CEMENT PLASTER TO CEILING MIX 1:3(1CEMENT : 3 FINE SAND)		SQM	43.14			.00
13.18	053	NEAT CEMENT PUNNING		SQM	10.00			.00
13.19.1	054	ROUGH CAST PLASTER UPTO 10M HEIGHT ABOVE GROUND LEVEL WITH A MIXTURE OF SAND AND GRAVEL OR CRUSHED STONE FROM 6MM TO 10MM NOMINAL SIZE DASHED OVER AND INCLUDING THE FRESH PLASTER IN TWO LAYERS, UNDER LAYER 12MM CEMENT		SQM	135.96			.00

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					RS	P	RS	P
		PLASTER 1:4 (1 CEMENT : 4 COARSE SAND) AND TOP LAYER 10MM CEMENT PLASTER 1:3 (1 CEMENT : 3 FINE SAND) MIXED WITH 10% FINELY GROUND HYDRATED LIME BY VOLUME OF CEMENT WITH ORDINARY CEMENT FINISH USING ORDINARY CEMENT						
13.26	055	PROVIDING AND APPLYING PLASTER OF PARIS PUTTY OF 2MM THICKNESS OVER PLASTERED SURFACE TO PREPARE THE SURFACE EVEN AND SMOOTH COMPLETE		SQM	47.20			.00
13.28.1	056A	12MM THICK PLAIN CEMENT MORTAR BANDS IN CEMENT MORTAR 1:4 (1 CEMENT : 4 FINE SAND) FLUSH BAND		CM	1.08			.00
13.28.2	056B	SUNK BAND		CM	1.18			.00
13.28.3	056C	RAISED BAND		CM	1.38			.00
13.28.4	056D	MOULDED BAND		CM	2.33			.00
13.31.1	057A	POINTING ON BRICK WORK WITH CEMENT MORTAR 1:3 (1 CEMENT : 3 FINE SAND) FLUSH/ RULED / STUCK OR WEATHERED POINTING		SQM	37.47			.00
13.31.2	057B	RAISED AND CUT POINTING		SQM	62.33			.00
13.33.1	058A	POINTING ON STONE WORK WITH CEMENT MORTAR 1:3 (1 CEMENT : 3 FINE SAND) FLUSH /RULED POINTING		SQM	56.44			.00
13.33.2	058C	RAISED AND CUT POINTING		SQM	99.83			.00
14.5.1	059A	RENEWING FLOAT GLASS PANES, WITH PUTTY AND NAILS WHEREVER NECESSARY GLASS PANES OF THICKNESS 4MM		SQM	427.60			.00
14.5.2	059B	FLOAT GLASS PANES OF THICKNESS 5.5MM		SQM	545.15			.00
14.12	060	PROVIDING AND FIXING 16MM M.S. FAN CLAMPS OF STANDARD SHAPE AND SIZE IN EXISTING RCC SLAB INCLUDING CUTTING CHASE AND MAKING GOOD AND PAINTING EXPOSED PORTION OF THE CLAMPS COMPLETE		EACH	113.85			.00

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BHARAT HEAVY ELECTRICALS LIMITED

BOILER AUXILIARIES PLANT

RANIPET - 632406

ESTIMATE

ESTIMATE REF NO : CF/RB/09/27

NAME OF WORK : CIVIL MAINTENANCE WORKS IN FACTORY UPTO MARCH 2010.

CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE		AMOUNT	
					RS	P	RS	P
15.2.1+2(AV	061	DEMOLISHING CEMENT CONCRETE MANUALLY/ BY MECHANICAL MEANS INCLUDING DISPOSAL OF MATERIAL WITHIN 50 M LEAD		CUM	297.68			.00
15.3	062	DEMOLISHING RCC WORK MANUALLY/ BY MECHANICAL MEANS INCLUDING STACKING OF STEEL BARS AND DISPOSAL DISPOSAL OF UNSERVICEABLE MATERIAL WITHIN 50 M LEAD		CUM	537.55			.00
15.7.4	063	DEMOLISHING BRICK WORK manually/ by mechanical means INCLUDING STACKING OF SERVICEABLE MATERIAL AND DISPOSAL OF UNSERVICEABLE MATERIAL WITHIN 50 M LEAD IN CEMENT MORTAR		CUM	310.75			.00
15.9.2	064	DEMOLISHING STONE RUBBLE MASONRY manually/ by mechanical INCLUDING STACKING OF SERVICEABLE MATERIAL AND DISPOSAL OF UNSERVICEABLE MATERIAL WITHIN 50 M LEAD IN CEMENT MORTAR		CUM	370.75			.00
15.12.1+15.1	065	DISMANTLING DOORS, WINDOWS AND CLERESTORY WINDOWS (STEEL OR WOOD) SHUTTER INCLUDING CHOWKHATS, ARCHITRAVE HOLDFASTS, ETC. COMPLETE AND STACKING WITHIN 50M LEAD		EACH	64.98			.00
15.26	066	DEMOLISHING BRICK TILE COVERING IN TERRACING INCLUDING STACKING OF SERVICEABLE MATERIAL AND DISPOSAL OF UNSERVICEABLE MATERIAL WITHIN 50 M LEAD .		SQM	15.45			.00
15.34.1+15.1	067	DISMANTLING AND STACKING WITHIN 50M LEAD, FENCING POSTS OF STRUTS INCLUDING ALL EARTH WORK AND DISMANTLING OF CONCRETE ETC. IN BASE OF "T" OR "L" IRON OR PIPE OR RCC		EACH	48.95			.00
15.36	068	DISMANTLING BARBED WIRE OR FLEXIBLE WIRE ROPE IN FENCING INCLUDING MAKING ROLLS AND STACKING WITHIN 50M LEAD		KG	5.55			.00
15.42.1,2,3	069	DISMANTLING C.I.OR ASBESTOS RAIN WATER PIPE WITH FITTINGS AND CLAMPS		RM	11.80			.00

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CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
		INCLUDING STACKING THE MATERIAL WITHIN 50M LEAD FROM 75MM TO 150MM DIA				
15.43.1	070A	DISMANTLING INCLUDING STACKING OF SERVICEABLE MATERIAL AND DISPOSAL OF UNSERVICEABLE MATERIAL WITHIN 50M LEAD WATER BOUND MACADAM ROAD		SQM	34.30	.00
15.43.2	070B	BITUMINOUS ROAD		SQM	66.30	.00
15.56	071	DISMANTLING OLD PLASTER OR SKIRTING RAKING OUT JOINTS AND CLEANING THE SURFACE FOR PLASTER INCLUDING DISPOSAL OF RUBBISH TO THE DUMPING GROUND WITHIN 50M LEAD		SQM	8.20	.00
15.57	072	DISMANTLING ALUMINIUM/GYPSUM PARTITIONS, DOORS, WINDOWS, FIXED GLAZING AND FALSE CEILING INCLUDING DISPOSAL OF UNSERVICEABLE SURPLUS MATERIAL AND STACKING OF SERVICEABLE MATERIAL WITHIN 50M LEAD AS DIRECTED BY ENGINEER-IN-CHARGE		SQM	8.65	.00
23.2	073	SUPPLYING AND STACKING OF GOOD EARTH AT SITE INCLUDING ROYALTY AND CARRIAGE UPTO 1 KM (EARTH MEASURED IN STACKS WILL BE REDUCED BY 20 % FOR PAYMENT)		CUM	144.05	.00
23.3	074	SUPPLYING AND STACKING SLUDGE / MANURE AT SITE INCLUDING ROYALTY AND CARRIAGE UPTO 1 KM (SLUDGE MEASURED IN STACKS WILL BE REDUCED BY 8% FOR PAYMENT)		CUM	136.85	.00
23.8	075	SPREADING OF SLUDGE, DUMP MANURE OR/AND GOOD EARTH IN REQUIRED THICKNESS (COST OF SLUDGE, DUMP MANURE OR/AND GOOD EARTH TO BE PAID SEPARATELY)		CUM	11.60	.00
23.9	076	MIXING EARTH AND SLUDGE OR MANURE IN PROPORTION SPECIFIED OR DIRECTED		CUM	7.85	.00
23.20	077	FILLING MIXTURE OF EARTH AND SLUDGE OR MANURE IN THE DESIRED PROPORTION IN		CUM	3.95	.00

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CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
		TRENCHES, FLOODING WITH WATER AND LEVELLING (COST OF SUPPLYING EARTH AND SLUDGE OR MANURE AND MIXING EXCLUDED)				
19.1.1	078A	PROVIDING, LAYING AND JOINTING GLAZED STONEWARE PIPES GRADE "A" WITH STIFF MIXTURE OF CEMENT MORTAR IN THE PROPORTION OF 1:1 (1 CEMENT : 1 FINE SAND) INCLUDING TESTING OF JOINTS ETC. COMPLETE 100MM DIAMETER		RM	94.66	.00
19.1.2	078B	150MM DIAMETER		RM	134.92	.00
19.5.1	079	DISMANTLING OF OLD 100 MM DIAMETER S.W.PIPES INCLUDING BREAKING OF JOINTS AND BED CONCRETE STACKING OF USEFUL MATERIALS NEAR THE SITE WITHIN 50M LEAD AND DISPOSAL OF UNSERVICEABLE MATERIALS INTO MUNICIPAL DUMPS.		RM	13.35	.00
18.76	080	CUTTING HOLES UPTO 30X30 CM IN WALLS INCLUDING MAKING GOOD THE SAME WITH F.P.S.BRICKS		EACH	75.77	.00
DSR2002X1.5'	081	GRADING ROOF FOR WATER PROOFING TREATMENT WITH LIME CONCRETE WITH 20MM NOMINAL SIZE BRICK AGGREGATE AND 50% LIME MORTAR 1:2(1 LIME PUTTY : 2 SURKHI)		CUM	2632.18	.00
1.1.1	082A	CARRIAGE OF MATERIALS BY MECHANICAL TRANSPORT INCLUDING LOADING, UNLOADING AND STACKING. LIME, MOORAM, BUILDING RUBBISH 1 KM LEAD		CUM	39.53	.00
1.1.1	082B	2 KM LEAD		CUM	45.13	.00
1.1.2	082C	EARTH 1 KM LEAD		CUM	49.42	.00
1.1.2	082D	2 KM LEAD		CUM	56.41	.00
1.1.3	082E	MANURE OR SLUDGE 1 KM LEAD		CUM	42.97	.00

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CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE		AMOUNT
					RS	P	RS
1.1.3	082F	2 KM LEAD		CUM	49.05		.00
1.1.4	082G	EXCAVATED ROCK 1 KM LEAD		CUM	79.07		.00
1.1.4	082H	2 KM LEAD		CUM	90.25		.00
22.7	083	"Providing and laying integral cement based water proofing treatment including preparation of surface as required for treatment of roofs, balconies, terraces, etc. consisting of following operations. a.Applying and grouting a slurry coat of neat cement using 2.75 kg/sqm of cement admixed with proprietary water proofing compound conforming to IS2645 over the RCC slab including clearing the surface before treatment. b.Laying cement concrete using broken bricks/brick bats 25mm to 100mm size with 50% of cement mortar 1:5 (1cement:5course sand) admixed with proprietary water proofing compound conforming to IS2645 over 20mm thick layer of cement mortar of mix 1:5 (1cement:5course sand) admixed with propreetary water proofing compound conforming to IS 2645 to required slope and treting similarly the adjoining walls upto 300mm height including rounding of junctions of walls and slabs."		SQM	341.03		.00
	083A	c.After two days of proper curing applying a second coat of cement slurry admixed with proprietary water proofing compound conforming to IS2645. d.Finishing the surface with 20mm thick jointless cement mortar of mix 1:4 (1cement:4course sand) admixed with proprietary water proofing compound conforming to IS2645 and finally finishing the surface with trowel with neat cement slurry and making of 300x300 mm square. e.The					.00

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CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
		whole terrace so finished shall be flooded with water for a minimum period of two weeks for curing and for final test. All above operations to be done in order and as directed and specified by the Engineer in charge. With average thickness of 120mm and minimum thickness at khurra as 65mm				
22.10	084	Providing and laying six courses water proofing treatment with bitumin felt over roofs consisting of first, third and fifth course of blown bitumen 85/25 or 90/15 conforming to IS 702 applied hot @ 1.45, 1.20 and 1.45 kg per square metre of area respectively, second and fourth courses of roofing felt type 3 grade I conforming to IS1322 (Hessian based self finished bitumen felt) conforming to IS 1322 manufactured by Bengal Bitumen, STP Ltd, Arcus Ltd, etc. and sixth and final course of stone grit 6mm and down size or pea sized grave spread at 6 cubic dm per sqm including preparation of surface but excluding grading, complete.		SQM	315.35	.00
10.10	085	Fixing standard steel glazed doors, windows and ventilators in walls with 15x3 mm lugs 10 cm long embedded in cement concrete blocks 15x10x10 cm of 1:3:6 (1 cement : 3 corase sand : 6 graded stone aggregate 20 mm nominal size) or with wooden plugs and screws or rawl plugs and screws or with fixing clips or with bolts and nuts as required, including fixing of glass panes with glazing clips and special metal-sash putty of approved make, or metal beading with screws (only steel windows with lugs, glass panes cut to size and glazing clips or metal beading with screws, shall be supplied by department free of cost.)		KG	23.20	.00
10.19	086	PROVIDING AND FIXING M.S.ROUND HOLDING DOWN BOLTS WITH NUTS AND WASHER PLATES COMPLETE.		KG	52.05	.00

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CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE		AMOUNT	
					RS	P	RS	P
10.20	087	PROVIDING AND FIXING BOLTS INCLUDING NUTS AND WASHERS COMPLETE.		KG	62.75			.00
OLD RATE	088	GRINDING THE FLOORS (MARBLE/MOSAIC/GRANITE) WITH REQUIRED NO. CARBURANDOM STONE AND POLISHING USING WAX AFTER THAROUGH WASHING/ CLEANING AND DRYING AS DIRECTED BY THE ENGINEER-IN-CHARGE.		SQM	22.15			.00
0293/P77	089A	SUPPLYING AND STACKING OF THE FOLLOWING MATERIALS AT SITE AS DIRECTED BY THE ENGINEER - IN - CHARGE. 40MM HBG METAL		CUM	747.50			.00
0295/P77	089B	20MM HBG METAL		CUM	805.00			.00
0982/P77	089C	COARSE SAND		CUM	690.00			.00
0983/P77	089D	FINE SAND		CUM	368.00			.00
0297/P77	089E	6MM DOWN GRADED CHIPS		CUM	805.00			.00
1159/P73	089F	QUARRY DUST		CUM	805.00			.00
21.1.1.2	090A	Providing and fixing anodised aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular and other sections of approved make conforming to IS:733 abd IS:1285, anodised trasparent od dyed to required shade according to IS:1868. (Minimum anodic coating of grade AC 15), fixed with rawl pllugs and screws or with fixing clips, or with expansion hold fastners including necessary filling up of gaps at junctions, at top, bottom and sides with arequired PVC/neoprene felt etc, Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle. Aluminium snap beading for glazing/paanelling, CP		KG	306.30			.00

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CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE		AMOUNT	
					RS	P	RS	P
		brass/stainless steel screws, all complete as per architectural drawings and the directions of Engineer in charge. (Glazing and panelling to be paid for separately). For fixed portion Powder coated aluminium (Minimum thickness of powder coating 50 micron)						
21.1.2.2	090B	FOR SHUTTERS OF DOORS, WINDOWS AND VENTILATORS INCLUDING PROVIDING AND FIXING HINGES/PIVOTS AND MAKING PROVISION FOR FIXING OF FITTINGS WHEREVER REQUIRED INCLUDING THE COST OF PVC/NEOPRENE GASKET REQUIRED (FITTINGS SHALL BE PAID FOR SEPARATELY) POWER COATED ALUMINIUM (MINIMUM THICKNESS OF POWDER COATING 50 MICRON)		KG	326.60			.00
21.3.1	091A	PROVIDING AND FIXING GLAZING IN ALUMINIUM DOORS, WINDOWS, VENTILATORS AND PARTITIONS ETC. WITH PVC /NEOPRENE GASKET ETC. COMPLETE AS PER THE ARCHITECTURAL DRAWINGS AND THE DIRECTIONS OF ENGINEER IN CHARGE (COST OF ALUMINIUM SNAP BEADING SHALL BE PAID IN BASIC ITEM) WITH GLASS PANES OF 4 MM THICKNESS (WEIGHT NOT LESS THAN 10 KG/SQM)		SQM	554.95			.00
21.3.2	091B	WITH GLASS PANES OF 5.5 MM THICKNESS (WEIGHT NOT LESS THAN 13.75 KG/SQM)		SQM	673.55			.00
9.95.1	092A	PROVIDING AND FIXING ISI MARKED ALUMINIUM BUTT HINGES ISI MARKED ANODISED (ANODIC COATING NET LESS THAN GRADE AC 10 AS PER IS:1868) TRANSPARENT OR DYED TO REQUIRED COLOUR OR SHADE WITH NECESSARY SCREWS ETC. COMPLETE 125X75X4 MM		EACH	74.10			.00
9.95.3	092B	100X75X4 MM		EACH	66.45			.00
9.95.6	092C	75X63X4 MM		EACH	43.00			.00

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CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE		AMOUNT	
					RS	P	RS	P
9.95.7	092D	75X63X3.2 MM		EACH	35.35			.00
9.96.1	093A	PROVIDING AND FIXING ALUMINIUM SLIDING DOOR BOLTS ISI MARKED ANODISED (ANODIC COATING NET LESS THAN GRADE AC 10 AS PER IS:1868) TRNASPARENT OF DYED TO REQUIRED COLOUR OR SHADE WITH NUTS AND SCREWS ETC. COMPLETE 300X16MM		EACH	158.50			.00
9.96.2	093B	250X16MM		EACH	134.10			.00
9.97.2	094A	PROVIDING AND FIXING ALUMINIUM TOWER BOLTS ISI MARKED ANODISED (ANODIC COATING NET LESS THAN GRADE AC 10 AS PER IS:1868) TRNASPARENT OF DYED TO REQUIRED COLOUR OR SHADE WITH NECESSARY SCREWS ETC. COMPLETE 250X10 MM		EACH	62.20			.00
9.97.3	094B	200X10 MM		EACH	52.00			.00
9.97.4	094C	150X10 MM		EACH	42.75			.00
9.100.1	095A	PROVIDING AND FIXING ALUMINIUM HANDLES ISI MARKED ANODISED (ANODIC COATING NET LESS THAN GRADE AC 10 AS PER IS:1868) TRNASPARENT OF DYED TO REQUIRED COLOUR OR SHADE WITH NECESSARY SCREWS ETC. COMPLETE FOR 125 MM.		EACH	48.80			.00
9.100.2	095B	100 MM		EACH	35.30			.00
9.101.1	096A	PROVIDING AND FIXING ALUMINIUM HANGING FLOOR DOOR STOPPER ISI MARKED ANODISED (ANODIC COATING NET LESS THAN GRADE AC 10 AS PER IS:1868) TRNASPARENT OF DYED TO REQUIRED COLOUR OR SHADE WITH NECESSARY SCREWS ETC. COMPLETE FOR SINGLE RUBBER STOPPER.		EACH	19.05			.00
9.101.2	096B	TWIN RUBBER STOPER		EACH	53.90			.00
17.7.3	097	PROVIDING AND FIXING WASH BASIN WITH CI/MS BRACKETS, 15MM CP BRASS PILLAR		EACH	1163.15			.00

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CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE		AMOUNT	
					RS	P	RS	P
		TAPS, 32MM CP BRASS WASTE OF STANDARD PATTERN, INCLUDING PAINTING OF FITTINGS AND BRACKETS, CUTTING AND MAKING GOOD THE WALLS WHEREVER REQUIRE. WASH BASIN SIZE 550X400 MM WITH A PAIR OF 15 MM CP BRASS PILLAR TAPS						
16.15.1	098A	Supplying at site : R.C.C. Standards post/struts/rails/pales of mix 1:1.5:3 (1 cement:1.5 coarse sand: 3 graded stone aggregate 12.5 mm nominal size) with wooden plugs or 6mm bar nibs wherever required as per direction of Engineer-in-Charge including fixing (Cost of earth works in excavation, concrete works in foundation to be paid separately).		CUM	9475.90			.00
16.17	098B	Fencing with R.C.C. post placed required distance , embedded in cement concrete blocks, every 15th post, last but one end post and corner post shall be strutted on both sides and end post one side only, provided with horizontal lines and two diagonals of barbed wire 9.38 kg per 100 metres (min) between the two posts fitted and fixed with G.I. staples on wooden plugs or G.I. binding wire tied to 6 mm bar nibs fixed while casting the post (cost of R.C.C. posts, struts, earth work and concrete to be paid for separately): Payment to be made per metre cost of total length of barbed wire used. with G.I barbed wire.		RM	5.85			.00
17.1.1	099	PROVIDING AND FIXING WATER CLOSET SQUATTING PAN (INDIAN TYPE WC PAN) WITH 100 MM SAND CAST IRON P OR S TRAP, 10 LITRE LOW LEVEL WHITE PVC FLUSHING CISTERN WITH MANUALLY CONTROLLED DEVICE (HANDLE LEVER) CONFORMING TO IS :7231, WITH ALL FITTINGS AND FIXTURES COMPLETE INCLUDING CUTTING AND MAKING GOOD THE		EACH	2278.75			.00

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CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE		AMOUNT	
					RS	P	RS	P
		WALLS AND FLOORS WHEREVER REQUIRED. WHITE VITREOUS CHINA ORISSA PATTERN W.C. PAN OF SIZE 580 X440 MM WITH INTEGRAL TYPE FOOT RESTS.						
17.2.2	100	PROVIDING AND FIXING WHITE VITREOUS CHINA PEDESTAL TYPE WATER CLOSET (EUROPEAN TYPE WC PAN) WITH SEAT AND LID, 10 LITRE LOW LEVEL WHITE PVC FLUSHING CISTERN WITH MANUALLY CONTROLLED DEVICE (HANDLE LEVER) CONFORMING TO IS :7231, PARRYWARE/HINDWARE/SEABIRD/ORIENT (CORAL) WITH ALL FITTINGS AND FIXTURES COMPLETE INCLUDING CUTTING AND MAKING GOOD THE WALLS AND FLOORS WHEREVER REQUIRED. W.C PAN WITH ISI MARKED BLACK SOLID PLASTIC SEAT AND LID		EACH	2097.55			.00
17.4.2	101	CORNER TYPE LIPPED FRONT URINAL BASIN OF 430 X 260 X 350 MM AND 340X410X265 MM SIZES RESPECTIVELY WITH AUTOMATIC FLUSHING CISTERN WITH STANDARD FLUSH PIPE AND CP BRASS SPREADERS WITH BRASS UNIONS AND GI CLAMPS COMPLETE, INCLUDING PAINTING OF FITTINGS AND BRACKETS, CUTTING AND MAKING GOOD THE WALLS AND FLOORS WHEREVER REQUIRED. RANGE OF TWO URINAL BASINS WITH 5 LITRE WHITE P.V.C AUTOMATIC FLUSHING CISTERN.		EACH	3372.88			.00
9.119	102	Providing and fixing factory made PVC door frame of size 50x47 mm with a wall thickness of 5mm, made out of extruded 5mm rigid PVC foam sheet mitred at corners and joined with 2 Nos. of 150 mm long brackets of 15x15 mm MS square tube, the vertical door profiles to be reinforced with 19x19mm MS square tube of 19 gauge, EPDM rubber gasket weather seal to be provided through out the frame. The door frame to be fixed to the wall using MS screws of 65/100 mm size complete as per manufacturers specification and direction of Engineer in charge		METR	353.10			.00

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CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE		AMOUNT	
					RS	P	RS	P
9.118.1	103	Providing and fixing 30mm thick factory made PVC rigid foam panelled door shutters consisting of frame made out of M.S. tubes of 19 gauge thickness, size 19x19mm for styles and 15x15mm for top and bottom rails. M.S. frame shall have a coat of steel primers of approved make and manufacture. M.S. frame covered with heat moulded PVC "C" channel of 30mm thick, 70mm width out of which 50mm shall be flat and 20mm shall be tapered in 45 degree angle on either side forming styles; and 5mm thick, 95mm wide PVC sheet out of which 75mm shall be flat and 20mm shall be tapered in 45 degree on the inner side to form top and bottom rail and 115mm wide PVC sheet out of which 75mm shall be flat and 20mm shall be tapered on both sides to form lock rail.		SQM	2190.50			.00
	104A	Top bottom, lock rails shall be provided either side of panel. 10mm (5mm x 2) thick, 20mm wide cross PVC sheet be provided as gap insert for top rail and bottom rail, panelling of 5mm thick both side PVC sheet fitted in the M.S. frame welded/sealed to the styles and rails with 7mm (5mm + 2mm) thick x 15mm wide PVC sheet bedding on either side and joined together with solvent cement adhesive etc., complete as per manufacturers specification and direction of Engineer - in - charge fixed to frames with 4Nos. M.S. Powder coated butt hinges (For W.C. and bathroom shutters).						.00
18.15.1	105A	PROVIDING AND FIXING BRASS STOP COCK OF APPROVED QUALITY 15MM NOMINAL BORE		EACH	191.70			.00
18.15.2	105B	20MM NOMINAL BORE		EACH	235.20			.00
18.49.1	106A	PROVIDING AND FIXING CP BRASS BIB COCK OF APPROVED QUALITY CONFORMING TO IS		EACH	313.10			.00

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CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
		8931 15MM NOMINAL BORE				
18.10.1	107A	PROVIDING & FIXING G.I PIPES COMPLETE WITH G.I FITTINGS AND CLAMPS INCLUDING CUTTING AND MAKING GOOD THE WALLS ETC 15 MM DIA NOMINAL BORE		METR	105.85	.00
18.10.2	107B	20MM DIA NOMINAL BORE		METR	133.85	.00
18.10.3	107C	25MM DIA NOMINAL BORE		METR	179.65	.00
PWD 20/P34	108	LABOUR CHARGES FOR FIXING DOORS ALONG WITH FRAMES IN POSITION ETC., COMPLETE.		SQM	68.00	.00
PWD 19/P34	109	LABOUR CHARGES FOR FIXING WINDOWS ALONG WITH FRAMES IN POSITION ETC., COMPLETE.		SQM	54.00	.00
16.3.9	110	SUPPLYING AND STACKING OF RED GRAVEL AT SITE		CUM	144.05	.00
DATA	111	SUPPLYING OF RED EARTH / MURRAM FROM BHEL SOURCE AT SITE OF WORK INCLUDING EXCAVATION, TRANSPORTING AND SPREADING ETC.		CUM	192.68	.00
16.6(DATA)	112	SPREADING 6MM TO VARIABLE THICKNESS UP TO 150 / 200MM THICK RED BAJRI, WATERING AND ROLLING COMPLETE INCLUDING PREPARATION OF THE SURFACE AND ROLLING WITH ROAD ROLLER (PAYMENT FOR RED BAJRI TO BE MADE SEPERATELY)		SQM	2.80	.00
DATA	113	CARRYING OUT MISCELLANEOUS TYPE OF WORKS (VIZ. MASONRY, ETC.)WHICH ARE NOT QUANTIFIABLE LIKE CHIPPING OF FLOOR, FINISHING THE FLOOR, TOUCH UP PLASTERING WORK, DISMANTLING OF FLOOR FOR MAKING POCKETS FOR MACHINE FOUNDATIONS, DISMANTLING OF BRICK WORK FOR ENABLING TO FIX EXHAUST FANS, FIXING OF EXHAUST FANS, DISMANTLING OF IWCS, EWCS, LOW LEVEL TANKS, HIGH LEVEL TANKS, WASH BASINS AND SANITARY ITEMS, FIXING OF WASH BASINS,MINIMUM		MONT	16653.00	.00

CONTRACTOR/ TENDERER

ACCEPTING OFFICER

BHARAT HEAVY ELECTRICALS LIMITED

BOILER AUXILIARIES PLANT

RANIPET - 632406

ESTIMATE

ESTIMATE REF NO : CF/RB/09/27

NAME OF WORK : CIVIL MAINTENANCE WORKS IN FACTORY UPTO MARCH 2010.

CPWD 2007 REF	SLNO	DESCRIPTION	QTY	UNIT	RATE RS P	AMOUNT RS P
		LABOUR TO BE ENGAGED TWO MASON & TWO MAZDOOR THROUGH OUT CONTRACT PRIOD.				
DATA	114	CONSOLIDATION OF SUBGRADE WITH POWER ROAD ROLLER OF 8 TO 12 TONNE CAPACITY INCLUDING MAKING GOOD THE UNDULATIONS ETC., WITH EARTH OR QUARRY SPOILS ETC., AND REROLLING THE SUBGRADE.		SQM	1.10	.00
CFRB 48	115	Hire and running charges for supply of JCB.Rate include cost of services of operating staff,all consumables,fuel and supply of lubricating oil etc.,.		HOOR	590.00	.00
CFRB 48	116	Hire and running charges for supply of tipper of capacity 9.00 cum.Rate to include cost of services of operating staff all consumables,fuel and supply of lubricating oil etc.,.		HOOR	270.00	.00
	XXX	Total				1500000.00

1500000.00

ESCALATION @ %

0.00

TOTAL ESTIMATED VALUE (A)

1500000.00

CONTRACTOR TENDER PERCENTAGE @ ABOVE / BELOW / AT PAR _____% (B)

(Percentage in words)

SUB TOTAL (A+B)

SERVICE TAX @ % (C)

SERVICE HEAD : _____

TOTAL VALUE OF WORK (A+B+C)

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CONTRACTOR/ TENDERER

ACCEPTING OFFICER