

BHARAT HEAVY ELECTRICALS LIMITED
(A Government of India Undertaking)
Power Sector, Southern Region
690, Anna Salai, Nandanam, Chennai – 35

TENDER NOTICE

Sealed Tenders in TWO parts are invited from reputed contractors with sufficient previous experience in the under mentioned nature of work meeting the Pre Qualifying requirements

Tender Specification No. BHEL:PSSR:SCT:1305

Description	
Construction of Piling & Pile cap Foundations for Boiler, ESP, Power House, TG, Mill & Mill bay etc, for 1 x 600 MW North Chennai TPS at North Chennai, Tamil nadu.	EMD 2.00 lakhs

Cost of Tender Documents (Including all Taxes)	:	Rs 5200/-
Tender Issue Starts on	:	01.07.2008
Tender issue closes on	:	21.07.2008
Due date and Time for Submission of Tender	:	22.07.2008 1500 Hrs.
Date and time for opening Of Bids	:	22.07.2008 1530 Hrs.

Interested parties can get the Tender documents from the office of the Additional General Manager / Contracts on all working days.

The Bharat Heavy Electricals Limited takes no responsibility for any delay, loss or non-receipt of tender documents sent by post and also reserves the right to reject any or all the tender without assigning any reason therefor.

ADDITIONAL GENERAL MANAGER/CONTRACTS

QUALIFICATION CRITERIA

- a) Bidder should have executed installation of 1, 80,000 running meters of cast-in-situ bored piles of minimum 450 mm dia in any one year in one or more contracts concurrently in the last seven years.

Note: The word “ **Executed**” means that the bidder should have achieved the progress specified in the “QR” even if the total contract is not completed / closed. The same shall be supported by documentary evidence issued by the owner / client.

- b) The bidder should have a minimum average financial turn over of **Rs. 70.20 crores** in the last three financial year ending **31st March 2007**. The bidders must have earned profit in any one of the last three financial years ending **31 03 2007** and should have positive net worth as on 31.03.2007. The bidders should submit audited balance sheet and profit and loss account of the company along with all connected schedule / notes forming part of Balance Sheet audited for the last three years ending 31 03 2007 in support of the above requirement
- c) Notwithstanding the above, BHEL reserves right to reject any tender or all the tenders for the reasons whatsoever beyond our control and decision of BHEL is final.
- d) Approval of the agency by Customer.

The tender documents contain the following:

Volume - 1	General & Special Conditions of Contract
Volume -2	Technical Specifications (2 books)
Volume -3	Schedule of items of works

Tenders are to be submitted strictly in accordance with the tender specifications and special instructions as given.

The various schedules and proformas as called in must be filled properly without fail, using additional sheets if necessary.

The format (FORM- iii) showing the experience in the works as called in the Pre qualifying requirement must be filled and also to be supported with documents like certificates issued by clients / end users.

The format should not be left blank or mentioned as “enclosed separately”. Enclosing the company’s booklet / leaflet / self certification in lieu of the above is strictly not acceptable

The tender offer should be kept valid for **180** days from the date of **bid** opening for acceptance by BHEL. No unsolicited revision in the tender offer shall be entertained after opening of tenders till the expiry of the validity period.

Yours Faithfully,

For and On behalf of
Bharat Heavy Electricals Ltd

Head - Subcontracts

ADDENDUM TO TENDER NOTICE

BHEL PSSR SCT 1305

Add SCC Clause 24.0 :

- i) There are two Units of 600 MW each at North Chennai. Tender SCT 1305 is for Unit 1 - 600MW (at North Chennai) only. The quantity indicated in the price bid is for Unit -1 only.**

- ii) The L1 bidder against this quote will be awarded the contract for Unit 1 of North Chennai TPP –600 MW.**

- iii) However, BHEL reserves the right to award the contract for Unit 2 at North Chennai , on the same terms and conditions of SCT 1305, to the next lowest bidder who should match his rates / price with L1 bidder of Unit 1 .**

- iv) Thus the work will be awarded to two agencies i.e. Unit 1 work for one agency and Unit 2 work for another agency.**

- v) Each Unit will be treated as a separate contract.**

AGM / CONTRACTS

TENDER SPECIFICATION

BHEL PSSR SCT 1305

**CONSTRUCTION OF PILING AND PILE CAP FOUNDATIONS
FOR BOILER, ESP, MILL, MILL BAY, TG Etc.**

FOR

1 X 600 MW TPS

FOR

TNEB, NCTPS – UNIT 1 – STAGE 2

NORTH CHENNAI, TAMIL NADU

VOLUME - I

GENERAL AND SPECIAL CONDITIONS OF CONTRACT

BOOK NO



BHARAT HEAVY ELECTRICALS LIMITED

(A GOVERNMENT OF INDIA UNDERTAKING)

POWER SECTOR – SOUTHERN REGION

690,ANNA SALAI, NANDANAM, CHENNAI – 600 035

GENERAL AND SPECIAL CONDITIONS OF CONTRACT FOR CIVIL WORKS

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BHARAT HEAVY ELECTRICALS LIMITED
(A Government of India Undertaking)
POWER SECTOR – SOUTHERN REGION,
690, ANNA SALAI, NANDANAM, CHENNAI – 600 035.

TENDER SPECIFICATION No. BHEL PSSR SCT 1305

DATE:

M/s.

Dear Sirs,

Sub: Construction of Piling & pile cap Foundations for Boiler, ESP, Power House, TG, Mill & Mill bay etc, for 1 x 600 MW north Chennai TPS unit 1 at North Chennai, Tamil Nadu.

Please find enclosed one set of non-transferable tender documents containing Volume – I - General Conditions of contract, Volume- 2 of technical specification and Volume-3 rate schedule for quoting.

You are requested to go through the tender documents and furnish necessary supporting documents and submit the tender documents duly filled in as per procedure indicated in the tender specification

A SEPARATE LETTER SHALL BE FURNISHED INDICATING THAT THERE ARE NO DEVIATIONS FROM THE TENDER CONDITIONS (As in Page 3)

The completed quotations shall reach the office of the undersigned on or before **22.07.2008** at **1500 hrs.** The Technical bids will be opened on the same day at **1530 hrs.** You are requested to depute your authorized representative at the time of opening.

Kindly acknowledge the receipt of the tender documents and confirm your participation.

Kindly note that BHEL reserves the right to reject any or all tenders without assigning any reason.

Clarifications if any are to be sought on or before 15.07.2008. Bidders are hereby informed that, under no circumstances extension of bid submission date will be permitted.

Thanking you,

Yours faithfully,
For and on behalf of
BHARAT HEAVY ELECTRICALS LTD

AGM / CONTRACTS

The tender documents are not transferable.

Date:

TENDER SPECIFICATION: BHEL:PSSR:SCT:1305

CERTIFICATE FOR NO DEVIATION

I,

of M/s

Hereby certify that there is no deviation from the Tender Conditions either technical or commercial and I am agreeing to all the terms and conditions mentioned in the Tender Specification.

SIGNATURE OF THE TENDERER

GENERAL AND SPECIAL CONDITIONS OF CONTRACT FOR CIVIL WORKS

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- v) Each Unit will be treated as a separate contract.**

AGM / CONTRACTS

PROCEDURE FOR SUBMISSION OF SEALED BIDS

- * The bidders must submit their bid as required in Two Parts in separate sealed cover prominently super scribed as Part I " General & Special Conditions of contract" and Technical specification (vol 2) and Part II Rate schedule (vol 3) and also indicating on each of the covers the tender specifications number and due date and time as mentioned in the tender notice.
- * Excepting the rate schedule, all other schedules, data sheets, drawings, and details called for in the tender shall be enclosed in the Part I bid only.
- * All indications of price shall be given in the price bid Vol 3 of Part II only. IF THE BIDDER OFFERS ANY REBATE, THE SAME SHOULD BE ENTERED IN THE MAIN PRICE BID ONLY.NO SEPARATE LETTER WILL BE ENTERTAINED UNDER ANY CIRCUMSTANCES, FOR EVALUATION OF TOTAL PRICE..
- * These two separate covers I&II shall together be enclosed in a third envelope along with the requisite EMD as indicated and this sealed cover shall be super scribed and submitted to Head /Subcontracting at the above mentioned address before the due date as indicated.
- * The main cover containing the EMD, Part I and Part II of the tender shall be opened on the due date and the time in the office in the presence of authorized representative of the tenderers who may like to be present. After opening the main cover, the envelope containing the EMD will be opened first and the Part I shall be opened only if EMD of the requisite amount in the proper mode has been submitted by the tenderer.
- * The rates quoted in words will be taken as correct, whenever discrepancy is noticed between the rates in figures and words.
- * All corrections and alterations in the tender papers shall be signed in full by the tenderer with date.
- * No overwriting is permitted.
- * Any addenda issued by BHEL will also form part of the tender.
- * The tenderers are requested to go through the checklist provided in the GCC and ensure compliance before submitting the offers.
- * In case the tenderer is not interested to participate in the process, the regret letter may be given in writing.

SECTION III

FORM OF AGREEMENT

BHARAT HEAVY ELECTRICALS LTD
(A Government of India Under taking)
Power Sector : Southern Region
690, Anna Salai, Nandanam
Chennai- 600035

CONTRACT AGREEMENT

AGREEMENT No: BHE:PSSR:SCT:1305

Date :

NAME OF THE WORK :

NAME OF THE CONTRACTOR :
WITH FULL ADDRESS

AMOUNT OF TENDER ACCEPTED :

LETTER OF INTENT :

TIME ALLOTTED FOR COMPLETION:
OF WORK

SCHEDULED DATE OF COMPLETION:

CONTRACTOR
(To be signed by a person
holding valid power of
Attorney)

BHEL OFFICER
(officer authorised to sign
the Agreement)

CONTRACT AGREEMENT

AGREEMENT No BHEL:PSSR: SCT:1305

Date :

This agreement made this day, theBetween the Bharat Heavy Electricals Ltd, Power Sector..... having registered Office at BHEL HOUSE, Siri Fort, New Delhi 110049 (herein called the FIRST PARTY) of one.

01. Party I and Messers.....(herein called the CONTRACTOR) of the Second Part.

02. WHEREAS the first party is desirous of executing the work ofmore particularly described in the appendices including drawings and specifications attached herewith.

03. WHEREAS in pursuance of the said contractor's Tender having been accepted, the first party has decided to give the above said work to the contractor.

04. WHEREAS the said contractor has agreed to do the aforesaid work of the first party subject to the conditions herein contained in these presents, instructions to the tenderers, general conditions and special conditions, schedules, appendices, Letter of Interest and specifications (herein referred as the said contractor schedule) at the approved rates(hereinafter referred as Contract Rate).

05. AND WHEREAS the said contractor has furnished a Bank Guarantee for a sum of Rs.....) bearing No.....datedfrom.....Bank valid uptotowards initial 50% Security Deposit and balance being recovered at 10% of value each running bill till the Full Security Deposit is made up for the satisfactory completion and performance of the work and whereas the validity of the said Bank Guarantee has to be extended by the contractor, if so required beforefor the balance of the contract period and in the event of his failure to do so, the contractor shall pay or accept recovery of this amount of Rs.....(Rupees.....)

.....) only from the bills forthwith in one installment and it has further been agreed that the failure to extend the validity of the Bank Guarantee. Failure to pay the aforesaid amount in the manner specified above all shall constitute the breach of contract and the First party reserves the right to take any legal action deemed fit for recovering the said sum of Rs.....(Rupees.....). This amount of Rswill be refunded and the Bank Guarantee will be returned to the contractor on satisfactory completion of the work as specified in the Contract Documents.

06. Now These Presents witness that in consideration of the said contract schedule and the said contract rate, as also of agreement of good and faithful service to be rendered and performed by the contractor in the execution of the said work, subject to the stipulation hereinafter expressed.

07. That the contractor will perform the aforesaid work subject to the conditions contained in these presents , instructions to tenderers, general and special conditions of Contract and contract documents attached herewith including the said schedules, specifications, Letter of Intents, drawings attached and also such other drawings and instructions as may from time to time be given by the first party. And that the said contractor shall be deemed to have carefully examined the specifications and conditions of contract , appendices, schedules, Letter of Intent, drawings etc aforesaid and also to have satisfied himself as to the nature and character of the work to be executed.

08. That the said contractor shall carry out the execution of the said work to the entire satisfaction of the engineer within the agreed time schedule.

09. That the first party after proper scrutiny of the bills submitted by the said contractor will pay him during progress of the said work, at said contract and agreed terms of payment, a sum as determined by the first party in respect of work executed by the contractor.

10. That the contract will come into force with retrospective effect from the date on which letter accepting the TELEGRAPHIC LETTER OF INTENT has issued to the said contractor.

11. That whenever under this contract or otherwise , any sum of money shall be recoverable from or payable by the contractor, the same may be deducted in the manner as set out in the conditions of the contract as aforesaid.

12. That all statutory changes on account of Octroi, terminal and sales tax or other duties / levies effected after the tender opening(technical) on material obtained for the works shall be reimbursed by BHEL on actuals on production of supporting documents.

13. That is agreed between the parties that non - exercise of any powers conferred on the authorities of the first party will not in any manner constitute waiver of the conditions hereto contained in these presents and the liability of the said contractor either of past or future compensation shall remain unaffected.

14. That the expression BHEL wherever occurring means that BHARAT HEAVY ELECTRICALS LIMITED, POWER SECTOR- SOUTHERN REGION, CHENNAI-600035(respective regions to be mentioned)

15. The documents hereto attached viz.,

a.

b.

c.....

shall also form part of this agreement.

In witness hereof the parties have respectively set therein signature in the presence of :

WITNESS
(With Full Address)

Date :
Signature of the Contractor
(to be signed by the person holding valid power
of attorney of the company)

For and on Behalf of the
BHARAT HEAVY ELECTRICALS LIMITED

WITNESS:

1.

2.

SECTION IV

GENERAL CONDITIONS OF CONTRACT

SECTION IV

GENERAL CONDITIONS OF CONTRACT

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GENERAL AND DESPATCH INSTRUCTIONS:

- a) The tender specification as a whole, duly furnishing all the details required and other documents as required in the following pages, shall be duly signed and sent in sealed cover duly super scribing the name of work as given in the tender notice.
- b) . The tender shall be addressed to: Officer inviting tender as indicated in the tender notice.
- c) . Tenders submitted by post shall be sent as "REGISTERED POST ACKNOWLEDGEMENT DUE" or by any other mode , and shall be posted with the due allowance for any postal delay. The tenders received after the due date and time of opening are liable to be rejected. Telegraphic offers and offers received by telex , fax electronic mail will not be considered.
- d) Tenders shall be opened by authorised official of BHEL at his office at the time and date as specified in the tender notice in the presence of those tenderers or their authorised representatives who may be present.
- e) The tenderers shall closely peruse all the clauses, specifications and drawings indicated in the Tender Documents before quoting. Should the tenderer have any doubt about the meaning of any portion of the Tender Specifications or find discrepancies or omission in the drawings or the tender documents issued are incomplete or shall require clarification on any of the technical aspect, scope of work etc., he shall at once contact the authority inviting the tender for clarification before the submission of the tender.
- f) . Before tendering, the tenderers are advised to inspect the site of work and the environments and be well acquainted with the actual working and other prevalent conditions, facilities available, position of material and labour. No claim will be entertained later on the ground of lack of knowledge. The tenderer should fill up and sign the form provided in the document without fail. The offer is liable for rejection by BHEL if the contractor is not fulfilling this requirement.

g) TENDERER MUST FILL UP ALL THE SCHEDULES AND FURNISH ALL THE REQUIRED INFORMATIONS AS PER THE INSTRUCTIONS GIVEN IN VARIOUS SECTIONS OF THE TENDER SPECIFICATION. EACH AND EVERY PAGE OF THE TENDER SPECIFICATION MUST BE SIGNED, STAMPED AND SUBMITTED ALONG WITH THE OFFERS BY THE TENDERER IN TOKEN OF COMPLETE ACCEPTANCE THEREOF. THE INFORMATIONS FURNISHED SHALL BE COMPLETE BY ITSELF. ALL CORRECTIONS AND ALTERATIONS IN THE ENTRIES OF THE TENDER PAPERS SHALL BE SIGNED IN FULL BY THE TENDERER WITH DATE.

h) The tenderer shall quote the rates in English Language and international numerals. These rates shall be entered in figures as well as in words. In case of difference in rates between words and figures, the least of the two will be treated as valid rate. For the purpose of tender, the metric system of units shall be used.

i) . All entries in the tender shall either be typed or to be written in ink., including ball point pens. Erasers and over writings are not permitted and may render such tenders be liable to summary rejection.

j) Details of previous experience during the last seven years indicating the contract value, duration, completion period and present assignments are to be furnished as per the proforma without fail. IN VIEW OF THIS REQUIREMENT, NO SEPARATE BOOKLET WILL BE ENTERTAINED.

k) Organization structure of the company to be furnished.

l) Financial status of the firm enclosing the balance sheets and profit and loss account for the last three years and the certificate from the company's banker to be furnished.

m) Turn over of the company for the last three years to be furnished.

n) Bio data of the key personnel presently in the rolls of the company and proposed site organization for carrying out the work including deployment of engineers and supervisor to be furnished.

- o) Declaration sheets as per the tender specifications to be furnished without fail.
- p) Check lists and schedule of general particulars as per *GCC* to be provided.
- q) T&P owned / deployment details as per *GCC* to be furnished.
- r) Technical man power details as per the format to be furnished.
- s) "NO DEVIATION CERTIFICATE "AS PER THE FORMAT
- t) Safety Plan as per the format to be furnished.
- u) Addenda: addenda to the tender documents may be issued prior to the date of tender documents to give clarification or to include modifications in the design/contract terms. As such addenda issued shall form part of tender documents.

1.0 DEFINITION AND INTERPRETATIONS:

In the contract (as hereinafter defined), the following words and expressions shall have the meanings hereby assigned to them except where the context otherwise requires:

1.1 DEFINITIONS

i '**EMPLOYER**' means , BHEL (or B.H.E.L Ltd) shall mean Bharat Heavy Electricals Limited, a company registered under Indian Companies Act 1956, with its Registered Office at BHEL House, Siri Fort, New Delhi 110 049, or its Authorized Officers or its Resident Engineer or other employees authorized to deal with any matters with which these persons are concerned on its behalf.

ii '**GENERAL MANAGER**' shall mean the officer in administrative charge of contracting unit of BHEL

iii 'Owner' means the client on whose behalf, the tenders are invited by the employer and includes his legal representatives, successors and permitted assigns as well as his authorized officers and representatives

iv 'Contractor' shall mean the individual, firm or company who enters into this contract with BHEL and shall include their executors, administrators, successors ,legal heirs and permitted assignees.

v "Engineer" shall mean the Engineer designated as such or the Engineer appointed from time to time by the employer and notified in writing to the contractor to act as Engineer for the purpose of the contract in place of the engineer so designated. The word 'Engineer' Covers ' 'Project Manager', 'Resident Manager', 'Resident Engineer', 'Construction manager' as appropriate.

vi "Engineer in charge" means any officer assigned to execute the Contract, by the Engineer, from time to time, and the same will be notified by the Engineer to the contractor in writing.

vii 'Work' means the works to be executed in accordance with the contract.

viii 'Contract' shall mean / and include the documents forming tender and acceptance thereof and the formal agreement executed between BHEL and the contractor together with the documents referred to therein including the terms and conditions general and special ,specifications, designs, drawings, the schedule of items, quantities and rates and instructions issued from time to time by the Engineer and all these documents taken together shall be deemed to form one contract and shall be complimentary to one another. Any conditions or terms stipulated by the contractor in his tender or subsequent letters shall not form part of the contract unless specifically accepted in writing by the employer and incorporated in the contract.

ix 'Contract price' means the sum named in the tender /LOI subject to such additions there to or deductions there from as may be made under provisions hereinafter contained. Rates shall be written in English both in figures and words

x 'Constructional Plant' means all appliance or things of whatsoever nature required in or about the executions, completion or maintenance of works or Temporary works by the contractor at his own cost and risk(as hereinafter defined)but, does not include materials or other things intended to form part of permanent work

xi 'temporary Work' means all temporary works of every kind required in or about the execution completion or maintenance of the works by the contractor at their own cost and risk

xii ' Specification' means the specifications annexed to or issued with these general and special conditions of contract..

xiii 'Drawings means the drawings referred to in the specification and any modification of such drawings approved in writing by the engineer and such other drawings as may from time to time be furnished or approved in writing by the engineer.

xiv ' Site means and includes the lands and other places on, under, in or through which the works are to be executed or carried out on any other lands or places provided by the Employer for the purposes of the Contract together with such other places as may be specifically designated in the Contract as forming part of site.

xv ' Approved' means approved in writing including subsequent written confirmation of previous verbal approval and 'approval' means in writing including as aforesaid. When the words 'Approved', 'Subject to approval', ' Satisfactory', 'Equal to', 'Proper', 'Requested', 'As Directed', 'Where Directed', 'Determined by', 'Accepted', 'Permitted', or the words and phrases of the like import are used. The approval judgment, direction etc is understood to be function of the employer, Engineer or his representative.

xvi Writing' means any manuscript , type written or printed statement, under or over signature and or seal as the case may be.

xvii 'Month means English calendar month, 'Day' or 'Days unless herein otherwise expressly defined, means calendar day or days of 24 hours each.

xviii TESTS shall mean and include such tests to be carried out on the part of the contractor as are prescribed in the contract or considered necessary by BHEL , in order to ascertain the quality, workmanship, performance and efficiency of the contract work or part thereof.

xix 'COMPLETION TIME' shall mean the period by date specified in the acceptance of the tender or mutually agreed upon for handing over of the plant/ work which are found acceptable by the Engineer being of the required standard and confirming to the specifications of the contract.

xx "Equipment' shall mean all equipments, machineries, materials, structural, electrical and other components of the plant covered by the contract.

1.2 Singular and Plural:

Words importing the masculine gender or singular number shall also include the feminine gender and plural and vice versa where the context so requires.

1.3 Headings or Notes:

The headings or notes in these conditions are solely for the purpose of facilitating reference and shall not be deemed to be part thereof or be taken into consideration in the interpretation or construction thereof or of the Contract.

1.4 Documents Mutually Explanatory

Except if and to the extent otherwise provided by the Contract , the provisions of the section of the SPECIAL CONDITIONS OF CONTRACT shall prevail over General Conditions and over those of any other document forming part of the Contract . Subject to the foregoing the several documents forming the contract are to be taken mutually explanatory of one another but in case of ambiguities or discrepancies the same shall be explained and adjusted by the Engineer who shall thereupon issue the Contractor instructions directing in what manner the Work is to be carried out.

2.0. CONTRACTOR TO INFORM HIMSELF FULLY

2.1 INSPECTION OF SITE BEFORE SUBMISSION OF TENDER

The contractor shall inspect and examine the Site and its surroundings and shall satisfy himself before submitting his Tender, considering the factors like availability of accommodation for staff, workers, guest house, mess, distance between the residence and site, the labour colony area if provided by the client, availability of building materials both for temporary and permanent works, hospital and schooling facilities, hire charges for transport, local labour both skilled and unskilled, availability, industrial and political climate, general productivity of the labours in the area, minimum wages to be paid, types of fringe benefits to be paid both official and local, availability of equipment , consumables, details of the materials those are in short supply, fabrication and machining facilities at site, banking facility, statutory conditions to be necessarily to be fulfilled while establishing the site as well as during execution of the contract, professional tax, sales tax on works contract, entry tax, any other tax relevant to the contract and any other relevant issues to the tender .The contractor is also expected to take into account factors like district head quarters, nearest air port, railway station, weather conditions, water availability, details on the availability of construction power, electricity tariff, availability of railway sidings, approach roads, availability of security services , the facilities to be developed for the labours as per law of the land, etc.(the factors mentioned above are suggestive in and the contractor is expected to examine all the issues connected with the tender before submitting the offer. BHEL will not entertain

any claim what so ever at a later date on these issues.)The tenderer should fill up and sign the form provided in the document without fail. The offer is liable for rejection by BHEL if the contractor is not fulfilling this requirement

2.2. CORRECTNESS AND SUFFICIENCY OF RATES:

The contractor by tendering shall be deemed to have satisfied himself as to all the conditions and circumstances affecting the rates and prices stated in the Price Schedule of Items of work, as to the possibility of executing the Works as shown and described in the Contract, as to the General circumstances at the Site and as to the general labour position at the Site, cost & availability of bought out items, and to have fixed his rate and prices according to his own means to cover all his obligations under the contract and all matters and things necessary for the proper executions, completion and maintenance of the Works for these as no additional allowance, except as otherwise expressly provided will afterwards be made beyond the rates and prices stated in the Price Schedule of Items of work. The contractor alone shall be responsible for any misunderstanding or incorrect information however obtained except information in writing by Engineer.

3.0. COMPETENCE AND GUARANTEES

3.1 COMPETENCE :

The contractor shall have sound technical and financial capabilities and possess recognized experience in executing the works of similar kind and magnitude. The contractor shall properly fill in the various Schedules and Proforma prescribed in GCC without fail. Non submission of the information in the prescribed schedules and proforma shall lead to rejection of the offer.

3.2 Earnest Money Deposit :

The contractor must deposit along with the tender the prescribed earnest money Deposit (as stated in the tender notice) in any one of the following forms.

3.2.1 CASH: the amount is to be remitted by the party to the cashier of Bharat heavy Electricals Ltd, Power Sector and the original cash receipt should be attached with the offer.(please note Cheques, currency notes, money orders or postal orders should not be enclosed.)

3.2.2 : Pay order, Demand Draft duly pledged in favour of Bharat Heavy Electricals Ltd, Power Sector will be accepted.

3.2.3 The EMD of the successful tenderer , if paid in cash, will be retained towards part of security Deposit. In respect of other mode of EMD , the same will be returned, as soon as the Security Deposit as mentioned in the clause is furnished.

3.2.4 In case of the unsuccessful tenderers, the EMD will be refunded/ returned within a reasonable time , only after finalization of the tender.

3.2.5 BHEL reserves the right of forfeiture of EMD in case :

3.2.5.1 The successful tenderer fails to communicate unqualified acceptance of the letter of intent,

3.2.5.2 fails to start the work as indicated in the letter of intent and after opening the tender,

3.2.5.3 revokes/ withdraws his tender within the validity period or revises/alters his earlier quoted rates/ conditions on his own.

3.3. SECURITY DEPOSIT:-

3.3.1. Upon acceptance of tender, the successful tenderer within the time specified in the Letter of Intent must deposit the required amount of Security Deposit for satisfactory completion of work. The amount should be deposited within one month from the date of Letter of Intent or early.

3.3.2. If the value of the work done at any time exceeds the accepted agreement value, the Security Deposit shall be correspondingly enhanced and the extra Security Deposit shall be immediately deposited by the Contractor or recovered from payments due to him.

3.3.3. Earnest Money Deposit towards part of Security Deposit, if EMD is paid in cash, the same will be adjusted in Security Deposit.

3.3.4 The total amount of Security Deposit shall be as follows :

- In case of work costing upto Rupees Ten lakhs, 10% of the contract value
- * In case of work costing above rupees Ten lakh up to 50 lakhs it will be 10% for the first one lakh and 7.5% for the amount exceeding Rs ten lakhs
- * In case the contract value is more than Rs 50 lakhs , SD will be 4 lakhs plus 5 % of the amount exceeding Rs 50 lakhs.

3.3.5 The SD can be deposited in any one of the following forms:

3.3.5.1 The total SD as indicated in the LOI can be paid in cash to the cashier of BHEL Power Sector within the time limit specified in the LOI

3.3.5.2 Or 50 % of the SD as indicated in the LOI can either be paid in cash to the cashier of BHEL or submitted in the form of Bank Guarantee in the prescribed Performa. The validity of BG should for the period of completion of work , till the final bill is settled. . The remaining 50% of the SD will be recovered progressively from the running bills @ 10% of the value of each running bill, till the full security deposit is made up.

3.3.5.3 Failure to deposit the Security Deposit within the stipulated time, may lead to forfeiture of Earnest Money and Cancellation of the award of work.

3.3.5.4 If any part of Security Deposit of the contractor is held in the forms of approved securities, it shall be kept transferred in the name of Bharat Heavy Electricals Limited, Power Sector, in such a manner that the same can be realized fully without referring to the Contractor. BHEL shall not be responsible for any depreciation in the value of security while in BHEL's custody or for any loss of interest thereon.

3.5.5.5 BHEL reserves the right of forfeiture of SD in addition to other claims and penalties in the event of the contractor's failure to fulfil any contractual obligations or in the event of termination of contract as per terms and conditions of the contract. BHEL also reserves the right to set off the SD against any other contracts with BHEL.

3.3.7. RETURN OF SECURITY DEPOSIT:- If the contractor duly performs and completes the Contract in all respects to the entire satisfaction of the Employer and presents an absolute " No Demand Certificate" in the prescribed form and returns properties belonging to the Employer handed over, rent or hired by him for carrying out the said works, half the amount of Security Deposit will be released to the Contractor after deducting all costs of expenses or other amounts that are to be paid to the Employer under this or other Contracts entered into with the contractor. Balance half of the amount of Security Deposit will be released only after satisfactory completion of maintenance period and issuance of Maintenance Certificate.

3.4 PERFORMANCE BOND:

3.4.1 : If BHEL provides the materials like steel, cement etc which go into the work permanently , the contractor shall provide , in addition to the Security Deposit, to the Employer Bank Guarantee of an approved Nationalised Bank for an amount equal to 5% of the contract price as Performance Bond(Under the terms of the Bond) within 30 days from the date of telegraphic letter of Indent and the terms of the performance bond shall have to be approved by BHEL. This bond shall remain valid until the expiry of the Maintenance period.. Obtaining such guarantee and the cost of the bond to be so entered into shall be at the expense in all aspects of the contractor. .

3.4.2 :If the contractor provides the materials like steel, cement etc which go into the work permanently, the contractor shall provide , in addition to the Security Deposit, to the Employer Bank Guarantee of an approved Nationalised Bank for an amount equal to 5% of the contract price as Performance Bond along with the final bill. The terms of the performance bond shall have to be approved by BHEL. This bond shall remain valid until the expiry of the Maintenance period.. Obtaining such guarantee and the cost of the bond to be so entered into shall be at the expense in all aspects of the contractor. .

3.5 INTEREST: No interest shall be payable by the Employer on Earnest Money, Security Deposit or on any money due to the Contractor by the Employer.

4.0. EXTENT OF CONTRACT AND INPUTS

4.1 SCOPE OF CONTRACT

i) The Contract comprises the planning, construction, completion and maintenance of the Works and except in so far as the contract otherwise provides the provision of all labour, materials, supervision, storage, constructional plant, equipments, supplies, transportation to and from the site, fuel, electricity temporary works, and everything whether of a temporary or permanent nature required in and for such construction, completion, maintenance and handing over of works except items specified to be furnished by the Employer or others, all in accordance with the stipulations laid down in the Contract and additional drawings as may be provided by the Engineer during execution of the Works.

ii) Even though all the work and material necessary to the satisfactory completion of the Works may not be detailed in the Specifications and Schedules, their costs will be considered to be within the Contract and no extra charges will be accepted, provided always that there is no substantial revision in the specifications of the work in which case consequential changes in prices shall be mutually agreed between the Employer and the Contractor.

4.2 SUPPLY OF PLANT MATERIALS AND LABOUR:- Except where otherwise specified the Contractor shall at his own expenses supply and provide all the Constructional Plant, Temporary Works, Materials both for temporary and for permanent works, labour (including the supervision thereof) transport to or from the Site and in and about the Works and other things of every kind required for the construction, completion and maintenance of the Works.

4.3 FIRE FIGHTING EQUIPMENT:- The Contractor shall provide and maintain adequate portable fire fighting equipment on the Site during the performance of the Contract to the approval of the Engineer and the Local Fire Authority. The work shall be executed in such a manner so as to maintain fire hazards.

4.4 ENABLING WORKS:-

(i) The contractor shall, during the progress of the work, provide, erect and maintain at his own expenses all necessary temporary workshops, stores, site offices, roads and access for the movements of his personnel and equipments, partitioning, temporary civil works, testing facilities required at site, temporary segregation within the site during the tenure of the Contract, distribution of water and power, drainage etc and other temporary facilities which would be required including those required for fulfilling statutory provisions and any other requirements required for the proper and efficient execution of the work. The planning, setting and erection of these buildings shall have the approval of the Engineer and the contractor shall at all times keep them tidy and in a clean and sanitary condition to the entire satisfaction of the Engineer.

(ii) The contractor shall at his cost provide office and other temporary accommodation for his staff and workmen including canteen facilities and sanitary accommodation, distribution of electricity and water etc

(iii) If the contractor wishes to provide temporary housing and /or accommodation for his labour the Contractor shall submit for prior approval by the Engineer plan of all accommodation he proposes to erect before any construction commences. The contractor will be responsible for all the costs associated with any temporary and/or camp accommodation provided by him. The area for the labour colony for the workers will be given to the contractor , as per the terms and conditions of owner. .

(iv) On the completion of the works and Contractor shall clear away and remove from the site all contractor's equipment, construction plant, surplus materials, rubbish and temporary works etc of every kind and leave the whole of the site and works clean in a workmanlike condition to the satisfaction of the Engineer. All roads constructed and used under the contract including the access road shall be repaired and resurfaced where necessary and brought up to a condition satisfactory to the Engineer. The cost of carrying out such work shall be borne by the Contractor and such work shall be completed in all respects within a period of four weeks from the date of completion of the works.

4.5 WATER AND ELECTRICITY:- The contractor shall allow in his tender and provide at his cost all water and electricity required for the work or his employees on the work, together with all pipes, wiring and fittings or other means that may be necessary or required to ensure a proper and ample supply of water and electricity for all purposes connected with the work.

In the event of a provision existing in the tender documents for supply of water and electricity either free or on payment basis, the water and electricity will be supplied from the Employer's/Owner's supply system, or other sources at any point fixed by the Engineer on the site of work. The contractor shall make necessary arrangements for lifting, pumping, carrying or conveying the water and distribution of electricity in safe and sound manner as required at his own cost.

The tenderer shall note that he shall make his own arrangement for alternative source of power supply through deployment of adequate number of DG Sets at his cost. Non availability of construction power supply from customer / BHEL should not be cited as reason for slow / poor progress and no claim on this account will be entertained by BHEL.

4.6 SETTING OUT:- The contractor shall be responsible for the true and proper setting-out of the Works in relation to original points, lines and levels of reference given by the Engineer in writing and for the correctness (subject as above mentioned) of the position levels, dimensions and alignment of all parts of the Works and for the provision of all necessary survey, grid, pillars and bench marks, instruments, appliances and labour in connection therewith. If at any time during the progress of the Works any error shall appear or arise in the position levels, dimensions or alignment of any part of the Works, the Contractor on the being required to do so by the Engineer or Engineer's Representative shall at his own expense rectify such error to the satisfaction of the Engineer or Engineer's Representative shall not in any way relieve the Contractor of his responsibility for the correctness thereof and the Contractor shall carefully protect and preserve all survey grid pillars, bench-marks, sight rails, pegs and other things used in setting out the Works.

4.7. BOREHOLES AND EXPLORATORY EXCAVATION. If at any time during the execution of the Works, the Engineer shall require the Contractor to make bore holes or to carry out exploratory excavation such requirement shall be ordered in writing and shall be deemed to be in addition ordered under the provisions of

clause thereof unless a rate in respect of such anticipated work shall have been included in the Bill of Quantities.

4.8 CONTRACTOR'S SUPERINTENDANCE:- The contractor shall give or provide all necessary superintendence during the execution of the works and as long thereafter as the Engineer may consider necessary for the proper fulfilling of the Contractor's obligations under the contract.

The contractor or a competent and authorized agent or representative approved of in writing by the Engineer (which approval may at any time be withdrawn) is to be constantly on the Works and shall give his whole time to the superintendence of the same. If such approval shall be withdrawn by the Engineer, the Contractor shall as soon as is practicable (having regard to the requirement of replacing him as hereinafter mentioned) after receiving written notice of such withdrawal, remove the agent from the Site and shall not thereafter employ him again on the site in any capacity and shall replace him by another agent approved by the Engineer. Such authorized agent or representative shall receive on behalf of the Contractor directions and instructions from the Engineer or the Engineer's representative. Such directions and instructions given to the Contractor's agent or representative shall be considered to have the same force as if they had been given to the Contractor himself. The contractor, his agent or representative shall attend when required and without making any claim for so doing, either the office of the Employer/Engineer or the site to receive the instructions. All the employees and the Contractor shall be solely responsible for all liabilities in connection with their employment.

4.9 CONTRACTOR'S EMPLOYEES

(i) The contractor shall provide and employ on the site in connection with the execution and maintenance of the works.:

(a) Only such technical assistants as are careful, skilled and experienced in their respective callings and such sub-agents, foremen and leading hands as are competent to give proper supervision to the work they are required to supervise, and

(b) Such skilled, semi-skilled and unskilled labour as is necessary for the proper and timely execution and maintenance of the works.

(ii) The Engineer shall be at liberty to object to and require the Contractor to remove forthwith from the Works any person employed by the Contractor in or about the execution or maintenance of the Works who in the opinion of the Engineer misconduct himself or is incompetent or negligent in the proper performance of his duties or whose employment is otherwise considered by the Engineer to be undesirable and such person shall not be again employed upon the Works without the written permission of the Engineer. Any person so removed from the Works shall be replaced as soon as possible by a Competent substitute approved by the Engineer.

5.0. CONTRACT AGREEMENT, EFFECT AND JURISDICTION

5.1. CONTRACT AGREEMENT

The successful Contractor's responsibility under this Contract commences from the date of issue of Telegraphic Letter of intent (TOI) by the employer. The contractor shall within 60 days from the date of Letter of Intent, but, in any case before submitting his first bill for payment, enter into and execute a Contract Agreement (to be prepared at the cost of the Contractor in the form outlined in Section III with such modifications as may be necessary). In the event of the failure of the Contractor to execute the Contract Agreement within the time specified above, the Employer may cancel the Letter of Intent and forfeit his Earnest Money and/or Security Deposit unless this period is extended by the Employer.

The contract shall in all respects be deemed to be and shall be constructed and shall operate as Indian Contract as defined in the Indian Contract Act 1872 and all payments there under shall be made in Indian Rupees unless otherwise specified.

5.2. EFFECT AND JURISDICTION OF CONTRACT:-

The contract shall be considered as having come into force from the date of Telegraphic Letter of Intent. Their contract shall in all respects be governed by and construed according to the laws in force in the Republic of India. The civil court having Ordinary Original Civil Jurisdiction at Madras, Tamil Nadu (regions to specify) shall alone have exclusive jurisdiction in regard to all claims in respect of this contract. No other civil court have jurisdiction in case of any dispute of this Contract.

6.0 ASSIGNMENT

6.1 The contractor shall not assign or transfer the contract or any part thereof or any benefit or any obligation thereof or interest therein or thereunder (otherwise than by a change in favour of the contractor's bankers of any money / amount due under this contract) without the prior written consent of the Employer..

6.2. SUB CONTRACTING

(i) The contractor shall not sub-contract the whole or part of the works. Except where otherwise provided by the contract, the contractor shall not sub-contract any part of the Works without the prior written consent of the Engineer and such consent if given shall not relieve the contractor from any liability or obligation under the contract and he shall be responsible for the acts, defaults and neglects of any sub-contractor, his agents, servants or workmen as fully as if they were the acts, defaults or neglects of the contractor, his agents, servants or workmen.

(ii)The contractor shall make available to the Engineer, at his request, any agreement in writing entered into by the contractor with any of his sub-contractor(s) whenever permission was accorded by BHEL.

(iii) The employer and engineer shall have the right to specify the brand name/s of the bought out materials required in connection with the contract and the contractor shall procure and use only such branded items to the extent possible to the full satisfaction of the engineer. This shall however not relieve the contractor of his obligations under the contract.

(iv)Notwithstanding the consent given by the Employer or Engineer for sub-contracting, it shall be obligatory on the part of the Contractor to provide to the engineer all drawings, technical data and all other details etc concerning the portion of work sub-contracted from his sub-contractor. It shall also be obligatory on the part of the contractor to exercise control over quality of materials and workmanship of the portion of work sub-contracted.Any of such consent given by the Employer or Engineer for sub-contracting shall not relieve the contractor from his obligations under the Contract.

7.0. ENGINEER'S SUPERVISION

7.1 WORK TO THE SATISFACTION OF ENGINEER

(i) The contractor shall execute, complete and maintain the Works strictly in accordance with the contract to the satisfaction of the engineer and shall comply with and adhere strictly to the Engineer's Instructions and directions on any matter (whether mentioned in the contract or not) touching or concerning the Works. The contractor shall take instructions and directions only from the Engineer or Engineer's Representative.

(ii) Any supervision by the Owner shall be deemed to be that of the Engineer or his representative and that no extra claim can arise on this score. Provided, however, that if the contractor shall be dissatisfied by reason of any instruction of the Owner, he shall be entitled to refer the matter to the Engineer who shall thereupon confirm, reverse or vary such decision.

8.0 PROGRAMME AND ORGANIZATION

8.1. PROGRAMME TO BE FURNISHED

Within 15 days of the acceptance of the tender the contractor shall submit to the engineer for his approval detailed PERT & BAR CHART (S) showing the order of procedure, the time required for each activity, method in which the contractor proposes to carry out the works and do other key phases of the Contract and shall whenever required by the Engineer or Engineer's representative furnish for his information particulars in writing of the Contractor's agreements for carrying out of the Works and of the constructions plant and temporary works which the contractor intends to supply, use of, construct as the case may be. The Engineer shall have the right to call for any reasonable number of further detailed programme PERT AND BAR CHART(S) during the currency of the Contract so that the Engineer may be able adequately to follow the progress of work on and off the site. The submission to and approval by the Engineer or Engineer's representative of such programme or the furnishing of such particulars shall not relieve the Contractor of any of his duties or responsibilities under the Contract.

8.2 ORGANIZATION FOR PLANNING, EXECUTION ETC: - Simultaneously with the submission of the aforesaid programme, the Contractor shall submit schedule showing clearly the responsibilities and the relationship of the most senior people wholly engaged in planning and execution of the contract which shall be subject to the approval of the Engineer. Any subsequent changes in this organization shall also be subject to the approval of the engineer. Schedules will also be submitted by the Contractor indicating the site labour force required and employed to meet the programme requirements and such schedules shall be segregated into skilled and unskilled categories for each section of the works. Schedules regarding supply of materials required for the timely execution of works shall also be submitted by the contractor.

9.0 DRAWINGS AND INSTRUCTIONS:-

9.1 CUSTODY OF DRAWINGS

The drawings shall remain in the sole custody of the Engineer but two copies thereof shall be furnished to the Contractor, free of cost. The contractor shall provide and make at his own expense any further copies required by him. At the completion of the contract, the contractor shall return to the Engineer, all drawings and specifications provided under the contract.

The contractor shall give adequate notice in writing to the Engineer or the Engineer's Representative of any further drawing or specification that as may be required for the execution of the Works or otherwise under the contract.

9.2 DRAWINGS AT SITE:- One copy of the drawings of the contractor as aforesaid shall be kept by the Contractor at site and the same shall at all reasonable time be available for inspection and use by the Engineer and Engineer's representative and by any other person authorised by engineer in writing.

9.3 FURTHER DRAWINGS AND INSTRUCTIONS:- The engineer shall have full power and authority to supply to the contractor from time to time during the progress of the works such further drawings and instructions as shall be necessary for the purpose of the proper and adequate execution and maintenance of the works and the contractor shall carry out and be bound by the same.

9.4 SHOP DRAWINGS ETC:- The Engineer shall have the right at all reasonable times to inspect at the office/premises of the Contractor all shop and/or detailed working drawings of the Works or any portion of work. The contractor shall be responsible for any discrepancies, errors or omissions in the drawings and information detailed out by him, whether they have been approved by the Engineer or not. The contractor shall at his own expense carry out any alterations or remedial work necessitated in the opinion of the Engineer, by reason of such discrepancies, errors or commissions

10.0 WATCHING, LIGHTING, FENCING AND SECURITY

10.1 WATCHING, LIGHTING AND FENCING

The contractor shall in connection with the works provide and maintain at his own cost all lights, guards, fencing and watching when and where necessary or required by the Engineer or Engineer's Representative or by any duly constituted authority for the protection of the Works or for the safety and convenience of the public or others. Adequate precautions against fire shall be taken by the contractor. No naked light shall be used by the Contractor on the Site, otherwise than in the open air, without the permission of the Engineer.

10.2 SECURITY

(i) The contractor shall have total responsibility for all plants and materials etc in his custody, stores, loose or semi-finished. The contractor shall make suitable security arrangements including employment security personnel to ensure the protection of all materials, plants etc and works from theft, fire, pilferage, and any other damage and loss.

(ii) The contractor shall follow at site all security rules as may be framed by the Employer and/or Owner from time to time regarding removal of materials from site, issue of identity cards, control of entry of personnel and all similar matters. The contractor and his personnel shall abide by all the security measures imposed by the Engineer or his duly authorized representative from time to time. The provision of this sub clause shall also apply to all the sub-contractors.

11.0 CARE OF WORKS ETC

11.1 CARE OF WORKS:- From the commencement to the completion of the Works the contractor shall take full responsibility for the care thereof and of all Temporary works and in case any damage, loss or injury shall be to the Works or to any part thereof or to any Temporary works from any cause whatsoever (leave except the Expected Risks as defined in Clause 11.2) he shall at his own cost repair and make as the same to the satisfaction of the engineer so that at completion, the Works shall be in good condition and in conformity in every respect with the requirements of the contract and the Engineer's instruction. In the event of any such damage, loss or injury happening from any unexpected risks, the contractor shall if and to the extent required by the Engineer and subject to the provisions of Clause 27.0 hereof repair and make good the same as aforesaid at the cost of employer. The contractor shall also be liable for any damage to the works occasioned by him in course of any operations carried out by him for the purpose of complying with his obligations in Clause 22.0 hereof, for which the contractor shall suitably indemnify the Employer.

11.2 EXCEPTED RISKS:- The excepted Risks are war hostilities (whether war be declared or not), invasion, act of enemies, rebellion, revolution, insurrection or military or usurped power, civil, war, riot, or disorder otherwise than among the Contractor's own employees (all of which are herein referred to as " The excepted risks ")

12.0 INSURANCE ETC

(i) BHEL shall arrange for insuring all the materials/properties belonging to BHEL and also for all the materials supplied by him for the works, covering all risks (Contractors all risk policy).

(ii) It is sole responsibility of the contractor to insure his workmen against accidents and injury while at work as required by relevant Rules and to pay compensation, if any, to workmen as per Workmen's Compensation Act contractor shall insure his staff against accidents. The work will be carried out in a protected area and all rules and regulations of the client/BHEL in the area of project which are in force from time to time will have to be followed by the contractor.

(iii) If due to the negligence and of non-observation of safety and other precautions, any accident/injury occurs to any other persons/public, the contractor shall have to pay necessary compensation and other expense, if so decided by the appropriate authorities.

(iv) If due to contractor's carelessness, negligence of non-observance of safety precautions damage to BHEL's/Customer's property and personnel should occur and if BHEL is unable to recover in full cost from the Insurance Company, the same will be recovered from the contractor.

(v) The contractor shall also take/cover insurance to protect from injuries, disability, disease and death to members of public including the Owner's men and damage to property of others arising from the use of motor vehicles / tools & plants during or off the site operations, irrespective of the Ownership of such vehicles. The liability covered shall be as herein indicated.

*Fatal injury : Rs.1,00,000/- for each person
: Rs.2,00,000/- for each occurrence

*Property Damage : Rs.1,00,000/- for each Occurrence

(the contractor is requested to refer to the special conditions of contract for any change in values with reference to the penalty being levied by the customer. It may be noted that even if customer does not levy any penalty, BHEL shall levy the penalty as indicated.The contractor shall take care of the above conditions prior to quoting for this work.)

13.0 NOTICES. FEES, STATUTES, REGULATIONS ETC

13.1 GIVING OF NOTICES AND PAYMENTS OF FEES:- The contractor shall give all notices and pay all taxes, fees royalties etc required to be given or paid under any National or State Statue, ordinance, other law or any regulation or Bye-law of any local or other duly constituted authority in relation to the execution of the works or of any temporary works and by the rules and regulations of all public bodies and companies whose property or rights are affected or may be affected in any way by the Works or any temporary works. In case the employer is forced to pay any of such taxes and fees etc. the employer shall have the right to recover the same from the money due to the contractor or otherwise as deemed fit by the employer.

13.2. COMPLIANCE WITH STATUTES, REGULATIONS ETC

i) The contractor shall conform in all respects with the provisions of any statute, ordinance, or law as aforesaid and the regulations or bye-laws of any local or other duly constituted authority which may be applicable to the works or to any temporary works and with such rules and regulations of public bodies and companies as aforesaid and shall keep the employer indemnified against all penalties and liability of every kind for breach of any such statute, ordinance or law regulation or bye-law.

ii) The contractor shall comply with all State and Central Laws, Statutory Rules, Regulations etc such as:

The payment of wages Act, Minimum Act, Workman Compensation Act, Employer's Liability Act, Industrial Dispute Act, Employees' Provident Fund Scheme, Employee' State Insurance Scheme, Contract Labour (Regulations and Abolition) Act, 1970 and other Acts, Rules and Regulations for Labour as may be enacted by the Government during the tenure of the contract and having force or jurisdictions at site. The contractor shall give to the local governing body, Police and other relevant authorities as may be required by Law.

iii) The contractor shall pay all taxes, fees, license, charges deposits, duties, tools, royalty, commissions or other charges, which may be leviable on account of his operations in executing the contract. In case BHEL is forced to pay any of such taxes BHEL shall have the right to recover the same from the contractor either from his bills or otherwise as deemed fit.

iv) While BHEL would pay in the inspection fees of the Boiler Inspectorate, all other arrangements for the visits periodically by Boiler Inspection Certificates etc will have to be made by the Contractor. BHEL will not make any payment to Boiler Inspector in connection with contractor's welders qualification/re-qualification tests etc.

v) The contractor shall be responsible for provisions of health and sanitary arrangements more particularly described in contract Labour (Regulations & Abolition) Act, Safety Precautions etc., as may be required for safe and satisfactory execution of the contract.

vi) If the cost of the contractor of the performance of the contract shall be increased by reason of the making after the date of his tender of any statute, ordinance or law, regulations, bye-law of the Government or any local or other duly constituted authority, the amount of such increase shall alone be borne by BHEL on submission of documentary evidence and no other compensation on this account shall be entertained by the employer except otherwise expressly provided.

14.0 FOSSILS ETC:- All fossils, coins, articles of value or antiquity and structures and other remains or things of geological/or archeological interest discovered on the site of the works shall as between the employer and the contractor be deemed to be the absolute property of the employer and the contractor shall take reasonable precautions to prevent his workmen or any other persons from removing or damaging any such article or thing and shall immediately upon discovery thereof and before removal acquaint the engineer's representative of such discovery and carry out at the expense of the employer the engineer's representative's orders as to the disposal of the same.

15.0 PATENTS RIGHTS AND ROYALTIES:- The contractor shall have harmless and indemnify the employer from and against all claims and proceedings for or on account of infringement of any patent rights, design, trademark or name or other protected rights in respect of any constructional plant, machine work, process or material used for or in connection with the Works or Temporary Works or any of them and from and against all claims, demands, proceedings, damages and expense whatsoever in respect thereof, or in relation thereto. Except where otherwise specified the contractor shall pay all tonnage and other royalties, rent and other payments or compensation (if any) for getting stone, sand gravel, clay or other materials required for the Works or Temporary Works of any of them.

16.0 TRAFFIC MOVEMENTS

16.1 INTERFERENCE WITH TRAFFIC AND ADJOINING PROPERTIES:- All operations necessary for the execution of the Works and for the construction of any Temporary Works shall so far as compliance with the requirements of the contract permits be carried on so as not to interfere unnecessarily or improperly with the public convenience or the access to use and occupation of public or private roads and footprints or to or of properties whether in the possession of the employer or of any other person and the contractor shall save harmless and indemnify the employer in respect of all claims, demands, proceedings, damages, costs, charges and expenses, whatsoever arising out of or in relation to any such matters in so far as he Contractor is responsible thereof.

16.2 EXTRAORDINARY TRAFFIC:- The contractor shall use every reasonable means to prevent any of the highways or bridges communicating with or on the routes to the site being damaged or injured by any traffic of the contractor or any of his sub-contractors and in particular shall select routes, choose and use vehicles and restrict, distribute loads so that any such extraordinary traffic as will inevitably arise from moving of plant and material from and to the site shall be limited as far as reasonably possible and so that no damage may be occasioned to such highways and bridges. Should it be found necessary for the contractor to move one or more loads of constructional plant machinery or pre-constructed units or parts of units work over part of a highway or bridge the moving whereof is likely to damage any highway or bridge unless special protection or strengthening is carried out then the contractor shall before moving the load on to such highway or bridge, carry out such protection or strengthening at his own cost. If during the execution of the works or at any time thereafter the Employer or Owner shall receive any claim arising out of the execution of works in respect of damage or injury to the highways or bridges, he shall immediately notify the same to the contractor and thereafter the contractor shall negotiate the settlement of and pay all sum due in respect of such claim and shall indemnify the employer in respect thereof and in respect of all claims, demands, proceedings, damages, cost charges and expenses in relation thereto.

16.3 SPECIAL ROADS:- Should it be found necessary for the contractor to move one or more loads of constructional plant machinery or pre-constructed units or parts of units of work over part of a highway or bridge the moving whereof is likely to damage any highway or bridge unless special protection or strengthening is carried out then the contractor shall, before moving the load on to such highway or bridge, carry out such protection or strengthening at his own cost. If during the execution of the works or at any time thereafter the Employer or Owner shall receive any claim arising out of the Execution of the works in respect of damage or injury to highways or bridges, he shall immediately notify the same to the contractor and thereafter the contractor shall negotiate the settlement of and pay all sum due in respect of such claim and shall indemnify the Employer in respect thereof and in respect of all claims, demands, proceedings, damages, cost charges and expenses in relation thereto.

16.4 WATER BORNE TRAFFIC:- Where the nature of the works is such as to require the use by the contractor of waterborne transport the foregoing provisions of this clause shall be construed as though " highway " included a lock, dock, seal wall, or other structure related to a water way and " vehicle " included craft, and shall have effect accordingly.

17.0. CLAIMS:- In the event of any claim made or being made against the employer arising out of the matters referred to, in and in respect of which the contractor is liable under the contract, the contractor shall be promptly notified thereof and the contractor shall at his own expenses conduct all negotiations for the settlement of the same and any litigation that may arise there from. The employer shall not unless and until the contractor shall have failed to take over the conduct of negotiations or litigation make any admission, which might be prejudicial thereto. The conduct by the contractor of such negotiation or litigation shall be conditional upon the contractor having first given to the employer such reasonable security as shall from time to time be required by the employer to cover the amount ascertained or agreed or estimated as the case may be, of any compensation, damages, expenses, and costs of which the employer may become liable. The employer shall, at the request of the contractor, afford all available assistance for any such purpose and shall be paid any out-of-pocket expenses incurred in so doing.

18.0. LABOUR

18.1. ENGAGEMENT OF LABOUR:- The contractor shall employ labour in sufficient numbers either directly or through sub-contractors to maintain the required rate of progress and of quality to ensure workmanship of the degree specification in the contract and to the satisfaction of the engineer. The contractor shall have in so far as the contract otherwise provides shall provide for the transport, housing, canteen and payment of wages etc thereof to the Labourers in accordance with relevant statutory rules and regulations etc. The contractor shall not employ in connection with the works any person who has not completed high eighteen years of age. Preference should be given to the local unskilled labourers and to the local land sufferers for employment. All labour engaged by the contractor shall be and remain the employees of the contractor and no claim shall lie against the employer by them or the contractor, or any person claiming on their behalf against the employer in respect of any right or benefit due to them in their employment.

18.2 RETURNS OF LABOUR, COMPLIANCE WITH RULES ETC

i) The contractor shall if required by the engineer deliver to the engineer's representative or at his office a return in detail in such form and at such intervals as the engineer may prescribe showing the supervisory staff and the numbers of several classes of labour from time to time employed by the contractor on the site and such other information regarding contractor equipment as the engineer's representative may require. The contractor shall also submit on the 4th and 19th of every month to the Engineer a true statement showing in respect of the second half of the preceding month and the first half of the current month. The attention is drawn to the salient features of the various acts to be complied with under clause 40,41,

ii. The contractor shall indemnify the employer against all or any payments to be and for observance of the Regulations aforesaid without prejudice to his right to indemnify from his sub-contractors.

(iii) In the event of the contractor committing a default or breach or breach of any of the provisions of Contract Labour Regulations, as amended from time to time or furnishing any aforesaid information sub in omitting or filling any form/register/slip under the provisions of these regulations which is materially incorrect then on the report of the Inspection Officers as defined in the contract, Labour Regulation, the Contractor shall without prejudice to any other liability pay to the Employer sum fixed by the authorities as liquidated damages for every default, breach or furnishing, making, submitting, filling materially incorrect statement as may be fixed by the engineer and in the event of the contractor's default continuing in this respect, the liquidated damages may be enhanced by the authorities for each day of default subject to a maximum of 10 percent of the contract price.

The engineer shall deduct such amount from the bills or security deposit of the contractor and credit the same to the Welfare Fund constituted under the same regulations. The decision of the engineer in this respect shall be final and binding

18.3 LABOUR WELFARE:

Contractor shall within 24 hours of the occurrence of any accident on or about connection with the execution of works, report such accident to the engineer and to the competent authorities, whenever such report is required under the Law.

i) Supply of Water:- The contractor shall have regard to local conditions provided on the site to the satisfaction of the engineer's representative an adequate supply of drinking and other water to the staff and labour employed.

ii) Alcoholic Liquor or Drugs:- The contractor shall not otherwise than in accordance with the Statutes, Ordinances & Government Regulations or Orders for the time being in force, import, sell, give barter or otherwise dispose of any alcoholic liquor or drugs or permit or suffer any such importation, sale, gift, barter or disposal by his sub-contractors, agents or employees.

iii) Arms and Ammunition:- The contractor shall not give barter or otherwise dispose of to any person or persons any arms or ammunition of any kind or permit or suffer the same as aforesaid.

iv) Festivals and Religious Customs:- The contractor shall in all dealings with labour in his employ have due regard to all recognized festivals, days of rest and religious or other customs.

v) Epidemics:- In the event of any outbreak of illness of an epidemic nature the contractor shall comply with a carry out such regulations, orders and requirements as may be made by the Government or the local medical or sanitary authorities for the purpose of dealing with and overcoming the same.

18.4 MODEL RULES FOR LABOUR WELFARE:- The contractor shall at his own expense fully comply with or cause to be complied with model rules for labour welfare as advised by Engineer or rules as framed by the Government from time to time for the protection of health and for making sanitary arrangements for workers employed directly or indirectly or the Works. In case the contractor fails to make arrangements as aforesaid, the Engineer shall be entitled to do so and recover the cost thereof from the contractor.

18.5. OBSERVANCE OF SUB-CONTRACTORS:- The contractor shall be responsible for observance by his sub-contractors of the foregoing clauses.

19.0. COMMENCEMENT OF WORKS:-

19.1. " Time is the essence of Contract". The contractor shall commence the works on site within the period named in the Letter of Intent issued by the employer and shall proceed with the same with due expedition and without delay except as may be expressly sanctioned or ordered by the Engineer. Provided that the contractor shall give notice in writing to the engineer within seven days of the happening of the event, which is wholly, beyond the contractor's control and which will render the commencement impossible and in any event before the due date for commencement which is earlier. If the contractor fails to commence the work within the stipulated time, the employer at his sole discretion will have the right to cancel the contract. In such an event the Contractor's Earnest Money and Security Deposit with the employer will stand forfeited without any further reference to the Contractor, without any further prejudice to any and all of the employer's other rights and remedies in this regard.

19.2. POSSESSION OF SITE:- Save in so far as the contract may prescribe the extent of portions of the site of which the contractor to be given possession from time to time and the order in which such portions shall be made available to him and subject to any requirement in the contract as to order in which the works shall be executed. Employer or the Owner will with the engineer's written order to commence the Works give to the contractor possession of so much of the Works site as may be required to enable the contractor to commence and process with the construction of the works in accordance with the programme referred to in Clause 8.0 hereof as otherwise in accordance with such reasonable proposals of the contractor as he shall by notice in writing to the Engineer make and will from to time as the Works proceed give the contractor possession of such further portions of the site as may be required to enable the contractor to proceed with the construction of the works with due dispatch in accordance with the said programme or proposals (as the case may be). If the contractor suffers delays or incurs expenses from failure on the part of the employer or the owner to give possession in accordance with the terms of this Clause the engineer shall grant an extension of time for the completion of works. No financial compensation whatsoever shall be payable to the employer on this account.

19.3 WAY LEAVES:- The contractor shall bear all expenses and charges for special or temporary way leaves required by him in connection with access at the site. The contractor shall also provide at his own cost any additional accommodation outside the site required by him for the purposes of the work.

19.4 LAND:- The employer/owner will provide the land required for the permanent works and the contractor may, when approved by the Engineer, use the same for temporary purposes. In the case of land required for temporary purposes, such as workshops, work yards, offices, storage of materials, and the like, the engineer will, on application being made, point out the area that can be used for these purposes. No land belonging to the owner or under temporary possession of the employer shall be occupied by Contractor without the permission of the employer. The employer, however, reserves the right to ask the contractor to vacate the area/land earlier allowed for use or to shift to another area, during pendency of the contract, without assigning any reasons therefor and the contractor shall be bound to comply without demur and within the time limit specified by the Employer.

19.5: SIGN BOARDS:- The contractor shall provide, erect and maintain at the entrance to the site an approved painted sign board of minimum size 2m x 1m, giving the name of the project, employer's name and contractor's name. The location and layout design of the signboard shall be such as shall be approved by the employer.

20.0: MATERIALS, WORKMANSHIP AND TESTS

20.1:- QUALITY OF MATERIALS AND WORKMANSHIP AND TESTS

i) All Materials and workmanship shall be of the respective kinds described in the contract and in accordance with the engineer's instructions and shall be subjected from time to time to such tests as the Engineer may direct at the place of manufacture or fabrication or on site or at all or any of such places. The contractor shall provide such assistance, electricity, fuel, stores apparatus, instruments, machines, labour and materials as are normally required for examining, measuring and testing of any work and the quality, weight or quantity of any material used and shall supply samples of materials before incorporation in the works for testing as may be selected and required by the engineer.

ii) Cost of samples:- All samples shall be supplied by the contractor, free of cost if the supply thereof is clearly so intended by or provided for in the Specification or Bill of Quantities but, if not then at the cost of the employer.

iii) Cost of Tests:- The cost of making any test shall be borne by the Contractor if such test is clearly intended by or provided for in the specification or Bill of Quantities and (in the cases only of a test under load or test of a test to ascertain whether the design of any finished or partially finished work is appropriate for the purposes for which it was intended to fulfil) is particularised in the specification or Bill of Quantities in sufficient detail to enable the contractor to price or allow for the same in this tender.

iv) Costs of tests not provided for etc.

If any test is ordered by the engineer which is either:

a) not so intended by or provided for or

b) (in the cases above mentioned) is not so particularised or

c) though so intended or provided for is ordered by the engineer to be carried out by an independent person at any place other than the site, place of manufacture, or the fabrication of the materials test.

Then the cost of such test shall be borne by the contractor if the test shows the workmanship or materials not to be in accordance with the provisions of the contract or the Engineer's instructions, but, otherwise by the employer.

20.2:- EXAMINATION OF WORK BEFORE COVERING UP:- No work shall be covered up or put out of view without the examination and approval of the engineer's representative and the contractor shall afford full opportunity for the engineer or the engineer's representative to examine and measure any work which is about to be covered up or put out of view and to examine foundations before permanent work is placed thereon. The contractor shall give 15 days notice to representative whenever any such work or foundations is or are ready or about to be ready for examination and the engineer's representative shall without unreasonable delay, unless he considers it unnecessary and advises the contractor accordingly attend for the purpose of examining and measuring such work or of examining such foundations. Provided, however, that such examination by the Engineer or his representative shall not absolve the contractor of his

obligation in respect of the work so examined and notwithstanding such examination, the contractor shall remain wholly liable in the event of such foundation or work not being in accordance with the specification.

21.0 COMPLETION TIME, PROGRESS AND COMPLETION OF WORK

21.1. TIME OF COMPLETION:- The date of completion of the work as prescribed by the contract is the essence of the contract. Subject to any requirement in the specification as to completion of any portion of the works before completion of the whole of the works, the works shall be completed within the time stated in the contract or such extended time as may be allowed under Clause 21.2 hereof. The time for completion shall always be reckoned from the effective date of contract.

21.2. EXTENSION OF TIME FOR COMPLETION:- Should the amount of extra or additional work of any kind or other special circumstances of any kind whatsoever which may occur be such as fairly to entitle the contractor to an extension. Provided that the engineer is not bound to take into account any extra or additional work or other special circumstances have arisen or as soon hereafter as is practicable delivered to the Engineer's representative full and detailed particulars of any claim to extension of time to which he may consider himself entitled in order that such claim may be investigated at the time. The contractor shall have no other claim against the Employer in respect of revision in rates, delay and disorganization of work even if the extension of time is granted, except where such claim is expressly allowed in the contract.

21.3. NO NIGHT OR SUNDAY WORK:- Subject to any provision to the contrary contained in the contract none of the permanent work shall save as hereinafter provided be carried on during the night or on Sundays and " National Holidays " within the permission in writing of the Engineer's Representative save when the work is unavoidable or absolutely necessary for the saving of life or property or for the safety of the works in which case the contractor shall immediately advise the Engineer's Representative. Provided always that the provisions of this clause shall not be applicable in the case of any work which is customary to carry out by rotary of double shifts.

21.4:- RATE OF PROGRESS:- I) The whole of the materials, plant and labour to be provided by the contractor the mode, manner and speed of execution and maintenance of the works are to be of a kind and conducted in a manner to the satisfaction of the engineer. Should the rate of progress of the Works or any part thereof be at any time in the opinion of the engineer is too slow to ensure the completion of the Works by the prescribed time or extended time for completion the engineer shall so notify the contractor in writing and the contractor shall thereupon take such steps as the contractor may think necessary and the engineer may approve to expedite progress so as to complete the works by the prescribed time or extended time for completion. If the works is not being carried on by day and by night the contractor shall request permission to work by night, as well as by day then if the engineer shall grant such permission the contractor shall not be entitled to any additional payment for so doing but, if such permission shall be refused and there shall be no equivalent practicable method of expediting the progress of the work the time for completion shall be extended by such period as the engineer deems fit. All work at night shall be carried out without unreasonable noise and disturbance. The contractor shall indemnify the employer from and against any liability for damages on account of noise or other disturbances created while or in carrying out the works and from and against all claims, demands, proceedings, costs, charges and expenses whatsoever in regard or in relation to such liability.

ii) Continued Poor Progress:- In the event of contractor's continued poor progress of work, the employer shall at its option treat this as breach of the contract by the contractor. In such an event it shall be open to the employer to have the work completed through any other agency or agencies and claim the difference in cost in addition to damages from the contractor without prejudice to any other right or remedy of the employer under this contract.

21.5 COMPENSATION FOR DELAY:- The time stipulated in the contract shall be deemed to be the essence of the contract. In case the contractor fails to adhere to the time specified in the contract, the L.D. will be levied by the employer. The employer may without prejudice to any method of recovery deduct the amount for such damages from any amount due.

LD for delay will be based on the unit wise time schedule. LD shall be levied only when the schedule date of commissioning of the respective unit is not adhered to. The employer shall levy LD at the rate of 0.5% of the total contract value including price variation per week of delay (or) part thereof each unit. The ceiling is **15%** of the total contract value including PVC. However, any specific LD/ penalty Clauses indicated in the Special Conditions will be operated. If LD wherever it is to be operated, the percentage and quantum will be decided on the indicated parameters as per conditions of owner. . BHEL's decision is final in this regard and binding on the contractor.

Payment of liquidated damages shall in no way relieve the contractor from his contractual obligations to complete the works.

Liquidated damages for non-fulfillment of Performance Guarantee values and short fall in availability.:-

In case the employer levies liquidated damages under this head due to reason attributable to the contractor the entire amount levied by owner shall have to be borne by the contractor.

21.6. TESTS ON COMPLETION:- Tests on completion at site will be undertaken by the contractor in accordance with the detailed requirements of the contract. The contractor shall after consulting the engineer give to the Engineer in writing 21 days notice of the date after which he will be ready to make the Test on completion. Unless otherwise agreed the tests shall take place within 10 days after the said date on such day or days as the engineer shall in writing notify the contractor.

If the engineer fails to appoint in time after having been asked so to do or attend at any time or place duly appointed for making the said tests the contractor shall be entitled to proceed in his absence and the said tests shall be deemed to have been made in the presence of the engineer.

If in the opinion of the Engineer the tests are being unduly delay he may, by notice in writing call upon the contractor to make such tests within 10 days from the receipt of the said notice, and the contractor shall make the said tests on such days within the said 10 days as the contractor may fix and of which he shall give notice to the engineer. If the contractor fails to make such tests within the aforesaid the engineer may himself proceed to make tests. All tests so made by the Engineer shall be at the risk and expense of the contractor.

The contractor shall provide such assistance, labour, materials, electricity, fuel, stores, instruments, and apparatus as are required to complete the tests.

If it is not possible to carry out these tests prior to taking over, then the employer reserves the right to call these tests during the maintenance period and the procedure to carrying out the tests shall be subject to mutual agreement between the employer and the contractor. All necessary tests shall be repeated for any repaired or replaced portions of the work.

If any portion of the work fails to pass the tests, tests of the said portion, shall, if required by the engineer (or) the contractor, be repeated within a reasonable time upon the same terms and conditions.

21.7. COMPLETION CERTIFICATE:- As soon as in the opinion of the Engineer the works shall have been substantially completed and shall have satisfactorily passed any final test that may be prescribed under the contract the engineer shall on receiving a written undertaking by the contractor to finish any outstanding work within six months issue a certificate of completion in respect of the works. Provided that the Engineer may give such a certificate with respect to any part of the Works before the completion of the whole of works and shall upon the written application of the contractor give such certificate with respect to any substantial part of the works which has been both completed to the satisfaction of the engineer and occupied or used by the employer and when any such certificate is given in respect of a part of the works, such parts shall be considered as completed. Provided also that a certificate of completion given in accordance with the foregoing provisions of any part of the works occupied and used as aforesaid shall not be deemed to certify completion of any ground or surfaces requiring statement unless such certificate shall expressly so state. Provided however, the issue of certificate of completion of works shall not absolve the contractor of his responsibility in respect of any defect discovered subsequent to the completion of work and the commissioning of the project.

21.8. USE BEFORE COMPLETION CERTIFICATE:- If, by reason of any default on the part of contractor, a completion certificate has not been issued in respect of every portion of the Works, as mentioned in Clause 21.7 within one month after the time for completion of extended time as the case may be, the employer shall be at liberty to use the works or any portion thereof in respect of which a completion certificate has not been issued, provided that the Works or the

portion so used as aforesaid shall be reasonably capable of being used and that the contractor shall be afforded the earliest opportunity of taking such steps as may be necessary to permit the issue of the certificate of completion.

The employer shall be at liberty from time to time or at any time before the completion of the works to take possession of and use any part of the sites or of uncompleted works and in such case the contractor shall completely finish the said uncompleted parts or part of the works, as and when the engineer shall direct whether before or after the respective prescribed time or extended time or times (if any) for the completion of the Works, and if required by the Engineer while the employer is in possession of the said part or parts of the site of works.

21.9. REMEDY OF DEFECTS:- If at a time before the works are taken over, Engineer shall:

a) decide that any work done or materials used by the contractor or any sub-contractor is or are defective or not in accordance with the contract, or that the works or any portion thereof are defective or do not fulfil the requirements of the contract (all such matters being hereinafter in this Clause called "defects") and

b) as soon as reasonably practicable give to the contractor notice in writing of the said decision specifying particulars of defects alleged or where the same are alleged to exist or to have occurred, and

c) so far as may be necessary place the work at the Contractor's disposal. Then the contractor shall with all speed at his own expense make good the defects so specified. In case the contractor shall fail to do so, the employer may, take at the cost of the contractor such steps as may in all circumstances be reasonable to make good such defects.

Nothing contained in this Clause shall affect any claim by the Employer under Clause.

22.0 MAINTENANCE OF WORKS, DEFECTS ETC

22.1 PERIOD OF MAINTENANCE:- In these conditions, the expression "period of maintenance " shall mean the period of twelve months calculated from the date of completion of the works certified by the Engineer in accordance with Clause 21.7 hereof. Provided that where a certificate is given for a part of parts of the work, the period of maintenance shall always be reckoned from the date of completion of the whole of the work.

22.2 WORK OF REPAIR:-

i) To the intent that the works shall at as soon as practicable after the expiration of the period of maintenance be delivered upto the Employer in as good and perfect a condition (fair wear and tear excepted) to the satisfaction of the engineer as that in which they were at the commencement of the Period of Maintenance the contractor shall execute all such work of repair, amendment, reconstruction, rectification, and making good of defects, imperfections, shrinkage, or other faults as may be required of the contractor in written by the Engineer during the Period of Maintenance or within fourteen days after its expiration as a result of an inspection made by or on behalf of the Engineer prior to its expiration.

ii) All such work shall be carried out by the Contractor at his own expense if the necessary thereof shall in the opinion of the Engineer be due to the use of materials or workmanship not in accordance with the contract or to neglect or failure on the part of the contractor to comply with any obligation expressed or implied on the contractor's part under the contract. If in the opinion of the engineer, such necessity shall be due to any other cause the value of such work shall be ascertained and paid for as if it were additional work.

iii) If the contractor shall fail to do any such work as aforesaid required by the engineer, the employer shall be entitled to carry out such work by his own workmen or by other contractors and if such work is work which the contractor should have carried out at the contractor's own cost shall be entitled to recover from the contractor the cost thereof or may deduct the same from any monies due or that become due to the contractor in addition to any damage that may have been suffered by reason of the delay consequent on the failure of the contractor to carry out the work required.

22.3 DEFECTS:-

i) The contractor shall be responsible for making good with all possible speed any defect or damage to any portion of the work arising from the defective design (other than a design made, furnished or specified by the employer), materials or workmanship or from any act or omission of the contract that appear or may develop under the conditions provided for by the contract and under proper use under practical circumstances, in works, or any portion thereof during the period of Maintenance.

ii) If any such defect shall appear or damage occur the Engineer shall inform the contractor thereof stating in writing the nature of the defect or damage. If the contractor replaces or renews any portion of the works, the provisions of this clause shall apply to the portion of works so replaced or renewed as if that portion had been completed and taken over on the date of replacement or renewal.

iii. If any defects be not remedial within a reasonable time the employee may proceed to do the work at the contractor's risk and expenses, but, without prejudice to any other rights which the employer may have against the contractor in respect of the failure of the contractor to remedy such defects.

iv. If the replacements or renewals are of such a character as may affect the efficiency of the work or any portion thereof the Employer may, within one month of such replacement or renewal, give to the contractor notice in writing requiring the tests on completion be made, in which case, such tests shall be carried out.

v. The General Conditions shall apply to all inspection adjustments replacements and renewals and to all tests occasioned thereby carried out by the Contractor pursuant to this Clause.

vi. Until the final certificate shall have been issued the contractor shall have the right of access, at all reasonable working hours, at his own risk and expense, by himself or his duly authorised representative whose names shall have previously been communicated in writing to the Engineer, to all parts of the works for the purpose of inspecting the same and taking notes therefrom which in the opinion of the engineer are reasonable. Subject to the Engineer's approval, which shall not be unreasonably withheld, the contractor may at his own risk and expense make any test which he considers desirable.

22.4 CONTRACTOR TO SEARCH FOR DEFECTS:-

The contractor shall if required by the engineer in writing search of the cause of any defect, imperfection or fault under the directions of the engineer. Unless such defect, imperfection or fault shall be one for which the contractor is liable as aforesaid the cost of the work carried out in searching aforesaid shall be borne by the contractor and he shall in such case repair, rectify and make good such defects, imperfection or fault at his own expense in accordance with the provisions of clause hereof.

22.5 APPROVAL ONLY BY MAINTENANCE CERTIFICATE:- No certificates other than the Maintenance Certificate referred to in Clause 22.6(1) hereof shall be deemed to constitute approval of any work or other matter in respect of which it is issued or shall be taken as an admission of the due performance of the contract or any part thereof or the accuracy of any claim or demand made by the contractor or of additional or varied work having been ordered by the Engineer nor shall any other certificate conclude or prejudice any of the power of the Engineers.

22.6 MAINTENANCE CERTIFICATE:-

i. The contract shall not be considered as completed until the engineer shall have signed a maintenance certificate and delivered to the employer stating that the works have been completed and maintained to his satisfaction. The Maintenance Certificate shall be given by the Engineer a week after the expiration of the period of maintenance, for if different period of Maintenance shall become applicable to different parts of the work the expiration of the latest such period or as soon thereafter as any works ordered during such period pursuant to Clauses 22.1, 22.2, 22.3 and 22.4 hereof shall have been completed to the satisfaction of the engineer in full effect shall be given in this clause notwithstanding any previous entry on the works or the taking possession working or using thereof or any part thereof by the employer.

ii. Certificate of Employer's Liability:- The employer shall not be liable to the contractor for any matter or thing arising out of or in connection with the contract or the execution of the works unless the contractor shall have made a claim in writing, for decision of the engineer which shall be final in respect thereof before the giving of maintenance certificate under this clause.

iii. Unfulfilled Obligations:- Notwithstanding the issue of the Maintenance Certificate, the contractor and (subject to sub-clause) (ii) the employer shall remain liable for the fulfillment of any obligation incurred under the provisions of the contractor prior to the issue of the Maintenance Certificate which remains unperformed at the time such Certificate is issued and for the purpose of determining the nature and extent of any such obligations the contracts shall be deemed to remain in force between the parties hereto.

23.0. PLANTS, TEMPORARY WORKS AND MATERIALS

23.1. PLANTS, ETC EXCLUSIVE USE OF THE WORKS. : All construction land, temporary works and materials provided by the contractor shall when brought on to the site be deemed to be exclusively intended for the construction and completion of the work and the contractor shall not remove the same or any part thereof (save for the purpose of moving it from one part of the site to another) without the consent in writing of the engineer which shall not be unreasonably withheld. But the employer will permit the contractor to use all such construction plant, temporary works and materials in and for the completion of works until the happening of any event which gives right to the employer to expel the contractor from the site and proceed with the completion.

If the employer or the Owner wants to retain any of the contractor's tools and tackles brought by the contractor for the works, that can be negotiated with the contractor after the completion of the work.

23.2 REMOVAL OF PLANT, TEMPORARY WORKS AND MATERIALS:- Upon completion of the works, the contractor shall remove from the site all the said constructional plants and temporary works remaining thereon and any unused materials provided by the contractor. In the event of failure on the part of the contractor to remove the constructional plant, Temporary Works or Materials as aforesaid within a period of four weeks after the completion of the Works, the employer shall be at liberty to remove such plants, works or materials and claim the expenses therefore from the contractor. In case the employer stores such plants, works or materials, he shall be entitled to such storage charges, as he may claim from the contractor, and in the event of failure on the part of the contractor to clear the plants, works and materials after paying such expenses or charges, the employer shall sell by public auction, works and materials and appropriate the proceeds towards the amount due to it and the balance, if any,

shall be paid to contractor. The Employer shall be entitled to proceed against the contractor for the recovery of the deficit amount if the sale proceeds are not sufficient to cover his dues.

23.3. EMPLOYER NOT LIABLE FOR DAMAGE OF PLANT ETC:- The employer shall not at any time be liable for the loss or damage to any of the plant, temporary works or materials.

23.4. APPROVAL OF MATERIALS ETC NOT IMPLIED:- The operation of Clause 23.1. hereof shall not be deemed to imply and approval by the materials or other matters referred to therein not shall it prevent the rejection of materials at any time by the engineer.

24.0. VARIATIONS AND VALUATIONS:-

24.1. QUANTITIES:- The quantities set out in the Bill of Quantities are the estimated quantities of the work, but, they are not to be taken as the actual and correct quantities of the works to be executed by the contractor in fulfillment of his obligations under the contract.

24.2. VARIATIONS:-

i. The engineer shall have power to make any variation of the form, quantity of the Works or any part thereof that may in his option be necessary and for that purpose or if for any other reason it shall in his opinion be desirable shall have power to order the contractor to do and contractor shall do any of the following:-

- a) increase or decrease the quantity of any work included in the contract
- b) omit any such work
- c) change the character or quality or kind of any such work
- d) change the levels, lines, position and dimensions of any part of the works
- e) Execute additional work of any kind necessary for the completion of the works.

And no such variation shall in any way vitiate or invalidate the contract but the value (if any) of such variations shall be taken into account in ascertaining the amount of the contract price

ii. Orders for variation to be in writing:- No such variation shall be made by the contractor without an order in writing of the engineer. Provided that no order in writing shall be required for increase or decrease in the quantity of any work where such increase or decrease is not the result of an order given under this cause but, is the result of quantities exceeding or being less than those stated in the Bill of Quantities. Provided also that if for any reason the Engineer shall consider it desirable to give any such order verbally the contractor shall comply with such order and any confirmation in the order shall be deemed to be an order in writing within the meaning of this Clause. Provided further that if the contractor shall confirm in writing to the engineer any verbal order of the engineer and such confirmation shall not be contradicted in writing by the engineer, it shall be deemed to be an order in writing by the Engineer.

24.3. VALUATION OF VARIATIONS: - I) The engineer shall determine the amount (if any) which in his opinion should be added to or deducted from the sum named in the contractor in respect of any extra or additional work done or omitted by his order. All such work shall be valued at the rates set out in the contract if in the opinion of the engineer the same shall be applicable. If the contractor shall not contain any rates applicable to the extra or additional work then suitable prices shall be agreed upon between the engineer and the contractor, the guide being the relevant tariff of CPWD. In the event of disagreement, the Engineer shall fix such prices as shall in his opinion be reasonable and proper.

ii) Power of Engineer to fix rates:- If the nature or amount of any omission or addition relative to the nature or amount of the whole of the contract work or to any part thereof shall be such that in the opinion of the engineer the rate or price contained in the contract for any item of the work is by reason of such omission or additional rendered unreasonable or inapplicable then a suitable rate or price shall be agreed upon between the engineer and the contractor. In the event of disagreement the engineer shall fix such other rate or price as shall in his opinion be reasonable and proper having regard to the circumstances.

Provided also that no increase or variation of the contract price under sub-clause (1) of this clause or variation of rates or price under sub-clause (ii) of this clause shall be made unless as soon after the date of the order, as is practicable and in the case of extra or additional work before the commencement of the work or as soon thereafter as is practicable notice shall have been given in writing.

a) by the contractor to the engineer of his intention to claim extra payment or a varied rate (or)

b) by the Engineer to the contractor of his intention to vary a rate or price as the case may be.

(iv) Variations Exceeding 30 percent;- The rates quoted by the contractor shall be firm for gross value of the works when remains within plus or minus thirty percent of the contract value. If the variation is found ,on completion of whole works, to exceed plus or minus 30% and remains within plus or minus 40%, an increase of 10% of such variation only shall be considered. If the variation is found, on completion of whole works, to exceed plus or minus 40% and remains within plus or minus 50%, an increase of 15% of such variation only shall be considered.

24.4. DAY WORKS:- The engineer may if in his opinion it is necessary or desirable order in writing that any additional or substituted work shall be executed on a day work basis.

The contractor shall then be paid for such work under the conditions set out in the Day work schedule including in the Bill of Quantities and at the rates and prices affixed thereto by him in his tender.

In respect of all work executed on a day work basis the contractor shall during the continuance of such work deliver each day to the Engineer's Representative an exact list in duplicate the names, occupation and time of all workmen employed on such work and a statement also in duplicate showing the description and quantity of all materials and plant used thereon or therefore (other than plant which is included in the percentage addition in accordance with the schedule herein before referred to). One copy of each list and statement will, if correct or when agreed be, signed by the Engineer's Representative and returned to the contractor.

At the end of each month, the contractor shall deliver to the engineer's representative a priced statement of the labour, material and plant (except as aforesaid) used and the contractor shall not be entitled to any payment unless such lists and statements have been fully and punctually rendered. Provided always that if the engineer shall consider that for any reason the sending of such a list or statements by the contractor in accordance with the foregoing provision was impracticable he shall nevertheless be entitled to authorize payment for

such work either as day work (on being satisfied to the time employed and plant and materials used on such work) or at such value therefore as shall in his opinion be fair and reasonable

24.5 CONTRACTOR TO FURNISH MONTHLY ACCOUNT OF EXTRA WORK:-

The contractor shall send to the engineer once in every month an account giving full and detailed particulars of all claims for any additional expenses to which the contractor may consider himself entitled and of all extra or additional work ordered by the engineer which he has executed during the preceding month and no claim for any such work will be considered which has not been included in such particulars. Provided always that the Engineer shall be entitled to authorise payment to be made for any such work notwithstanding the contractor's failure to comply with this condition if the contractor has at the earliest practicable opportunity notified the engineer in writing that he intends to make claim for such work.

25.0. PRICES: SEE SPECIAL CONDITIONS OF CONTRACT CLAUSE

26.0 WORK MEASUREMENTS, PAYMENTS AND RECOVERY

26.1. WORKS TO BE MEASURED:- The Engineer shall except as otherwise stated ascertain and determine by measurement the value in accordance with the Contract of work done in accordance with the contract. He shall when he requires any part or parts of the Works to be measured, give notice to the contractor's authorized agent or representative who shall forthwith attend or send a qualified agent to assist the Engineer or the Engineer's representative in making such measurement and shall furnish all particulars required by either of them. Should the contractor not attend or neglect or omit to send such agent then the measurement made by the Engineer or approved by him shall be taken to be the correct measurement of the work. For the purpose of measuring such permanent work as is to be measured by records and drawings, the Engineer's Representative shall prepare the records and drawings, month by month of such work and the contractor as and when called upon to do so in writing shall within 14 days attend to examine and agree such records and drawings with the Engineer's Representative and shall sign the same when so agreed and if the Contractor does not so attend to examine and agree any such records and drawings the contractor does not agree to the same or does not sign the same as agreed they shall nevertheless be taken to be correct unless that contractor shall within 14

days of such examination lodge with the Engineer's Representative, for decision by the Engineer a notice in writing of the respects in which such records and drawings are claimed by him to be incorrect.

26.2 METHOD OF MEASUREMENT:- The works shall be measured net according to the procedure set forth by the Engineer notwithstanding any general or local custom except where otherwise specifically described or prescribed in the contract.

26.3. PAYMENT TO THE CONTRACTOR:-

i) Interim Payments: A bill shall be submitted by the Contractor each month on or before the date fixed by the Engineer for all works executed in the previous month for the purpose of interim payments, and the measurements for the purpose of having the same verified and the claim as far as possible before the expiry of 30 days from the presentation of the bill.

If the contractor does not submit the bill within the time fixed as aforesaid the Engineer may depute within 7 days of the date fixed as aforesaid a sub-ordinate to measure up the said work in the presence of the contractor whose counter-signature to the measurement list will be sufficient warrant and the Engineer may prepare a bill from such list. Before taking any measurement of any work as has been referred to in clauses herein before, the Engineer or a subordinate deputed by him shall give notice to the contractor as per Clause 26.1.

The contractor shall submit all the bills in printed forms in duplicate and the charges in the bills shall always be entered at the rate as specified in the tender or in case of any extra work ordered in pursuance of these conditions not mentioned or provided for in the tender at the rates herein after provided for such work. The contractor shall also submit deviation statement along with every running bill.

Whether the contract stipulates a lump sum as payable for the work where a lumpsum rate is stipulated in the schedule of rate in respect of any particular work or a part thereof and the works are not in at any intervening stage capable of measurement the Employer may at discretion pay on an interim bill prepared by the contractor, a percentage of the lumpsum provided for the entirety of the work or item of the work as the case may be on the basis of value assessment of such certified for payment by the engineer.

No interim payment shall be made/or certified for an amount less than Rs.10,000/-.

All interim payments shall be subject to deductions provided for in the contract and taxes and other money deductible within the provisions of 194-C of the Income Tax Act or any other rule or regulations for the time being in force.

All interim payments shall be recorded merely as advance payments against the amounts due to the contractor in terms of the contract and any such payments shall be without prejudice to the full rights of employer under the contract and the liabilities of the contractor thereunder and specifically shall not be regarded as an acceptance or completion of any work paid for in terms of any interim payment or otherwise notwithstanding any verification or certification by the Engineer in respect thereof.

Interim payments are only by the way of assistance to the contractor and nothing provided in the foregoing clause thereof shall in any way deemed to confer any right or entitlement on the contractor to receive interim payment nor shall failure or delay by the Employer to make any interim payment as herein envisaged or otherwise afford the contractor a ground or basis for extension for completion or otherwise relieve the contractor from any of his liabilities under the contract.

ii) Final Measurements:- Within 15 days from the issue of certificate of completion of works as per Clause in respect of the works or any portion, section, group or job site as the case may be, the contractor shall cause to be jointly taken with the engineer or engineer's representative, Owner's representative to final measurements as herein provided for the works covered under Certificate of completion of works.

If the contractor fails to apply to the Engineer for final measurement within 15 days from the date of issue of Certificate of Completion of works as mentioned here before, the Engineer may of his own initiative notify the contractor as per Clause 26.1 of the date of taking the measurements.

iii) Mode of Measurements:- All measurements shall be in metric system except where expressly indicated to the contrary in the schedule of rates of other contract documents and shall be as per relevant Indian Standards/CPWD.

iv) Final Bill:- On the basis of final, measurement entered in the Measurement Books/Sheets the Contractor shall prepare a final bill in the prescribed form with reference to the total work covered by the contract, such bill to be drawn up by applying the applicable rates(s) specified in the schedule of rates to the relative measure quantity (ies).

The final bill shall be submitted to the Employer for payment in duplicate accompanied by certificate of completion of works duly signed by Engineer or his representative/Owner's representative relating to works covered by the final bill.

Payments of amount(s) due on the final bill to the extent admitted by the Employer shall be made within 180 days from the date of submission of the final bill to the Employer or 120 days from the date of taking over of the work whichever is later. Final payments to the contractor may be withheld by the Employer while any claim, demand, proceedings, suits etc for which under the contract, the contractor is liable remain unsettled.

All payments due to the contract on the final bill shall be subjected to deduction of security deposit as provided for in the contract and other dues from the contractor to the employer. Income-Tax as provided for under any law, rule or regulation having the force of law for the time being applicable

v) Mode of Payment:- All payments to the contractor will be made by a " Crossed A/c Payee Cheque only" and in Indian Rupees or thro e-payment.

26.4. PAYMENTS DUE FROM THE CONTRACTOR:-

All costs, damages, penalties or expenses for which under the Contract, the Contractor is liable to the Employer may be deducted by the Employer from any monies due or becoming due the contractor under this or any other Contract with the Employer or from the Security Deposit or Performance Bond or Bank Guarantee (s) issued by the Contractor or as debt due from the Contractor may be recovered by action at law or otherwise from the contractor. Such deductions or recoveries affected by the Employer shall be without prejudice to any other right or remedy which the Employer may have under the contract.

26.5 WITHHOLDING OF PAYMENT:- The employer may withhold the whole or part of any payment due to the contractor, which in the opinion of the employer, is necessary to protect himself from loss on account of:-

- a) Defective work not remedied or guarantee not met
- b) Claim filed against the contractor
- c) Failure by the contractor to make due payment for material or Labour employment
- d) Damage to another contractor and
- e) Damage to equipment, instruments and other materials issued to the contractor.

No levy or payment or charge made or imposed shall be impeached by reason of any or by reason of any mistake in the amount levied or demanded or charged.

26.6 LIENS :

If at any time , there should be evidence of any lien or claim for which the employer might have become liable and which is chargeable to the contractor, the employer shall have the right to retain out of any payment then due or thereafter to become due an amount sufficient completely indemnify the contractor against such lien and such claim be valid the employer may pay and discharge the same and deduct the amount so paid from any money which may be or may become due and payable to the contract. If any lien or claim remains unsatisfied after payments are made, the contractor shall refund or pay to the employer all money that the latter may be compelled to pay in discharging such lien or claim including all costs and reasonable costs.

27.0 SPECIAL RISKS:

27.1. NO LIABILITY FOR WAR, ETC, RISKS:-

Notwithstanding anything in the contract contained the work or portion of works in respect of which certificate of completion has not been issued by the engineer and all materials, construction plant, tools & plants, scaffolding, temporary works and other things connected with the works whether of the contractor or his sub-contractor (s) shall be at the risks of the contractor. The employer shall be under no liability whatsoever whether by way of indemnity or otherwise for or in respect of destruction of or damage to works or portions of work for which certificate of completion has not been issued by the engineer or construction plant, materials, tools and plants scaffolding or temporary works or any other

property whether of the contractor or his sub-contractor (s) or for or in respect of injury or loss of life which is the consequent whether direct or indirect of war hostilities (whether was be declared or not), invasion, act of foreign enemy rebellion, revolution, insurrection or military or usurped power, civil war or riot, commotion or disorder (herein after comprehensively referred to as the said special risks).

27.2 DAMAGE TO WORKS ETC:- If the works or portion of works for which certificate of completion has not been issued by the Engineer or temporary work or any tools and plants, construction plants or any materials in the possession of the contractor or his sub-contractor on or near or in transit to the site shall sustain destruction or damage by reason of any of the said special risk, the contractor shall not be entitled to payment for any such work or plants and for any such materials so destroyed or damaged and the contractor shall not be entitled to be compensated by the Employer.

In the event of the work or portions of work, for which certificate of completion has been issued by the Engineer, being damaged or destroyed in consequence of the said special risks the contractor shall, when ordered in writing by the engineer, remove any debris from site collect and stack properly or remove to stores all serviceable material salvaged from the such work and shall make good the damage or destruction for which the contractor shall be paid compensation at the rates to be mutually agreed between the Employer and the Contractor in case the provision of such rates is not provided for in the contract. Such payments shall be in addition to compensation in respect of the work or the portions of work for which certificate of compensation has been issued by the Engineer and not paid for.

Provided always that no such compensation shall be payable for any loss in consequences of the said special risks and contractor alone shall be responsible for making good the damage, loss etc.

- a) Unless the contractor had been taken all such precaution against the said special risks as are deemed necessary by the Engineer.
- b) For damage etc due to civil war or riot, commotion or disorder amongst contractor's own employees.

27.3 THE FOLLOWING SHALL AMOUNT TO FORCE MAJEURE: Acts of God, Act of any Government, War, sabotage, Riots, Civil Commotion Police Action, Revolution, Flood, Fire, Cyclones, Earth Quake, and Epidemic and other similar causes over which the contractor has no control.

If the contractor suffers delay in the due execution of the contractual obligations due to delays caused by Force Majeure as defined above, the agreed time of completion of the job covered by this contract or the obligations of the contractor shall be extended by a period of time equal

to the period of delay provided that on the occurrence of any such contingency the contractor immediately reports to BHEL in writing the causes of delay and the contractor shall not be eligible for any compensation.

27.4: PROJECTILE MISSILES:- Destruction, damage, injury or loss of life caused by the explosion or impact occurring at the works or any mine bomb-shell, grenade or other projectile missile, ammunition or explosive of war shall be deemed to be a consequence of said special risk.

27.5:- REVISED COST, ETC:- The contractor shall not be entitled for any increased cost of or incidental to the execution of the works which is howsoever attributable to or consequent of or on the result of or in any way whatsoever connected with the said special risk but the contractor shall be entitled for extension of time to the extent as determined to be reasonable by the Engineer

27.6: OUTBREAK OF WAR:- If during the currency of the contract, there shall be an outbreak of war (whether war be declared or not) which materially affects the execution of the works the contractor shall unless and until contract is either suspended or terminated under the provisions always that the Employer shall be entitled at any time after such outbreak of war to either suspend or terminate this contract by giving notice in writing to the contractor but without prejudice to the rights of either part in respect of any antecedent breach thereof.

27.7 REMOVAL OF PLANT ON TERMINATION:- If the contract shall be terminated under the provisions of the last preceding sub-clause the contractor shall with all reasonable despatch remove from the site all construction plants and shall give similar facilities to his sub-contractor (s) to do so.

27.8. PAYMENT IF CONTRACT TERMINATED:- If the contract shall be terminated as aforesaid the contractor shall be paid by the employer (in so far as such amounts or items shall not have already been covered by payments on account made to the contractor) for all work or portions of work for which certificate of completion has been issued by the Engineer prior to the date of termination at the rates and prices provided in the contract and the employer shall be entitled to be credited with any outstanding balance in respect of anything concerning the contract and any sum otherwise due from the contractor. Provided always that the decision of the employer shall be final and binding on the contractor.

28.0. PAYMENT IN EVENT OF FRUSTRATION:- In the event of the contract being frustrated otherwise than due to war the sum payable by the employer to the contractor in respect of the work executed by the contractor shall be the same as that which would have been payable under clause hereof if the contract had been terminated under the provisions of clause hereof.

For the purpose of this clause, the term " Frustrated " shall mean the prevention of the fulfillment of the contract by any cause or causes agreed by both the Employer and the Contractor to be beyond the control of either of them. Provided, however that notice shall be given to the other party of the frustration of the contract within a period of seven days from the date of frustration.

29.0 DEFAULTS, REMEDIES AND POWERS:

29.1 CONTRACTOR'S DEFAULT: If the contractor shall neglect to execute the works with due diligence and expedition, or shall refuse or neglect to comply with any reasonable orders given to him in writing by the Engineer in connection with the works, and shall contravene the provisions of the contract, the employer may give notice in writing to the contractor to make good the failure, neglect or contravention complained of. Should the contractor fail to comply with the notice within a reasonable time from the date of service thereof then and in such case the Employer shall be at liberty to employ other workmen and forthwith execute such parts of the work as the contractor may have neglected to do so and if the employer shall think fit it shall be lawful for him, without prejudice to any other rights he may have under the contract to take the works wholly or in part out of the contractor's hands and re-contract with any other person or persons to complete the works or any part thereof, and in that event the employer shall have the free use of all contractor's equipment that may be at any

time on the site in connection with the work's without being responsible to the contractor for fair wear and tear thereof and to the exclusion of any right of the contractor over the same, and the employer shall be entitled to retain and apply any balance which may be other wise due on the contract by him to the contractor, or such part thereof as may be necessary to the payment of the cost of executing the said part of the works or of completing the works as the case may be. If the cost of completing the works or executing a part thereof as aforesaid shall exceed the balance due to the contractor the contractor shall pay such excess.

29.2 CHANGE IN CONSTITUTION:

i. Where the contractor is a partnership firm, the prior approval in writing of the engineer shall be obtained before any change is made in constitution of the firm. Where the contractor is a partnership firm, the prior approval in writing of the engineer shall be obtained before any change is made in constitution of the firm. Where the contractor is an individual or a Hindu undivided Family Business concern such approval as aforesaid shall likewise be obtained before the contractor enters into any partnership agreement whereunder the partnership firm would have the right to carry out the work hereby undertaken by the contractor. If such approval as aforesaid is not obtained, the contractor shall be deemed to have been assigned in contravention of contract conditions and the action may be taken, and the consequence shall cause as provided in the contract

ii) The expression 'change in constitution 'shall include:

a) any new partner coming in or any existing partner retiring

b) at change in the profit sharing ratio

c) Any alternation in the mutual right of the partners.

iii) It is an agreed term of the contract that all the partners of the contractor shall continue to be jointly and severally liable to the employer in respect of the obligation to the contract herein and notwithstanding the resignation or retirement of any partner, his liability hereunder shall continue unless he is relieved therefrom by the employer in writing.

29.3. FORFEITURE:-

i) If the contractor shall become bankrupt or have a receiving order made against him or shall present his petition in bankruptcy or shall make an agreement with or assignment in favour of his creditors or shall agree to carry out the contract under a committee of inspection of his creditors or (being a corporation) shall go into liquidation (other than a voluntary) liquidation for the purpose of amalgamation or reconstruction) or if the contractor shall have an execution levied on his goods or if the engineer shall certify in writing to the employer that in his opinion the contractor:-

a) has abandoned the contract or

b) without reasonable excuse has failed to commence works or has suspended the progress of the works for 15 days after receiving from the engineer written notice to proceed or

c) has failed to proceed with the Works with due diligence or

d) has failed to remove materials from the site or to pull down and replace work for 15 days after receiving from the engineer written notice that the said materials or work has been condemned and rejected by the engineer under these conditions or

e) is not executing the works in accordance with the contract or is persistently or flagrantly neglecting to carry out any of his obligations under the contract or

f) has to the detriment of good workmanship or in defiance of the Engineer's instructions to the contrary sub-contracted any part of the contract the employer may after giving 14 days notice in writing to the contractor enter upon the site and the works and expel the contractor therefrom without they by releasing the contractor from any of his obligations or liabilities under the contract or affecting the rights and power conferred on the employer or the engineer by the contract and may himself complete the works or may employ another contractor to complete the works and the employer or such other contractor may use for such completion so much of the constructional plant, temporary works, and

materials which have been deemed to be reserved exclusively for the construction and completion of the works under the provisions of the contract as constructional plant, temporary works and unused materials and apply the proceeds of sale in or towards the satisfaction of any sums due or which may become due to him from the contractor under the contract.

ii) Valuation at Date of Forfeiture:- The engineer shall as soon as may be practicable after expulsion of this contractor and such entry by the employer fix and determine ex-parte or by or after reference to the parties or after such investigation or enquiries as he may think fit to make or institute and shall certify what amount (if any) had at the time of such entry and expulsion been reasonably earned by or would reasonably accrue to the contractor in respect of work then actually done by him under the contract and what was the value of any of the said unused or partially used materials, any constructional plant and any temporary works upon the site.

iii) Payment after forfeiture:- If the employer shall enter and expel the contractor under this clause he shall not be liable to pay to the contractor any money on account of the contract until the expiration of the period of maintenance and thereafter until the costs of completion and maintenance, compensation for delay in completion (if any) and all other expenses incurred by the employer have been ascertained and the amount thereof certified by the engineer. The contractor shall then be entitled to receive only such sums or sums (if any) as the engineer may certify would have been due to him upon due completion by him after deducting the said amount. But if such amount shall exceed the sum which would have been payable to the contractor on due completion by him then the contractor shall upon demand pay to the employer the amount of such excess and it shall be deemed a debt due by the contractor to the employer and shall be recoverable accordingly.

29.4 SUSPENSION OF WORK:- The contractor shall on the written order of the engineer suspend the progress of the works or any part thereof for such time or times and in such manner as the engineer may consider necessary and shall during such suspension properly protect and secure the work so far as is necessary in the opinion of the engineer. The extra cost including all running wages to be paid on the site, salaries, depreciation, and maintenance of plant at site, on-costs and general overhead costs of the contract incurred by the contractor in giving effect to the Engineer's instructions under this clause shall be borne and paid by the employer unless such suspension is:-

a) Otherwise provided for in the contract or

b) Necessary for the proper execution of the work or by reasons of weather conditions affecting the safety or quality of the works or by some default on the part of the contractor or

c) Necessary for the safety of the works or any part thereof:

Provided that the contractor shall not be entitled to recover any such extra cost unless he gives notice in writing of his intention to claim to the engineer within 15 days of the engineer's order. The engineer shall settle and determine such extra payment to be made to the contractor in respect of such claims as shall in the opinion of the Engineer be fair and reasonable. Provided always that the employer shall not be liable for any claim of idle wages for men and/or equipment which otherwise used by the contractor during the period of suspension of the work, whether in the work of the employer or otherwise.

29.5: REMEDY OF EMPLOYER:-

i) The engineer on behalf of employer without prejudice to his right against the contractor in respect of any delay or inferior workmanship or otherwise or to any claims for damage in respect of any breaches of any of the terms and conditions of the contract and without prejudice to any rights or remedies under any of the provisions of this contract or otherwise and whether the date for completion has or has not elapsed by notice in writing, absolutely determine the contract in any one of the following:-

a) If the contractor being a company shall pass a resolution or the court shall make an order that the company shall be wound up or if a receiver or a manager on behalf of a creditor shall be appointed or if circumstances shall arise which entitle the court or credit or to appoint a receiver or a manager or which entitle the court to make a winding up order.

b) If the contractor commits breach of any of the terms and conditions of the contract.

ii) When the contractor has made himself liable for action under any of the cases as in sub-clause (i) above, the engineer on behalf of the employer shall have powers:-

a) To determine or rescind the contract as aforesaid (of which termination or rescission notice in writing to the contractor under the hand of the engineer shall be conclusive evidence). Upon such determination or recession the security deposit of the contractor shall be liable to be forfeited and shall be absolutely at the disposal of employer.

b) To employ labour and to supply materials to carry out the works or any part of the work debiting the contractor with the cost of the labour and the price of the materials (of the amount of which cost and price certified by the engineer shall be final and conclusive against the contractor) and crediting him with the value of the work done in all respects in the same manner and at same rates as if it had been carried out by the contractor under the terms of this contract. The certificate of the engineer as to the value of the work done shall be final and conclusive against the contractor) and crediting him with the value of the work done in all respects in the same manner and at same rates as if it had been carried out by the contractor under the terms of this contract. The certificate of the engineer as to the value of the work done shall be final and conclusive against the contractor providing always that action under this sub-clause shall only be taken after giving notice in writing to the contractor. Provided also that if the expenses incurred by the Employer are less than the amount payable to the contractor at his agreement rates, the difference shall not be paid to the contractor.

c) After giving notice to measure the work of the contractor and to take such part thereof as shall be executed out of his hands and to give it to another contractor to complete in which case any expenses which may be incurred in excess of sum which would have been paid to the original contractor if the whole work had been executed by him (or the amount of which excess the certificate in writing of the engineer shall be final and conclusive) shall be borne and paid by the original contractor and may be deducted from any money due to him by Employer under this contract or any other account whatsoever or from his Security Deposit or the proceeds of sales thereof or a sufficient part thereof as the case may be. In the event of any one or more the compensation for any loss sustained by him by reason of his having purchased or procured any materials or entered into any engagements or made any advance on account or with a view to the execution of the work or the performance of contract. And in case action is taken under any of the provisions aforesaid, the contractor shall not be entitled to recover or be paid any sum for any sum for any work thereto or actually

performed under this contract unless and until the engineer has certified in writing the performance of such work and the value payable in respect thereto and he shall only be entitled to be paid the value so certified.

iii) In any case in which any of the powers conferred upon the engineer under this clause, shall have become exercisable and the same shall not be exercised, the non-exercise shall not constitute a waiver of any of the conditions hereof and such powers shall notwithstanding be exercisable in the event of any failure case of default by the contractor and the liability of the contractor for compensation shall remain unaffected. In the event of the engineer putting in force all or any of the powers vested in him under this clause, he may if he so desires after giving a notice in writing to the contractor, take possession of or (at the sole discretion of he engineer which shall be final) use on hire (the amount of the hire money being also in the final determination of the engineer) all or any tools, plants, materials and stores, in or upon the works, or the site thereof, belonging to the contractor or procured by the contractor and intended to be used for the execution of the work or any part thereof, paying or allowing for the same in account at the contract rates, or in the case of these not being applicable at current market rates to be certified by the engineer, whose certificate thereof shall be final, otherwise the engineer by notice in writing may order the contractor, or his clerks of the works, foreman or other authorized agent to remove such tools, plants materials, or stores from the premises (within a time specified in such notice), an in the event of the contract failing to comply with any such requisition, the engineer may remove them at the contractor's expense or sell them by auction or private sale on account of the contractor at his risk in all respects and the certificate of the engineer as to the expense of any such removal and the amount of the proceeds and expense of any such sale shall be final and conclusive against the contractor.

iv) No claim will be entertained from the contractor for idle labour, stoppage of work or damage on account of unprecedented rain, storm or any unforeseen circumstances which will be responsible for the same.

29.6. RIGHTS OF EMPLOYER:-

i) Without prejudice to the right conferred by the various clauses under this contract and of their right ensuring to the employer in terms of this contract, the employer reserves the following rights in respect of this contract without entitling the contractor for any compensation:

To withdraw any portion of work and/or to restrict, alter the quantum of work as indicated in the contract during the progress of erection and get it done through other agency and or by departmental labour to suit employer's commitment due to the owner or in case employer decides to advance the date of completion due to other emergency reasons or employer's obligation to the owner.

To terminate the contract after a notice of 14 days when served at the last known address of the principal office of the contractor and forfeit security deposit and recover the loss sustained in getting the balance work done through other agencies in addition to " Compensation for Delay " in the event of:

- a) contractor's continued poor progress brought to notice from time to time
- b) withdrawal from or abandonment of the work by contractor before completion of the work.
- c) Corrupt act of contractor
- d) Insolvency of the contractor
- e) Persistent disregard to the instruction in writing of the employer
- f) Assignment, transfer, sub-contracting of the contract without Employer's written permission
- g) Non fulfillment of any contractual obligations

- Any delay in works for reasons attributable to the contractor will have to be compensated by either increasing manpower and resources or by working extra hours and more than one shift without any extra cost.

- To recover any money due from the contractor from the money which is due or which may become due to the contractor under this contract or any other contract or from Security Deposit or as debt payable by the contractor.

- To claim compensation for losses sustained by employer including the employer's supervision charges and overheads in completion or termination of contract and to recover compensation for delay in completion of work, as per clause from security deposit and/or from the money which is due or which may

become due to the contractor under this or any other contract or as a debit payable by the contractor.

- To terminate the contract or to restrict the quantum of work and pay for the portion of work executed in case employer's contract with the owner are terminated for any reasons.

- To effect recovery from any amounts due the contractor under this or any other contract, the monies employer is forced to pay to any body, due to the contractor's failure to fulfil any of his obligations.

ii) While every endeavour will be made by employer, the employer cannot guarantee uninterrupted work due to conditions beyond their control. Contractor will not be entitled for any compensation/extra payment on this account.

iii) In the event of any dispute of any nature, the decision of employer shall be final and binding on the contractor.

iv) All safety rules and codes applied by the Owner/Employer shall be observed by the contractor without exception. The contractor shall be responsible for the safety of the equipment/materials and works to be performed by him and shall maintain all light, fencing guards, signs etc or other protection necessary for the purpose. Contractor shall also take such additional precautions as may be indicated from time to time by the engineer with a view to prevent pilferage, accidents, fire hazards and atmospheric conditions. Suitable number of clerical staff, watch and ward, be posted at

site by the contractor till the completion of the work under this contract. The contractor shall arrange for such safety devices as are necessary for such type of work and carry out the requisite tests of handling equipment, lifting tools, tackles etc., as per prescribed standards and practices.

v) Should any error or ambiguity be discovered in the specification or information, the contractor shall forthwith bring the same to the notice of the engineer before commencement of work. Engineer's interpretation in such cases shall be final and binding on the contractor.

vi) Also no idle labour charges will be admissible in the event of cause in the war resulting contractor's labour being rendered idle due to any cause at any time.

vii) No over run charges shall be paid in the event the completion period is extended for any reason whatsoever, however subject to ORC clause provided elsewhere.

viii) The quality and progress of work will be regularly reviewed. The schedule and programme of work will be given to the contractor in advance and it will be the obligation of the contractor to achieve the desired quality and progress of work by suitably reinforcing their labour force and/or by working extra shifts at no extra costs. Workmen found unsuitable for the work will be replaced immediately by the contractor on being informed by employer.

ix) During the erection/construction performing work under the contract is very essential that proper and adequate inspection should be made constantly to maintain the quality of workmanship so that any deviation from design, dimension does not exceed permissible limits. The proper functioning of the power plant, while in operation depends to a greater extent on the above factors. For the details regarding alignment dimensioned deviations in the work, engineer may be consulted.

29.7 CONSEQUENCES OF TERMINATION:-

Whenever the employer exercises his authority to terminate the contract/withdraw a portion of work pursuant to the contract, the employer may complete the works by any means at the contractor's risk and cost provided that in the event of the cost of completion (as certified by the engineer which shall be final and conclusive) being less than the contract price, the advantage shall accrue to the employer and that if the cost of completion exceeds the money due to the contractor under the contract, the contractor shall either pay the excess amount as ordered by the employer or the same shall be recovered from the contractor by any other means as deemed (to be) fit by the employer.

This will be in addition to the forfeitures of security deposit and recovery of " Compensation for Delay " and other dues payable under the contract.

In case the employer completes the work under the provisions of this clause, the cost of such completion to be taken into account in determining the excess cost to the charges to the contract under this clause, shall consist of materials purchased and/or labour, provided by the employer with an addition of such percentage to cover supervision and overhead charges as may be decided by the employer.

30.0 URGENT REPAIRS:- If by reason of any accident failure or other event occurring to in or in connection with the works or any part thereof either during the execution of the works or during the period of maintenance any remedial or other works or repair shall in the opinion of the engineer or the engineer's representative be urgently necessary for safety and the contractor is unable or unwilling at once to do such work or repair, the employer may by his own or other workmen do such work or repair as the engineer'' representative may consider necessary. If the work or repair so done by the employer is work which in the opinion of the engineer the contractor was liable to do at his own expense under the contract all costs and charges properly incurred by the employer in so doing shall on demand be paid by the contractor to the employer or may be deducted by the employer from any monies due or which may become due to the contractor. Provided always that the engineer or the engineer's representative (as the case may be) shall as soon as after the occurrence of any such emergency as may be reasonably practicable notify the contractor thereof in writing.

31.0. ACCESS TO SITE:- The engineer and any person authorised by him shall at all times have access to works and to the site and to all workshops and places where work is in progress or where materials, manufactured articles or machinery are being obtained for the works and the contractor shall afford every facility for and every assistance in or in obtaining the right to such access.

The contractor shall in accordance with the requirements of the Engineer afford all reasonable opportunities for carrying out their work to any other contractors employed by the employer and their workmen and to the workmen of the employer and of any other duly constituted authorities who may be employed in the execution on or near the site of any work not included in the contract or of any contract which the employer may enter into in connection with or ancillary to the works. If however the contractor shall on the written request of the engineer or the engineer's representative make available to any such other contractor or to the employer or any such authority any roads or ways for the maintenance of which the contractor is responsible or permit the use by any such of the contractor's scaffolding or other plant on the site or provide any other service of whatsoever nature than the employer shall pay to the contractor in respect of such use or service such sum or sums as shall in the opinion of the engineer's' be reasonable.

32.0. OPPORTUNITIES FOR OTHER CONTRACTORS:-

The contractor shall in accordance with the requirements of the Engineer afford all reasonable opportunities for carrying out their work to any other contractors employed by the employer and their workmen and to the workmen of the employer and of any other duly constituted authorities who may be employed in the execution on or near the site of any work not included in the contract or of any contract which the employer may enter into in connection with or ancillary to the works. If however the contractor shall on the written request of the engineer or the engineer's representative make available to any such other contractor or to the employer or any such authority any roads or ways for the maintenance of which the contractor is responsible or permit the use by any such of the contractor's scaffolding or other plant on the site or provide any other service of whatsoever nature than the employer shall pay to the contractor in respect of such use or service such sum or sums as shall in the opinion of the engineer's' be reasonable.

33.0. DETAILS CONFIDENTIALS:- The contractor, his employees and agents shall treat the contract and everything contained therein as private and confidential. They shall not disclose any information or drawings or documents furnished to the contractor by the employer or engineer or engineer's representative. All drawings, reports and other information prepared by the contractor or by the employer or jointly by both for the execution of contract shall not be disclosed without the prior written permission of the engineer. The contractor shall not permit the drawings or other documents entrusted to the contractor to be inspected, copies or extracts taken there from by any person (other than is lawfully necessary for the performance of the contract). No photographs of the works or the Plant within the site premises shall be taken without the prior written permission of the Engineer. The contractor shall not use the site for the purposes of advertising except with the prior written permission of the engineer. Above such permission, if granted, be subject to such conditions as the engineer may prescribe. The provisions of this clause shall also apply to all sub-contractors.

34.0. BRIBES, COMMISSIONS ETC:- Any bribe, commission, gift or advantage given, promised or offered by or on behalf of the contractor or his sub-contractor (a) or his sub-contractor's partner, agent or servant or any other person on their behalf, to any officer, servant, representative or agents of the employer or the owner or any other person on their behalf in relation to

obtaining or to the execution of this or any other contract with the employer shall, in addition to any criminal liability which he may incur, subject to the contractor to the cancellation of this and all other contracts and also to payment of any loss or damage or any extra cost incurred by the employer resulting any such cancellation. The employer shall then be entitled to deduct the amount under this or any other contract. Any question or dispute as to the commitment of any breach under this clause shall be settled by the employer in such manner and on such evidences or information as he shall think fit and sufficient and his decision shall be final and conclusive.

35.0. SERVICE OF NOTICES:

35.1 SERVICE OF NOTICES ON CONTRACTOR:- Any notice to be given to the contractor under the terms of the contract shall be served by sending the same by post to or leaving the same at the contractor's last known address of the principal place of business (or in the event of the contractor being a company to or at its registered office). In case of change of address the notice shall be served at changed address as notified in writing by the contractor to the employer. Such posting or leaving of the notice shall be deemed to be good service of such notice and the time mentioned in the condition for doing any act after notice shall be reckoned from the date so mentioned in such notice.

35.2. SERVICE OF NOTICES ON EMPLOYER:- Any notice to be given to the employer under the terms of the contractor shall be served by sending the same by post to or leaving the same at the employer's address or changed address as notified in writing by the employer to the contractor.

36.0. EXPLOSIVES:- Explosives shall not be used on the work by contractor except with permission in writing of the engineer and in the manner and to the extent to which he has prescribed, where explosives are used, the same shall be liable for all damages, loss and injury, to any person or property and shall be responsible for complying with all statutory obligations, in these respects.

37.0 STRIKES AND LOCKOUTS:- The contractor will be fully responsible for all the dispute, consequences and other issues connected with strikes, lockouts, and his labour. In the event of the contractor resorting to lockout and if the strike by the contractor's labour or the lockout declared is not settled within a period of one month, the employer shall have the rights to get the work executed employing its own labour or through any other agencies or both and the cost so incurred by the employer shall be deducted from the contractor's bills. For all purposes whatsoever, the employees of the contractor shall not be deemed in the employment of BHEL.

38.0 MEMBERS OF EMPLOYEE'S STAFF ETC NOT PERSONALLY LIABLE:-
Neither any member of the employer's staff nor the engineer's representative shall be in any way personally liable for the acts or obligations under the contract or answerable for any default or omission on the part of the employer in the observance or performance of any of the acts, matters or things which are herein contained.

39.0 SPECIFICATION FOR HEALTH, SAFETY AND ENVIRONMENT (HSE)

The contractor has to necessarily submit the safety plan while submitting the offer. The safety plan should indicate in detail the measures that would be taken by the contractor to ensure safety of men, equipment, material and environmental during execution of the work. During negotiations before placing the work order and during execution of the contract, BHEL shall have right to review and suggest modifications in the safety plan. The contractor shall abide by BHEL decision in this respect. Tenders not accompanied with safety plan are liable for rejection.

39.1.1 SCOPE

This specification establishes the Health, Safety and Environment (HSE) management requirement to be complied with by the Contractors during construction.

Requirements stipulated in this specification shall supplement the requirements of HSE Management given in relevant Act (s)/legislations, General Condition Contract (GCC). Special Conditions of Contract (SCC) and job specification where different documents stipulate different requirements, the most stringent be adopted.

39.1.2 REFERENCES

This document should be read in conjunction with following:

- General Conditions of Contract (GCC)
- Special Condition of Contract (SCC)
- Scope of work
- Relevant IS Codes
- Reporting Formats

39.1.3 REQUIREMENTS OF HEALTH, SAFETY & ENVIRONMENT (HSE) MANAGEMENT SYSTEM TO BE COMPLIED BY CONTRACTORS

39.1.3.1 MANAGEMENT RESPONSIBILITY

a. The contractor to comply with HSE requirement at Construction sites as enclosed to cover commitment of their organization to ensure health, safety and environment aspects in their line of operations.

b. The HSE management system shall cover the HSE requirements including but not limited to what is specified under Para 1.0 and para 2.0 above.

c. Contractor shall be fully responsible for planning and implementing HSE requirements. Contractor as a minimum requirement shall designate/deploy the following to co-ordinate the above.

No. of workers deployed upto 250 - Designate one safety Supervisor

Above 250 & upto 500 -Deploy one qualified and Experienced Safety Engineer/Officer

Above 500 (for every 500 or less) -One additional safety engineer/officer,
as above

d. Contractor shall indemnify & hold harmless Owner/BHEL & their representatives free from any and all liabilities arising out of non-fulfillment of HSE requirements.

e.. The Contractor shall ensure that the Health, Safety and Environment (HSE) requirements are clearly understood & faithfully implemented at all levels at site.

f. BHEL shall promote and develop consciousness for Health, Safety and Environment among all personnel working for the contractor. Regular awareness programmes and work site meetings shall be arranged on HSE activities to cover hazard involved in various operations during construction.

g. The contractor shall arrange suitable first aid measures such as First Aid Box, trained personnel to give First Aid and install fire protection measures such as adequate number of steel buckets with sand and water to the satisfaction of BHEL/owner.

h. Non-Conformance on HSE by Contractor (including his Sub-contractors) as brought out during review/audit by BHEL/Owner representatives shall be resolved forthwith by Contractor. Compliance report shall be provided to BHEL.

i. The contractor shall ensure participation of his Resident Engineer/Site-in-Charge in the Safety Committee/HSE Committees meetings arranged by BHEL/Owner. The compliance of any observations shall be arranged urgently. He shall assist BHEL Owner to achieve the targets set by them on HSE during the project implementation.

j. The Contractor shall adhere consistently to all provisions of HSE requirements. In case of non-compliance or continuous failure in implementation of any of HSE provisions; BHEL/Owner may impose stoppage of work without any Cost & time implication to BHEL/Owner and/or impose a suitable penalty for non-compliance with a notice of suitable period, upto a cumulative limit of 1.0% (one percent) of contract value. This penalty shall be in addition to all other penalties specified else where in the contract. The decision of imposing stoppage of work, its extent & minority penalty shall rest with BHEL/Owner & binding on the contractor.

k. All fatal accidents and other personnel accidents shall be investigated by a team of Contractor's senior personnel for root cause & recommended corrective and preventive actions. Findings shall be documented and suitable actions taken to avoid recurrences shall be communicated to BHEL/Owner. BHEL/Owner shall have the liberty to independently investigate such occurrences and Contractor shall extend all necessary help and co-operation in this regard.

39.1.3.2 HOUSE KEEPING

39.1.3.2.1 Contractor shall ensure that a high degree of house keeping is maintained and shall ensure interlia; the following:

- a) All surplus earth and debris are removed/disposed off from the working areas to identified locations (s).
- b) Unused/Surplus Cables, Steel items and steel scrap lying scattered at
- c) Different places within the working areas are removed to identify location(s).
- d) All wooden scrap, empty wooden cable drums and other combustible packing materials, shall be removed from work place to identified locations.
- e) Roads shall be kept clear and materials like: pipes, steel, sand boulders, concrete, chips and brick etc., and shall not be allowed on the roads to obstruct free movement of men & machinery.
- f) Fabricated steel structural, pipes & piping materials shall be stacked properly for erection.
- g) Water logging on roads shall not be allowed.
- h) No parking of trucks/trolleys, cranes and trailers etc., shall be allowed on roads, which may obstruct the traffic movement.
- i) Utmost care shall be taken to ensure over all cleanliness and proper upkeep of the working areas.
- j) Trucks carrying sand, earth and pulverized materials etc, shall be covered while moving within the plant area.

In case of non-compliance of any of the above, BHEL shall have the liberty to get it done from some other agency at their risk and cost.

39.1.3.3 HEALTH, SAFETY AND ENVIRONMENT

* The contractor shall provide safe means of access to any working place including provisions of suitable and sufficient scaffolding at various stages during all operations of the work for the safety of his workmen, and BHEL/Owner. Contractor shall ensure deployment of appropriate equipment and appliances for adequate safety and health of the workmen and protection of surrounding areas.

* The contractor shall ensure that all their staff and workers wear Safety helmet and Safety shoes. Contractor shall ensure use of safety belt, protective goggles, gloves etc., by the personnel as per job requirements. All these gadgets shall conform to relevant IS specifications or equivalent.

* The Contractor shall assign to his workmen, tasks commensurate with their qualification, experience and state of health for driving of vehicles, handling and erection of materials and equipment. All lifting equipment shall be tested certified for its capacity before use. Adequate and suitable lighting at every work place and approach there to, shall be provided by the Contractor before starting the actual operations at night. It is mandatory for contractor to get his workmen medically examined/checked for fitness of work assigned once a year and furnish the certificate to that effect from a RMP/Govt. Hospital.

* Hazardous and/or toxic materials such as solvent, coating or thinners shall be stored in appropriate containers.

* All hazardous materials shall be labeled with the name of the materials, the hazards associated with its use and necessary precautions to be taken.

* Contractor shall ensure that during the performance of the work, all hazard of the health of personnel have been identified, assessed and eliminated.

* Chemical spills shall be contained & cleaned up immediately to prevent further contamination.

* All personnel exposed to physical agents such as ionizing or non-ionizing radiation, ultraviolet rays or similar other physical agents shall be provided with adequate shielding or protection commensurate with the type of exposure involved.

* Where contact or exposure of hazardous materials could exceed limits or could otherwise have harmful effects, appropriate personnel protective equipment such as gloves, goggles, aprons, chemicals resistant clothing and respirator shall be used.

* All persons deployed at site shall be knowledgeable of and comply with environmental laws, rules & regulations relating to the hazardous materials substances and wastes. Contractor shall not dump, release or otherwise discharge or dispose off any such materials without the express authorization of BHEL/Owner.

39.1.4 DURING JOB EXECUTION

Implement Health, Safety and Environment requirements including but not limited to as brought out under para 3.0. Contractor shall ensure to:

- Arrange workmen compensation insurance, registration under ESI Act, third party liability insurance etc., as applicable.
- Arrange all HSE permits before start of activities (as applicable) like hot work, confined space, work at heights, storage of chemical/explosive materials and its use and implement all precautions mentioned therein.
- Submit timely the completed checklist on HSE activities, Monthly HSE report, accident reports, investigation reports etc., as per BHEL/Owner requirements. Compliance of instructions on HSE shall be done by Contractor and informed urgently to BHEL/Owner.
- Ensure the Resident Engineer/Site in charge of the contractor shall attend all the Safety Committee/HSE meetings arranged by BHEL/Owner. In case of his absence from site that a second senior most personal shall be nominated by him in advance and communicated to BHEL/Owner.
- Display at site office and work locations caution boards, list of hospitals, emergency services available.
- Display posters, banners made available by BHEL for safe working to promote safety consciousness.

- Assist in HSE audits by BHEL/Owner and submit compliance report.
- Generate & submit HSE records/report as per HSE plan.
- Appraise BHEL/Owner on HSE activities at site.

39.1.5 SUGGESTED RELEVANT IS - CODES FOR PERSONAL PROTECTION

- IS 2925 -1984
- Industrial Safety helmets IS 4770- 1968
- Rubber gloves for electrical purposes IS 6994-1973(part I)
- IS 8807-1978
- IS 8519-1977 Industrial Safety Gloves(leather & cotton gloves) & body protection devices IS 1989-1986(Part I&III)
- Leather safety boots and shoes IS 3738-1975
- Rubber knee boots IS 5557-1969
- Industrial and knee boots IS 6519-1971 Code of practice for selection, care and repair of safety foot wear IS 11226-1985
- Leather safety footwear having direct moulding sole IS 5983-1978
- Eye protectors IS 9167 -1979
- Ear protectors IS 3521-1983
- Industry safety belts and harness

39.1.6 Proforma for the safety Plan (to be submitted along with the offer)

Name of the project :

Description of the Work :

Tender No , W.O. No :

1.0 DETAILS OF PROPOSED WORK

- 1.1 Scope
- 1.2 Total scope of work approximately
- 1.3 Period of completion
- 1.4 Max. no. of personnel to be deployed (Nos.)

2.0.SAFETY ORGANIZATION

- 2.1. Furnish details of atleast 3 major jobs executed in the past
- 2.2 How many sites you are operating presently
- 2.3 Furnish details of safety organization at HQ and project sites
- 2.4 Furnish Name, Qualification and Designation of Safety Engineer
- 2.5 Is he a full time safety engineer
- 2.6 If not furnish details of additional work assigned to him
- 2.7 Details of Personnel Qualified in administering First Aid
- 2.8 Details of Personnel trained in Fire Fighting operation

3.0: CONTRACTORS PERSONNEL

- 3.1 Furnish details of Max. man power likely to be deployed
 - a. Executive
 - b. Supervisors
 - c. Workers
 - d. Others

TOTAL

- 3.2 Please indicate details of workmen based on experience in identical work
 - a. With more than 5 years experience
 - b. Upto 5 years experience
 - c. No previous experience

TOTAL

- 3.3 Please indicate details of workmen qualification wise
- a. Graduates
 - b. I.T.I.
 - c. Metric
 - d. VIII Std
 - e. Others

TOTAL

- 3.4 Please furnish trade wise breakup of workmen
- a. Fitter
 - b. Welder
 - c. Rigger
 - d. Electrician
 - e. Helpers
 - f. Others

TOTAL

4.0.SAFETY AWARENESS/TRAINING PROGRAMME

- 4.1. Furnish details of safety programmes organised by you in the past
- 4.2. Safety organised programmer proposed during the course of execution of the job

5.0 PERSONAL PROTECTIVE EQUIPMENT5.1.List down 'PPE' provided to workmen

APPLIANCES

- a. Safety Helmet
- b. Safety belt
- c. Eye and Face protection device
- d. Hand and Body protection device
- e. Safety shoes
- f. Others

6.0. FIRE SAFETY MEASURES

6.1. Furnish No. of Personnel trained fire fighting operation

6.2. Portable fire extinguishers to be provided

- a. Number
- b. Type/Make
- c. Location

6.3. Fire resistant covers to be provided for coverage of materials

- a. Number
- b. Type/Make
- c. Size

7.0. TOOLS AND PLANTS

7.1. Furnish details as per proforma

Sl.No.	Equipment	with Capacity	Year of Mfg.	Date of last major Overhaul	Remarks
01.					
02.					
03.					
04.					
05.					

8.0 GENERAL

8.1. Furnish deviation/comments if any on BHEL code of Safety Management

- 8.2. Indicate Safety reporting system proposed
 - a. Monthly Safety reports
 - b. Accident reports
 - c. Others

- 8.3. Indicate safety records to be maintained
 - a. Accidents Investigation records
 - b. Safety appliance issue register
 - c. T&P Repair & Maintenance Register
 - d. Others

Signature of Tenderer
(with seal and date)

1.

39.1.7 SUGGESTED SAFETY CODE:-

i) Suitable scaffolds shall be provided for workmen for all works that cannot safely be done from the ground or from solid construction except in the case of short duration work which can be done safely from ladders. When a ladder is used, it shall be of rigid construction made either of good quality wood or steel. The steps shall have a minimum width of 45 cm (1' 6") and a maximum rise of 30 cm (12"). Suitable handhold of good quality wood or steel shall be provided and the ladder shall be given an inclination not steeper than 14 horizontal and 1 vertical.

ii) Scaffolding or staging more than 3.6 m (12") above the ground floor, swung or suspended from an overhead support or erected with stationary support shall have a guard rail properly bolted, braced or otherwise secured, atleast at 90 mm (3') 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.

iii) Working platforms, gangways and stairways shall be so construed that they do not sag unduly or unequally and if the height of the platform gangways provided is more than 3.6 m (12") above ground level or floor level, they shall be closely boarded and shall have adequate width which shall not be less than 750 mm and be suitably fenced as described in (ii) above.

iv) Every opening in the floor or a building or in a working platform shall be provided with suitable means to prevent the fall of persons or materials by providing suitable fencing or railing whose minimum height shall be 90 cm (3'0") Wherever there are open excavation in ground, they shall be fenced off by suitable railing and danger signals installed at night so as to prevent persons slipping into the excavations.

v) Safe means of access shall be provided to all working places. Every ladder shall be securely fixed. No portable single ladder shall be over 9 m (30') in length while the width between side rails in rung ladder shall in case be less than app. 29.2 cm (11 1/2") for ladder upto and including 3 m (10') in length. For longer ladders this width shall be increased atleast 1/4" for each additional foot of length.

vi) A sketch of the ladders and scaffolds proposed to be used shall be prepared and approval of the engineer obtained prior to construction.

vii) All personnel of the contractor working within the plant site shall be provided with safety helmets. All welders shall wear welding goggles while doing welding work and all metal workers shall be provided with safety gloves. Persons employed on metal cutting and grinding shall wear safety glasses.

viii) Adequate precautions shall be taken to present danger from electrical equipment. No materials on any of the sites of work shall be so stacked or placed as to cause deeper or inconvenience to any person or the public.

ix) All trenches, four feet or more in depth shall at all times be supplied with at least one 90 cm (3') above the surface of the ground. Sides of the trenches which are 1.50 m (5') or more in depth shall be stepped back to give suitable slope or securely held by time bracing, so as avoid the danger sides collapsing. The excavated material shall not be placed within 1.5 m (5') of the edge of the trench or half of the depth of the trench which ever is more. Cutting shall be done from top to bottom. Under the circumstances undermining or undercutting shall be done.

x) The contractor shall take all measures at the site of the work to protect all persons from accidents and shall be bound to bear the expenses of defense of even suit, action or other proceedings at law that may be brought by any persons for injured/sustained or death owing to neglect of the above precautions and to pay any such person such compensation or which may with the consent of the contractor be paid to compromise any claim by any such person. Should such claim proceeding be filed against the employer, the contractor hereby agrees to indemnify the employer against the same.

xi) 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 either be closed or suitably protected.

b) No electric cable or apparatus which is liable to be a source of danger over a cable or apparatus used by the operator shall remain electrically charged.

c) All practical steps shall be taken to prevent danger to persons employed from the risk of fire on explosion or flooding. No floor, roof or other part of the building shall be so overloaded with debris or materials as to render it unsafe.

i) All necessary personal safety equipment as considered adequate by the engineer should be kept available for the use of the person employed on the site and maintained in a condition suitable for immediate use and the contractor should take adequate steps to ensure the proper use of equipment by those concerned.

a) Workers employed on mixing asphaltic materials, cement and lime mortar shall be provided with protective footwear and protective goggles.

b) Those engaged in white washing and mixing or stacking of cement bags or any materials which is injurious to eyes shall be provided with protective goggles.

c) Those engaged in welding works should be provided with welder's protective eyesight lids.

d) Stone breakers shall be provided with protective goggles and protective clothing and seated sufficient to safe intervals.

e) When workers are employed in sewers and manholes, which are in use the contractor shall ensure that the man hole covers are opened and the ventilated at least for an hour before the workers are allowed to get into manholes so opened, and the manholes shall be cordoned off with suitable railing and provided with warning signals or boards to prevent accident to the public.

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

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

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

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

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

xiv) Motors, gearing, transmission electric wiring and other dangerous parts of hoisting appliances should be provided with efficient safeguards, hoisting appliance should be provided with such means as will reduce to the minimum the risk of any part of a suspended load becoming accidentally displaced. When workers employed on electrical installations, which are already energised, insulating mats, wearing apparel, such as gloves, sleeves and boots as may be necessary should be provided. The workers should not wear any rings, watches and carry keys or other materials, which are good conductors of electricity.

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

xvi) Those safety provisions should be brought to the notice of all concerned by display on a notice board at a prominent place at work spot. The person responsible for compliance of the safety code shall be named therein by the contractor.

xvii) To ensure effective enforcement of the rules and regulations relating to safety precautions the arrangements made by the contractor shall be open to inspection by the engineer or the engineer's representative.

xviii) Notwithstanding the above clauses from (I) to (xviii) there is nothing to exempt the contractor from the operations of any other Act or Rules in force in area of work in this respect.

Provided always that all safety measures apart from those specifically provided in this agreement which are brought to the notice of the contractor from time to time by the engineer shall be complied by the contractor. Provided further that all consequences, damages or losses arising by reason of any safety code violation shall be met by the contractor.

40.0 SOME OF THE STATUTORY REQUIREMENTS TO BE ENSURED, AT A GLANCE

- * Implementation of provisions of various labour laws
- * Obtaining licence under CL(R&A) Act in time
- * Payment of wages to the workmen in time
- * Payment of minimum wages prescribed to workmen
- * Implementation of welfare and safety provisions as per CL(R&A) and Factories Act
- * Display of Notices, abstracts as applicable
- * Submission of returns periodically in time
- * Renewal of licence in time
- * Obtaining separate licence for extension projects or inclusion of extension project in existing licence in time
- * Closure of licence & obtaining of refund of deposit
- * Ensure proper coordination and courtesy during visits of labour authorities at site.
- * Updating informations on various amendments on labour laws as applicable and implementation of the same.
- * Labour welfare fund Act 1972

41.0 SOME OF THE LAWS APPLICABLE TO SITE OPERATIONS

(The contractors are requested to check up with the State and Central Authorities for the latest position for compliance of the Statutory requirements)

1. THE CONTRACT LABOUR(REGULATION & ABOLITION)ACT 1970
2. FACTORIES ACT 1948
3. PAYMENTS OF WAGES ACT 1936
4. MINIMUM WAGES ACT 1948
5. WORKMENS COMPENSATION ACT 1923
6. PAYMENT OF GRATUTY ACT 1972

7. INDUSTRIAL DISPUTES ACT 1947

8. PROVIDENT FUND AND MISCELLANEOUS PROVISIONS ACT 1952

9. LABOUR WELFARE FUND ACT (ENACTED BY VARIOUS STATE GOVERNMENTS FROM TIME TO TIME)- this act ensures that the contractor remits the due amount to the labour welfare fund to the concerned authority as applicable. This being a welfare legislation, the contract workmen are also entitled to the various benefits and it is the duty of the contractor to enlighten his workmen to enable them to avail the same.

10. INTER STATE MIGRANT WORK MEN (REGULATION & CONDITIONS OF SERVICE) ACT 1979

11. CHILD LABOUR (PROHIBITION & REGULATION)ACT 1986

12. BUILDING & OTHER CONSTRUCTION WORKERS (REGULATION & CONDITIONS OF SERVICE) ACT 1996- registration with the authority concerned and maintenance of records and registers as applicable.

13. EMPLOYEES STATE INSURANCE ACT

41.1 SALIENT PROVISIONS OF
CONTRACT LABOUR (REGULATION & ABOLITION) ACT, 1970

A. The Act applies to every establishment in which twenty* or more workmen are employed or were employed any day in the preceding twelve months, as contract labour (* in some states five or more workmen)

B .CONTRACTOR

1. In relation to an establishment, means a person who undertakes to produce a given result for the establishment, other than a mere supply of goods or articles of manufacture to such establishment, through contract labour (OR)

2. Who supplies contract labour for any work of the establishment and includes a subcontractor.

C." Establishment " means

- i. any office or department of the Government or a local authority, or
- ii. any place where any industry, trade, business, manufacture or occupation is carried on

D." Principal Employer " means:

in any other establishment, any person responsible for the supervision and control of the establishment.

E." Workmen " means:

Any person employed in or in connection with the work of any establishment to do any skilled, semi-skilled or unskilled manual, supervisory, technical or clerical work for hire or reward, whether the terms of employment be expressed or implied.

F .Notes - "Contractor " - The definition of the expression contractor has two wings. One is in relation to the establishment in which he contracts to supply labour on contract and another in relation to the contractor himself. Any contractor whose work is to supply contract labour for any work in any establishment, including a sub-contractor will be governed by the Act, provided he is employing twenty or more persons.

G .An establishment engaged in construction work or manufacturing process might either employ labour through a contractor or it might entrust the execution of the work itself to a contractor who will employ his own workmen.

H The usual test is whether the employer has control over the labour and actual execution of the work.

I In all other establishments the person in the control of the establishment will be the Principal Employer. The importance of the definition of the Principal Employer lies in the fact that it is he who engages the contract labour and who is made responsible for due observance and discharge by the contractor of the duties and obligations enjoyed on him by the Act.

J Liability of principal employer in certain cases (Section - 20)

(I.) If any amenity required to be provided under Section 16, Section 17, Section 18 or Section 19 for the benefit of the contractor within the time prescribed therefor such amenity shall be provided by the principal employer within such time as may be prescribed.

(II). Responsibility for payment of wages (Sec.21)

a) Contractor is responsible for payment of wages to each worker employed by him as contract labour and wages shall be paid before the expiry of such period as may be prescribed.

b) Principal employer will nominate a representative to be present at the time of disbursement of wages by the contractor and certify the amount paid as wages.

c) It is the duty of the contractor to ensure disbursement of wages in the presence of authorised representative of principle employer.

d) In case the contractor fails to make payment of wages within the prescribed period or make short payment, then the Principal Employer shall be liable to make payment of wages in full or the unpaid balance due as the case may be to the contract labour employed by the contractor and recover the amount so paid from the contractor either by reduction from any amount payable or as a debt payable by the contractor.

K Registers and other records maintained by the contractor(Sec.29)

1. Form - 13 (Rule 75) - Register of workmen employed by the contractor

2. Form - 14 (Rule 76) - Employment Card -

3. Form 15 - (Rule - 77) Service Certificate -

4. Form 16 - (Rule - 78 (1) (a) (I)- Muster Roll

5. Form 17 - Rule 78 (1) (a) (I) - Register of Wages

6. Form 18 - Rule 78 (1) (a) (I) - Register of Wages cum Muster Roll

7. Form 19 - Rule 78 (1) (b) - Wage Slip

8. Form 20 - Rule 78 (1) (a) (ii) - Register of deductions for damage or loss

9. Form 21 - Rule 78 (1) (a) (ii) - Register of Fines
10. Form 22 - Rule 78 (1) (a) (ii) - Register of Advances
11. Form 23 - Rule 78 (1) (a) (iii) - Register of Overtime
12. Form 24 - Rule 82 (1) - Half yearly return to be sent by the Contractor to the Licensing Officer
13. Display of Notice Board with details of work, No. of workers engaged, Rate of wages paid, date of payment of wages, date of payment of unpaid wages, name of the Principle employer, Name and address of the Inspecting Officer in Hindi, English and local languages at a prominent place.
14. Display of Labour Licence obtained from the Licencing officer
15. Display of Extract of Contract Labour (Regulation and Abolition) Act 1970 in Hindi, English and local languages

- L Compliance by the contractor on commencement of work and completion of work
2. Application for licence in Form - IV (Rule 21 (1)) to be submitted to the Licensing Authority along with Form - V - Form of Certificate by the Principle Employer for obtaining labour License.
 3. On obtaining labour licence, Form VI-A rule 25 (2) (viii) to be submitted by the contractor regarding commencement/completion of contract work to the Licensing Officer/Inspecting Authority.
 4. Form - VII Rule 29 (2) to be submitted by the contractor for application of renewal of license

REST ROOMS

(1) In every place wherein contract labour is required to halt at night in connection with the work of an establishment.

a. to which this Act applies and

b. in which work requiring employment on contract labour is likely to continue for such period as may be prescribed.

These shall be provided and maintained by the contractor for the use of contract labour such number of rest rooms or such other suitable alternative accommodation within such time as may be prescribed.

(2) The rest rooms of the alternative accommodation to be provided under subsection (1) shall be sufficiently lighted and ventilated and shall be maintained in a clean and comfortable condition.

5.18 Other facilities.

It shall be the duty of every contractor employing contract labour in connection with the work of an establishment to which this Act applies, to provide and maintain.

a. a sufficient supply of wholesome drinking water for the contract labour at convenient places;

b. a sufficient number of latrines and urinals of the prescribed so situated as to be convenient and accessible to the contract labour in the establishment; and

c. Washing facilities:

5.19 First aid facilities.

1. These shall be provided and maintained by the contractor so as to be readily accessible during all working hours a first aid box equipped with the prescribed contents at every place where he employs contract labour.

2. Every principal employer shall nominate a representative duly authorised by him to be present at the time of disbursement of wages by the contractor and it shall be the duty of such representative to certify the amount paid as wages in such manner as may be prescribed.

3. It shall be the duty of the contractor to ensure the disbursement of wages in the presence of the authorised representative of the principal employee.

4. In case the contractor fails to make payment of wages within the prescribed period or makes short payment, then the principal employer shall be liable to make payment of wages in full or the unpaid balance due, as the case may be, to the contract labour employed by the contractor and recover the amount so paid from the contractor either by deduction from any amount payable to the contractor under the contract or as a debt payable by the contractor.

Procedure for obtaining Labour Licence under the Act 1970

- * Approach the customer with a request for issuing Form -V(PRINCIPAL EMPLOYER'S CERTIFICATE) by intimating the nature of job / contract and proposed number of workmen to be employed.
- * Meet the licensing the authority (State / Central Labour authorities as the case may be) with Form -IV (application for labour licence) along with Form -V & VIA (Notice of commencement of work in Triplicate.
- * Remit necessary Security Deposit and licence fee.(this will vary from state to state and depending on the number of workmen to be employed)
- * The licence should be displayed in prominent place along with the provisions of CL(R&A) Act in English, Hindi and Local Language
- * A notice board is to be exhibited with the details of the contractor, Nature of Jobs undertaken, period of work, Name of the principal employer, inspecting authority and his addresses and also the rate of minimum wages payable , date of payment of wages, date of payment of unpaid wages, hours of work, rest interval etc. All these should be in English, Hindi and local language.
- * Half yearly return in the Form XXIV in Duplicate should be submitted by 31st July - for the period from January to June and 31st January -for the period from July to December.

- * Application for renewal of licence in original should be submitted in Form VII in Triplicate prior to the expiry of Licence before 30 days in case of Central and 60 days in case of State Labour authority
- * On completion of work , Form VIB to be obtained from Principal Employer and submitted to the Licencing officer along with the Original licence for Refund of Security Deposit

41.2 SALIENT PROVISIONS AND COMPLIANCE OF WORKMEN'S COMPENSATION ACT 1923

A An Act which provides for payment by certain Classes of employers to the workmen compensation for the injury by accident.

B Employer's liability for compensation - Sec 3 - If personal injury is caused to a workmen by accident arising out and in the course of employment, his employer shall be liable to pay compensation in accordance with the provisions of this Act.

C Compensation to be paid when due and for default, penalty will be levied from the contractor.

D For the purpose of calculation of compensation as per the Act,

1) the monthly wages means average amount payable for a month of service to the Workmen, during the twelve months preceding the accident

2) employee who is drawing monthly wages of more than Rs.4000/- would be treated as four thousand

3) Employees who are drawing monthly wages of less than Rs.4000/-, the monthly wages would be the actual wage drawn.

E Where temporary settlement - whether total or partial results from the injury, a half-monthly payment of the sum equivalent to 25% of monthly wages of the workmen is to be paid by the employer to the workmen

F No payment of compensation in respect of a workmen whose injury has resulted in death, and no payment of lump sum as compensation to a women or a person under legal disability shall be made otherwise by depositing to the Commissioner and no such payment made directly by an employer shall be deemed to be a payment of compensation

G In case of fatal accident, the employer is to submit Form EE Rule - 11 - Report of Fatal Accident to the workmen's compensation commissioner within 72 hours from the date of occurrence of accident.

H Employer should deposit the compensation for fatal accident in Form "A" to the workmen commissioner

I In case of partial permanent disablement, memorandum of agreement in Form K,L,M are to be registered with Workmen Compensation Commissioner before disbursing the compensation amount to the Workmen.

41.3 SALIENT PROVISIONS AND COMPLIANCE OF EMPLOYEES STATE INSURANCE ACT 1948

A An Act to provide for certain benefits to employees in case of sickness, maternity and employment injury and to make provision for certain other matters in relation thereto.

B An employee means any person employed for wages in or in connection with the work of a factory or establishment to which this Act applies and

1. who is directly employed by the Principle employer or on any work of, incidental or preliminary to or connected with the work of, the factory or establishment whether such work is done by the employee in the factory or establishment or else where or

2. who is employed or through and immediate employer on the premises of the factory or establishment or under the supervision of the principle employer or his agent on work which is ordinarily part of the work of the factory or establishment or which is preliminary to the work carried on in or incidental to the purpose of the factory or establishment; or

3. whose services are temporarily lent on hire to the principal employer by the person with whom the person whose services are so lent or let on hire has entered into a contract of service; and includes any person employed for wages on any work connected with the administration of the factory or establishment or any part, department or branch thereof or with the purchase of raw materials for, or the distribution or sale of the products of, the factory or establishment;

1 (or any person engaged as an apprentice, not being an apprentice engaged under the Apprentices Act, 1961 (52 of 1961), or under the standing orders of the establishment; but does not include)-

(a) any member of the Indian naval, military or air forces; (or)

(b) any person so employed whose wages (excluding remuneration for overtime work) exceed [such wages as may be prescribed by the Central Government] a month:

Provided that an employee whose wages (excluding remuneration for overtime work) exceed [such wages as may be prescribed by the Central Government] a month at any time after (and not before) the beginning of the contribution period, shall continue to be an employee until the end of that period;

C' Principal employer ' means -

(i) in a factory, the owner or occupier of the factory and includes the managing agent of such owner or occupier, the legal representative of a deceased owner or occupier, and where a person has been named as the manager of the factory under the Factories Act, 1948 (63 of 1948), the person so named;

(ii) in any establishment under the control of any department of any Government in India, the authority appointed by such Government in this behalf or where no authority is so appointed, the head of the department;

(iii) in any other establishment, any person responsible for the supervision and control of the establishment

D Compliance by the Contractors :-

- (i) To open ESI Code No. for remitting the contribution both employer and employee every month for the workmen engaged by them
- (ii) Remitting the contributions in the prescribed format in Form - 6 regularly every month
- (iii) Submission of Form -1, Form - 1A, Form - 1B, Form - 4, Form - 4A, Form - 16 (Accident Report), and Form - 17
- (iv) Monthly details of remittance along with salary should be submitted to BHEL
- (v) Yearly return of details of Wages, details of ESI recovery, details of remittance to be submitted to BHEL
- (vi) On completion of the work ESI clearance certificate obtained from Local ESI authorities is to be submitted to BHEL for enabling to release the final bill.

E Wherever ESI Act is not applicable, the contractors shall have to cover their employees under Workmen Compensation Act 1923 by availing an insurance policy under the scheme of WC Insurance

F All Government owned Insurance companies issue Workmen Compensation Insurance Policies as per term applicable. Insurance shall cover all Workmen employed by the contractor on any given date.

41.4 MINIMUM WAGES ACT 1948

Salient features

A An Act to provide minimum statutory wages for scheduled employment and to provide maximum daily working hours, weekly rest and overtime

B It applies to all establishments employing one or more persons in any scheduled employment

C Compliance by the contractor

- (i) To pay the prescribed minimum wages or more to the Workmen engaged by them.
- (ii) Displaying abstract of the Act in English and local language in Form 9-A
- (iii) Submission of Annual Return in Form - 3 to the statutory authorities
- (iv) Clearance certificate from the labour authority is to be obtained from and submitted along with the final bill.

41.5 EMPLOYEES PROVIDENT FUND AND MISCELLANEOUS PROVISION ACT 1952

(salient features)

A An Act to provide for the institution of Provident Funds, Pension and Depositing in Linked Insurance Fund.

B It applies to all Contract Labour employed by the Contractor even for casual labour since the Principal Employer's establishment where the contractor is executing a job has already employed more than 20 workmen.

C The Act includes the contract labour as an employee who is employed for Wages in any kind of work and who gets his wages directly or indirectly from the employer and includes any person employed by or through a Contractor in or in connection with the work of the establishment

.D Compliance by the Contractor:-

(i) The contractor should apply for PF Code while submitting his Annual Balance Sheet and other documents required to the Regional provident Fund Commissioner.

(ii) If not, the contractor should get an additional code number from the Principal employer's code number and deposit the PF remittances regularly.

(iii) Copies of monthly remittances on the prescribed forms should be submitted to BHEL as a proof of compliance along with wage sheet

(iv) Yearly submission of return indicating month wise salary, recoveries on PF, and employers contribution and total reconciliation of the above in Form - 3A

(v) On joining the above scheme, Membership form, Nomination forms and other related forms are to be submitted to PF authorities by the contractor

(vi) On completion of the works, the contractor should obtain a clearance certificate from PF authorities with total reconciliation of wages paid, PF recovered and remitted as per extant rules of the above Act for further processing of final bills by BHEL.

(vii) The contractor shall also arrange to obtain yearly statements of PF remittances from PF authorities in respect of each employee for whom he has remitted PF Money and issue the same to concerned workmen periodically.

41.6 SALIENT PROVISIONS OF PAYMENT OF WAGES ACT 1936

A An Act to regulate payment of wages to certain class of employed persons which applies to every factory, railway admn. Or persons engaged in industrial or other establishment, either directly or through a contractor.

B "Employed person" includes the legal representative of a deceased employed person

C "Employer" includes the legal representative of a deceased employer

D "Wages" means all remuneration (whether by way of salary allowances or otherwise) expressed in terms of money or capable of being so expressed which would , if the terms of employment, expresses or implied ,were fulfilled ,be payable to a person employed in respect of his employment or of work done in such employment.

E Responsibility for payment of wages:- (Sec 3) Every employer shall be responsible for the payment to the persons employed by him of all the wages required to be paid under the act.

F Fixation of wage period:- Every person responsible for the payment of wages under sec 3 shall fix periods in respect of which such wages shall be payable

G Time Of payment of wages :- The wages of every person employed shall be paid before the expiry of seventh day, if less than one thousand persons are employed in an Establishment or tenth day

H Deductions which may be made from wages:- Only authorised deductions specified under section 7 of the act is to be deducted.

I Deductions for absence from duty:- Deductions may be made for absence of duty (sec 9)

J Maintenance of registers and records:- Every employer shall maintain such registers and records giving such particulars of persons employed by him, the work performed by them, the deductions made from their wages, the receipts given by them and other such particulars and in such form as may be prescribed.

K Claims arising out of deductions or delay in payment of wages and penalty for malicious and vexatious claim:- (Sec 15) Authority under the act on ascertaining the bona fides of a claim may direct the employer to pay the dues

L Conditional attachment of a property of employer or persons responsible for payment of wages can be ordered by the authority in such cases if it is prima facie found that the employer is evading of the payment that is due to the workmen employed.

M Penalty for offences under the act:- Fine up to Rs.3000/ or imprisonment up to six months.

N Annual return:- return in form 5 wages paid in respect of every year should be submitted by 15 th Feb of succeeding year.

41.7 SALIENT PROVISIONS OF THE BUILDING AND OTHER CONSTRUCTION WORKERS (REGULATION OF EMPLOYMENT AND CONDITIONS OF SERVICE) Act 1996

A An act to regulate employment and conditions of service of building and other construction workers and to provide for their safety, health and welfare measures and for other matters connected therewith or incidental thereto

B Building worker means a persons who is employed to do any skilled ,semi-skilled or unskilled, manual, supervisory, technical or clerical work for hire or reward in connection with any building or other construction work .

C Contractor means a person who undertakes to produce a given result for any establishment other than mere supply of goods or articles of manufacture by the employment of building workers or who supplies building workers for any work of the establishment.

D Registration of Establishment:- Every employer shall register their establishment within sixty days of commencement of work (Sec 7)

E Effect of non-registration:- No employer shall employ any building workers without registration . Incase of non-registration an appeal shall be preferred by the employer to the Registering authority for registration.

F Every employer shall maintain such registers and records giving such particulars of building workers employed by him, the work performed by them, the number of hours of work, wages paid, the receipt given and other particulars as may be prescribed

G The employer shall make in every place where building or other construction work is in progress, effective arrangement to provide and maintain at suitable points wholesome drinking water with sufficient supply

H In every place of the employer shall provide latrine and urinals and accommodation, creches, first aid facilities and canteen.

I The employer shall give notice of accident within 48 hrs of its occurrence to Authority prescribed under the Act

J Special provisions on safety:- The employer shall be responsible for providing constant and adequate supervision of any building or other construction work in his estt in order to ensure the compliance of safety provisions by taking all practical steps to prevent accidents.

K The Employer shall be responsible for payment of wages and compensation. The employer shall intimate the commencement of work to the appropriate authority. M Penalty : Any contravention of the rules may attract penalty of imprisonment or fine upto two thousand or both.

41.8 SALIENT PROVISIONS OF THE CHILD LABOUR (PROHIBITION AND REGULATION) ACT 1986

A An act to prohibit the engagement of children in certain employments and to regulate the conditions of work of children in certain other establishments

B Applies to all estt or class of estt in which none of the occupation or process referred to under sec 3 of the act is carried on

C Child means a person who has not completed his fourteenth year of age

D The abstract of the sec 3 and 14 to be displayed in the notice board

E Notice by the occupier to the inspector in case any Child is employed within 30 days u/s 11.F Register of child workers to be maintained by the employer u/s 9(2) G Penalty for violation:- imprisonment upto two years or Rs 20,000 fine or both.

41.9 SALIENT PROVISIONS OF INTERSTATE MIGRANT WORKMEN (REGULATION OF EMPLOYMENT AND CONDITIONS OF SERVICES) ACT 1979

A An act to regulate the employment conditions of workmen who are being employed by the employer for the work in other states and to envisage certain conditions of service to be provided by the employer by furnishing certain information to the licensing authorities.

B It applies to every Establishment in which 5 or more interstate migrant workmen are employed or who were employed on any day of the proceeding 12 months

C Registration of estt by the employer u/s 4(1) of the act to the licensing authority

D Abstract of the act is to be displayed in English and local language u/s 23(1) & 23(2)

E Contractor to furnish the particulars of interstate workmen within 15 days from the date of recruitment to the licensing authority of both states u/s 12A and the contractor shall issue a pass book with passport size photograph with details of employment card, period of employment and displacement allowance

F Return regarding interstate migrant workmen, wage due payable, fare for the journey paid are to be submitted to the licensing authority and annual return every year.

G Register if muster roll, deductions and fines are to maintained by the contractor
Penalty :- imprisonment upto 2 years or fine upto Rs.2000/ or both

41.10 SALIENT PROVISIONS OF EQUAL REMUNERATION ACT 1976

A An act to provide for payment of equal remuneration to men and women workers and for the prevention of discrimination on the ground of sex against women in the matter of employment and matters connected therewith or incidental thereto

- B It applies to all establishment
- C The employer shall maintain register in Form D of workmen
- D Penalty:- Imprisonment up to one month or fine up to Rs 10,000/ or both.

Labour Welfare Fund:- This is act enacted by every state , to provide for the constitution of a fund for promoting the welfare of the labour and for certain other matters connected therewith . (relevant act applicable to the respective state may be referred)

The Govt will constitute a fund called The Labour Welfare Fund and the contribution by the Employers and Employee, voluntary donations, any interest by way of penalty and all fines imposed and realised.

Generally Every employee will contribute Two Rupees(please verify for the respective state) per year to fund and every employer will contribute Four rupees per year per employee.

The fund will be generally utilized for expenditure on community and social education centres, vocational training, entertainment and other forms of recreation, convalescent homes for TB patients, and aged and health resorts, holiday homes, part time employment for housewives, preschool, nutritious food for children, school and employment opportunity for disabled.

42.0 POST TECHNICAL AUDIT OF WORK AND BILLS. The employer reserves the right to carry out the post payment audit and technical examination of works and final bill including all supporting vouchers, abstracts etc and to enforce recovery sums becoming due as a result thereof provided, however, that no such recovery shall be enforced four years of passing and settling the final bill.

43.0 NON WAIVER OF DEFAULTS:- Failure of the employer to insist upon strict performance of any terms and conditions of the contract will not be deemed a waiver of any rights or remedies that the employer may have and will not be deemed a waiver of any subsequent default under the terms and conditions of the contract. No remedy will be exclusive of any other right or remedy and the employer will have all rights and remedies given under the contract and now or hereafter existing in Law or by Statute.

44.0 SETTLEMENT OF DISPUTES AND ARBITRATION:- Except where otherwise provided in the contract all quotations and disputes relating to the meaning of specifications, design, drawings and instructions herein before mentioned and as to the quality of workmanship or materials used in the work as to any other question claim, right, matter or thing whatsoever in any way arising out of or relating to the contract, designs, drawings, specifications, estimates, instructions, orders or these conditions or otherwise concerning the work or the execution 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 and decided by the engineer whose decision shall be final to the parties hereto subject however, to the Arbitration referred hereunder. Any disputes of differences including those considered as such by only one of the parties arising out of or in connection with the contract shall be to the extent possible settled amicably between the parties. If amicable settlement cannot be reached then all such disputed issues shall be referred to the sole arbitration of the person appointed by the General Manager of the Employer.

There will be no objection to any such appointment that the Arbitrator so appointed is a Government servant or in the employment of the Employer, that he had to deal with the matters to which the contract relates and that in the course of his duties or any of the matters in dispute or difference as a government servant or as an employee of the employer he had expressed views on all or any of the matter in dispute or difference. The arbitrator to whom the matter is originally referred being transferred or vacating this office or being unable to act for any reason the General Manager - as aforesaid at the time of such transfer, or 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. The arbitrator from time to time with the consent of the parties may enlarge the time for making and publishing award. The arbitrator shall at the time of making and publishing the award give reasons thereof. The award made and published by the Arbitrator shall be final and binding between the parties.

Performance of the contract shall continue during arbitrator proceedings unless the employer shall order the suspension or termination thereof or any part thereof of the work or any portion of work.

Subject as aforesaid the provisions of Arbitration Act, 1996 (India) or any statutory modifications or re-enactment's thereof and the rules made thereunder and for the time being in force shall apply to the arbitration proceeding under this clause. **The venue of arbitration shall be Chennai, Tamilnadu.**

Section VI

SPECIAL CONDITIONS OF CONTRACT

These conditions will be read and construed along with general conditions of contract and in case any conflict of inconsistency between the General and Special conditions, the provisions contained in the Special conditions shall prevail.

NOTE : The bidder to note the following before submission of the offer

Technical requirements in Volume- II Should be read in conjunction with BOQ in Volume – III and other sections of the tender / contract. In case of any conflict between the contents of BOQ in Volume – III and Technical Requirements in Volume – II, BOQ will prevail over Technical requirements.

In case of any conflict between Technical requirements in Volume – II – Book 1 (Customer spcn) and Volume – II – Book 2 (standard technical specification) in Volume – II – Book 1 (Customer spcn) will prevail over standard technical specification in Volume – II – Book 2.

1.0 SCOPE OF WORK:

1.1 The works to be carried out is for “Construction of PILE & PILE CAP FOUNDATIONS FOR BOILER, ESP, TG FOUNDATION, TRANSFORMER YARD, FAN’S, DUCT SUPPORTS, POWER HOUSE BUILDING ETC

01. Boiler Foundations, including ESP and all miscellaneous foundation From Transformer yard to chimney, Mill bay foundations, Transfer Towers.
02. Equipment Foundations such as mills, Fan Foundations consisting of ID, FD, PA, etc.
03. Main Plant Building (A TO D ROW, TG FOUNDATION etc.)
04. Transformer yard viz. Transformer Foundations, Oil Pit, Oil Water Separator, Fire Barrier wall etc.

2.0 FACILITIES TO BE PROVIDED BY BHEL

- 2.1** Open space for constructing site office and stores/ storage sheds as made available by the owner shall be provided free of cost.

2.2 BHEL shall not provide to the contractor any residential accommodation to any of his staff and the contractor has to make his own arrangements. However the land required for the same, if provided by customer, shall be provided at nominal rent as charged by customer.

2.3 Contractor has to furnish along with their offer the details of requirements of area of space for office, stores, fabrication yard, and storage shed and residential accommodation.

2.4 Location and area requirement for office/storage sheds/ fabrication yard shall be discussed and mutually agreed to.

3.0 **CONSTRUCTION WATER**

3.1 Water (Raw water) required for construction purposes will be provided at single point with in plant boundary which can be utilized free of cost by bidder. However the bidder shall arrange for further distribution at their cost. No separate payment shall be made for any contingency arrangement made by contractor, due to delay / failure for providing water supply by customer.

4.0 **CONSTRUCTION POWER**

4.1 The construction power will be provided by BHEL FREE of cost at specified points. The contractor shall make his own distribution arrangement. Contractor shall make his own arrangement for alternative source of power supply through deployment of adequate number of DG sets at their cost during the power breakdown / failure and during the initial stages. No separate payment shall be made for this contingency.

5.0 **PERT CHART AND PROGRESS REPORTS**

5.1 The Contractor shall submit a detailed L2 network in MS Projects to meet the agreed project schedule covering various mile stone activities and their split up details such as construction, procurement of materials ,fabrication & erection activities. This network shall also clearly indicate the interface facilities / inputs to be provided by BHEL / customer and the dates by which such facilities / inputs are required.

6.0 TIME SCHEDULE

Time allowed for completion of total work 12 **months**. However a detailed programme to be prepared and adhered to match the following mile stone activities

Mobilisation of rigs & Commencement of work	15 days from date of LOI
Test pile - Driving & completion of load test	2 months from LOI
Completion of ESP pile cap	4 th month
Completion of Boiler pile cap	5 th month
Completion of fan fdns pile cap	12 th month
Completion of TG fdn pile cap	10 th month
Completion of PH Bldg pile cap	10 th month
Completion of all balance piling	8 th month
Completion of all balance pile cap	12 th month
Completion of all pile load test	11 th month

The above time allowed for completion of work including Sundays and Holidays is from the date of commencement of work. Detailed programme has to be prepared by the tenderer taking in to consideration of the above mile stone activities and submitted for BHEL's approval.

7.0 SECURED ADVANCE

Interest free secured advance up to maximum of 75% of the value of materials (landing cost at site) for cement, for stone aggregate required for incorporation in permanent work shall be paid. The secured advance shall be adjusted in the interim bills prorated to the materials incorporated in the work and billed.

8.0 TERMS OF PAYMENT

8.1 Mobilisation Advance

Interest bearing Mobilisation advance, limited to 5% of the contract value will be paid as one time payment against matching bank guarantee valid for the contract period. The mobilization advance shall be paid after receipt of initial security deposit, approval of bar chart and site Mobilisation as certified by site in charge. to commence the civil work.

The Mobilisation advance along with accrued interest shall be recovered progressively at the rate of 7.5% of gross value of interim payments from the second running account bill and shall be effected such that the entire advance shall be recovered before 70% of the ordered value executed.

The interest will be charged at the prevailing borrowing rate of BHEL plus 1%.

Option of availing the interest bearing mobilization advance is left with the bidder.

8.2 **Interim Payment:**

- a) Interim bills in the form of monthly running bills prepared by the contractor shall be based on the quantities executed and measured.
- b) All interim payments shall be limited to 90% of the item rate.
- c) All admissible deductions shall be made from the above 90% value
- d) 5% of the gross amount of the monthly running bill shall be released after submission of the quality check formats / documents as per the quality plan for the quantum of work billed and duly certified by engineer.
- e) BHEL site engineer, at discretion, may further split up the percentages and effect payment to suit the site conditions, cash flow requirement according to the progress of work.
- f) BHEL site engineer, at discretion, may operate part rate for the items where supply and installation are involved, on receipt of materials at site.
- g) For mobilization of pile rigs vide item no 2501, the rate quoted is for 12 nos of piling rigs. In case number of rigs mobilized are less than 12 nos, amount in proportion to the quote shall be recovered from the bills. Also in case number of rigs mobilized are more than 12 nos, amount in proportion to the quote shall be paid in the bills

8.3 **FINAL BILL**

Balance (5%) amount of the value of the work executed and measured(gross value reduced by the interim payments paid) shall be released after completion of work and certified by BHEL Engineer.

Contractor shall submit the final bill after completion of the entire works and required reconciliation duly certified by Engineer-in-charge.

NO CLAIM WHAT SO EVER MAY BE, WILL BE ENTERTAINED UNDER THIS CONTRACT, AFTER DULY SIGNING THE FINAL BILL ALONG WITH MEASURMENT BOOKS AND ACCEPTED BY BHEL.

9.0 **PERFORMANCE GUARANTEE :**

The contractor shall furnish a performance bank guarantee for an amount equal to 5% of the contract value within 30 days from the date of Fax LOI and the terms of the performance bond shall have to be approved by BHEL.the bond shall remain valid until expiry of maintenance period as indicated in GCC.

10.0 **TOOLS AND PLANTS**

Major T&P's required to be arranged by the contractor includes Rotary type or equivalent latest piling rigs minimum of 12 Nos, Batching plant, concrete mixers, excavators, vibrators, tippers, transit mixers, builders hoist , pile load test equipments etc.

Bidder to establish materials testing laboratory for testing concrete, cement, aggregates etc at site. If any test to be performed as stipulated in the approved quality plan, if facility is not available in the field lab, the same has to be carried out in a reputed laboratory at the cost of contractor.

Bidder to furnish a detailed deployment plan.

11.0 **CEMENT AND STEEL**

11.1 Supply / providing Cement and all other materials required for the work are in the scope of the tenderer only. However BHEL shall provide Reinforcement steel and earthing rod (MS Round) required for incorporation in the permanent works as **FREE SUPPLY**.

12.0 **DELAYED DELIVERY**

As indicated in the GCC, BHEL reserves the right to recover from the Contractor as agreed liquidated damages and not by way of penalty, if the contractor has failed to comply with the time schedule agreed upon as per the contract.

13.0 **INSURANCE:**

BHEL shall arrange for insuring all the materials brought for incorporating in the permanent works including the works covering all risks (Contractors' All Risk Policy).

Contractor has to insure his workmen against accident and injury while at work as required by relevant rules and to pay compensation, if any, to workmen as per Workmen Compensation Act.

Contractor shall also take / cover insurance to protect from injuries, disabilities, disease, death to members of / including the owner's men and damage to property of others arising from the use of motor vehicles / Tools & Plants during or of the site operations, irrespective of the ownership of such vehicles.

14.0 **PAYMENT FOR ADDITIONAL ITEMS**

14.1 For working out the rates for supplemental / additional items, the least of the following will be operated.

- a) Near similar item (or) derived from LOI items
- b) Direct from CPWD schedule of rates – DSR 2007
- c) Derived from CPWD rates

14.2 If any item could not be derived from the above 14.1, Rate will be worked out based on market rate for such item with 10% plus towards contractors overhead and profit.

14.3 Engineer's decision is final in fixing out the rate as stated above and binding on contractor

15.0 **DELETED**

16.0 **LD Clause and Security Deposit Clause**

LD clause and Security Deposit clause will be as per GCC clause no. 21.5 and 3.3 respectively.

17.0 **DELETED**

18.0 **FINAL SITE INSPECTION & TEST**

The employer / owner shall maintain at site a joint protocol for recording actual measurement of work carried out at site, inspection and witnessing of various tests conducted by the contractor. The owner /employer or his authorized agents may inspect various stages of work during the currency of the contract awarded to him. The contractor shall make necessary arrangements for such inspection and carry out the rectification pointed out by the owner/employer without any extra cost to the owner/employer. The contractor shall take into consideration the above aspects while quoting their rates for various items/works. No cost whatsoever such duplication of inspection of work be entertained.

19.0 INSPECTION / QUALITY ASSURANCE / QUALITY CONTROL / STATUTORY INSPECTION

19.1 Various inspection/quality control/quality assurance procedure/methods at various stages will be as per BHEL/customer quality control procedures/codes and other statutory provisions and as per BHEL Engineer.

Preparation of quality assurance plan, log sheets and protocols as per BHEL Engineer's instructions, is within the scope of bidder.

19.2 The protocols between contractor and customer/BHEL shall be made for correctness of foundation, materials, procedures, at each stage as per the requirement of customer/BHEL. This is necessary to ensure elimination of errors or keeping them within tolerable limits and to avoid accumulation and multiplication of errors.

19.3 A Daily log book should be maintained by every supervisor/Engineer of contractor on the job in Duplicate (one of BHEL and one for contractor) for detailing and incorporating Alignment/Clearance centering/leveling readings and inspection details.

19.4 All the important measurements like pre assembly checking of columns verticality of columns, distance between structural columns, foundations levels, alignment, dimensions etc. shall be recorded in the daily log book with sketches based on BHEL drawings/indicating readings/measurements actually taken and signed by BHEL/Customer/Contractor representatives.

19.5 All the electrical./ technical measuring and testing instruments/ gauges levels spirit levels and all other measuring instruments shall be provided by the contractor for checking, leveling, alignment, centering etc of erected equipments at various stages. The instruments, gauges, tools etc provided should be of brand, quality and accuracy, specified by BHEL engineer and should have necessary calibration and other certificates as per the requirements of BHEL Engineer.

20.0 COMPENSATION FOR EXTENDED PERIOD OF CONTRACT

If the contract period gets extended for the reasons not attributable to the contractor, an amount of **Rs. 200000 per month** shall be paid for the extended period of contract beyond 12 months from the date of commencement of the work.

21.0 FIELD QUALITY PLAN

The contractor shall submit a detailed field quality plan as per the BHEL format within 30 days from the date of LOI for approval. All the works has to be carried out as per the approved field quality plan.

Bidder to establish materials testing laboratory for testing concrete, cement, aggregates etc at site. If any test to be performed as stipulated in the approved quality plan, if facility is not available in the field lab, the same has to be carried out in a reputed laboratory at the cost of contractor.

Typical list of lab equipments are given in this tender. Contractor to establish the field lab with the equipments relevant to the item of work in the contract.

22.0 PRICE VARIATION CLAUSE :

The price variation clause as given under shall be followed

For materials, Labour and fuel

22.1.1 The base index for working out such escalation shall be the month on which tenders were stipulated to be received .

22.1.2 The cost of work (**w**) on which escalation will be payable shall be reckoned as 100% of the cost of work as per the bills, running or final , the amount of compensation for escalation is worked out. The cost of work shall not include any extra work for which payment is made based on rates derived at prevailing market rates.

22.1.3 The components for materials, labour, fuel are as under :

Materials - X = 40

Labour - Y = 40

Fuel - Z = 05

22.1.4 The compensation for escalation for materials, labour and fuel shall be worked out as per the formula given below:

$$i) \quad VM = W \times \frac{X}{100} \times \frac{(MI - MIO)}{MIO}$$

VM - Variation in materials cost i.e. increase or decrease in the amount in Rupees to be paid or recovered.

W - Cost of work done worked out as indicated in sub-para 1.2 Above.

X - Components of materials expressed as percentage of the total value of work as in sub-para 1.3 above.

MI - Average All India Whole Sale Price Index for All commodities for the period under reckoning as published by the Ministry of Industry, Govt. of India for the period under consideration.

MIO - Base Index as in para 1.1

$$ii) \quad VL = W \times \frac{Y}{100} \times \frac{(LI - LIO)}{LIO}$$

VL - Variation in labour cost i.e. increase or decrease in the amount in Rupees to be paid or recovered.

W - Value of work done worked out as indicated in sub para 1.2 above

Y - Components of labour expressed as percent of the total value of work as in para 1.3 above.

LI - Labour Index shall be index number of CPI from (All India General) Industrial Workers (Base 2001 – 100) as published by Labour Bureau, Simla in monthly Bulletin entitled Indian Labour Journal for the period under consideration.

LIO - Base Index as in para 1.1

$$\text{iii) } \quad \text{VD} = \text{W} \times \frac{\text{Z}}{100} \times \frac{(\text{FI} - \text{FIO})}{\text{FIO}}$$

VD - Variation in cost of High Speed Diesel increase or decrease in the amount in Rupees to be paid or recovered.

W - Value of work done worked out as indicated in sub para 1.2 above

Z - Components of fuel expressed as percent of the total value of work as in para 1.3 above.

FI - Price per litre,. Which will be the price of high speed diesel at the IOC retail outlet nearest to the Project. (Selling price inclusive of taxes and duties if any, per litre of high speed diesel oil).

FIO - Base index as in para 1.1(Price per litre on the date of bid submission)

22.2.0 The following principles shall be followed while working out indices mentioned in para 1.4 above.

a) The index relevant for any month will be arithmetical average of the indices relevant to the three calendar months preceding the month in question.

b) The base index as in para 1.1

22.3.0 In the event of the price of materials and / or wages of labour required for execution of the work decrease/s, there shall be downward adjustment and such amount shall be recovered and in this regard the formula herein before stated under this clause shall mutates mutandis apply.

22.4.0 The ceiling of price variation shall be 10% of the executed value of work at base rates.

22.5 PAYMENT TERMS FOR PRICE VARIATION CLAIMS

Claim on account of Price variation shall be settled on a quarterly basis. Payment in respect of quarterly price variation claims shall be made within one month from the date of receipt of the invoices with supporting documents in complete shape, by "Account Payee" cheque. Initially the invoices will be raised for 90% of price variation and the balance shall be claimed along with the final payment of 10% on completion of work.

23.0 ISSUE OF MATERIALS

Steel (Structural and Reinforcement, MS round, MS earthing rod) will be issued free of cost by BHEL at BHEL stores for use in the permanent work covered in this contract. Contractor has to transport the materials to the work spot at their cost.

23.1 ISSUE OF STEEL

The steel shall be issued to the contractor on the following basis:

- (a) Structural Steel : Weighment basis (Unit – MT)
- (b) Reinforcement Steel : Weighment basis (Unit – MT)
and Earthing rod (MS round).

All the steel (structural, reinforcement, earthing MS rod,) issued by the BHEL shall be properly accounted for. The total quantity of steel required for the work will be calculated from the approved Bar Bending schedule, fabrication drawings, approved laps, chairs and lugs. The measurement for payment as well as for accounting shall be based on the sectional weights as indicated in the following IS specifications.

IS: 808-1964 Beams, Channels and Angles

IS: 1730-1961 Plates, Sheets and Strips/Flats

IS: 1732-1971 Rounds including deformed high yield strength bars.

In case any such sectional weights are not available in the above documents, the manufacturer recommendation shall be binding.

The steel issued to the contractor shall be mainly in standard length and sections as received from the supplier. However, the contractor shall be bound to accept the steel in length as available in the project stores no claims for extra payment because of issue of non-standard length will be entertained.

The contractor shall satisfy himself of the quality and quantity of the materials at the time of taking delivery from BHEL stores. No claims whatsoever will be entertained by BHEL because of quality or quantity after the materials are taken by the contractor from BHEL stores.

The contractor shall submit to the engineer, a statement indicating estimated quantity of steel required during a quarter, at least two months in advance of the quarter. In addition, the contractor shall also furnish the estimated requirement of steel during a month by the third week of the previous month indicating his requirement.

Following shall be limit for the maximum quantity of BHEL issue materials that would be with the contractor at any point of time when work is in progress (excluding what has already been incorporated in the works).

SL. NO.	ISSUE OF MATERIALS	MAX. QTY IN CONTRACTORS STORE.
1.	Reinforcement Steel & Earthing rod MS round.	Requirement of one month
2.	Structural Steel	-----DO-----

Bidders to ensure that no lamination material are taken over by them from BHEL. Fabrication wastage, if any due to above, shall not be compensated by BHEL.

Bidder to note that steel materials required for MS Grating, Galvanised Grating, GI Handrail, Stainless Steel Handrail, Stop Lock Gate, Stationery Screen, fasteners like MS/HT/HSFG bolts/nuts, lock nuts, washers and foundation bolts other than those supplied by BHEL, etc shall be supplied by the bidder.

23.2 RETURN OF MATERIALS

All surplus steel and all wastage materials will be taken back on weight basis.

Surplus, unused and untampered steel shall be sorted section-wise and returned separately for a place directed by BHEL/Engineer within the project area, Return of such materials will not be entitled to any handling and incidental charges.

All wastage / scrap (including melting scrap, wastage, unusable scrap) shall be promptly returned to the stores and a receipt obtained for material accounting purposes. Return of such material will not be entitled to any transportation and incidental charge.

23.3 STEEL CONSUMPTION AND WASTAGE

23.3.1 REINFORCEMENT AND EARTHING ROD MS ROUND STEEL CONSUMPTION AND WASTAGE.

a) CONSUMPTION.

The theoretical consumption of various sections and/or diameter of reinforcement and earthing rod steel shall be based on approved construction drawing and bar bending schedule. Weight shall be calculated considering the sectional weights as per Indian standards. No extra cost shall be payable to the contractor for any deviation in weights for the different procedures adopted for issue and calculation of the theoretical consumption including rolling tolerances.

- i) Actual consumption = Issue – Surplus.
- ii) Surplus = Un-tampered and unused QTY. of steel returned by the contractor to BHEL store along-with relevant documents.
- iii) Wastage = Actual consumption – Theoretical consumption.

b) WASTAGE

ALLOWABLE WASTAGE: - (+5%) of the theoretical consumption shall be considered as allowable wastage.

SL. NO.	REINFORCEMENT STEEL & EARTHING ROD MS ROUND	BASIS OF ISSUE & RECOVERY RATE.
R-1	Theoretical consumption (without considering wastage and scrap or loss)	Free
R-2	Wastage limited to plus FIVE percent (+5%) of aforesaid theoretical consumption (R-1) towards allowable wastage (cut pieces plus scrap to be returned to BHEL).	Free
R-3	Wastage beyond FIVE percent (+5%) Of the theoretical consumption above (R-1).	Penal Rate

(cut pieces plus scrap to be returned to BHEL).

23.3.2 STRUCTURAL STEEL, (ROLLED SECTION, PLATES ETC.) CONSUMPTION & WASTAGE.

A) CONSUMPTION: -

The theoretical consumption of various sections shall be based on approved drawings. Weights shall be calculated considering the sectional weights as per Indian standard. No extra shall payable to the contractor for any deviation in weights for the two different procedures adopted for issue and calculation of the theoretical consumption including rolling tolerances.

- i) Actual consumption = Issue – Surplus.
- ii) Surplus = UN tempered, unused, uncut quantity of steel returned by the contractor to BHEL store.
- ii) Wastage = Actual consumption – Theoretical consumption.

b) WASTAGE

Allowable wastage: - 5% (five percent) of the theoretical consumption shall be considered. Wastage shall be considered as cut pieces and scrap material, measured as per actual weightment basis. Invisible wastage,if any , shall be considered to be included in the specified 5 % allowable wastage.

SL. NO.	CONSUMPTION OF STRUCTURAL STEEL (ROLLED SECTION, PLATES & SS liner)	BASIS OF ISSUE
S-1	Theoretical consumption (without Considering any wastage, scrap or loss) as per spec. & drg.	Free
S-2	Wastage limited to plus five percent (+5%) of the aforesaid theoretical consumption (S-1) towards allowable wastage.	Free
S-3	Wastage beyond five percent (5%) of the aforesaid theoretical consumption (S-1). (All wastage steel shall be returned to BHEL).	Penal Rate

23.3.3 RECONCILIATION OF MATERIALS

The contractor shall submit a reconciliation statement of steel issued to him with each RA Bill.

At the time of submission of bills, the contractor shall properly account for the material issued to him as specified herein to the satisfaction of BHEL certifying that the balance material are available with contractor's custody at site.

At the time of submission of bills by the contractor, if it is noticed by BHEL that the wastage is high and calls recovery at the penal rate, then, BHEL will proceed for recovery for the excess wastage as per penal recovery rates as specified.

The reference drawings for actual material consumption to be used for the purpose of reconciliation shall be drawings prepared by the BHEL and drawings approved by BHEL for fabrication works and such other drawings approved by BHEL. This shall also include the bar bending schedule prepared by the contractor and approve by BHEL.

23.3.4 RECOVERY OF MATERIAL

If wastage exceeds the specified limit, the recovery of excess wastage shall be made from monthly R/A Bill at the Penal Rate.

23.3.5 PENAL RATE OF MATERIALS

A. REINFORCEMENT STEEL

Rs. 60,000/- per MT.

Cold rolled steel, high strength deformed bar or mild steel round bars including earthing rod MS round.

B. STRUCTURAL STEEL

Rs. 60,000/- per MT.

MS plates, MS flats, rolled steel joists, channels, and angles, MS pipes, Chequered Plates, etc in sizes and lengths as available.

FORM I

AFFIDAVIT BY THE APPLICANT

The undersigned, (name of official) of legal age, and residing at _____
After having been duly sworn deposes and states:

1. That he is the (official capacity) of the (Name of the firm) Corporation / Association / Individual, duly organized under law of India.
2. That personally and as (official capacity) for Corporation / Association/ Individual he hereby certifies.
 - a) That all statements made in the Applicant's pre – qualification statement and in the required attachment are true and correct.
 - b) That this statement is made for the express purpose of empanelling him to undertake the supply & execution of balance of plant and civil works.
 - c) That all required Forms as desired are submitted herein.
 - d) The applicant will make available to BHEL or its authorized agency any information they may find necessary to verify any item in the statement or regarding his competence and general reputation.
 - e) That the applicant is not the subject of litigation
 - f) That the undersigned is duly authorized by the corporation / individual to make these representations and to sign this Statement.

(Applicant)

Witness

1. _____ 2. _____

Subscribed and sworn to before me

This _____ day of _____ 2002

At _____

Attachment (if applicable)

Notary Public

FORM 1 A

**LETTER OF AGREEMENT AMONGST THE CONSORTIUM MEMBERS
(IF APPLICABLE)**

Form II GENERAL INFORMATION ABOUT APPLICANT

The information be furnished as required below:

1. Category of Applicant, whether
 - a) Single entity
 - b) Consortium of firms/ institutions/ Corporate
 - c) Joint venture
 - d) Private Limited Company
 - e) Public Limited Company
 - f) Others
2. Year since organised
3. Copy of Memorandum and Articles of Association (to be attached)
4. Name of the Applicant
 - If consortium
 - Leader
 - Members
5. Addresses of the members & leader
6. Responsibility of each consortium member
7. Consortium/ joint venture relationship/ period of tie up
8. Type of agreement
9. Date and year of commencement of service
10. Contact person's name, designation, address, telephone no, fax no e-mail no and details of officers
- 11 Any other information

Name

Signature of the Applicant/authorized representative

Form to be filled by vendors for registering for e-payment

BHEL : PSSR : CHENNAI

**DETAILS OF CONTRACTOR/SUPPLIER FOR E- REMITTANCE
OF PAYMENTS
BY BHEL/PSSR**

- 1 NAME & ADDRESS OF THE
CONTRACTOR/SUPPLIER**

- 2 BANK A/C NO**

- 3 TYPE OF A/C (CC / CURRENT)**

- 4 NAME OF THE BANK**

- 5 NAME OF THE BRANCH**

- 6 BRANCH CODE**

- 7 BANKER'S ADDRESS (BRANCH)**

MICR NO

IFSC CODE

**NOTE : THE ABOVE DETAILS ARE TO BE FURNISHED IN THEIR LETTER HEAD
BY THE CONTRACTOR /SUPPLIER ,DULY ATTESTED BY THEIR BANKERS**

FORM – III
DETAILS OF WORK EXPERIENCE IN LINE WITH PRE-QUALIFYING REQUIREMNT

	A	B	C	D	E	F	G	H	I	J	K	L
1	S.NO.	NAME OF AGENCY	PROJECT	TYPE OF PROJECT	BRIEF SCOPE	CLIENT	DATE OF LOI	DATE OF START OF WORK	DURATIO N/ ACTUCAL COMPLN.	VALUE OF WORK IN CRORES	QTY OF WORK RCC, STRU STEEL, EARTH WORK EMBANKMENT	AVG. RATE MONT H / YEAR
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												

COL. : K - Quantity of Work - ConcreteCu.M
 - Stru.Steel M.T
 - Earth work in Embankment - CuM

COL. : L - Average Rate/Month - Concrete Cu.M.
 - Stru.Steel M.T
 - Earth work in Embankment - CuM

**KEY INFORMATION REQUIRED SEPARATELY FOR
DIFFERENT JOBS**

(please refer the Format Section VI /Appendix -X)
**(The contractor is requested to furnish the information
without fail)**

a. **Job :** **Piling & Foundation** In main Power complex

Mile stones

- I. No of piles / type as awarded
- II. No of piles/ type as executed
- III. RCC works as awarded(cu.m)
- IV. RCC works as executed(cu,m)
- V. Average rate of piling per month
- VI. Concrete poured in a month(peak) cu.m
- VII. Number of pile rigs used in the work
- VIII. Length of single in metres

b. **Job :** **Concrete work**

Mile stones

- I RCC work as awarded(cu.m)
- II RCC works as executed(Cu.m)
- III average rate of concrete per month(cu.m)
- IV concrete poured in a month(peak) cu.m

c. **Job :** **Structural Steel work**

Mile stones

- I Quantity of Structural Steel work as award (MT)
- II Quantity of Structural Steel work as award (MT)
- III Peak monthly rate of Erection (MT)
- IV Peak monthly rate of Erection (MT)
- V Fabrication work done in a year (MT)
- VI Erection work done in a year (MT)
- VII Maximum height of the column fabricated and erected as
One single piece in meters. (If steel is issued free, state the
Fact in remarks column)

d. **Job:** **Chimney**

Milestones

- I Height of chimney as constructed (m)
- II Whether any accident took place during construction
- III Construction by using slipform or jumpform
- IV Time taken for construction of the concrete shell (weeks)

e. Job: Ash Dyke

Milestones

- I Total quantum of work in embankment (m2)
- II Completion 95% or 98% or more
- III Quantum of Dyke earthwork done in a year (m2)

2. Evidence not below the rank of Superintending Engineer/Manager for the Key information to be enclosed in the form of certificates.

3. Please don't attach any booklet

Please specify in the remarks column whether it is lumpsum contract or item rate contract

SECTION VI

IMPORTANT NOTE

Bidders are requested to furnish the information's as required in the appendices of Section IV & V of this book without fail.

Attach separate sheets if necessary

**Bids with incomplete particulars
Will be summarily rejected.**

SECTION VI - APPENDIX I

ORGANIZATION STRUCTURE OF THE FIRM

MANAGEMENT STRUCTURE OF THE FIRM

1. whether Public Limited/ :
Private limited/ :
Sole proprietor -ship / :
Partnership. :

2. (a). In case of Individual *

name of the business :
* type of business :
* date of commencement of business :
* whether he pays income tax over Rs10000/-
per year :

(b). In case of Partnership*

name of the partners :
whether the partnership is registered :
date of establishment of the firm :

• if each of the partners of the firms pays
income tax over Rs 10000/- per year ? :
• and if not which of them pays income tax :

(c) . in case of limited liability company
or company limited by guarantees :
amount of paid up capital = :

(Enclose a chart showing total company organization indicating various factories/ workshops/sites/divisions etc with levels and names of key personels and clearly depicting the reporting and functional relationships. Also give brief writeup on the functions and responsibilities of each entity.)

signature of the tenderer
with seal and date

**SECTION VI / APPENDIX -II
FINANCIAL VIABILITY**

1	Owners capital in the business (incase of partnership please mention the percentage of share and amount)	
2	Quantum of business done in the last 3 years	
	Year I	
	Year II	
	Year III	
3	Value of fixed assets in the last three years	
	Year I	
	Year II	
	Year III	
4	Banking limits Funded Non funded	
5	Guarantee limits (please give the details of the bankers)	
6	Over draft limits	
7	Income tax paid by the firm in the last 3 years	
	Year	
	Year	
	Year	
8	Sales tax registration details	
9	Excise duty registration details	
10	PF registration details	
11	Whether audited balance sheet and profit & Loss account statements enclosed	Yes / No
12	Solvency certificate from the banker	

Signature of the Tenderer
With seal and date

SECTION VI / APPENDIX - III

DETAILS OF OWNERS/PARTNERS/DIRECTORS
(Strike out whichever is not applicable)

Serial number	Name & designation	Address and qualification	* Experience Telephone number/ Fax no/ e-mail etc

* add additional information as required

Signature of the tenderer
With date and seal

SECTION VI / APPENDIX IV -A

**DETAILS OF THE STAFF PRESENTLY ON PERMANENT ROLLS OF
THE ORGANIZATION**

ENGINEERING STAFF

Name & designation	Qualifications	Experience and specialization	State if proposed to be deployed at site for this job	Remarks

Signature of the tenderer with seal and date

Note :

1. The manpower indicated against paragraph (B) above shall be further augmented with additional category / number of tools and plants as and when required and as directed by the engineer in charge ,to complete the work as per schedule.

The experience may be indicated field wise.(attach separate sheets if necessary)

**SECTION VI / APPENDIX IV - B
DETAILS OF TECHNICAL STAFF**

Sl No	Category	Total numbers on the rolls	Numbers proposed for this work
01	Supervisors		
02	Store keepers		
03	Crane operators		
04	Compressor operators		
05	Mill wright fitters		
06	Welders		
07	Piling rig operators		
08	General fitters		
09	Electrician		
10	Sarang		
11	Riggers		
12	Carpenter		
13	Painter		
14	Mixer operators		
15	Sheet metal fabricators		
16	Vibrator operator		
17	Cable jointer		
18	Light vehicle drivers		
19	Heavy vehicle drivers		
20	Masons		
21	Reinforcement staff		
22	Surveyors		
23	Draftmen		
24	Quality control & testing lab staff		
25	Radiography staff		
26	Dewatering pump operators		
27	Semi skilled workers		
28	Unskilled workers		
29	Maintenance staff for		
29a	Piling rigs		
29b	For cranes, vehicles etc		
30	Others if any		

Signature of the tenderer with seal and date

(other staff/ operators/workers will have to be deployed , if required as per site requirements)

SECTION V I - APPENDIX- V -A

POWER REQUIREMENT

Scope of work	For construction purposes		For non construction purposes	
	Average (in amps)	Peak (in amps)	Average (in amps)	Peak (in amps)
For unit I				
For unit II				
For unit III				
And so on				
For all the units together				

Signature of the tenderer
With date and seal

SECTION V I - APPENDIX- V-B

WATER REQUIREMENT

Scope of work	For construction purposes Per day		For non construction purposes - per day	
	Average (in litres)	Peak (in litresw)	Average (in litres)	Peak (in litres)
For unit I				
For unit II				
For unit III				
And so on				
For all the units together				

Signature of the tenderer
With date and seal

SECTION VI - APPENDIX - V - C

OPEN SPACE REQUIREMENT

Scope of work	For labour colony (in sq.metre)	For office (in sq.metre)	For stores (in sq.metre)
For unit I			
For unit II			
For unit III			
And so on			
For all the units together			

Signature of the tenderer with date and seal

SECTION V I / APPENDIX -VI

ANALYSIS OF UNIT RATE QUOTED

S.No	Description	Percentage of unit rate quoted	Remarks if any, refer note 2
1	Site facilities viz electricity, water, workshop, and other infrastructure facilities		
2	Salary and wages for staff and workers		
3	Consumables		
3a	Gases		
3b	Electrodes		
3c	Cement		
3d	Steel		
3e	Others		
4	Depreciation and maintenance of T&P and other items		
5	Establishment and other administrative expenses		
6	Retrenchment benefits		
7	Overheads		
8	Profit		
9	Additional/extra works incidental to erection		

Note :

1. All tenderers are requested to take the rates quoted by them are not disclosed in any way while furnishing the above details.
2. Bidders are requested to indicate the type of accommodation he is planning to provide for staff & workers and the details of medical, conveyance and other amenities he is planning to provide for staff and workers in a separate sheet

signature of the tenderer with date and seal

SECTION VI / APPENDIX VII

DECLARATION SHEET

The bidders are requested to furnish the following information while quoting, failing which their offer will be summarily rejected.

1	Whether any relative(s) presently employed in BHEL? If so, his connection with the firm	Yes / No . If yes, please give particulars without fail
2	Whether any ex-employee is associated / working with the firm?	Yes /No . If yes, please give all particulars
3	Whether any BHEL employee is holding any share in the firm?	Yes/ No. If yes, please give particulars

Signature of the tenderer

NOTE :

1. Attach separate sheets if necessary

If the BHEL Management comes to know, at a later date, that the information furnished by the bidder is false, suitable action will be taken according to law against the contractor.

SECTION VI / APPENDIX VIII

SOLVENCY CERTIFICATE (TYPICAL) TO BE SUBMITTED BY THE TENDERER FROM THEIR BANKERS ALONG WITH THE OFFER WITHOUT FAIL

SOLVENCY CERTIFICATE No.....

This is to state that to the best of our knowledge and information M/Shaving its/their address at, a customer of our bank is respectable and can be treated as good up to the sum of Rs.....(rupeesonly)

It is certified that this information is furnished without any risk and responsibility on our part in any respect whatsoever more particularly either as guarantor or otherwise.

This certificate is issued at the specific request of the customer M/s

(signature of the banker with seal)

Place :

Date :

To

SUGGESTED TOOLS AND PLANTS FOR THE WORK
(the contractor should deploy additional tools and plant as
per requirement at site)

(please refer format Section VI / Appendix IX)

1. Excavators
2. Dozers
3. Dumpers/jippers
4. Road rollers
5. Compaction equipments
6. Vibro compactors
7. Surface rammers
8. Piling rigs
9. Derricks
10. Mobile cranes
11. Gantry cranes
12. Plate shearing machines
13. Tractor trailers
14. Jeep with trailers
15. Trucks
16. Diesel generators
17. Diesel Welding generators
18. Welding transformers
19. Dumpy levels
20. Theodolites
21. Chain links
22. Various types of mould for concrete testing
23. Quality control lab equipments
24. Electrode baking ovens
25. Electrode drying ovens
26. Air compressors
27. Electric winches
28. Pneumatic winches
29. Hand winches
30. Hydraulic jacks of various capacity
31. Floor grinding machines
32. Staff mast with accessories
33. Power saws
34. Hand drilling machine of various capacity
35. Radial drilling machine

- 36. Hydraulic pipe bending machine
- 37. Concrete mixers
- 38. Vibrators
- 39. Precision levels
- 40. Diesel / electric operated dewatering pumps
- 41. Radiographic equipments
- 42. Liquid penetrant equipments
- 43. Batching plants and transit mixers
- Other civil work equipments

SECTION VII / APPENDIX II

DECLARATION SHEET

I,hereby certify that all the information and data furnished by me with regard to this tender specification BHE : PS :SCT 1198 Are true and complete to the best of my knowledge. I have gone through the specifications, conditions, stipulations in detail and agree to comply with the requirements and intent specifications, I also further certify that I am duly authorised representative of the undermentioned tenderer and a valid Power of Attorney to this effect is also enclosed.

Tenderer's Name & Address

Authorised Representative's

Signature with full name and Address& seal

SECTION VII / APPENDIX - III

CERTIFICATE OF DECLARATION FOR CONFIRMING

KNOWLEDGE ON SITE CONDITIONS

We,.....

Hereby declare and confirm that we have visited the project site under subject, namely.....

And acquired full knowledge and information about the site conditions.

We further confirm that the above information is true and correct and we will not raise any claim of any nature due to lack of site conditions.

Tenderer's Name & Address

Signature of the authorised
Representative with name &
Address with seal

Place:

Date :

SECTION VIII
BANK GUARANTEE FORMATS

PROFORMA FOR BANK GUARANTEE FOR EARNEST MONEY DEPOSIT

(To be issued in appropriately valid non - judicial paper)

This deed of Guarantee made thisday of 20.....byBank Ltd., in favour of Bharat Heavy Electricals Limited, Power Sector , Southern Region, Chennai-600035 having its registered office at New Delhi.

Whereas M/s(herein called the Tenderer) have submitted a tenderin response to tender specification Number(herein called the said tender documents) of M/s Bharat Heavy Electricals Limited, Power Sector , Southern Region having its registered office at BHEL House, Siri Fort, NewDelhi - 100049(herein called the company).

And whereas the said tender documents provided that the tenderer shall pay a sum of Rs.....(Rupees) towards earnest money deposit to be made in the form and manner specified.

And whereas the tenderer.....have approachedBank Limited and at their request and in consideration of the arrangement arrived at between the said tenderer and the said bank, the said bank has agreed to give such guarantee as hereinafter mentioned to the aforesaid company.

Now, therefore, these presents witness that we
.....Bank Limited by the hand of Sri.....its lawfully and duly constituted attorney do hereby undertake to pay the aforesaid company a sum of Rs.....(Rupees)by virtue of this guarantee again any loss or damage caused to or suffered by the said tenderer of any of the terms, conditions, stipulations, undertaking or any one of them contained in the said tender documents and for the payment of any money or moneys payable by the said tenderer to the said company

under the terms and conditions of the tender documents(the decision regarding the breach, loss/damage , or payment due being solely in the discretion of the said company. We further undertake to pay the aforesaid amount in a lumpsum on demand irrespective of the fact whether the said tenderer admits or denies such claim or questions its correctness in any court, Tribunal or Arbitration proceedings before any authority.

The aforesaid guarantee will remain in force and we shall be liable under the same irrespective of any concession for the time being granted by the said company to the tenderer in or for fulfilling the conditions of the tender documents and the guarantee will remain in full force irrespective of any change of terms, conditions or stipulations or any variations in terms of the said tender documents irrespective of whether notice of such change and / or variation is given to us or not and claim to receive such notice of any change and / or variation of the terms and / or conditions of the said tender documents is hereby specifically waived by us. Further , we shall not be released from this guarantee by any forbearance of the exercise or non exercise of any of the powers or rights under the said tender documents by the said company against the tenderer irrespective of whether notice of such forbearance , enforcement or non enforcement of any powers of rights, modifications or changes made in the said tender documents or concessions shown to the tenderer by the company is given to us or not.

The guarantee herein contained shall not be determined or affected by the liquidation or winding up or insolvency or change of constitution of the tenderer but shall in all respects and for all purposes be binding and operative until all the payments of all the moneys due or that may hereafter become due to the said company in respect of any liability or obligation of the tenderer under the said tender documents.

We , the said bank further agree that the guarantee hereinafter contained shall remain in full force and effect during the period that would be taken for the finalization of the tender and executions of agreement therefore, and that it shall continue to be enforceable till the required Security Deposit is deposited by the successful tenderer , as stipulated in the said tender documents or till the company certifies that the terms and conditions of the said tender documents have been fully and properly carried out by the said tenderer and accordingly discharge the guarantee subject however to that company shall have no rights under this guarantee after the expiry of 180 days from the date of its executions.

Any claim or dispute arising under the terms of this document shall only be enforced or settled in the courts at Chennai only.

And lastly , theBank undertake not to revoke this guarantee during its currency except with the previous consent of the company in writing.

The Bank hereby declares that it has powers to issue this guarantee under the Bank's Memorandum and Articles of association and the undersigned has full powers to do so on its behalf under the power of Attorney dated.....granted to him by the proper authorities of the bank.

Date

THE

DAY OF

Bank Constituted

Attorney(signature of the person duly authorised to sign on behalf of the Bank)

-----Note :

* To be countersigned by the State Bank of India or Reserve bank of India if it is executed by other scheduled banks.

* No deviations from the above can be accepted.

PROFORMA FOR BANK GUARANTEE FOR SECURITY DEPOSIT

In consideration of the Bharat Heavy Electricals Limited, having its registered office at BHEL House, Siri Fort, NewDelhi-110049, the concerned division being Power Sector , Southern Region located at 474, Anna Salai, Nandanam Chennai-600035, Tamilnadu(herein called BHEL) having _____ agreed _____ to _____ exempt _____(herein called the said contractor) from the demand, under terms and conditions of agreement dated _____made between BHEL and M/s.....for _____(herein called 'the said agreement') of security deposit for the due fulfillment by the said contractors of the terms and conditions contained in the said agreement, on production of bank _____ guarantee _____ for Rs.....(Rupees..... only).

We(herein referred to as Bank) at the request of contractor(s) do hereby undertake to pay to BHEL an amount _____ not _____ exceeding Rs.....(Rupees.....) against any loss or damage caused to or suffered or would be caused to or suffered by BHEL , by reason of any breach by the said contractor(s) of any of the terms or conditions contained in the said agreement.

Wedo hereby undertake to pay the amounts due and payable under this guarantee without any demur, merely on a demand from BHEL stating that the amount claimed is due by way of loss or damage caused to or would to or suffered by BHEL by reason of breach by the said contractor(s) of any of the terms and conditions contained in the said agreement or by reason of the contractor(s) failure to perform the said agreement. Any such demand made on the bank shall be conclusive as regards the amount due and payable by the bank under this guarantee. However , our liability under this guarantee shall be restricted to an amount not exceeding Rs.....

We undertake to pay to BHEL any money so demanded notwithstanding any dispute or disputes raised by the contractor(s), supplier(s) in any suit or processing pending before any court or tribunal relating thereto our liability under these presents being absolute and unequivocal. The payment so made by under this bond shall have no claim against us for making such payments.

Wefurther agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said agreement and that it shall continue to be enforceable till all the dues of BHEL under or by virtue of the said agreement having been fully paid and its claim satisfied or discharged or till BHEL certifies that the terms and conditions of the said agreement have been fully and properly carried out by the said contractor(s) and accordingly discharge this guarantee, unless a demand or claim under this guarantee is made on us in writing on or before we shall be discharged from the liability under this guarantee thereafter.

We.....further agree with BHEL that BHEL shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder, to vary any of the terms and conditions of the said agreement or to extend time of performance by the said contractor(s) from time to time or to postpone any time or from time to time any of the powers exercisable by the BHEL against the said contractor(s) and to forbear or enforce any of the terms and conditions relating to the said agreement and we shall not be relieved from our liability by reasons of any such variations , of extension being granted to the said contractor(s) or for any forbearance , act, or commission on the part of BHEL or by any indulgence BHEL to the said Conference (s) or by any such matter or thing whatsoever which under the law relating sureties would but for its provision, have effect of so relieving us.

This guarantee will not be discharged due to change in the constitution of the bank or the contractor(s)/supplier(s).

Welastly undertake not to revoke this guarantee during its currency except with the previous consent of BHEL in writing.

The address of BHEL of services, correspondences in respect of matters relating to this guarantee shall be :

BHARAT HEAVY ELECTRICALS LIMITED
POWER SECTOR SOUTHERN REGION
474, ANNA SALAI, NANDANAM
CHENNAI-600035

Address of the bank in full :

Dated theday of20

Pin code:

Telegraphic code:

Telex No:

bank)

Fax No:

For

(indicate name of

Witness :

1.

2.

PROFORMA FOR PERFORMANCE BANK GUARANTEE

1. This deed of guarantee made this day of 20 by Bank Ltd.,..... in favour of Bharat Heavy Electricals Limited, Power Sector - Southern Region, 474, Anna Salai, Chennai 600 035 having its Registered Office at BHEL House, Siri Fort, New Delhi - 110 049. (hereinafter called the Principal)

2. Whereas Messrs. (with full contractor's address) (hereinafter called the contractor) have entered into a contract (contract No.datedfor (name of work..... with the Principal (hereinafter called the said agreement).

3. AND WHEREAS the said contractor shall execute a performance bank guarantee for indemnifying the principal to the extent of..... and whereas the said Messrs.....haveapproachedBank Ltd., and at the request and in consideration of the arrangement arrived between the said Messrs.....and the said Bank as hereinafter mentioned to the aforesaid Principal.

4. Now, therefore these present witness that weBank Ltd., by the hand of Shri..... its lawfully and duly constituted attorney, do hereby undertake to pay without demur to the aforesaid Company a sum of Rs. (Rupees..... only) on demand being made by the said Principal and to keep the said Principal indemnified by virtue of this guarantee against any loss or damage caused to or suffered by the said Principal by reason of any parts that may develop defects fails or show signs of failure in the equipment arising from faulty workmanship thereby impairing the serviceableness under the proper use as per instructions provided by the contractor for a period of 12 months from the date of receipt of payment and also for breach of the terms and conditions of contract. We therefore undertake to pay the said amount in a lumpsum on demand or such part thereof as the Principal may demand from time to time, irrespective of the fact whether the said contractor admits or denies in any court, Tribunal or Arbitration proceedings or before any authority.

5. The aforesaid Guarantee will remain in force and we shall be liable under the same irrespective of any concession of time granted by the said Company to Messrs.....in or fulfilling the said contract between Messrs..... and the Principal and the guarantee will remain in force irrespective of any change of terms, conditions or stipulations or any variation in the terms of the said agreement irrespective of whether notice of such change and/or variation, is given to us or not and claim to receive such notice of any change and/or variation if the terms and/or conditions to said agreement is hereby specifically waive by us. Further, we shall not be released from this guarantee by any forbearance of the exercise or non-exercise of any of the powers or rights under the said Agreement by the said Principal against the Messrs..... irrespective of whether notice of such forbearance of enforcement or non-enforcement of any powers or rights, modification or changes made in the said agreement or concessions shown to Messrs..... by the Principal is given to us or not.

6. The guarantee herein contained shall not be determined or affected by the liquidation or winding up or insolvency or changes in the composition of firm/company of the said Messrs..... and shall in all respects and for all purposes be binding and operative until the payment of all moneys due or that may hereinafter become due to the said Principal is made to the Principal irrespective of any liability or obligations of the said Agreement.

7. We the said Bank, further agree that the guarantee herein contained shall remain in force and effect during the period that would be taken for the performance of the aforesaid agreement and that it shall continue to be enforceable till all the dues of the Principal under or by virtue of the said agreement have been fully paid and its claims satisfied and discharged or till the Principal certifies that the terms and conditions of the said agreement have been fully and properly carried out by the said Messrs..... and accordingly discharge the guarantee subjects to however that the Principal shall have no right under this guarantee after the expiry of..... from the date of its execution. Any claim, or dispute arising under the terms of these documents shall only be enforced or settled in the Courts at Chennai only.

8. The Bank hereby declares that it has power to issue this Guarantee under the Bank's Memorandum and Articles and the undersigned has full power to do so under the Power of Attorney datedgranted / proper authorities of the bank.

9. This guarantee is valid uptoand unless a demand is made under this guarantee within six months fromall the rights of the principal under the guarantee shall be forfeited and we theBank shall released and discharged from all liability thereunder.

Dated _____ The _____

Bank by its constituted Attorney

(Signature of the person duly authorised to sign on and behalf of the Bank

Bank Address in full

(To be stamped in accordance with Stamp Act)
BANK GUARANTEE FOR MOBILISATION ADVANCE

This Deed of Guarantee made thisday of
.....
between

.....(Bank) hereinafter called "the Guarantor" (which expression shall unless repugnant to the context or meaning thereof be deemed to include its successors and assigns) of the ONE PART and M/s. Bharat Heavy Electricals Limited (A Government of India Undertaking) a Company incorporated under the Companies Act 1956, having its Registered Office at 'BHEL HOUSE' Siri Fort, New Delhi – 110 049 through this Unit / Division at 690, Anna Salai, Nandanam, P.O. Chennai – 600 035, hereinafter called "The Company" (which expression shall unless repugnant to the context or meaning thereof be deemed to include its successors) of the OTHER PART:

WHEREAS

M/s.....

(herein after called the Contractor) has entered into a contract No.BHEL:PSSR:SCT:.....dated.....(hereinafter called "the Contract") with the company for
.....
.....

AND WHEREAS the Contract inter alia provides that the Company will pay to the contractor advance of Rs.....(Rupees.....
.....only) on certain terms and conditions specified therein subject to the contractor furnishing a bank guarantee of Rs.....(Rupees.....
.....only) in favour of the Company.

AND WHEREAS the Contractor has approached the Guarantor and in consideration of the arrangement arrived at between the Contractor and the Guarantor, the Guarantor has agreed to give Guarantee as hereinafter mentioned in favour of the Company.

NOW THIS DEED WITNESSES AS FOLLOWS

1. In consideration of the Company having agreed to advance a sum of Rs.....

(Rupees.....only) to the Contractor, the Guarantor do hereby guarantee the due recovery by the Company of the said advance with interest thereon as provided according to the terms and conditions of the Contract. If the said contractor fails to utilize the said advance for the purpose of the contract and/or the said advance together with interest thereon as aforesaid is not fully recovered by the Company, the Guarantor do hereby unconditionally and irrevocably undertake to pay to the Company without demur and merely to the extent of the said sum of Rs..... (Rupees.....only). Any claim made by the Company for the loss or damage caused to or suffered by the Company by reason of the Company not being able to recover in full the said sum of Rs.....with/without interest as aforesaid..

2. The decision of the Company whether the contractor has failed to utilize the said advance or any part thereof for the purpose of the contract and or as to the extent of loss or damage caused to / suffered by the company by reason of the Company not being able to recover in full the sum of Rs..... with/ without interest shall be final and binding on the Guarantor, irrespective of the fact whether the Contractor admits or denies the default or questions the correctness of any demand made by the Company in any court, Tribunal or Arbitration Proceedings or before any other Authority.

3. The Company shall have the fullest liberty without affecting in any way the liability of the Guarantor under this Guarantee, from time to time to vary any of the terms and conditions of the Contract or the advance or to extend time of performance by the Contractor or to postpone for any time and from time to time any of the powers exercisable by it against the said contractor and either to enforce or forbear from enforcing any of the terms and conditions governing the said contract the advance or securities available to the Company and the Guarantor shall not be released from its liability under these presents by any exercise by the Company of the liberty with reference to the matters aforesaid or by reason of time being given to the Contractor or any other forbearance, act or omission on the part of the Company or any indulgence by the company to the said contractor or of the other matter or thing whatsoever which under the law relating to sureties, would but for this provision have the effect of so releasing the Guarantor from its liability under this Guarantee.

4. The guarantee further agree that the Guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the contract and till the said advance with/without interest has been fully recovered and its claims satisfied or discharged and till.....certifies that the said advance with interest has been fully recovered from the said contractor and accordingly discharges this Guarantee subject, however that the company shall have no claim under the Guarantee afteryears from the date of completion of the contract, as the case may be unless a notice of the claim under this Guarantee has been served on the Guarantor before the expiry of the said period in which case the same shall be enforceable against the Guarantor notwithstanding the fact that the same is enforced after the expiry of the said period.

5. The Guarantor undertake not to revoke this Guarantee during the period it is in force except with the previous consent of the Company in writing and agree that any liquidation or winding up or insolvency or any change in the constitution of the Contractor or the Guarantor shall not discharge the Guarantor's liability hereunder.

6. It shall not be necessary for the Company to proceed against the Contractor before proceeding against the Guarantor and the Guarantee herein contained shall be enforceable against them notwithstanding any security, which the company may have obtained or obtain from the Contractor shall, at the time when proceedings are taken against the guarantor hereunder be outstanding or unrealized.

7. The Guarantor hereby declares that it has power to execute this guarantee under its Memorandum and Articles of Association and the executant has full powers to do so on its behalf under the power of Attorney dated.....granted to him by the proper authorities of the Guarantor.

8. "We (bank)undertake to pay to BHEL any money so demanded not withstanding any dispute or disputes raised by contractor(s) in any suit or proceedings pending before any Court or Tribunal relating thereto our liability under these presents being absolute and unequivocal. The payment so made by us under this bond shall be a valid discharge of our liability for payment thereunder and the contractor shall have no claim against us for making such payment'.

Notwithstanding anything contained herein:

1. Our liability under the BG shall not exceed Rs.
2. This BG shall be valid uptoand
3. We are liable to pay the guaranteed amount or any part thereof, under this BG only if you serve upon us a written claim or demand on or before.....

WITNESSES:

1.

2.

Signed on behalf of the.....bank

SECTION IX

CHECK LIST

(The tenderers are requested to fill in the following details while submitting the offers)

1a	Name of the tenderer with address	Yes /No
1b	Telegraph/fax/email details given	Yes / No
1c	Phone numbers both office and residence	Yes / No
	Mobile number	Yes / No
1d	Management structure of the firm (private/partnership/public limited/proprietorship)- documentary proof given	Yes / No
2	Whether EMD submitted as per tender specifications	Yes / No
3	Validity of the offer(offer shall be kept valid for acceptance for minimum six months / or as per spec	Yes /No
4	Whether the tenderer visited the project site and acquainted with the site conditions before quoting and the declaration to this effect given?	Yes/ No
5	Whether the following details are furnished? a. Previous experience b. Present assignments c. Organization chart of the Company d. Company financial status e. In case of company, proof of resignation of the company f. Memorandum & Articles of Association of company/copy of the partnership deed	Yes/No Yes/No Yes/No Yes/No Yes/No Yes/No

	<p>g. Profit and loss account for the last three years</p> <p>h. Audited balance sheet for the last three years</p> <p>i. Solvency certificate from a nationalised bank</p> <p>j. Power of attorney of the person signing the tender duly attested by the Notary public</p> <p>k. Income tax clearance certificate for the last three years</p> <p>l. Man power organization chart with deployment plan at site for posting of engineers/supervisors and workers/labourers for satisfactory completion of work under this specifications</p> <p>m. Whether all the pages of the offers have been signed by the authorized representative (as per clause 1.1.7)</p>	<p>Yes/No</p> <p>Yes/No</p> <p>Yes/No</p> <p>Yes/No</p> <p>Yes/No</p> <p>Yes/No</p>
6	Whether the tenderer is conversant with the local laws and conditions and the declaration has been filled and signed	Yes / No
7	Whether the tender is aware of all the Health, Safety & Environmental rules and regulations	Yes / No
8	Whether the declaration sheet as demanded has been signed and enclosed	Yes / No
9	Time required for mobilization of site organization and start of work - furnished?	Yes /No

10	<p>Whether the tender is fully aware of the following acts relevant to site operations?</p> <ul style="list-style-type: none"> * Contract labour (regulation and abolition) Act 1970 * Factories Act 1948 * Provident Fund and Misc provisions act * Whether PF exemption number is allotted by RPFC of your area and if so, indicate the number with copy of the order * Workmen compensation act * Sales tax act as applicable * Employees State insurance act * Minimum Wages Act * Payment of wages act * Payment of Gratuity act * Industrial Act * Labour Welfare fund Act * Inter state Migrant Workmen Act 1979 * Child Labour Act * Building and Other Construction workers Act 1996 * Whether solvency certificate is enclosed 	<p>Yes /No</p> <p>Yes/No</p> <p>Yes/No</p> <p>Yes /no</p> <p>Yes /No</p> <p>Yes/No</p> <p>Yes/No</p> <p>Yes/No</p> <p>Yes /No</p> <p>Yes/No</p> <p>Yes/No</p> <p>Yes/No</p> <p>Yes/No</p> <p>Yes/No</p> <p>Yes/No</p> <p>Yes/No</p>
11	Whether the list of tools and plants available with contractor and proposed for deployment has been enclosed?	Yes/No
12	Deviations anything pointed out?	

Signature of the tenderer with seal and date

TENDER SPECIFICATION

BHEL PSSR SCT 1305

**CONSTRUCTION OF PILING AND PILE CAP
FOUNDATIONS FOR BOILER, ESP, MILL, MILL BAY, TG
Etc.**

FOR

1 X 600 MW TPS

FOR

TNEB, NCTPS – UNIT 1 – STAGE 2

NORTH CHENNAI, TAMIL NADU

VOLUME - III

RATE SCHEDULE

BOOK NO



BHARAT HEAVY ELECTRICALS LIMITED

(A GOVERNMENT OF INDIA UNDERTAKING)

POWER SECTOR – SOUTHERN REGION

690,ANNA SALAI, NANDANAM, CHENNAI – 600 035

BHARAT HEAVY ELECTRICALS LIMITED

(A Government of India Undertaking)
Power Sector, Southern region
690, Anna Salai, Nandanam, Chennai-35

TENDER SPECIFICATION No. BHEL:PSSR:SCT: 1305

NAME OF THE WORK

CONSTRUCTION OF PILING AND PILE CAP FOUNDATIONS

FOR BOILER, ESP, MILL, MILL BAY, TG Etc.

Volume III

RATE SCHEDULE

Issued to
M/s

For and on Behalf of
BHARAT HEAVY ELECTRICALS LIMITED

Addl General Manager/Contracts

(This tender document is not Transferable)

Place: Chennai – 600 035

Date:

ADDENDUM TO TENDER NOTICE

BHEL PSSR SCT 1305

Add SCC Clause 24.0 :

- i) There are two Units of 600 MW each at North Chennai. Tender SCT 1305 is for Unit 1 - 600MW (at North Chennai) only. The quantity indicated in the price bid is for Unit -1 only.**

- ii) The L1 bidder against this quote will be awarded the contract for Unit 1 of North Chennai TPP –600 MW.**

- iii) However, BHEL reserves the right to award the contract for Unit 2 at North Chennai , on the same terms and conditions of SCT 1305, to the next lowest bidder who should match his rates / price with L1 bidder of Unit 1 .**

- iv) Thus the work will be awarded to two agencies i.e. Unit 1 work for one agency and Unit 2 work for another agency.**

- v) Each Unit will be treated as a separate contract.**

AGM / CONTRACTS

PREAMBLE FOR THE SCHEDULE OF QUANTITIES.

PREAMBLE TO THE SCHEDULE OF QTS. (SOQ)

- 1) Details of the items in this Schedule shall be read in conjunction with the corresponding TNEB specifications, drawings and other documents and shall have precedence over any contrary statement mentioned any where in this document.
- 2) The work shall be carried out as per construction drawings, specifications, the description of the items in this schedule and/or Engineer's instructions., Drawings enclosed with these documents are only indicative giving some idea of the type of work involved. The layout, sizes and details of the building, structures and foundations shown in tender drawings may vary at a large extent during actual construction. Final drawings will be issued progressively during the execution of the work.
- 3) Items of work provided in this schedule but not covered in the specifications shall be executed strictly as per instructions of the Engineer.
- 4) Unless specifically mentioned otherwise in the contract, the bidder shall quote his rates for the finished items and shall provide for the complete cost towards fuel, tools, tackle, equipment, constructional plant , temporary works, labour materials, levies , taxes , transport, layout, repairs, rectification, maintenance till handing over, supervision, shops, establishments, services , temporary roads, revenue expenses, contingencies, overheads, profits and all incidental items not specifically mentioned but reasonably implied and necessary to complete the works according to the contract.
- 5) The rate quoted shall be inclusive of cleaning the site of any vegetations, dressing and leveling etc., required for commencement of site activities. No separate payment will be made towards the same.
- 6) The rate shall also be inclusive of carrying out survey of site to establish levels and coordinates at suitable intervals, form existing grid levels and coordinates furnished by the owner, establish bench marks, setting out the location and levels of the proposed structures, constructions and making references , pillars and other identification marks etc. No separate payment will be made towards the same.

- 7) The quantities of the various items mentioned in the schedule are approximate and may vary up to any extent or be deleted altogether. The quoted rates of each item shall remain firm as long as the variation in the total value of the works remain within +/- 30% (thirty percent) of the Bid Price of the work. The variation clause will be applicable as stipulated in the General conditions of contract, Volume 1 of this tender.
- 8) Rates shall be quoted both in figures and in words in clear legible writing. No over writing is allowed. All scoring and cancellation should be counter signed by the bidder. In case of illegibility, the interpretation of the engineer shall be final. All entries shall be in English language.
- 9) Engineers decision shall be final and binding on the contractors regarding clarification of items in this schedule with respect to the other section of the contract.
- 10) Unless otherwise specified in the schedule of items structural and reinforcement steel will be issued by BHEL as FREE ISSUE as specified elsewhere in this tender document.
- 11) In case of any discrepancy between item description, relevant drawing and/or specification clarification shall be sought at tender stage itself. Otherwise it shall be assumed that the bidder has quoted for the more stringent requirement.

HIERARCHY

In case of any conflict/deviations amongst various documents, the order of precedence shall be as follows

- Statutory Regulations
- TNEB specification
- Items in Schedule of quantities
- IS/BS standards
- BHEL's standard specification (with prior approval of Engineer-in-charge).


GENERAL :

The following points to be taken care while submitting the offer in this tender specification

Technical requirements in Volume- II Should be read in conjunction with BOQ in Volume – III and other sections of the tender / contract. In case of any conflict between the contents of BOQ in Volume – III and Technical Requirements in Volume – II, BOQ will prevail over Technical requirements.

In case of any conflict between Technical requirements in Volume – II – Book 1 (Customer specification) and standard technical specification in Volume – II – Book 2, Technical specification in Volume – II – Book 1 (customer specification) will prevail over standard technical specification in Volume – II – Book 2.

Volume – II – Technical specification consists of Customer Technical specification and BHEL specification is for the total Project of 1X500 MW EPC tender (reproduced).

 BILL OF QUANTITIES					
1X600 MW NORTH CHENNAI TPS		SPECIFICATION No.		BHEL PSSR SCT	
PACKAGE - 1 - CONSTRUCTION OF PILE & PILE CAP FOR FOUNDATIONS IN MAIN PLANT (i.e, POWER HOUSE, BOILER, ESP, TG FDN, ID DECK, FAN FDNS, TRANSFORMER FDNS, ETC)				VOLUME III	
ST. NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
100	EARTH WORK IN EXCAVATION, BACKFILLING AND DISPOSAL AS PER SPECIFICATION AND DRAWINGS				
101	Excavation up to 2m depth below ground level for foundation,trenches,pipe lines,pile cap,drains etc including dewatering,shuttering and shoring if required,dressing of sides,levelling to grade and ramming of bottoms,stacking/disposal of surplus excavated material with in a lead of 2.0KM etc complete as per specifications, drawings and instructions of engineer				
i)	In all types of soils including expansive soil, ash, morrum, laterite	CUM	97000		
102	Extra over item 101 above, for all types of soil/rock, for additional lifts beyond the initial lift of 2 meters (included in item 1 above) all complete as per specifications, drawings and instructions of the engineer for the following lifts:				
i)	In all types of soils				
a	beyond 2 m and upto 4 m	CUM	30850		
b	beyond 4 m and upto 7 m	CUM	10000		
103	Earth work in stripping of top soil upto a minimum depth of 0.20m below natural ground level so as to exclude all debris, grass, vegetation and disposal within a lead of 2km etc	CUM	31320		
104 a	Disposal of surplus excavated earth/rock beyond an initial lead of 2km and upto a lead of 5km, loading, transporting, dumping and levelling the dumped soil as specified and directed by the Engineer-in-charge.	CUM	20000		
i)	Carriage beyond a lead of 5km(rate for every one KM)	CUM	10000		

Signature of the Bidder

ST. NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
105	Filling using selected excavated materials in trenches, plinths, sides of foundations and other underground structures, pipes, grading & levelling etc. in layers not exceeding 250 mm thickness including all leads and all lifts and including excavation, loading from stock pile, carting, unloading, filling, watering and compacting/ramming each layer, all complete as per specifications, drawings and as directed by the engineer to achieve the following densities:				
i)	Ordinary manual compaction	CUM	1000		
ii)	80% standard proctor density/relative density	CUM	9000		
105 a	Filling using selected excavated materials <u>directly from excavation area</u> in trenches, plinths, sides of foundations and other underground structures, pipes, area levelling etc. in layers not exceeding 250 mm thickness including all lifts, filling, watering and compacting/ramming each layer, all complete as per specifications, drawings and as directed by the engineer to achieve the following densities:				
i)	Ordinary manual compaction	CUM	2000		
ii)	80% standard proctor density/relative density	CUM	8000		
106	Filling using selected materials in grading & levelling, trenches, plinths, sides of foundations, in the space below the grade level slab and other under ground structures, pipes etc. in layers not exceeding 250 mm in thickness including all lead & lifts and including excavating, loading, unloading, carting, filling, watering and compacting/ramming each layer, all complete as per specifications, drawings and as directed by the engineer for the following works				
i)	With selected soil brought from borrow areas arranged by contractor, including royalties, fees etc.for all leads and compacted to following densities				
a	90% standard proctor density	CUM	216000		
ii)	with river sand including royaltities and all other statutes and compacting to 80% relative density etc. for all leads	CUM	3000		
107	Filling in trenches, plinths, area paving and other underground structures with stone (63mm down graded), in layers including breaking of boulders to required sizes, filling the interstices with river sand and mechanical compacting for all lead & lifts in complete as per instructions of Engineer-in-charge.	CUM	1000		

ST. NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
109	Providing and laying 250mm thick boulder pitching (single stone) on slopes of earth fill/cut including filling the interstices with rock fragments, gravel, watering and compaction, etc complete as per specification	CUM	1000		
110	Providing anti termite/weed treatment in column pits, wall trenches, foundations, under floors etc. as per specification.	SQM	8000		
111	Extra over item No 101 to 106 above for excavation below ground water table by de-watering using well-point/suitable method for lowering of ground water table to maintain dry working conditions for all activities up to filling/testing, water proofing all complete as per specifications, drawings and instructions of the engineer in charge. The payment shall be on the basis of earth work excavation involved in that particular area.	CUM	70000		
200	PROVIDING AND PLACING CONCRETE WORK INCLUDING COST OF LABOUR, MATERIALS AND EQUIPMENT FOR HANDLING, TRANSPORTATION, BATCHING, MIXING, PLACING, VIBRATING INCLUDING COST OF PLASTICIZERS CONFORMING TO SPECIFICATIONS FOR STRUCTURAL CONCRETE WHEREEVER REQUIRED, PROVIDING CORROSION INHIBITING COMPOUND IN CONCRETE AND CURING (EXCLUDING COST OF CENTERING, SHUTTERING AND REINFORCEMENT) COMPLETE AS PER DRAWING AND SPECIFICATIONS UNLESS SPECIFIED OTHERWISE FOR THE FOLLOWING:				
201	Concrete of grade 1:3:6 as filling course at any level below finished floor level, under and around foundations/floors, mass dumps etc with 40 mm nominal size graded aggregate.	CUM	600		
202	Concrete of grade M20 as used for lean concrete, screeds and backfill etc with 40 mm nominal size graded aggregate.	CUM	8900		
204	Concrete of grade M-25 in Pile Caps etc. and other allied equipment foundations at all depths and all levels etc complete with 20 mm nominal size graded aggregate.	CUM	16200		
205	Concrete of grade M-30 in TG sub-structure, Mill & fan foundations etc and other allied equipment foundations at all depths and all levels etc complete with 20 mm nominal size graded aggregate.	CUM	3000		

ST. NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
206	Extra over sl no 204 & 205 above for conducting UPV testing as directed by the engineer in charge,including submission of test reports (4 copies). Rate to include all labour charges,staging and other misc charges etc complete as per specification. If any defect found in UPV the same shall be grouted with epoxy pressure grout as directed by engineer in-charge.	CUM	3000		
207	Extra over St. No. 204 & 205 above, for controlling of temperature of freshly laid concrete to less than 23 degree centigrade using ice, including all related arrangements for providing, storing and mixing of ice with water, cooling of aggregates etc., all complete as per specification, drawing and instruction of engineer in charge.	CUM	3000		
211	Dismantling concrete work for all types of structures at all levels including stacking of servicable material to a lead of 500 m and disposal of unservicable material upto a lead of 2 km, cutting of reinforcement, labour, equipment, safety precautions etc all complete as per drawings, specification and instructions of engineer in charge.				
i)	Plain cement concrete of all grades	CUM	10		
ii)	Reinforced cement concrete of all grades including reinforcement cutting	CUM	50		
212	Providing and applying Curing compound of approved make & quality to a fresh concrete surface as per standard specification.	SQM	7500		
300	SUPPLYING, FIXING AND REMOVING FORMWORK AT ANY ELEVATIONS FOR ALL STRUCTURES, AS PER SPECIFICATIONS AND INCLUDING ALL LABOUR MATERIAL, SCAFFOLDINGS AND CENTEREING COMPLETE INCLUDING POCKETS ETC. FOR THE FOLLOWING:				
301	Ordinary form work below finished ground floor level for foundations, footings, bases of columns, walls, columns, pilasters, beams, mass concrete, trenches etc.	SQM	3500		
302	Fairface form work below finished ground floor level for foundations, footings, base of columns, walls, columns, pilasters, beams, mass concrete, trenches etc. for exposed concrete works.	SQM	22500		

ST. NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
306	Providing, fixing and removing formwork in block-outs/pockets and openings (below 0.1 sqm contact surface area with concrete) at all elevations including cutting, formation of all shapes and all other operations required for making the required shape and size all complete as per specification, drawing and instruction of engineer in charge.				
i)	Upto 300 mm depth	Nos.	100		
ii)	From 301 mm upto 600 mm depth	Nos.	100		
iii)	From 601 mm upto 1000 mm depth	Nos.	100		
400	REINFORCEMENTS				
401	Straightening, cutting, bending, placing in position at any level, binding of mild steel reinforcements in concrete including cost of binding wire, labour, transportation of reinforcement steel from BHEL stores with in the plant boundary to work spot,loading,unloading etc. complete all as per specifications & drawings.	MT	30		
402	Straightening, cutting, bending, placing at any level, binding in position high yield strength steel reinforcements in concrete including cost of binding wire, labour,transportation of reinforcement steel from BHEL stores with in the plant boundary to work spot,loading,unloading etc. complete all as per specifications & drawings.	MT	6450		
402 a	Extra over item 402 for providing FUSION BONDED EPOXY COATING.as per IS 13620 . The bidder to trasport the steel from BHEL site stores to Vendor plant (approved by BHEL and Customer) and bringing back to site and special handling during straightening, cutting, bending, placing and providing PVC coated binding wire. The rate quoted to include cost of transportation, cost of fusion bonded epoxy coating, transporting back to site, cost of pvc binding wire etc complete.	MT	6450		
500	WATER PROOFING AS PER SPECIFICATIONS.				
501	Providing Bituminous painting with minimum two coats of grade 85/25 confirming to IS 702@1.7kg/sq.m(min) for all under ground structures in contact with soil like basements, pump houses, water retaining structures etc.	SQM	8000		

Signature of the Bidder

ST. NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
502	Providing and mixing approved plasticiser based water proofing compound in concrete or cement mortar for works wherever specified or directed as per specification/manufacturer's instructions, testing of samples for water proofing etc. complete.	LITRE S	2000		
600	SUPPLYING & INSTALLATION OF JOINT FILLER AND SEALING COMPOUND:				
601	Supplying & installation of bitumin impregnated fibre board conforming to IS 1838 as joint filler at joints in concrete including nailing, coating of both faces with coal tar pitch/bitumin, labour, material, equipments etc all complete at all levels as per specification, drawings and instruction of engineer in charge:				
a	12mm thick joints.	SQM	20		
b	20mm thick joints.	SQM	40		
c	25mm thick joints.	SQM	40		
602	Supplying and filling in position hot applied bitumin sealing compound(Grade A) conforming to IS 1834 including cleaning, mixing, heating, pouring/injecting sealing compound in gaps in joints at all levels including application of primer, labour, material, equipments etc. all complete as per specification/drawing, instruction of engineer in charge.	Kg	50		
700	M.S. EMBEDMENTS				
702	Fixing of embedments, MS inserts, pipe sleeves, rails, guide rails angle pieces, anchor bolts of various diameters, plates of dimensions as required including cost of all labour, materials and equipment for fixing in position, scaffolding and setting in position, transportation from stores within the plant boundary to work spot, loading, unloading etc. complete as per specifications and drawings.(Only embedments will be provided by BHEL under free issue)	MT	10		
703	Supply, fabrication, transportation, delivery at site, erection, installation and alignment of MS foundation bolt (Grade-1 of IS:432 & IS:2062) assembly in concrete along with nuts, lock nuts (IS:1363, IS:1364 & IS:3138), anchor plates, stiffner plates, protective tape etc. upto and including 80 mm dia, 3000 mm long including furnishing of labour, materials, equipments, welding, cutting, grinding, threading, drilling, pipe sleeves etc. all complete as per specification, drawing and instruction of the engineer.	MT	10		

Signature of the Bidder

ST. NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
2500	PILING WORK				
2501	Mobilisation of Minimum 12nos. (twelve) of Rotary type Piling rigs and ancillary equipments all complete to site for installing 450mm dia & 600mm dia Bored cast-in-situ RCC piles as per specifications. The payment shall be made proportionally for additional or less than the required 12Nos.	LS			
2501(i)	Installation of bored RCC cast in situ vertical pile as per IS 2911 (Part 1, Section 2) with diameter and length as specified below (length to be measured from pile cut-off level to the bottom of pile) using cement concrete M25 grade conforming to IS 456 with 20 mm nominal size stone aggregates with a minimum cement content of 400 Kg per cum of concrete including providing all materials with reinforcement, boring/drilling in all types of soil from ground level to termination depth of pile, providing bentonite slurry and/or casing for stabilization of pile bore, flushing of pile bore, cleaning, providing plasticizer wherever required, providing corrosion inhibiting compound in concrete, labour, breaking pile head to cut off level and exposing pile reinforcement for embedment in pile cap etc all complete as per specification, drawings and as directed by the engineer-in-charge for the following.				
a	Pile with 600 mm diameter and 25 m length below cut off level - Safe load carrying capacity of pile in Axial compression=140MT; Tension=20MT & Lateral=6MT	Each	5475		
b	Pile with 450 mm diameter and 25 m length below cut off level - Safe load carrying capacity of pile in axial compression=75MT; Tension=12MT & Lateral=3.5MT	Each	350		
2502	Extra over the following for pile length more than the specified length of 25 m.				
a	Item no. 2501 a	M	300		
b	Item no. 2501 b	M	300		
2503	Rebate on the following for pile length less than the specified length of 25 m.				
a	Item no. 2501 a	M	500		
b	Item no. 2501 b	M	500		

Signature of the Bidder

ST. NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
2504	Conducting initial load test upto 2.5 times the safe load capacity on single pile in accordance with IS 2911 Part-4 including installation of bored RCC cast in situ vertical pile as per IS 2911 (Part-1, Section-2) to required depth (maximum down to 25m depth below pile cut-off level) using cement concrete M25 grade conforming to IS 456 with 20 mm nominal size stone aggregates with a minimum cement content of 400 Kg per cum of concrete including providing all materials with reinforcement, boring/drilling in all types of soil from ground level to termination depth of pile, providing bentonite slurry and/or casing for stabilization of pile bore, flushing of pile bore, cleaning, providing plasticizer wherever required, providing corrosion inhibiting compound in concrete, breaking pile head to cut off level and exposing pile reinforcement for embedment in pile cap, constructing test pile cap including necessary excavation, all arrangements of loading, unloading, equipments, jacks, recording of results, labour, dismantling the pile cap after test, submission of test report				
a	For lateral load test:				
i	600 mm diameter pile-6 MT safe load capacity	Each	4		
ii	450 mm diameter pile-4.0 MT safe load capacity	Each	2		
b	For vertical compression test (cyclic load test):				
i	600 mm diameter piles-140 MT safe load capacity	Each	4		
ii	450 mm diameter piles-75 MT safe load capacity	Each	2		
c	For tension/uplift test::				
	600 mm diameter piles-24MT safe load capacity	Each	4		
	450 mm diameter piles-14 MT safe load capacity	Each	2		
2505	Conducting routine load test on job pile in accordance with IS 2911 (Part-4) including necessary excavation, providing all arrangements of loading, unloading, test equipments, jacks, recording of results, labour, submission of test report etc but excluding the cost of installation of job pile complete as per specification, drawing and as directed by the engineer-in-charge for the following.				
a	For lateral load test:				
i	600 mm diameter pile-6 MT safe load capacity	Each	100		
ii	450 mm diameter pile-3.5 MT safe load capacity	Each	6		
b	For vertical compression test:				

Signature of the Bidder

ST. NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
i	600 mm diameter pile-140 MT safe load capacity	Each	100		
ii	450 mm diameter pile-75 MT safe load capacity	Each	6		
2506	Carrying out low strain pile integrity test on job pile of 450mm/600mm diameter as per ASTM D-4945 including all arrangements for test, equipments, materials, labour, submission of test report etc but excluding the cost of installation of job pile complete as per specification and as directed by the engineer-in-charge.	Each	5825		
2507	Carrying out lateral dynamic load test on job pile of 600mm diameter as per IS:9716 including all arrangements for test, equipments, materials, labour, submission of test report etc but excluding the cost of installation of job pile complete as per specification and as directed by the engineer-in-charge.	Each	2		
				Total	
TOTAL CONTRACT VALUE Rs.....					
inwords Rs.....					

Signature of the Bidder