

**BHARAT HEAVY ELECTRICALS LIMITED**  
( A Govt. of India Undertaking )

Seamless Steel Tube Plant, Tiruchirappalli- 620 014.  
CONTRACTS / MATERIALS MANAGEMENT

Phone No. 0431 2578426

e-mail: barathiar@bheltry.co.in

## NOTICE INVITING TENDER (NIT)

1	NAME OF THE WORK	<b>Earthing and lightning protection system audit in SSTP</b>
2	AREA OF THE WORK	<b>SSTP</b>
3	ENQUIRY NUMBER	<b>SSTP : CONT :ALL 61043E dt.30/09/2016</b>
4	EARNEST MONEY DEPOSIT	<b>NIL</b>
5	PERIOD OF CONTRACT / COMPLETION TIME	<b>SIX MONTHS</b>
6	LAST DATE FOR SUBMISSION OF OFFER	<b>14.30 Hrs on 24-10-2016</b>
7	TECHNO COMMERCIAL OFFER OPENING DATE	<b>15.00 Hrs on 24-10-2016</b>
8	PRICE BID OPENING / RA DATE	<b>WILL BE INTIMATED TO TECHNICALLY QUALIFIED VENDORS</b>
9	TENDER DOCUMENT DETAILS	<b>A - Techno Commercial bid</b>
		<b>PART - 1 A</b>   QUALIFYING CRITERIA
		<b>PART - 1 B</b>   GENERAL INSTRUCTIONS TO TENDERER
		<b>PART - 1 C</b>   GENERAL TERMS & CONDITIONS
		<b>PART - 1 D</b>   SPECIAL TERMS & CONDITIONS OF CONTRACT
		<b>PART - 1 E</b>   SCOPE OF WORK
		<b>PART - 1 F</b>   COMPANY / CONTRACTOR DETAIL
		<b>PART - 1 G</b>   CERTIFICATE OF COMPLIANCE
		<b>B - PRICE BID</b>
<b>PART - 2</b>   PRICE BID		
10	TENDER TO BE ADDRESSED TO	<b>Senior Manager / Contracts, Materials Management / SSTP, BHEL, Trichy-620014. TAMILNADU, INDIA</b>

The Tender documents can be down loaded from BHEL website / Govt. website. ( [www.bhel.com](http://www.bhel.com) / [tenders.gov.in](http://tenders.gov.in) )

Tender for above mentioned work should be submitted in a sealed cover consisting of three inner sealed covers. First cover shall contain EMD, second cover shall contain Part-1: Technical cum commercial offer and third cover shall contain Part-2: Price bid. All superscripting the name of work, enquiry number and enquiry due date.

1) EMD cover shall contain requisite EMD & Tender document cost in the form of Demand Draft drawn in favour of 'BHEL, Tiruchirappalli. EMD in any other form will not be accepted. Tenderers who had already remitted one time EMD exclusively for SSTP should furnish the details of cash receipt No./ date, on the top of EMD cover. Tender without EMD / one time EMD reference will be summarily rejected and Tech. cum commercial offer & price bid shall not be considered.

2) Tech. cum commercial offer cover shall contain all documents duly filled and signed by the tenderer in all the pages with documentary evidences for qualifying criteria such as experience, value of work executed in the similar nature of work etc. Any bid without proper documentary evidence for qualifying criteria shall not be considered for further evaluation.

3) The price bid cover shall contain price bid document duly filled in and signed by the tenderer in all the pages. The tenderer has to quote most competitive rates for all the items given in the Bill of Quantities in price bid.

The completed qualification bid and price bid along with requisite EMD for this work shall reach the office of the undersigned on or before **24-10-2016 at 14.30 Hrs.**

The Technical cum commercial offer will be opened on the same day at **15.00 hrs**. In case of opening day falls on holiday or happened to be declared as a holiday the receipt and opening of the tender shall automatically fall on the same timing of the next working day. Date and time of opening of the Price Bid shall be intimated only to those bidders whose Tech cum commercial offer is accepted. You / Your authorized representative may participate in the tender opening.

Clarification if any, can be obtained from the undersigned.

**Thanking you,**

**Yours faithfully,  
For Bharat Heavy Electricals Limited,**

**Senior Manager / Contracts,  
Materials Management / SSTP,  
BHEL, Trichy-620014.  
TAMILNADU, INDIA**

Encl:

- 1) Part-1: Technical cum commercial Bid.
- 2) Part-2: Price bid.

**TECHNICAL CUM COMMERCIAL BID :****PART - 1A****QUALIFYING CRITERIA****1 EARNEST MONEY DEPOSIT (EMD)**

Sl.No	Description	Details to be filled by the Bidder
1	DD Number & Date	
2	Name of the Bank & Branch	

1.1 EMD shall be furnished by the Tenderer by way of Demand Draft .

**2 FINANCIAL SOUNDNESS:**

Documents to prove financial soundness of the company/proprietor/firm/public limited company ( Copy of Income Tax submission acknowledgment along with Profit & Loss account and Balance Sheet) for the latest three financial years ie ( TDRs for the accounting years 2014-15, 2015-16 & 2016-17)

**3 EXPERIENCE**

Bidder should have carried out at least five numbers of Technical Earthing and Lightning Protection Audit, Assessment and Adequacy checks in any State / Central / Private Power Utilities or State / Central / Private Generating Power Plants or any Public / Private Sector Industry of repute. Bidder should attach copies of Purchase / Work orders or Work Completion Certificate along with the bids in proof of the above. Audit should have been done in a live factory / substation.

**4 PAN CARD**

Copy of PAN CARD to be enclosed.

Place:

Date:

Signature of the Tenderer

with seal & full address...

**PART - 1B**

**GENERAL INSTRUCTIONS TO TENDERER**

The Contractors who wish to participate should go through the Tender documents thoroughly and plan well before quoting, to ensure that the Tender process is not aborted / vitiated, due to their reasons.

**1.0 Quoting & Signing the Tender**

1.1 Before Tendering the tenderers are advised to inspect the site of work and its environments and be well acquainted with the actual working and other relevant conditions, position of materials and labour. Tenderers are also requested to go through General -Terms & conditions, Special -Terms & conditions of Contract, Scope of work, Technical Terms & Conditions, drawings and specifications and all other documents which form part of the agreement to be entered into.

1.2 While quoting the rate, the tenderer is advised to take into account the likely expenditure, taxes what so ever, etc., excluding Service Tax during the operation of the Contract period from the date of commencement of work as directed by BHEL.

1.3 While quoting the rates the tenderer is advised to take into account all factors including any fluctuations in market rates. No claim will be entertained on this account after acceptance of the tender or during the currency of the contract.

1.4 All entries in Tender documents shall be clearly written in one ink or typed. All the corrections / cancellations / insertions, if any, shall be duly attested by the Bidders concerned.

1.5 Rates should be quoted as per the Price Bid. Rates quoted in any other form will not be accepted and will be rejected.

a) If, in the price structure quoted for the required goods / services / works, there is discrepancy between the unit price and the total price (which is obtained by multiplying the unit price by the quantity), the unit price shall prevail and the total price corrected accordingly, unless in the opinion of the purchaser there is an obvious misplacement of the decimal point in the unit price, in which case the total price as quoted shall govern and the unit price corrected accordingly.

b) If there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected; and

c) If there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject of (a) and (b) above.

d) If there is such discrepancy in an offer, the same shall be conveyed to the bidder with target date up to which the bidder has to send his acceptance on the above lines and if the bidder does not agree to the decision of the purchaser, the bid is liable to be ignored.

1.6 The Bidder shall fill in all the required particulars of the Tender documents and also sign on each and every page of the Tender documents (Techno- Commercial Bid, Price Bids, Terms & Conditions etc.) including corrigendum & the drawing attached there to while submitting their tender.

1.7 Should a Bidder find discrepancies or omissions in the Tender documents or should there any doubt as to their meaning, he should at once address the authority inviting the Tender, for clarification well before the due date, so as to submit his Tender in time.

1.8 Every endeavour is made to avoid any error which can materially affect the basis of the tender but the successful tenderer shall take upon himself to provide for the risk or any error which may be subsequently discovered and shall make no subsequent claim on account thereof. (No extension of time shall be given for submission of the Tender on any account)

1.9 Conditional and late Tenders, Tenders containing prima-facie absurd rates and amounts, Tenders which are incomplete or otherwise considered defective and Tenders not in accordance with the Tender conditions herein contained and the Tenders not in original ARE LIABLE TO BE REJECTED

1.10 If a Bidder deliberately gives wrong information in his Tender or creates conditions favourable for the acceptance of his Tender, BHEL WILL REJECT SUCH TENDER AT ANY STAGE.

1.11 Words imparting singular number shall be deemed to include plural number and vice-versa where the context so requires.

Place:

Date:

Signature of the Tenderer  
with seal & full address...

**PART -1B.....GENERAL INSTRUCTIONS TO TENDERER.....contd...**

1.12 Canvassing in any form, in connection with the Tender is strictly prohibited and such Tenders are bound to be rejected. All information furnished is taken to be authentic by the bidder for evaluation of Tender priorities. Should any information found to be incorrect subsequently, at any later time, the Tender / Contract shall be rejected / terminated and the / SD shall be forfeited.

1.13 Should a Bidder's or a Contractor's or in the case of a firm or company of Contractors / any of its shareholder's or shareholder's relative is employed in BHEL, the authority inviting the Tenders shall be informed in writing of this fact at the time of submission of the Tender, failing which the Tender may be disqualified, or if such fact subsequently comes to light, the Contract may be cancelled.

1.14 The Tender schedule and the Tender shall be deemed to form an integral part of the Contract to be entered into for this work.

1.15 Submission of Tenders by electronic media like e-mail, Internet, fax etc. followed by hard copy, is acceptable and will be at the sole risk of the Tenderer. The Tenders thus submitted will be final and binding on the Tenderer. BHEL will not be responsible for any consequences that may arise in this regard.

1.16 Late and Delayed Tenders will be summarily rejected and under no circumstances it will be considered and accepted.

1.17 In case you are not in a position to submit the offer, please send letter suitably specifying the reasons thereof.

1.18 Price bid should not be enclosed along with the techno commercial bid and other documents in the same cover/envelope. The price bids have to be given category wise in a sealed cover and the entire lot of price bid sealed covers will have to be kept in a separate large cover, duly sealed

**ALL THE REQUIRED DOCUMENTS SHALL BE FILLED IN THE SAME SERIAL ORDER AS PER THE FORMAT / COLUMN OF THE "TECHNO-COMMERCIAL BID". ALL THE PAGES SHALL BE SERIALLY NUMBERED ON THE RIGHT HAND SIDE TOP CORNER. PAGE NUMBERS OF THE CONCERNED DOCUMENTS ALSO SHALL BE FILLED IN "TECHNO- COMMERCIAL BID" IN THE BOXES PROVIDED. ALL THE PAGES OF TENDER DOCUMENTS ARE TO BE DULY SIGNED AND STAMPED BY THE BIDDER.**

**2.0 Signing the Tender**

2.1 The Tender shall be signed by the Authorized Signatory Only. Authorized signatory shall be the person holding 'power of attorney' on behalf of the firm / company / bidder-concerned authorized / empowered to act on behalf for the specific purpose

2.2 Authorized signatory should have Power of Autonomy issued by MD or Board of Directors or authorized person for this purpose for quoting Tender and all procedures connected with, till finalization and execution of the Contract.

2.3 In case the Bidder is a Partnership Firm under Partnership Act, the Tender shall be signed by all the Partners of the firm or by the Managing Partner who have Signature and Seal of the Contractor authorized to do so or by a person holding the Power of Attorney on behalf of the Partnership Firm.

2.4 A copy of the Partnership Deed and / or a copy of the Power of Attorney, Self-attested shall accompany the Proprietor or Partner of the Company.

2.5 BHEL will not be bound by any other Power of Attorney granted or the change in the composition of the firm made, subsequent to the execution of the Contract agreement. They may however recognize such Power of Attorney or change in status after obtaining legal advice and the cost involved in that connection shall be chargeable to the bidder concerned.

**3.0 Earnest Money Deposit (EMD):**

3.1 Tender must be accompanied by Earnest Money for the amount mentioned in Tender Notice, in any of the forms mentioned below

1) Vendor shall submit Earnest money Deposit in form of Pay order or Demand Draft drawn in favour of BHEL-Trichy or Electronically through SBI-E-Collect System as per Tender notice.

Place:  
Date:

Signature of the Tenderer  
with seal & full address...

**PART -1B.....GENERAL INSTRUCTIONS TO TENDERER.....contd....**

2) Vendors who have submitted One Time EMD of ` 2.00 Lakhs at BHEL-Trichy for SSTP are exempted from paying EMD subject to submission of Cash Receipt document.

3) Vendors registered as SME / NSIC / SSI are exempted from paying EMD subject to submission of valid Registration document along with Tender.

**Note:**

1. EMD shall not carry any interest.
2. EMD in any form other than above mentioned forms will lead to rejection of offer.

**4.0 Date / Time for opening of Tender**

4.1 Sealed covers so received will be opened at the office of the SENIOR MANAGER, CONTRACTS, MM / SSTP, M/s. Bharat Heavy Electricals Limited, Tiruchirappalli – 620 014 on the same day of due date of tender submission as per NIT (Notice inviting Tender) in the presence of the Bidders or their Authorised Representatives who may choose to witness the same.

4.2 The Techno Commercial bids only will be opened.

4.3 The Price BIDS of bidders, who are technically qualified will be opened later. The date & time of price bid opening will be informed to the technically qualified Bidders.

**5.0 Witnessing the Tender opening**

5.1 The representative of the Bidder may choose to witness the Tender opening have to produce the Authorization Letter, as per the enclosed proforma, before opening of the Tender. The representatives without Authorization Letter in the prescribed format will not be allowed to participate in the Tender opening.

5.2 Only one representative from one bidder will be allowed to participate in the Tender opening.

**6.0 Quoting**

6.1 Quoting best rate and the sanctity of the L1 status.

6.2 Quoting the lowest best rate is a must against this Tender. However, bidders are required to understand that the lowest rate offered by them or accepted by them, as the case may be, should be honoured throughout the period of the Contract.

**7.0 Participation**

7.1 The Parties who have been suspended or black listed or issued with "Show Cause Notice" by BHEL Trichy-14 or any other BHEL Unit will not be allowed to participate in the Tender and the bidder should declare the same in the Tender. Even during the course of evaluation / finalization of Tender if it is found that some of the parties are black listed / barred from business transactions / under business hold, BHEL will not consider them for further participation in the Tender.

**8.0 Validity of Offers:**

8.1 The rates quoted shall be valid for acceptance for a minimum period of 90 days from the date of Price Bid opening. Withdrawal of Tender or increasing the rates during this validity period is not allowed.

**9.0 Address for sending the offer:**

The offer should be sent to address as mentioned in Tender Notice well in advance so that it reaches before or on due date and time through registered post or in person.

Place:

Date:

Signature of the Tenderer  
with seal & full address...

**PART - 1C**  
**GENERAL TERMS & CONDITIONS**

**DEFINITION:** In these General Conditions of Contract, the following terms shall have the meaning hereby assigned to them, except where the context otherwise requires:-

- (a) The "Contract" means, the documents forming the Tender and acceptance thereof, together with all the documents referred to therein including general and special conditions to Contract. All these documents as applicable taken together shall be deemed to form one Contract and shall be complementary to one another.
- (b) The "work" means, the work described in the Tender documents in individual work-orders as may be issued from time to time to the Contractor by the Officer-In-charge within the power conferred upon him including all notified or additional items of works and obligations to be carried out as required for the performance of Contract.
- (c) The "Contractor" means, the individual Firm or Company whether incorporated or not, undertaking the work and shall include the legal personal representatives of such individuals or the persons composing the firm or Company or the successors of the firm or company and the permitted assigns of such individual or firm or Company.
- (d) "The Officer-In charge" means, the Officer deputed by BHEL, Trichy, to supervise the work or part of the work.
- (e) "Approved" and "Directed" means, the approval or direction of BHEL, Trichy official, or person deputed by him for the particular purposes.
- (f) "BHARAT HEAVY ELECTRICALS LIMITED" (herein after referred to as BHEL) shall mean the Board of Directors, Chairman, Executive Director, General Manager or other Administrative Officer of the said Company including SM / WCM authorized to invite Tenders and enter into Contract for works on behalf of the Company.
- (g) The "Contract sum" means, the sum accepted or the sum calculated in accordance with the prices accepted in Tender and / or the Contract rates as payable to the Contractor for the execution of the work during the currency of the Contract.
- (h) A "week" means, Seven Days, without regard to the number of hours worked or not worked in any day in that week.
- (i) A "day" means, the day of 24 hours (TWENTY FOUR) irrespective of the number of hours worked or not worked in that day.
- (j) A "working day" means, any day other than that prescribed by the NEGOTIABLE INSTRUMENTS ACT as being a Holiday, and consists of the number of hours of labour as commonly recognized by good employers in the trade in the district where the work is carried out or as laid down in the BHEL regulations.

**HEADING TO THE CONTRACT CONDITIONS:** - The heading to these conditions shall not affect the interpretations thereof.

**DEVIATIONS:-** The Contractor shall not carry out any work not covered by schedule except in pursuance of the written instructions of BHEL, Trichy official, no such work shall be valid unless the same has been specifically confirmed and accepted by BHEL in writing and incorporated in the Contract.

**ASSIGNMENT OF TRANSFER OF CONTRACT:-** The Contractor shall not without the prior written approval of the BHEL, assign or transfer the Contract or any part thereof, or any share, or interest thereon to any other persons. No sum of money which may become payable under the Contract shall be payable to any person, other than the Contractor unless the prior written approval of the BHEL to the assignment or transfer of such money is given.

**SUB-CONTRACT:-** The Contractor shall not sub-let any portion of the Contract without the prior written approval of the BHEL.

Place:  
Date:

Signature of the Tenderer  
with seal & full address...

**PART -1C.....GENERAL TERMS AND CONDITIONS.....contd....****1. EARNEST MONEY DEPOSIT (EMD):**

Tender must be accompanied by Earnest Money for the amount mentioned in tender notice, pledged to BHEL, Trichy in any of the forms mentioned below. The Earnest Money Deposit will be refunded to the unsuccessful tenderers within 15 days of acceptance of the award of work by successful tenderer. In the case of successful tenderer, the Earnest Money Deposit will be retained as part of the Security Deposits for satisfactory completion of the work in accordance with clause 2 of the General Terms and Conditions of contract.

The Earnest Money Deposit may be furnished in form of Pay order or Demand Draft drawn in favour of BHEL-Trichy payable at Trichy. (Note: EMD shall not carry any interest.)

EMD by the tenderer will be forfeited as per tender documents if

- i) After opening the Tender, the Tenderer revokes his Tender within the validity period or increase his earlier quoted rates.
- ii) If only, a part of the work included in the tender has been awarded to the tenderer and the tenderer refuses to take up the work the amount of Earnest Money to be forfeited will be based on the value of the contract so awarded.
- iii) The Tenderer does not commence the work within the period as per LOI / Contract. In case the LOI / Contract is silent in this regard then within 15 days after award of Contract.

**2. SECURITY DEPOSIT (SD):**

The contractor whose tender has been accepted shall, within seven days of receipt of the notification of acceptance of his tender, should deposit the prescribed sum as per Clause 2.1 towards Security Deposit.

The rate of security deposit for the contract will be as follows:

a) For Contract valued up to Rs.10.00 Lakhs	10% of the Contract value
b) For Contract valued above Rs.10.00 Lakhs upto Rs.50.00 Lakhs	Rs.1 lakh + 7.5% on the balance of the contract value.
c) For Contracts valued above Rs.50.00 Lakhs	Rs. lakhs + 5% on the balance of the contract value.

The Security Deposit may be furnished in any of the following forms:

- a) Pay order or Demand Draft drawn in favour of BHEL.
- b) Local cheques of scheduled banks, subject to realization.
- c) Securities available from Post offices such as National Savings Certificates, Kisan Vikas Patra etc. (Certificates should be held in the name of the contractor furnishing the security and duly pledged in favour of BHEL, Trichy and discharged on the back).
- d) Bank Guarantee from scheduled Banks/Public Financial Institutions as defined in the Companies Act or BGs from Any Nationalised Banks in India / any of BHEL's Consortium of banks. The Bank Guarantee format should have the approval of BHEL.
- e) Fixed Deposit Receipt issued by Scheduled Banks / Public Financial Institutions as defined in the Companies Act. The FDR should be in the name of the contractor, A/C BHEL, duly discharged on the back.
- f) Security deposit can also be recovered at the rate of 10% from the running bills. However in such cases at least 50% of the Security Deposit will be collected before start of the work and the balance 50% may be recovered from the running bills.
- g) EMD of the successful tenderer shall be converted and adjusted against the security deposit. NO INTEREST SHALL BE ALLOWED ON SECURITY DEPOSITS. BHEL, shall not be responsible for any loss of securities due to liquidation or any other reason whatsoever or any depreciation in the value of the Securities while in their charge or for any loss of interest thereon.

Place:

Date:

Signature of the Tenderer  
with seal & full address...

**PART -1C.....GENERAL TERMS AND CONDITIONS.....contd....**

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

All compensation or other sums of money payable by the contractor to BHEL under the terms of this contract or under any other contract with BHEL, may be deducted from the Security Deposit or realized by the sale of the securities of from the interest arising there from or from any sums which may be due or may become due to the contractor payable by BHEL, on any account whatsoever against this contract of any other contract with BHEL and in the event of his Security Deposit being reduced by reason of such deductions or sale as aforesaid, the Contractor shall within seven days thereafter make good in cash or in securities endorsed as aforesaid, any sum or sums by which the security Deposit has been so reduced.

Security Deposit will be refunded on completion of the work and after the expiry of the maintenance period. In case no maintenance period is applicable, then 100% of security Deposit will be refunded after confirming the final bill payment.

In case of an Award of a Contract and if the Contractor fails to perform or does not comply with the Performance Evaluation Criteria, the Security Deposit will not be refunded / Bank Guarantee encashed.

**3. COMPLIANCE TO STATUTORY PROVISIONS AND RULES:**

The Contractor shall confirm to the provisions of any statute relating to the work and regulations and Bye-Laws of any local authority. The Contractor shall be bound to give all notices required by statute regulations or By-Laws as aforesaid and to pay all fees and taxes payable to any authority in respect thereof.

The Contractor shall in respect of Personnel employed by him either directly or through sub-Contractors, comply with or cause to be complied with following statutory provisions and rules and in regard to all matters provided therein.

- a. The Contract Labour (Regulation & Abolition) Act 1970 and the related Rules.
- b. The minimum wages Act 1948 and the related rules
- c. The payment of wages Act 1936 and the related rules.
- d. The Factories Act 1948 and related Tamil Nadu Rules.
- e. The Employees' Provident Fund & Miscellaneous provisions Act 1952.
- f. The Employees State Insurance Act 1948.
- g. Workmen Compensation Act 1923
- h. Payment of Bonus Act 1965
- i. Maternity Benefit Act, 1961
- j. Payment of Gratuity Act, 1972
- k. Inter-State Migrant Workmen (Regulation of Employment & Conditions of Service) Act, 1979 Equal Remuneration Act, 1976
- l. Industrial Employment (Standing Order) Act, 1960 (In case of engaging 100 or more Personnel)
- m. The Industrial Disputes Act 1947
- n. The Building and other Construction Workers Welfare Cess Act. 1996

And any other law, or modifications to the above or to the rules made there under from time to time.

The age of the contract workers deployed should be above 18 and below 50 years.

**If the Contractor employs more than twenty employees, he shall obtain License to this effect from the Factory Inspectorate and renew the same periodically.**

**Vendor shall have their own PF and ESI Codes and comply with the relevant Acts.**

Contractor shall maintain proper records of PF, EDLI, Pension, ESI contribution, administrative charges etc., wherever applicable and shall produce proof of deductions as well as remittances. Contractor shall issue wage slips to his employees. Indicative lists as follows, which shall be maintained neatly, completely and legibly for inspection by various statutory authorities and the company Officials even at short notice:

- (a) Form XIII - Register of Workmen employed by contractor (Rule 75)
- (b) Form XIV -- Employment card issued by contractor (rule 76)
- (c) Form XVI Muster Roll (Rule 78(1) (a) ( i)
- (d) Form XVII - Register of Wages (Rule 78(1) (a) ( i)

**Place:**

**Date:**

**Signature of the Tenderer  
with seal & full address...**

**PART -1C.....GENERAL TERMS AND CONDITIONS.....contd....**

- (e) Form XVIII - Register of wages-cum Muster Roll (in case of weekly Payment)
- (f) Form XIX - Wage Slip (Rule 78) (b)
- (g) Form XX - Register of deduction for damages of loss (Rule (78) (1) (a) (ii))
- (h) Form XXI - Register of files (Rule 78) (1) (a) (ii)
- (i) Form XXII - Register of advance (Rule 78)(1) (a) (ii)
- (j) Form XXIII - Register of overtime (Rule 78) (1) (a) (iii)
- (k) Form XXIV - Return to be sent by the contractor to licensing officer (Rule 82)
- (l) Any other records / registers required to be maintained by the contractors under statutory provisions applicable to him.

Contractor shall furnish proper Returns to the concerned statutory authorities and provide a copy of the same to BHEL.

Contractor shall be solely responsible for non-payment / delayed payment of wages / DA, contributions under EPF & MP Act, ESI Act etc.

In case, the contractor fails to make payment of wages to his employees or remittance of contribution to the concerned authorities & a claim is made against BHEL for what so ever reason, the security deposit /other dues/ running bills under the contract can be utilized by BHEL to discharge the liability of the contractor.

Contractor shall indemnify BHEL against all claims and losses if it suffers under various labour laws, statutes or any civil or criminal law in connection with employees deployed by him. The liability for any compensation on account of injury sustained by an employee of the contractor will be exclusively that of the contractor, as BHEL is not the employer for him.

BHEL shall not be responsible for any losses, damages to the contractor or to his employees

Payment of bonus under the Payment of Bonus Act, payment of gratuity under the Gratuity Act, and retrenchment compensation under ID Act will be the sole responsibility of the contractors.

Contractor shall be responsible for making payment of wages before expiry of 7 (seven) days from the last day of wage period and to ensure disbursement of wages in the presence of the representative from BHEL

Contractor shall obtain license under CL (R&A) Act, 1970

The contract shall ensure that entry and exit of labour shall be as per the procedure laid down by the BHEL. Entry permits of the labour are to be issued by the contractor with contractors monogram.

Every contractor shall submit a notice regarding commencement and completion of work in Form-VI A&B (Rule 25 (viii) & 81 (3) to BHEL, for forwarding the same to Labour Department.

The contractor shall attend to all inspections notified / conducted by the BHEL, Labour department, P.F authorities, Factory Inspectors, ESI inspectors, Medical Authorities or any other such authorities

The contractor shall have full control over his employees including the right to appoint, determine service conditions, discipline, discharge, dismissal etc. The Contractor shall be solely responsible for any claim arising out of employment or termination of employment of his employees and for their statutory payments. Contractor should ensure that workmen follow all rules and regulations related to safety and security.

**LABOR LICENSE:-**

The Contractor employing 20 or more crew members shall obtain a license from the authorities (The Deputy Chief Inspector of Factories / Assistant Commissioner of Labour as the case may be). This license shall be amended and / or renewed wherever there is an increase in the crew members employed by him or in the event of Contract being extended or renewed. The Contractor shall inform the license number to the BHEL Management before taking up the work.

**COVERAGE UNDER THE ESI / PF ACT / MISCELLANEOUS PROVISIONS ACT**

The Contractor shall ensure that all his personnel are covered under the Employee's Sate Insurance Act and produce to BHEL such Registration number / Enrolment Number before executing the Contract work.

The Contractor shall regularly pay the amount by contribution i.e. employer's contribution as well as employee's contribution in pursuance of the above scheme as fixed from time to time.

The Contractor shall ensure that his contract personnel are covered the PF & miscellaneous provisions Act 1952 and accordingly produce to the BHEL Management the- Registration / Enrolment number before awarding of Contract work.

Place:  
Date:

Signature of the Tenderer  
with seal & full address...

**PART -1C.....GENERAL TERMS AND CONDITIONS.....contd....**

The Contractor shall within seven days of the close of every month submit to BHEL a statement showing the amount of contribution payable / paid for employees engaged by him or through him and shall also furnish to BHEL such information, as Principal Employer is required to furnish under the provisions of the ESI Act PF as well as the schemes made there under to the authorities concerned.

Whenever any sum of money is found to be recoverable from or payable by the Contractor, the same shall be deducted from any sum that may be due or which at any time thereafter may become due to the Contractor under this Contract or under any other Contract or from his security deposit. In case the recoveries are not sufficient to satisfy the claims, the Contractor shall pay the balance thereof on demand. In case any recoveries are made under this clause from the security deposit, the contractor shall immediately thereafter pay such further sum as may be required to replenish the shortage caused by such recoveries in the amount of security deposit.

In case of noncompliance of the provisions of the Acts and in case BHEL having complied with the same BHEL will be entitled to recover the same from the Contractor / sub-Contractor.

The Contractor shall abide by all the labour and other laws applicable to Contract labour / worker under this Contract and shall at all-time keep BHEL indemnified against all losses, claims, prosecutions under any law.

Non exercise of any of the powers or rights available under any law, shall not in any way operate as waiver thereof.

**WAGES**

The Minimum Wages as prescribed by the State Government from time to time and additional payment as per BHEL circular should be paid to the Contract Workers and the Wage and Attendance Registers should be produced to Welfare Section every month.

As per BHEL, HR-Welfare circular, (Issued from time to time), additional wages per month has to be paid over and above minimum wages declared by Tamil Nadu Government to labours.

The Contractor shall remit PF for his workers for the same amount which he paid as total wages to the employees on monthly basis. He has to remit 13.61% from his side and deduct 12% of Wages from the monthly wages of the employees and a total of 25.61% of monthly wages should be remitted as PF w.r.t each employee.

ESI Payment shall be at the rate of 6.5% of monthly wages of the employee. This comprises the contribution at 1.75% of wages from the employee and 4.75% of wages from the Contractor.

Contractor shall make PF, ESI contributions as per applicable laws in force and the statutory guidelines issued from time to time by the Government of India.

The Contractor shall ensure to disburse the wages to his workers on the 7th day of every consecutive month in the presence of such authorized representatives of BHEL Management.

The contractor should remit the salary/wages of their workmen only through Bank, directly to the salary / savings account of the employee concerned. Wherever the number of contract workmen employed by the contractor is more than ten and the contract period is more than one month, monthly clearance will be given in respect of those contractors, only if the salary/wages to the workmen concerned has been remitted in the bank account of the workmen. The relevant Bank statement / proof for Bank payment should be produced along with PF and ESI challans every month.

A certificate of payment shall be furnished in duplicate by the Contractor to the Engineer In charge for each month.

The Contractor shall inform the BHEL Management every month the details of Contract labour engaged for each Contract in the following forms:-

- (a) Serial Number.
- (b) Location.
- (c) Period of Work.
- (d) No. of Contract labour engaged during the month.
- (e) No. of days worked.
- (f) No. of Man – days worked.
- (g) Wages paid to his workers.

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

**Place:**

**Date:**

**Signature of the Tenderer  
with seal & full address...**

**PART -1C.....GENERAL TERMS AND CONDITIONS.....contd....**

**REGISTRATION WITH BHEL**

Every Contractor shall register his name with the CONTRACTS Department of SSTP BHEL Trichy-14 before taking up the work awarded to him by giving the following information and getting a code Number.

- (a) Name of the Contractor.
- (b) Nature of Work.
- (c) Period of Work.
- (d) Number of maximum labour employed by him on anyone day.
- (e) License No. & Date (Applicable in case of Contractors employing 20 or more workers).
- (f) The labour should be enrolled with PF, ESI and enrolment No should be furnished on finalization of Contract.

The Contractor (Licensed or unlicensed) shall promptly furnish every information and document required by BHEL Authorities.

**BIOMETRIC ENTRY / EXIT SYSTEM FOR CONTRACT PERSONNEL**

The Entry / Exit of the Contract personnel are to be regulated only through Biometric system.

The Contractor initially will be issued with a temporary gang pass for his / her Contract personnel for period of ten days.

The Contractor should arrange photo coverage for all his / her employees within the above stipulated time.

The Contractor has to submit Form I for all his / her Contract employees. All the particulars required in Form I are to be provided by the Contractor without fail.

The Contractor should educate the Contract personnel in registering the attendance through the system.

Whenever a Contract workman migrates or leaves service, the Contractor has to surrender the biometric card of the particular Contract workman to Contract Cell with immediate effect.

If a Contract workman having biometric card joins another Contractor, the Contractor who engages them, has to intimate Contract cell along with the biometric card for switching over the Contract employees from the earlier Contractor to the present Contractor.

On completion of the work, the Contractor has to surrender all the biometric cards immediately to the Contract cell. Otherwise, an amount of Rs.100/- per card will be deducted from the final bill / security deposit of the Contractor.

If any Contract employee loses his / her card, the Contractor shall arrange a duplicate for the employee by paying an amount of Rs.100/-.

The Contractor is totally responsible for the biometric cards issued to his / her Contract employee.

The Contractor has to indemnify BHEL for all the damages and loses caused by his / her employee.

**PAYMENT OF BILLS:-**

100% payment will be made after completion of work on pro-rata basis on acceptance and certification of bills by BHEL Engineer.

Payment shall be made against Certification by BHEL-Engineer in charge.

Along with bills, Contractors has to furnish copy of the following documents for further processing of bills:

- a) Documentary proof for payment of PF / ESI with individual names to be submitted.
- b) Copy of payment challan of previous Month / Quarter as proof of deposit of Service Tax along with a certificate from the Contractor that tax collected from BHEL has been remitted to tax authorities.
- c) Any other relevant document which is required from time to time as per BHEL requirement.
- d) If the Contractor is not registered under Service Tax, then a declaration shall be submitted along with offer that they are within the threshold limit.

All payments to be made to the Contractor, shall be through NEFT (National Electronic Fund Transfer / RTGS (Real Time Gross Settlement) within reasonable time, say one month (or as mutually agreed), after receipt of the bill along with user agencies' acknowledgement.

Wherever applicable payments to be made to the Contractor, under this Contract shall also be by "CHEQUE" crossed "a/c PAYEE ONLY" within a reasonable time say one month (or as mutually agreed), after receipt of the bill along with user agencies acknowledgement.

Place:

Date:

Signature of the Tenderer  
with seal & full address...

**PART -1C.....GENERAL TERMS AND CONDITIONS.....contd....**

**SERVICE TAX:-**

Wherever service tax is liable to be paid by the Contractor, the Contractor shall register himself under the Service Tax Rules and a copy of Certificate of Registration shall be furnished to Account Dept.

After registration, the payment of Service Tax shall be effected by the Contractor to the Central Government monthly / quarterly based on the invoices raised before the due date of payment. The Service Tax Return also shall be submitted to the Government before the due date.

The invoice / bill in original duly signed by the Contractor claiming the payment for Service Tax shall clearly indicate the following:

- a) Continuous Serial no. & date of the bill
- b) Cost of the service
- c) Separately showing the Service Tax amount calculated at the applicable rate.
- d) Separately showing the Cess on Service Tax amount.
- e) PAN based Service Tax Registration No.

The Service Tax claimed in the bill will be paid to the Contractor based on the proof of payment of service tax to the Central Government for the previous month / quarter as the case may be

**VALUE ADDED TAX (VAT):-**

Wherever the service includes the supply of materials and claim is made for the payment of VAT, the original invoice duly signed by the Contractor clearly indicating the cost of materials, rate of VAT, VAT amount, and TIN no. is to be submitted for payment and availing the VAT credit.

**CENVAT: -**

Wherever the contractor claims payment for the supply of materials used in the service, "Duplicate for Transporter" copy in original clearly depicting the Cen vat paid apart from the original invoice is required to be submitted to BHEL for the purpose of availing the Cenvat Credit.

**WORKS CONTRACT (TNVAT):-**

In case of works contract, TDS against TNVAT shall be deducted as per TNVAT Act, 2006.

**INCOME TAX:-**

Income Tax shall be deducted at the applicable rate in respect of the service Contract including supply of labour for any work as follows:

Xerox copy of PAN card shall be submitted to Account Dept. along with original for verification.

TDS Certificate will be issued to vendors for each quarter ending as on 30th June, 30th Sept, 31st Dec and 31st Mar during the following quarter.

**4. SAFETY CONDITIONS & GUIDELINES**

The Factories' Act, 1948:

Section 32: Floors, stairs and means of access shall be properly maintained to ensure safety. Every place of working should have safe access. When any person has to work at a height from which he is likely to fall, provision shall be made, so far as is reasonably practicable, by fencing or otherwise, to ensure the safety of person so working.

Tamil Nadu Factories' Rules, 1950

Rule 55: Hoists and Lifts & Rule 55A. Lifting machines, chains, ropes and lifting tackles: Shall be maintained in good condition, thoroughly inspected and examined by competent persons and records to be maintained.

Rule 57: Excessive Weights: No person shall, unaided by another person, lift, carry or move by hand or on head, any material, article, tool or appliance exceeding the maximum limit in weight set out in the schedule (50 kg for adult male and 30 kg for adult female).

Rule 61E: Machinery and plant: No machinery, plant or equipment shall be constructed, situated, operated or maintained in any factory in such a manner as to cause risk of bodily injury.

Rule 61F: Methods of Work: No process or work shall be carried on in any factory in such a manner as to cause risk of bodily injury.

Rule 61G: Stacking and storing of materials etc.: No materials or equipment shall be stacked or stored in such a manner as to cause risk of bodily injury.

Rule 61-K. Examination of eye sight of certain workers: No person shall be employed to operate a crane or to give signals to crane operator unless his eye sight and color vision have been examined and declared fit by a qualified ophthalmologist.

**Place:**

**Date:**

**Signature of the Tenderer  
with seal & full address...**

**PART -1C.....GENERAL TERMS AND CONDITIONS.....contd....**

Rule 61-N and Rule 61- O: Workers to be provided with Personal Protective equipment suitable for the hazards and should be of good quality / have certification by Indian Standard Institute.

Note: For the type of work envisaged, personal protective equipment such as helmet, safety shoes and gloves are essential.

Rule 96: Notification of accidents: Shall be complied with as required in the Factories Act (Section 88 and Section 88A) and Tamil Nadu Factories Rules.

Following points shall be ensured for the safety of contract employees.

**I. Identity and Entry:**

1. The contractors to give identity card to their employees with full details like employee name, company name, age, blood group, contact person with phone no. etc.
2. The contractors not to employ people whose age is below 18 years.
3. HR / Welfare will issue passes to the trained employees only.
4. Welfare has to arrange for necessary infrastructure (biometric entry) for enrolment of new contract workers. Biometric entry system will be made available in North Gate and Unit 2 initially.
5. The data of daily entry of contract workers through biometric will be made available online to the contract awarding departments HR / Welfare.

**II. Training:**

1. Safety, first aid and firefighting training to be given to two responsible persons in each contract and they should take care of their groups on day to day working.
2. This shall be done within a period of 2 weeks after awarding of fresh contract.
3. For ongoing contracts the contractors has to identify the persons to be trained within a period of 2 weeks.

4. Driving /operation of Crane / Jumbo / Fork lift etc. are to be done only by authorized persons.

**III. Dress Code:**

1. Male employees should enter gates only with Safety shoes, Pants-Shirts. (Dhoti, Lungi are not permitted).
2. Female employees should enter gates only with Safety shoes. Loose dress must be avoided. (A shirt over saree / chudidhar is a must).
3. Normal shoes are acceptable for office area work only.
4. Employees working in canteens can wear sandals shoes.
5. Welfare will finalize and indicate a colour coding to be provided in the dresses used by contract employees for uniformity and easy identification of the contract workers.

**IV. Procedures:**

1. Smoking, audio-playing (mobile phone, iPod, inbuilt music systems etc. in the vehicles.) are banned within the factory premises.
2. Moving to unrelated areas must be strictly avoided by the contract employees entering to the other areas only with knowledge of concerned department.
3. Procedure (SOP) given from user departments are to be adopted for all operations and maintenance — e.g. tank cleaning, FT plant maintenance, Sewage maintenance, Oxidation pond maintenance, operation of substation, transformer maintenance etc. User departments agreed to generate procedures in case if not available already (Snake catching, Monkey catching, Honey comb removal etc.).
4. Adequate precautions to be taken while waste removal like paint sludge removal, chromic sludge removal, phenol and tar removal by contract employees.
5. The contractor should clearly inform the hazards involved to the employees MSDS to be displayed.
6. The contract employees involved in tank cleaning, ET plant maintenance, Oxidation pond maintenance should know swimming and strict monitoring should be ensured.
7. Line clearance (LOTO) procedure to be followed during bulb changing, electrical substation maintenance, ay, maintenance, furnace instrumentation etc.
8. Work permits to be obtained for jobs like work at height, excavation, blasting, hot work, pipe line work, roof light maintenance, work at confined space like cellar.
9. Users agreed to initiate the permits for all the works mentioned in the table given below to safety mgmt. for clearance.

**Place:**

**Date:**

**Signature of the Tenderer  
with seal & full address...**

**PART -1C.....GENERAL TERMS AND CONDITIONS.....contd....****Work Permit Instructions**

Sl. No.	Works	Instruction
1	Construction, erection & Commission of new and Modification of existing civil structure.	The contract workers employed shall have sufficient job knowledge shall follow the procedures and dress code
2	Periodical Civil maintenance work at height	Only experienced people shall be allowed to carry out at the work at height. Physically fit without any vertigo problem. Wear safety belt and use life line, Net etc.
3	Work at height - including roof light maintenance and furnace work	Only experienced and qualified electrician shall be allowed to carry out the work at height. Physically fit without any vertigo problem. Wear safety belt and use life line, Net etc.
4	Welding work at process plant including pipe lines PG and acetylene plant	Only experienced people shall be allowed to carry out, the work at height. Shall take care of nearby pipeline, remove all flammable materials Get help from fire service.
5	Crane erection and modification work	Only experienced people shall be allowed to carry out the work. Wear safety belt and use life line. Net etc. Remove all loose material.
6	Excavation and Blasting	Some lapse is noticed obtaining Excavation permit, shall be strictly followed. Only licensed holder shall carry out blasting, accountability shall be properly maintained for the explosives, unauthorized / unapproved explosives shall not allowed. Only authorized equipment shall be used for blasting
7	Fragile roof work	Only experienced people shall be allowed to carry out the work at the fragile roof. Physically fit without any vertigo problem. Wear safety belt and use life line. Net etc. They shall be properly instructed before going to the roof.
8	Confined space work, cellars, furnace ducts	Oxygen level to be checked before work, proper breathing apparatus to be used. Only experienced people shall be allowed to carry out the work at cellars / confined space

10. Specified Speed limit 20 kmph to be followed by all the vehicles entered in factory premises.

11. Procedure given by user departments for spray painting, brush painting and dip painting should be followed. Paint sludge removal, empty tin removals etc. are to be periodically carried out and sent to disposal stores.

**V. Equipment:**

- All the equipment used by the contractors are to be in good condition with all safety provisions and to be checked and certified by the department officials.
- Electrical supply to be taken through the M&S department. Unauthorized connections taken any will be viewed seriously.
- Welding machines are to be used with proper earth connection. Cables should be in good condition. Insulation to be checked regularly and maintained.
- Qualified electricians are only to be used for giving connections.
- Good quality Electrical equipment and tools are to be used with valid certificates. These certificates must be shown on demand.
- For portable electrical equipment supply to be taken using plugs points.
- Wires / cables extension box should be in good condition.
- Proper earthing should be maintained.
- Mobile Crane, Fork lift, Trailers; JCB etc. should be in good condition with specified capacity and should not cause any untoward incident while in use.

Place:

Date:

Signature of the Tenderer  
with seal & full address...

**PART -1C.....GENERAL TERMS AND CONDITIONS.....contd....**

10. Fitness Certificate issued by competent person approved by Govt. authorities, insurance and emission certificate etc. should be in possession and should be shown on demand.

**VI. All contractors:**

**A. Gas Plant:**

1. Contractors to use only trained persons for working in LPG installations with separate identity and to furnish valid documents for working in LPG area.
2. If LPG is used, hazards, safe handling methods, etc., are to be clearly explained to the employees and safety measures are to be taken.
3. People working in LPG line, furnace, and installation are to be aware of LPG properties; hazards involved and should work with adequate precautions and assistance. Hot work permit to be obtained any welding / cutting work in this area. No spark or flame is allowed.
4. Awareness on PG Plant, Inflammable stores for contract employees should be ascertained by the contractors. Contract employees authorized by safety are only to be allowed. Others not allowed.
5. Adequate precautions must be taken by contractors for their employees working in the PG area. (Gas generation, coal handling, poking operation, booster area, ash handling, tar and phenol handling, pipe line work etc.) -

**B. Electrical Contractors:**

1. Must ensure proper care before working on electrical lines.
2. Must have obtained line clearance / work permit for all electrical work, panel board cleaning, roof light changing, cable trench works and works in confined areas.
3. After completion of the work the line clearance / permits must be closed.
4. Must remove all the left out choke, bulbs, tools, fasteners etc. after completion of the work (working on height).
5. Portable machines, lines drilling machines must be with proper plug points.
6. Unused new cables and fittings are to be returned to the concerned. Old cables / used cables are to be removed and returned properly.

**C. Painting Contractors:**

1. Must know the characters of paints, thinners, solvents etc. before handling.
2. User departments and the contractor must provide Materials Safety Data Sheets (MSDS) for the contract employees involved in painting work.
3. Contractors should provide respirators to the employees doing painting work.
4. User departments should ensure training for contract employees in Fire prevention, firefighting etc.
5. The training shall be through Fire / Security department.
6. Contract employees must take adequate precaution to prevent fire while working.

**D. Civil Contractors:**

1. Employees working in Civil constructions should be familiar with the relevant work viz. masonry work construction, tiles, partition, floor elevated work etc.
2. Tools, equipment pertaining to their works must be in good condition and with valid certificates. The workers employed must be skill full enough to complete the work- roof work, work at height, excavation blasting etc.
3. Contractors must check the health of employees specific to occupation periodically and furnish evidence to welfare department / WEL This is a must for the works like working at height, Jack hammering, sewage cleaning etc.
4. Vehicles used for construction works like Lorries, excavation equipment (JCB), Mixing machines etc., are sound in operating condition.
5. User departments should ensure that the applicable procedures are clearly understood by contract employees involved in civil maintenance viz flooring, floor cleaning, building maintenance, water line, pipe lines, storm water, ETP Maintenance etc. The adherence to the procedures must be ensured by contract supervisor.
6. The operators should be licensed, trained and authorized persons. Valid certificates / documents must be shown on demand.

**Place:**

**Date:**

**Signature of the Tenderer  
with seal & full address...**

**PART -1C.....GENERAL TERMS AND CONDITIONS.....contd....**

7. Employees should remove the waste materials from the work spot after completing the works.

**E. Transport Contractors:**

1. Vehicles carrying materials should have proper registration documents and must be produced on demand to BHEL security staff.
2. The driver of the vehicle must possess valid heavy duty license, vision Test certificates & relevant valid vehicle documents as per the factory Rules and to be produced on demand to the security staff.
3. The cleaner should be knowledgeable enough to give correct direction. Also should not drive inside or take training inside. Every vehicle should have pair of skilled driver and cleaner.
4. No persons other than driver should be allowed to sit or stand on the Prime Movers of the trailer.
5. Should not do Cooking, Bathing, Vehicle cleaning etc. within the premises.
6. The lights on right side (i.e.) over driver's cabin should be in working condition.
7. Both the head lights as well as park lamps must be in working condition.
8. The tire, brake, horn, turning lamps, etc. must be in good conditions.
9. The vehicle should not be parked in the road in such a way to cause obstruction to vehicular traffic.
10. There must be a safe distance behind another moving truck.
11. If vehicle got break down, they should attend maintenance work and ensure to avoid oil and grease spillage & traffic issues.
12. Drivers should not do material handling activities.
13. Must not stand under / close to load while lifting the materials
14. Speed limit of 20 km/hr. to be maintained inside the factory premises.

**F. Shipping:**

1. Strong side supports should be provided on both sides of the trailer. The side supports should be fixed in such a way that it cannot be removed even temporarily.
2. Adequate packing must be given for easy slinging operations. The packing materials should be good enough to withstand the load.
3. The stacking of loads on the truck should be evenly placed. The load should not be heaped together or dumped over the chassis.
4. The load on the truck should not be beyond its standard capacity. The carrying capacity must be clearly marked on the trailers also.
5. The loaded materials should be fastened tightly with wire rope. Coil rope should not at all be used.
6. There must be side packing such as gunny, rubber-tire between the sharp edges of the job and Wire rope in order to avoid cut in the wire rope.
7. There must be minimum two fastening and it should be more in case of lengthier loads.
8. The loose pieces should be bundled before loading on the truck.
9. There must be red flags or red lamps for the lengthy load which extend beyond chassis.
10. The materials should not be stacked too high to avoid hitting against live electric lines.
11. Must not lift beyond the capacity (SWL) of mobile cranes.
12. Must keep valid certificates for the individual (inclusive of vision Test certificates) and lifting equipment.
13. Should not use mobile cranes for transporting and dragging

**VII. Travels / Taxi Contractors:**

1. Must have valid documents like Driving license, RC, Insurance, FC, Vision Test Certificate.
2. Max speed limit 20 km / hr. must be followed, Timing prescribed for entry and exit to be strictly followed. Not to overtake inside the Premises.
3. Seat belt must be worn by taxi drivers, Park cars only in the permitted areas.
4. Using mobile phones while driving and playing iPod, inbuilt music systems etc. in the vehicles are banned within the factory premises.

**VIII. Welfare:**

1. The contractors are directed to generate PF number and ensure PF contribution remittance for all contract workmen engaged by them.
2. Bio-Metric Entry for Contract Workmen Contractors have been directed to cover all the contract workmen engaged by them through Bin-Metric Entry System

**Place:**

**Date:**

**Signature of the Tenderer  
with seal & full address...**

**PART -1C.....GENERAL TERMS AND CONDITIONS.....contd....**

**IX. Health Check-up:**

Contractors must check the health of employees specific to occupation periodically and furnish evidence to welfare department / BHEL for updating. Specific test is a must apart from General Health check-up for the works like

1. Working at height- Vertigo test
2. Mobile crane operator- Vision test, audiometric test
3. Vehicle drivers- Vision test, audiometric test
4. Shot blasting operations- Lung function test, audiometric test
5. Canteen employees- Dermatitis
6. Jack hammering- Lung function test, audiometric test
7. Sewage cleaning- Lung function test,
8. Electro-plating- Skin and respiratory tract
9. Grinding - Lung function test, audiometric test
10. Spray painting - Skin and respiratory tract

**X. Safety Equipment:**

Contract employees must wear the PPEs relevant to the nature of work in addition to the safety shoes.

1. Welding - Welding Shield and goggles
2. Gas cutting - Aprons, Gas cutting goggles
3. Painting - PVC gloves, PVC apron, respirators
4. Electrical work - Electrical Resistance gloves, gum boots (during rain)
5. Work near hot furnace - Heat resistant gloves Sr Apron
6. Glass wool related works - Respirators, Barrier Cream
7. Slag removal, cleaning and grinding work - Goggles / dust respirators.
8. Handling of rough and sharp surfaced objects - Leather gloves
9. Sanitary work - Hand gloves, Gum boots
10. Concrete preparation - Gum boots Electrical
11. Work at height - Rubber gloves, Safety Belt, fall arrestors, Life line Rope.

**XI. Violations:**

The following will be treated as serious violations and appropriate actions shall be initiated by BHEL.

1. Employing people whose age is below 18 years.
2. Not wearing safety shoes or normal shoes (Contract employees will not be permitted after the security gates).
3. Not wearing FTEs.
4. Working without proper work permit.
5. Possession of mobile phones other than taxi drivers.
6. Using mobile phones while driving.
7. Unauthorized electrical connections.
8. Driving / operation of Crane / jumbo / Fork lift etc. by unauthorized persons.
9. Unauthorized operation / driving of Lorries, mobile cranes etc.
10. Smoking, alcohol, audio-playing etc.
11. Moving to unconnected areas.
12. Any wilful act that creates unsafe conditions.

**5. NOTICES OF ACCIDENTS**

In the event of an accident the Contractor shall be required to fill injury report and submit to the Engineer In charge immediately and ensure compliance of ESI / Workmen's Compensation of accident as per the Act.

The Contractor shall get the Contract personnel engaged by him insured under workmen's compensation policy from any Insurance company in India before actually starting the work. The Insurance Coverage should be for the entire period of Contract. The Contractor shall comply with the provisions of the Workmen's Compensation Act 1923. (This should be read in connection with the provisions of ESI Act.)

**Place:**

**Date:**

**Signature of the Tenderer  
with seal & full address...**

**PART -1C.....GENERAL TERMS AND CONDITIONS.....contd....**

**6. RISK PURCHASE**

In the event of any successful Tenderer's failure to fulfil any of the Tender / Contract obligations as per Contract / Agreement BHEL may entrust the job to alternate source and get it completed to meet BHEL requirement and additional expenditure, if any, including consequential cost viz., demurrage etc., will be fully recovered from the Tenderer Contractor who failed to complete the job in line with Contract.

The decision of BHEL with regard to the actual losses / consequential expenditures incurred by BHEL shall be final and binding on the Tenderer / Contractor.

**7. FRAUD PREVENTION POLICY:**

The Bidder along with its associate / collaborators / sub – vendors / consultants / service providers shall strictly adhere to BHEL Fraud Prevention Policy displayed on BHEL website <http://www.bhel.com> and shall immediately bring to the notice of BHEL Management about fraud or suspected fraud as soon as it comes to their notice”.

Fraud Prevention policy and List of Nodal Officers shall be hosted on BHEL website, vendor portals of Units / Regions intranet.

**8. ADOPTION OF INTEGRITY PACT**

BHEL is committed to fostering the most ethical and corruption free environment and values its relationship with all Bidders, Contractors and Carriers. Conducting business in a transparent, fair and corruption free manner will go in a long way in making the Bidders and Contractors our partners in progress and to reinforce this belief. BHEL has already signed a memorandum of understanding with Transparency India International on adoption of Integrity Pact for all Major Tenders / Contracts. Integrity Pact first promoted by Transparency India International, an NGO, is a tool to ensure that activities and transactions between a company or government department and its Bidders / Contractors are handled in a fair, transparent and corruption free manner.

**9. SUSPENSION OF BUSINESS DEALINGS WITH SUPPLIERS / CONTRACTORS:**

Penal action can be initiated on the suppliers / Contractors in line with extant "Guidelines for Suspension of Business Dealings with Suppliers / Contractors". The abridged version of extant 'Guidelines for suspension of business dealings with suppliers / contractors' has been uploaded on <http://www.bhel.com> on "supplier registration page".

**10. LIQUIDATED DAMAGES (LD) / PENALTY:**

If the contractor fails to complete the service/work as per terms & conditions of the order within the delivery schedule,

- a) LD shall be levied @ 0.5 % of the order value per week of delay or part thereof subject to a maximum of 10% of the full order value.
- b) In case of any change to the order value, the LD shall be @ 0.5 % of the revised order value per week of delay or part thereof subject to a maximum of 10% of the revised order value.

**11. INDEMNITY:**

The Contractor shall have to indemnify BHEL against all claims for injury or damage to any person or property caused by his negligence or negligence of his employees whilst in BHEL premises / sites.

The Contractor shall indemnify the company against all payments by way of compensation or otherwise which the company may be called upon to make under the provisions of the applicable Acts to any Contract employee as aforesaid, and any cost incurred by the company in connection with any claim preferred by such Contract employee and or against all actions, claims and demands whatsoever in respect thereof or in respect of any loss, injury or damages whatsoever to any third person arising out of or occasioned by the negligent, imperfect or improper performance of this Contract by the Contractor, their employee servants or agents.

The Contractor approved and operating under the Tender, Works Contracts shall further indemnify BHEL against:-

- (i) Observance of Labour & Industrial Laws.
- (ii) All claims by way of compensation and all other types of unforeseen claims, which may arise in the course of Contract.
- (iii) Documentary compliance relating to billing.

Place:

Date:

Signature of the Tenderer  
with seal & full address...

**PART -1C.....GENERAL TERMS AND CONDITIONS.....contd....**

**12. RIGHTS**

BHEL may enter into parallel Contract simultaneously with any number of Contractor as may be deemed fit at any time during the period of Contract in the Interest of the work for any or all the stations and for any or all the schedules.

In case of breach of any of the terms and conditions of the Contract, BHEL will entrust the work to any other Contractor at the risk and cost of the Contract and the Contractor shall be liable to pay the extra expenditure, damages, loss suffered on account of the cancellation of the Contract.

All amounts including the losses / damages / penalties / compensations etc., resulting from non-compliance with the terms of Contract, payable by the Contractor to BHEL under the Terms of the Contract will be recovered from the outstanding payments to Contractor either under this Contract or any other Contracts or from Security Deposit or from both. In case this amount is insufficient for such recoveries, the Contractor shall make good the balance amount by actual payment. In addition BHEL, Trichy will recover the said amounts through its sister concerns, from the payments due to the Contractor in any of the units of BHEL located in any part of India.

The Contractor is not allowed to pass the responsibilities connected with the Contract to other agencies / Contractors, the Contractors shall not sublet or transfer the Contract or any part thereof, which tantamount to termination of the Contract and thereby attracting the penalty or forfeiture of security deposit.

In case the Contractor fails to pay the wages for his employee which includes Minimum wages and Additional wages with ESI and PF (both Employee and Employer contributions) for every month and Bonus once in a year as per the bonus Act, BHEL have the rights to recovered from the outstanding payments to Contractor either under this Contract or any other Contracts or from Security Deposit or from both. In case this amount is insufficient for such recoveries, the Contractor shall make good the balance amount by actual payment. In addition BHEL, Trichy-14 will recover the said amounts through its sister concerns, from the payments due to the Contractor in any of the units of BHEL located in any part of India.

The Contractor shall have no right to demand at any time during the currency of this Contract any minimum quantity of Work for this Contract.

**13. PRECAUTIONS AGAINST RISK:-**

The Contractor shall be responsible for providing at his own expense for all precautions to prevent loss or damage from any and all risks and to minimize the amount of any such loss or damage and for the necessary steps to be taken for the said purpose.

**14. DAMAGE & LOSS TO PRIVATE PROPERTY & INJURY TO CONTRACT EMPLOYEE:-**

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

**15. LAWS GOVERNING THE CONTRACT:-**

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

(i)Should a Tenderer or a Contractor has a dependent/relative or in the case of a partnership firm, any of its partners or dependents of partners employed in BHEL, the authority inviting Tenders should be informed of this fact at the time of submission of the Tender failing which Tender may be disqualified or if such fact subsequently come to light, the Contract may be cancelled.

(ii)No BHEL employee and their dependents are eligible to submit their offer against this Tender.

**16. CANCELLATION OF CONTRACT FOR CORRUPT ACTS:-**

BHEL, whose decision shall be final and conclusive, shall without prejudice to any other right or remedy which shall have accrued shall accrue thereafter to BHEL cancel the Contract in any of the following cases and the Contractor shall be liable to make payment to BHEL for any loss or damage resulting from any such cancellation to the same extend as provided in the case of cancellation for default.

Place:

Date:

Signature of the Tenderer  
with seal & full address...

**PART -1C.....GENERAL TERMS AND CONDITIONS.....contd....**

If the Contractor shall:-

(a) Offer or give or agree to give to any person in BHEL service any gift or consideration of any kind, as an inducement or reward for doing or for bearing to do or for having done or for borne to do any act, in relation to the obtaining or execution of this or any other Contract for BHEL service,

OR

(b) Enter in to a Contract with BHEL in connection with which commission has been paid or agreed to be paid by him or with his knowledge, unless the particulars of any such commission and the terms of payment thereof have previously been disclosed in writing to BHEL.

OR

(c) Obtain a Contract with BHEL as a result of ring Tendering or by non-bonafide methods of competitive Tendering, without first disclosing the fact in writing to BHEL.

**17. CANCELLATION OF CONTRACT FOR INSOLVENCY ASSIGNMENT OF TRANSFER OR SUB-LETTING OF CONTRACT:-**

BHEL, without prejudice to any other right or remedy which shall have accrued or shall accrue thereafter to BHEL shall cancel the Contract in any of the following cases:

If the Contractor,

(a) being an individual or if a firm any partner thereof shall at any time be adjudged bankrupt or have a receiving order for administration of his estate, made against him or shall take any proceedings for liquidation or composition under any bankruptcy Act or assignment of his effects of composition or arrangement for the benefit of his creditors or purport to do so, or if any application made under any:

Bankruptcy Act for the time being in force for the sequestration of his estate or if a trust deed be granted by him on behalf of his creditors

OR

being a Company, shall pass a resolution or the Court shall make an order for the liquidation of its affairs, or a receiver or Manager on-behalf of the debenture holders shall be appointed or circumstances shall arise which entitle the Court or debenture holders to appoint a receiver or Manager,

OR

Assigns, Transfers, Sub-lets or attempts to assign, transfer or sub-let any portion of the work without the prior written approval of the BHEL.

(b) Whenever BHEL exercise the authority to cancel the Contract under this conditions, BHEL may have the work done by any means at the Contractor's risks and expenses provided always that in the event of the cost of the work so done (as certified by BHEL,Trichy which is final and conclusive) being less than the Contract cost, the advantage shall accrue to the BHEL and if the cost exceeds the money due to Contractor under the Contract, the Contractor shall either pay the excess amount ordered by BHEL,Trichy, or the same shall be recovered from the Contractor by other means.

(c) In case the BHEL carries-out the work under the provisions of this condition the cost to be taken into account in determining the excess cost to be charged to the Contractor under this condition shall consist of the cost of the materials, hire charges of tools and plants and/or labour provided by the BHEL with an addition of such percentage to cover superintendence and establishment charges as may be decided by the BHEL,Trichy, whose decision shall be final and conclusive.

**18. CANCELLATION OF CONTRACT IN PART OF FULL FOR CONTRACATOR'S DEFAULT:**

If the Contractor:

(a) makes default in carrying out the work as directed and continues in that state after a reasonable notice from BHEL,Trichy, or his authorized representative ;

(b) fails to comply with any of the Terms and Conditions of the Contract or after reasonable notice in writing with orders properly issued there under ;

Place:

Date:

Signature of the Tenderer  
with seal & full address...

**PART -1C.....GENERAL TERMS AND CONDITIONS.....contd....**

(c) BHEL, may without prejudice to any other right or remedy which shall have accrued or shall accrue thereafter to BHEL CANCEL the Contract as whole or in part thereof or only such work order or items of work in default from the Contract. Whenever BHEL exercise the authority to cancel the Contract as whole or part under this condition BHEL may complete the work at the Contractor's risk and cost (as certified by BHEL,Trichy official, which is final and conclusive) being less than the Contract cost, the advantage shall accrue to the BHEL. If the cost exceeds the moneys due to the Contractor under this Contract the Contractor shall either pay the excess amount ordered by BHEL,Trichy or the same shall be recovered from the Contractor by other means. In case the BHEL carries out the work or any part thereof under the provisions of the conditions the cost to be taken into account in determining the excess cost to be charged to the Contractor under this condition shall consist of the cost of the materials, hire charges of tools and plant and/or labour provided by the BHEL with an addition of such percentage to cover the superintendence and establishment charges as may be decided by the BHEL,Trichy, whose decision shall be final and conclusive.

**19. TERMINATION OF CONTRACT ON DEATH OF CONTRACTOR. :-**

Without prejudice to any of the rights or remedies under this Contract, if the Contractor dies, or if the firm is dissolved or the company is liquidated BHEL shall have the option of terminating the Contract without compensation to the Contractor.

**20. SPECIAL POWER TO TERMINATION:-**

If at any time after the award of Contract, BHEL shall for any reason whatsoever not require whole or any part of the work to be carried out the BHEL, Trichy, shall give notice in writing of the fact to the Contractor who shall have no claim to any payment of compensation or otherwise howsoever on account of any profit or advantage which he might have derived from the execution of the work in full but which he did not derive in consequence of the fore-closing of the work.

**21. RECOVERY FROM CONTRACTOR:-**

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

**22. POST TECHNICAL AUDIT OF WORK AND BILLS:-**

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

**23. SIGNING OF CONTRACT:-**

Each Contract document shall be signed by the Contractor with his usual signature. Contract by partnership of Hindu Joint Family firm, may be signed in the FIRM'S name by one of the Partners or the Karta or Manager as the case may be or by any other duly authorized representative followed by the name and designation of the persons so signing. Contracts by a Company shall be signed with the name of the Company by a person authorized in this behalf and a power of attorney or other satisfactory proof showing that the persons signing the Contract documents on behalf of the Company is duly authorized to do so, shall accompany the Contract.

**24. ARBITRATION: -**

All disputes between the parties to the Contract, arising out-of or relating to the Contract, other than those for which the decision of the BHEL, Trichy, or Accepting Officer or any other person is by the Contract expressed to be final and conclusive shall after written notice by either party to the Contract to the other party be referred to the sole Arbitration of Executive Director or other Officers of BHEL appointed as Arbitrator, by the Executive Director of BHEL in his sole discretion.

Unless the parties otherwise agree, such reference shall not take place until after the completion, alleged completion or abandonment of the work of the determination of the Contract.

The venue of Arbitration shall be such a place or places as may be fixed by the Arbitrator in his sole discretion. The award of the Arbitrator shall be final, conclusive and binding on both parties to the Contract.

Place:

Date:

Signature of the Tenderer  
with seal & full address...

**PART -1C.....GENERAL TERMS AND CONDITIONS.....contd....**

**25. JURISDICTION**

In case of any suit or other legal proceedings arising under or relating to this Contract, the courts at Trichy, Tamil Nadu only shall have the Jurisdiction and is only after exhausting the, Arbitration

**26. FORCE MEJEURE CLAUSE:-**

If, at any time during the continuance of this Contract the performance in whole or in part by either party of any obligations under this Contract shall be prevented or delayed by reason of any War, Hostile acts of the public enemy Civil Commotion, Epidemics, or Acts of God (Floods, Storm/Cyclone, Hurricane, Earth Quake etc.) then provided notice of happening of any such event is given by either party to other within 7 days from the date of occurrence therefor neither party shall by reason of such event be entitled to terminate this Contract nor shall either party have any claim for damages against the other in respect of such non-performance and delay in performance under the Contract shall be resumed as soon as practicable after such event has come to an end or ceased to exist. If the performance in whole or part of any obligation under this Contract is prevented or delayed by reason of any such event, claims for extension of time shall be granted for periods considered reasonable by BHEL subject to prompt notification by the Contractor.

**BHEL may verify / audit check by surprise visits at various locations of Works at their discretion and see whether the above requirements are complied with by the Contractor. In case the above requirements are not complied with, severe actions may be taken by BHEL on such Contractors, as deemed fit.**

**Place:**

**Date:**

**Signature of the Tenderer  
with seal & full address...**

**PART - 1D**

**SPECIAL TERMS & CONDITIONS OF CONTRACT**

**1.0 CRITERIA FOR AWARD OF WORK:**

The evaluation of Offer for award of work shall be on the basis of "Total Cost to BHEL".

The criteria for award of work shall be as per Tender Notice.

**2.0 FINALIZATION OF CONTRACT BY ADOPTING "REVERSE AUCTION":**

2.1 "BHEL reserves the right to go for Reverse Auction (RA) instead of opening the sealed envelope price bid, submitted by the bidder. This will be decided after techno-commercial evaluation. All bidders to give their acceptance for participation in RA. Non-acceptance to participate in RA may result in non-consideration of their bids, in case BHEL decides to go for RA.

2.2 In case BHEL decides to go for Reverse Auction, only those bidders who have given their acceptance to participate in RA will be allowed to participate in the Reverse Auction. Those bidders who have given their acceptance to participate in Reverse Auction will have to necessarily submit „online sealed bid“ in the Reverse Auction. Non- submission of „online sealed bid“ by the bidder will be considered as tempering of the tender process and will invite action by BHEL as per extant guidelines in vogue.”

2.3 The business rules for Reverse Auction (RA) are as follows:

- i) Technically and Commercially acceptable Bidders shall only be eligible to participate in the Reverse Auction.
- ii) BHEL shall engage the services of a Service Provider, who shall extend all necessary training and assistance before commencement of ON-LINE-BIDDING through Internet, at NO extra-cost to the Bidders.
- iii) Eligible Bidders shall be informed in writing, about the details of Service Provider, to enable Vendors to contact the Service Provider and get trained.
- iv) Event Date, Time, Start Price, Bid Decrement, Time-Extensions, etc. shall also be communicated through the Service Provider for compliance by Bidders.
- v) Vendors have to FAX the Compliance Form, before start of RA. Without furnishing the above Compliance Form, Bidders shall not be eligible to participate in the RA.
- vi) BHEL shall provide the calculation sheet through the Service Provider, which shall be helpful to arrive at "TOTAL COST to BHEL", like Packing and Forwarding Charges, Taxes and Duties, Freight Charges, Insurance, Service Tax and other loading factors (for non-compliance to BHEL Standard Commercial Terms and Conditions), for each of the Bidder, to enable them to fill in the price and keep it ready for inputting data during the RA.
- vii) RA shall be conducted on a pre-determined Date and Time.
- viii) At the end of RA, the lowest Bid Value will be known on the Network.
- ix) Lowest Bidder has to FAX the Prescribed Format, duly filled in and signed in, as provided, on a case-to-case basis, to the Service Provider, within 24 Hours of RA without fail.
- x) Any variation between the ON-LINE Bid Value and the signed document will be considered as unethical the Tender process and will invite disqualification of Bidder, for further business dealings with BHEL as per the prevailing procedure.

**3.0 SPLITTING OF CONTRACT:**

3.1 The work shall be divided amongst vendors agreeing to match their rate to that of L1 as per their merit.

3.2 The number of vendors amongst whom contract will be divided will be as per Tender Notice. In case nothing been spelt about tender splitting it shall be assumed that No splitting is proposed.

3.3 Following procedure shall be followed for splitting the contract:

- i) The L1 rate shall be counter offered to technically qualified vendors for their acceptance based on their merit and the proposed no. of splitting of contract.
- ii) The contract shall be divided amongst the vendors giving acceptance to counter offered rates.
- iii) H1 vendor shall not be considered for counter offering of L1 rate for acceptance.

3.4 The manner of splitting of contract and distribution of load amongst vendors who accept the counter offered rates shall be pre-disclosed in NIT.

Place:

Date:

Signature of the Tenderer  
with seal & full address...

**PART - 1E**  
**SCOPE OF WORK**

- 1 Bidder should have carried out at least five numbers of Technical Earthing and Lightning Protection Audit, Assessment and Adequacy checks in any State / Central / Private Power Utilities or State / Central / Private Generating Power Plants or any Public / Private Sector Industry of repute. Bidder should attach copies of Purchase / Work orders or Work Completion Certificate along with the bids in proof of the above. Audit should have been done in a live factory / substation.
- 2 Bidder should possess necessary meters and test equipment to conduct tests / measurements. A list of meters and test equipment in possession with bidder to be furnished along with the bid.
- 3 Soil analysis should have been done for multi-layer soil modeling as per prescribed in IEEE 80 - 2013.
- 4 Bidder should have done lightning transient analysis using reputed bench mark software for multi-
- 5 The study should be carried out in live plant and all measurements and testing should be carried out accordingly. Hence it is recommended that the personnel engaged for measurements and testing should be technically qualified and has experience of carrying out such tests in a live Power Station and Switchyard
- 6 Audit and Adequacy study should be done in accordance with following Indian and International standards. Latest Version / Revision of Indian and International standards should be followed.  
IEEE80-2013: Guide for safety in AC Substation Grounding.  
IEEE81-2012: IEEE Guide for Measuring Earth Resistivity, Ground Impedance, and Earth Surface Potentials of a Grounding System.  
CBIP Manual on AC System Grounding (Publication No.311).  
IS/IEC-62305: Protection against Lightning Protection.  
BS-7430: Code of practice for Protective Earthing Installations.  
IS-3043: Code of Practice for Earthing.
- 7 Physical and Visual Inspection of the existing Earthing, Lightning and Surge Protection Systems should be conducted and all observations, non-compliance and damages should be reported.
- 8 Measurement of soil resistivity should be carried out in line with Wenner Method as specified in IEEE 81 - 2012. Accordingly, the current and potential spikes should be driven into the ground at equal separation distances ranging from 0.5 meters to 25 meters subject to maximum possible space availability at the site. The value of resistance should be recorded for every measurement. The measurements should be carried out using variable voltage and variable frequency meter, in a minimum of 4 directions per location.
- 9 Measurement of Individual earth pit resistance should be carried out according to Fall of Potential-method as prescribed in the IEEE 81-2012 standards. Measured value of individual earth pit resistance should be cross checked with calculated resistance based on the measured soil resistivity data as per formula given in IS 3043 and BS 7430. Where disconnection of earth pit from the grid is not possible, individual earth pit resistance should be measured using the stake-less method with voltage and current clamps as mentioned in IEEE 81-2012 standard. Above tests should be conducted using variable voltage and variable frequency meters.
- 10 Corrosion effect on buried conductors: Randomly at selective location in each plant, the buried conductors should be accessed to check for the corrosion effects. The soil and rust should be removed from the conductor by scrubbing. The effective diameter / thickness of the remaining metal of both Riser and earth mat should be measured with a Vernier Calipers and the adequacy of the remaining conductor cross section together with its residual life if any at the present rate of corrosion to be determined.
- 11 As per the requirements of IEE regulations, the earth loop impedance needs to be measured and should be within prescribed limits for the respective earthing system such as TNS, TNCS and TT. Earth loop impedance test has to be carried out at all LT Panels or as applicable, by using meters of reputed make.

Place:  
Date:

Signature of the Tenderer  
with seal & full address...

**PART - 1E**

**SCOPE OF WORK.....Contd....**

- 12 Prospective Fault current and Prospective Short Circuit Current have to be measured as prescribed in IEE regulations at all LT Panels or as applicable using reputed make meters.
- 13 The integrity of the connection of each riser in the plant has to be verified to ascertain that the equipment is securely connected to the earthing system. Similarly, integrity of the existing earth grid in the plant has to be checked and ascertained. The Riser integrity & Grid integrity tests have to be carried out by current injection method at off grid frequency as prescribed by standard IEEE81-2012 for all Transformers, HT Panels, LT Motors and DG Sets. Riser & Grid integrity Tests have to be carried out by using reputed make meters.
- 14 Lightning Protection System (LPS) adequacy survey has to be done for whole SSTP plant as per the methods and activities prescribed in IS/IEC 62305, which are detailed below:  
Physical survey and verification with respect to drawings.  
Risk assessment as per IS / IEC 62305 to establish the required level of protection for LPS.  
Adequacy of existing LPS with respect to the above. (including number, mounting location, etc).  
Condition of existing LPS in terms of connections, corrosion etc.  
Number of down conductors.  
Integrity of connections.  
Adequacy of earthing system for Lightning Protection.  
Condition of the earthing system in terms of Resistance, corrosion etc.  
Equipotential Bonding provisions / requirements.
- 15 Surge Protection adequacy: Surge protection devices are usually used to protect the electrical and electronic components within the plant structures. A case study should be conducted by physical verification for the existing SPD devices, if any. An assessment should be made to ensure the adequacy of the Surge protection devices as per the standard IS/IEC 62305 part 3 and 4. Based on the assessment and the inputs received, a proposal should be submitted according to the standard IEC 62305 to ensure adequate surge protection is provided for the plant.
- 16 SKO Tank Farm and LPG Yard Earthing: Physical verification and resistance measurement should be conducted for individual earth pits. Earth conductor adequacy and continuity up to respective earth pits should be checked. Lightning protection adequacy & equipotential bonding has to be checked as per IS/IEC 62305.
- 17 Lightning Transient analysis has to be done for tank farm area and a detailed report has to be submitted along with the recommendations to meet the threshold limits.
- 18 A detailed report consisting of the following details should be submitted:  
Scope of Work.  
Standards followed.  
Methodology adopted for each test.  
Field Test Results in a table - whether they are within the prescribed threshold limits or not.  
Observations / Inferences.  
Recommendation by the vendor.  
Implementable suggestion to meet acceptable / threshold limits - At least two options.  
Detailed Earthing Layout drawing showing the recommendations.  
Detailed Lightning Protection drawing showing protected and unprotected zones.  
Technical Specifications for the recommended earthing and lightning protection system.  
Conclusion.
- 19 Bidder should assist BHEL for implementation of the recommendation to ensure that the earthing and lightning protection systems are adequate for the SSTP plant.

Place:  
Date:

Signature of the Tenderer  
with seal & full address...

**PART - 1E**

**SCOPE OF WORK.....Contd....**

- 20 Any item of work not specifically covered in this document, but has relevance to this scope has to be mentioned in the techno commercial bid by the bidder.
- 21 Successful Bidder should make their own arrangements for travel, local conveyance, lodging and boarding of their personnel during field studies. Quoted price should include all the above.
- 22 Safety and Security Policy of BHEL has to be followed strictly by the successful vendor during field work.
- 23 Field work Engineers and Technicians should be covered under all statutory regulations including workmen compensation policy and a copy of the policy & relevant documents should be submitted before commencing the field / site work. Quoted prices should include cost incurred toward this.
- 24 YOU MAY CONTACT SHRI. G. VIGNESH, DY.MANAGER / PLS AT 0431 257 8402 FOR ANY TECHNICAL CLARIFICATIONS IF NEEDED BEFORE SUBMITTING YOUR OFFER.

Place:  
Date:

Signature of the Tenderer  
with seal & full address...

**PART - 1F**  
**COMPANY / CONTRACTOR DETAIL**

The following information's are required for communication for Tender finalization.

**GENERAL DETAILS**

SL No	Description	Details
1	Name of Company / Contractor	
2	Status of the Company / Contractor (Relevant documents must be enclosed)	( ) Public Limited; ( ) Private Limited ( ) Partnership Firm; ( ) Single Ownership
3	Name of Owner/Partner of Company	
4	Address for Correspondence	
5	Tele Phones	
	5.1 Landline	
	5.2 Mobile	
6	E-mail ID	
7	PF Registration Documents copy.	( ) Registered and copy Enclosed ( ) Not Registered
8	ESI Registration Documents copy	( ) Registered and copy Enclosed ( ) Not Registered
9	Service Tax Registration	( ) Registered and copy Enclosed ( ) Not Registered

- 1 Self attested copy of all the documents should be submitted along with Tender. If at any stage, the document(s) submitted by Contractor is / are found incorrect / false / fake, the necessary action will be taken by BHEL against Contractor.
- 2 If Company / Firm is not registered with Service Tax, PF and ESI, they will have to get registered immediately after award of Contract to comply with the statutory requirements.
- 3 Contractor has to provide copy of Service Tax registration certificate. Wherever Contractor is not registered with Service Tax, a declaration from the Contractor stating that the Contractor is within the threshold limit to be provided. If Contractor has applied for Service Tax registration, a copy of registration is to be provided.

Place:  
Date:

Signature of the Tenderer  
with seal & full address...

**PART - 1G**  
**CERTIFICATE OF COMPLIANCE**

I / We M/s. .... do hereby state as follows:-

- 1 The price bids have been put in separate sealed cover.
- 2 The Techno Commercial Bid and all the connected documents have duly been filled in, signed and stamped and put separately in another bigger cover and sealed.
- 3 All the documents & pages have been signed by the Authorized Signatory of the Service Provider, as required, with official seal.
- 4 All the documents required for technical qualification as per eligibility criteria for technical qualification have been enclosed along with techno commercial bid.
- 5 In case there is a lapse / omission or commission in fulfilling the Tender requirements as per the commitments given above from point (1) to (4), we fully understand that it would be a serious violation in complying with the Tender of this nature and that BHEL shall have the right to take a serious view of this and all the actions / decisions of BHEL in this regard will be final and binding on us.

**Place:**  
**Date:**

**Signature of the Tenderer**  
**with seal & full address...**

**PART - 2**  
**PRICE BID**

The Rate quoted shall be firm throughout the currency of the Contract without any price variation Clause.

Sl.No.	Description Of Work	UNIT OF MEASURE	QTY	RATE PER UNIT IN Rs.	
				IN FIGURES	IN WORDS
1	SOIL RESISTIVITY TEST	Nos	4		
2	INDIVIDUAL EARTH PIT RESISTANCE TEST	Nos	80		
3	HT PANELS - RISER INTERGRITY TEST	Nos	3		
4	TRANSFORMERS - RISER INTERGRITY TEST	Nos	20		
5	DG SETS - RISER INTERGRITY TEST	Nos	2		
6	LT MOTORS RISER INTEGRITY TEST	Nos	30		
7	COLD MILL AND HOT MILL EARTH GRIDS - GRID INTEGRITY TEST	Nos	2		
8	LPG YARD EARTHING ADEQUACY - EARTH GRID INTERGRITY AND CONTINUITY	Nos	2		
9	TANK FARM EARTHING ADQUACY- EARTH GRID INTERGRITY AND CONTINUITY	Nos	2		
10	LPS ADEQUACY	LSM	1		
11	SURGE ADQUACY- LT PANELS	LSM	1		
12	DESIGN AND CAD DRAWINGS	LSM	1		
13	LT PANELS - LOOP IMPEDANCE	Nos	15		
14	SITE MOBILIZATION, TRANSPORT AND REPORTING	LSM	1		

SERVICE TAX.....

INCLUDED / EXTRA.

Place:  
Date:

Signature of the Tenderer  
with seal & full address...