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TENDER NO. BHEL: DLI/PAN-1/R&M-TUR/MCH/06-094

TENDER SPECIFICATION

FOR

**“IN-SITU MACHINING OF STEAM TURBINE CASINGS OF BHEL MAKE
(SKODA DESIGN) FOR RENOVATION AND UPRATING OF UNIT NO. 1 FROM
110 MW TO 117.8 MW AT PANIPAT THERMAL POWER STATION, PANIPAT,
HARYANA (INDIA).”**

PART I – TECHNICAL BID



Bharat Heavy Electricals Limited
(A Govt. Of India Undertaking)
Power Sector – Northren Region,
Plot No. 25 , Sector - 16A ,
Distt. Gautam Budh Nagar, NOIDA – 201 301.INDIA



ISO 9001-2000, ISO 14001
and OHSAS 18001 certified
Company

Regional Service Centre

Bharat Heavy Electricals Limited

(A Govt. Of India Undertaking)

Power Sector – Northren Region,

Plot No. 25 , Sector - 16A ,

Distt. Gautam Budh Nagar, NOIDA – 201 301.INDIA

Phone: 0091-0120-2515408 / 2515441 / 2515449

Fax 091-0120-2515484 / 2515467

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TENDER NO. BHEL: DLI/PAN-1/R&M-TUR/MCH/06-094

IMPORTANT NOTE

PURCHASER OF THIS TENDER DOCUMENT IS ADVISED TO CHECK AND ENSURE COMPLETION OF ALL PAGES OF TENDER DOCUMENT AND REPORT ANY DISCREPANCY TIMELY FOR CORRECTIVE ACTION, IF ANY, TO THE ISSUING AUTHORITY BEFORE THE BIDS ARE SUBMITTED. ORIGINAL COPY OF TENDER DOCUMENT COMPLETE IN ALL RESPECTS MUST BE SUBMITTED BACK AS PART OF THE BID WITHOUT WHICH THE SAME IS LIABLE TO BE REJECTED BY BHEL.

THIS TENDER SPECIFICATION ISSUED TO:

M/S-----

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TENDER NOTICE

Sealed tenders are invited from the contractors fulfilling qualifying requirements for the “IN-SITU MACHINING OF STEAM TURBINE CASINGS OF BHEL MAKE (SKODA DESIGN) FOR RENOVATION AND UPRATING OF UNIT NO. 1 FROM 110 MW TO 117.8 MW AT PANIPAT THERMAL POWER STATION, PANIPAT, HARYANA (INDIA).”

TENDER NO. BHEL: DLI/PAN-1/R&M-TUR/MCH/06-094

QUALIFYING REQUIREMENTS:

Tenderers who wish to participate should have experience of having carried out similar jobs of in-situ machining of at-least two units of turbine casings of 110 MW or higher ratings during the last 7 years. The party should submit relevant work orders and satisfactory completion certificate or any other proof in support of above qualifying requirement. Tenderers should also have an average annual financial turnover of minimum of Indian Rupees 24.0 millions or equivalent during last three years (2003-04, 2004-05 and 2005-06).

NOTES:

- (i) The Tender Documents comprise of following;
 - (a) General Conditions of Contract
 - (b) Special Conditions of Contract, Tender Notice, Project Synopsis etc.
 - (c) BOQ cum Rate Schedule
- (ii) Tender Documents with complete details are hosted in this web page. Bidder(s) intending to participate may download the tender document from the web site. Bidder(s) downloading the tender documents from the web site, shall remit Rs.1000/- (Rupees One thousand only) in the form of

crossed demand draft (non-refundable), in favour of BHEL, NOIDA along with their offer

- (iii) Bidder(s) can also purchase hard copy of tender documents from this office. Tender documents (non transferable) will be issued on all working days between 09.30 Hrs. to 12.30 Hrs within the sale period i.e **upto 20.12.2006** on payment of Rs.1,000/- (non-refundable) either in cash or by crossed demand draft in favor of BHEL, NOIDA. Request for issue of tender document should clearly indicate Tender No. and work.
- (iii) Tenders must be submitted to the undersigned **latest by 07.01.2007**. Technical bids shall **be opened at 15.30 Hrs. on 10.01.2007**.
- (iv) Earnest Money Deposit (EMD) : Refundable, Non-interest bearing **EMD of Indian Rupees 1,00,000/-** shall be deposited by Account Payee Pay Order 'OR' Demand Draft in favour of " Bharat Heavy Electricals Limited" payable at Delhi, INDIA. Those bidders who have already deposited ' One Time 'EMD' of Rs. 1,00,000/- with BHEL, PSNR, NOIDA need not submit EMD with the present tender.
- (v) Tenders not accompanied with Full Earnest Money Deposit, as indicated above, will not be considered.
- (vi) All corrigenda, addenda, amendments and clarifications to this Tender will be hosted in this web page and not in the newspaper. Bidders shall keep themselves updated with all such amendments.
- (vii) BHEL reserves the right to accept or reject any or all tenders without assigning any reason whatsoever.
- (viii) BHEL takes no responsibility for any delay/loss of documents or correspondences sent by courier/post.
- (ix) Purchase Preference will be given to CPSUs as per Govt. Guidelines.
- (x) **Unsolicited rebate / discount shall not be accepted after bid opening**

Regional Service Manager



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NOTICE INVITING TENDER

LAST DATE OF SALE : 20.12.2006
DUE DATE OF SUBMISSION : 07.01.2007
DATE OF OPENING (TECHNICAL BIDS) : 10.01.2007

NIT NO. / NAME OF WORK

TENDER NO. BHEL: DLI/PAN-1/R&M-TUR/MCH/06-094

Sealed tenders are invited from the contractors fulfilling qualifying requirements for the “IN-SITU MACHINING OF STEAM TURBINE CASINGS OF BHEL MAKE (SKODA DESIGN) FOR RENOVATION AND UPRATING OF UNIT NO. 1 FROM 110 MW TO 117.8 MW AT PANIPAT THERMAL POWER STATION, PANIPAT, HARYANA (INDIA).”

NOTES

1. Purchase Preference will be given to CPSU as per Govt. Guidelines.
2. Please visit our website at www.bhel.com for details of NIT including Qualifying Requirements.
3. Earnest Money Deposit (EMD): Refundable, Non-interest bearing **EMD of Indian Rupees 1,00,000/-** shall be deposited by Account Payee Pay Order 'OR' Demand Draft in favour of “ Bharat Heavy Electricals Limited” payable at Delhi, INDIA. Those bidders who have already deposited ' One Time 'EMD' of Rs. 1,00,000/- with BHEL, PSNR, NOIDA need not submit EMD with the present tender.

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PROCEDURE FOR SUBMISSION OF SEALED TENDERS:

The tenderers must submit their tenders as required in two parts in separate sealed covers prominently superscribed as Part-I Technical bid and Part-II ,Price bid also indicating on each of the cover tender specification no., date and time as mentioned in tender notice.

TECHNICAL BID (COVER-I)

Except Price bid Part-II, complete set of tender document consisting of General conditions of Contract, “Technical specification & Special terms and condition” (Part-I) issued by BHEL shall be enclosed in Part I Technical Bid only. All schedules, data sheets and details called for in the specification shall also be submitted along with technical bid. All details / Data / Schedules including offer letter duly signed and stamped are to be submitted in duplicate.

PRICE BID (COVER-II)

Tenderers may please note that price bid is to be submitted only in original copy of Tender i.e. Price bid (Part-II) issued by BHEL and no duplicate copy of same is required.

These Two separate covers i.e. cover I & II shall together be enclosed in a third envelope (Cover-III) and this sealed cover shall be superscribed with tender specification No., due date, time and submitted to officer inviting tender as indicated in tender notice on or before due date as indicated.

PROJECT SYNOPSIS

M/S Haryana Power Generation Corporation Limited, Panipat, a State Government Undertaking with head office at Panchkula, Haryana has entrusted BHEL for Renovation and Uprating of Unit No. 1 from 110 MW to 117.8 MW at Panipat Thermal Power Station, Panipat, Haryana (India). The Thermal power station at Panipat is coal-based powerhouse and steam turbines of Unit No. 1 are BHEL make (Skoda design).

The site location is about 100 KM north of New Delhi (Capital of India) on National Highway – 1 called GT Road. The nearest railway station is Panipat and about 15 KM from Thermal Plant. The nearest domestic and international airport is New Delhi at about 125 KM from Thermal Plant. The site is well connected with Road and Rail.

All bidders are advised to visit site and acquaint themselves with the condition prevailing at site, wage structure etc before quoting for the work.

SECTION - III

SPECIAL CONDITIONS OF CONTRACT

Clause No.	Title
1.0 to 3.0	General Scope of Work
4.1	Overrun
4.2	Drawings
4.6	Completion Period
4.8	Likely date of commencement
4.9	Validity
4.14	Road permit and C forms
5.0	Quantum of work
6.0	Commencement and completion work
7.0	Penalty for delay
8.0	Terms of payment, Advance & Mode of payments
9.0	Inspection and completion or work
10.0	Tools, Tackles, Test Equipments & Consumables
11.0	Accommodation for site staff and store space
12.0	Responsibilities of the contractor
13.0	General
14.0	Information Security of PSNR
15.0	Social Accountability
16.0	Service Tax and Education Cess
17.0	Past Performance
18.0	Liquidated damages
19.0	Insurance
20.0	Security Deposit
21.0	Rate Schedule
22.0	Qualifying Requirements
23.0	Others

SECTION - III

SPECIAL CONDITIONS OF CONTRACT

1.0 SCOPE OF WORK FOR IN-SITU MACHINING OF TURBINE CASINGS

M/S Haryana Power Generation Corporation Limited, Panipat, a State Government Undertaking with head office at Panchkula, Haryana has entrusted BHEL for Renovation and Uprating of Unit No. 1 from 110 MW to 117.8 MW at Panipat Thermal Power Station, Panipat, Haryana (India). The Thermal power station at Panipat is coal-based powerhouse and steam turbines of Unit No. 1 are BHEL make (Skoda design). The renovation and uprating consist of Steam Generator, Stem Turbines, Generator, Station Control & Instrumentation (C&I) and balance of plant.

The scope in this tender is FOR IN-SITU MACHINING OF TURBINE CASINGS FOR UPRATING OF UNIT-1 FROM 110MW TO 117.8. MW AT PANIPAT THERMAL POWER STATION, PANIPAT

The Steam Turbines of Unit-1, 110 MW are of BHEL make-Skoda design with impulse type of blading. Unit is being Upgraded to 117.8 MW, which will be achieved by modification of different equipments including turbines. Modifications in turbine include replacement of inner casings, guide blade carriers, rotors, shaft sealing, gland boxes, inlet arrangement etc. with reaction type of blading.

For retrofitting of these new items on to the old design outer casings, machining of outer casings from inside and out side is required including drilling of holes for temperature measurement, facing of inlet surfaces etc. and fixing of new attachments.

The scope of work under this tender consist of in-situ machining of HP-MP and LP turbine casings:-

- 1.0 **H P CASING** **Drg. No. 0-105-01-62005 sheet 1 & 2**
- 1.1 Machining of groove for increasing size in bottom half of HP outer casing from in side to accommodate new baffle plate at the existing location. [Detail-F, G, H, Z, N & section B-B].
- 1.2 Machining of a slot for casing drain below the above slot at exhaust side in bottom half outer casing [Detail N]. Machining of a slot for casing drain on inlet side in bottom half outer casing. [Detail-X and section L-L].
- 1.3 a) Machining of seating areas of front and rear outer gland boxes in outer casing (axial face machining and radial machining to suit the new gland boxes). Machining to be carried out together in upper and lower casing.
b) Machining of grooves for keys of these gland boxes in bottom half of the outer casing. [Detail-Q and R, Section E-E and F-F]
- 1.4 Machining of steam inlet areas so as to increase the face diameter with steps for matching flange of inlet inserts at 4 location in HP outer casing (2 at top half and 2 at bottom half). L-ring type of inlet connection. Machining of slots for locating keys with rounded inner ends of these insert flanges. 2 slots per flange [Detail U, V, U1 and Section D-D].
- 1.5 Re-machining of anti rotational bolt (centering bush and pin) holes in outer casing to suit the new pin/bush diameter – 4 nos. (2 at top and 2 in bottom half outer casings). [Section A-A]
- 1.6 a) Machining of grooves in palms to suit the seating pads of HP inner casing in the outer casing at 4 location each in top and bottom half of outer casing from inside. [Section K-K]
b) to drill threaded holes to hold the pads in position in top half casing only.
- 1.7 a) Drilling of hole in outer top half casing for HP exhaust temperature measurement. Spot faced. [Detail T (B-2)]
b) Drilling of 3 holes in outer casing bottom half (through holes) for insertion of thermocouples for measurement of inner casing temperature. [Section J-J and Detail G and W]
c) Drilling of holes upto 50% depth in outer casing top and bottom for measurement of casing temperature. [Section C-C and detail-P]
- 1.8 Checking/machining of threads in both top and bottom casing existing holes.
- 2.0 **M P CASING** **Drg. No. 0-106-01-62002 Sheets 1, 2 & 3**
- 2.1 Machining of steam inlet areas so as to increase the face diameter with steps for matching flange of inlet inserts at 2 locations in IP outer casing (1 at top half and 1 at bottom half). L-ring type of inlet inserts connection. As per section B-B and view B1 of drawing.
- 2.2 Machining of slots grooves at 2 locations each in the above faces for locating keys of matching flanges of inserts. As per section B-B and view B1 of drawing.
- 2.3 a) Machining of seating areas of front and rear outer gland boxes in outer casing (axial face machining and radial machining).
b) Machining of grooves for keys of these gland boxes in bottom half of the outer casing. [Detail-Y and view- X] View C1 and section C-C of the drawing.

- 2.4 a) Machining of front palms for inner casing support (inside of top-bottom outer casing). To suit the inner casing palm size at front(inlet side).
b) Machining from inside of top-bottom outer casing near parting plane for support of inner casing at rear [Detail F-F].
c) Machining of groove from inside of bottom half of casing at bottom for inner casing guide key at rear [Section D-D and D1-D1].
d) Machining of groove (axial & radial faces) inside of top-bottom outer casing for placing the inner casing at rear (exhaust end) all along the circumference and near parting plan [Detail V].
e) Machining of inside of bottom outer casing at bottom near extraction-7 opening [Detail-U].
f) Drilling of hole in bottom outer casing for casing drain near extraction-7.
- 2.5 a) Machining of groove (axial faces) to accommodate blade carrier as indicated in drawing in outer top and bottom casing (Location F-8). Machining at parting planes on both left and right side for resting of carriers as per detail-Q of drawing.
b) Machining of groove (axial faces) to accommodate blade carrier as indicated in drawing in outer top and bottom casing (Location F-9). Machining at parting planes on both left and right side for resting of carriers as per detail-P of drawing.
c) Welding of supporting blocks (U & L brackets) at parting plane of outer casing at top and bottom halves (both left and right side) as per view-N and G of drawing. Machining the same and drilling and tapping for threads for fixing and dowelling of pins as per drawing details.
d) Machining of groove from inside of bottom half of casing at bottom for inner blade carrier keys as per detail-R & S of drawing.
- 2.6 Drilling of 2 holes upto 50% from outside of outer casing thickness at top and bottom as per section-E-E and detail E-1 of drawing.
- 2.7 Machining of inner surface in bottom half casing at casing pin location as per view W1 and W2 of drawing.
- 2.8 Drilling/machining of hole at 12 o'clock position at rear of outer casing at per detail drawing location (C-D: 9-10). Including threading.
- 2.9 Removing of material from inside at the inlet location of outer casing in both top and bottom casing to accommodate inner casing as per drawing location C-4& H-4.
- 3.0 **L P CASING** **Drg. No. 0-107-40-62002**
1-107-40-62001 to 8
- 3.1 Machining of grooves (axial and radial) in top and bottom casing for guide blade carriers at 8 locations as per drawing.
- 3.2 Machining near parting plane on both sides in both top and bottom casings for support of guide blade carriers, their adjustments and locking.
- 3.3 Machining of grooves for keys in bottom half of the casing for guide blade carriers.

3.4 Drilling of holes for draining of grooves in bottom casing only.

4.0 GENERAL

4.1 **Overrun:** The work to be carried out on turnkey basis and on firm price. No additional or overrun charges shall be entertained at any stage.

4.2 Copies of fourteen nos. of drawings for reference are enclosed.

4.3 For retrofitting of new items on to the old design outer casings, machining of outer casings from inside and out side by boring and milling operations is required including drilling of holes for temperature measurement, facing of inlet flanges/surfaces etc. and fixing of new attachments and new seal glands. All efforts have been made to cover maximum points however any job to be carried out to accommodate new internals, new attachments, new inlet pipes, thermocouples etc. is to be carried out and are included in the scope of contractor. Dimensions in the drawing are subject to change.

a. All the required equipments and tooling for in-situ machining are included in the scope of contractor.

b. The party should have all the required equipments and tooling capable to carry out the in-situ machining at site of the required sizes as per attached drawings. The party should submit all the relevant documents detailing the equipments and tooling for machining, boring, milling and drilling etc.

c. Maximum sizes to be machined at site in different casings are as below:

HP outer casing: Maximum dia. = 1145mm

MP outer casing: Maximum dia. = 1830mm

LP outer casing: Maximum dia. = 2850mm

d. Accuracy should be is 0.10mm with surface finish of 3.2 microns and the tolerances as mentioned in the attached drawings.

4.4 Repair like re-drilling and threading of existing holes etc. is included in the scope.

4.5 The job has to be carried out to the specifications. Any kind of setting of equipment and for measurement of dimensions etc. required as per drawing is to be carried out by the party.

4.6 **Completion Period:** The site work is to be completed in 105 days from start of work and may require working in 2 or 3 shifts to achieve completion of job.

4.7 The fitting of internal their axial and radial locations will be checked and any rectification required in machining is included in the scope and will have to be carried out by the party.

4.8 The work is likely to start in the month of April'2007 and accordingly the party has to mobilize in advance along with all resources as men and material. The exact date of start of work will be communicated with a 30 days notice as mobilization period.

4.9 Validity of offer – 1 year.

4.10 Handling of turbine components at site will be by BHEL.

4.11 Power supply for the job at site for machining equipments will be given by BHEL free of charges.

- 4.12 Compressed air will be made available on the working floor at a pressure of 4.0 kg/cm².
- 4.13 The price quoted for the job should include all charges like charges for machining, man power, transportation of equipment and tools (to and fro by Air line cargo), insurance for equipment, traveling charges of operators (to and fro), cost for hotel, cost of local travel, customs and taxes if any etc..
- 4.14 **Road permit/C-Form shall be arranged by BHEL on request and prior notice for movement of T&P within India.**
- 4.15 Any clarification required on the above can be made available on request.
- 5.0 **Quantum of work**
- 5.1 The scope of work given in the tender specification is only approximate and is liable to variation and alterations at the discretion of BHEL Engineer. No compensation on this account shall be payable to the contractor unless specifically recommended by BHEL Engineer as the variation forming major additions to the original scope of work. All repair/ rectification work arising out of normal wear and tear, seizure of parts etc. have to be done by the contractor and the same be deemed to be covered by the scope of work of the contract.
- 5.2 The scope of work details out the major activities only. However, as per the general maintenance requirement and site condition, certain related activities may have to be carried out by the contractor without any extra cost.
- 6.0 **Commencement and completion work**
- 6.1 The starting time and completion time is the essence of the tender. As the time bound program is firmly committed to customer the starting time and completion time should be strictly adhered to. It will not be possible to grant extension in completion time except in extra ordinary circumstances, which will be decided entirely at the discretion of BHEL Engineer. Work should normally be carried out in two shifts and sometimes also in three shifts in consultation with the BHEL Engineer.
- 6.2 A detailed program of the various activities covered under this contract with specific time periods to fall in the overall frame work of the above dates should be prepared and got approved by BHEL Engineer. The progress against this program shall be reviewed with BHEL Engineer at the end of each day and critical areas identified and suitable steps taken in time.
- 6.3 If during the review, at any stage of overhauling. BHEL Engineer feels that the delays are not likely to be made up. BHEL reserves the right to take corrective steps as considered necessary by BHEL Engineer to complete work in schedule time and debit the cost incurred thereon to the contractor. This does not however absolve the contract of own efforts in consultation with BHEL Engineer. Every endeavor will be made to see that work proceeds uninterruptedly.
- 6.4 The tenderer should indicate the time required for starting the work once the letter of intent is issued along with the time required for completion. The work may have to commence immediately after opening of the tenders. Hence, preference may be given to those tenders who can commence the work earlier, and also ensure early completion.
- 6.5 The contractor shall ensure completion of the job in all respects within the days from the date of commencement of work as given in contract.
- 7.0 **Penalty for delay :**
- 7.1 If not mentioned otherwise in the notice inviting tender, in the event of failure to complete the work in given time, an amount equal to ½% of the contract value

per day subject to maximum of 10% of the contract value will be levied as penalty, in case the balance work is allowed to be completed by the contractor beyond the scheduled time of completion, which is at the discretion of BHEL. In case of delays on contractor's part, at any stage during the scheduled period or after, BHEL shall have the option of ensuring completion of the job by any other means at its disposal and the charges on this account shall be levied on the contractor. These shall be adjusted against contractor's bills or security deposit.

8.0 Terms of payment :

8.1 Advance payment:

- (a) 5% of contract value shall be paid as interest bearing advance and against submission of bank guarantee for an equivalent amount along with invoice. The interest chargeable shall be Prime Lending Rate of State Bank of India plus 2%.
- (b) The advance paid shall be recovered from the contractors progressive bills to an extent of 10% of each progressive bill till it is fully recovered.

8.2 Progressive Payments

- (a) 25% of contract value on completion and checking of machining of HP turbine as per drawing, scope of work and assembly.
- (b) 30% of contract value on completion and checking of machining of MP turbine as per drawing, scope of work and assembly.
- (c) 35% of contract value on completion and checking of machining of LP turbine as per drawing, scope of work and assembly.
- (d) 10% of value checking of final setting of turbine internals and externals as per drawing, scope of work and final assembly of all the three turbines.

8.3 All payments are subject to income tax deduction as per the applicable rates notified by central Govt. of India. The present rate of income tax deduction is @ 1.1122 inclusive of surcharge and education cess.

8.4 BHEL reserves the right to withhold payment in case the contractor does not fulfill terms and conditions as per contract.

8.5 Mode of Payment

- (a) The payment shall be made by cheque or bank transfer.
- (b) On the basis of completed measurement of work done, the bills will be verified by BHEL Site Engineer and certified by BHEL Engineer In charge to arrange payment. From this amount, recovery as applicable such as advances, security deposit, taxes etc. would be made. The certificate of the Engineer regarding such approval and passing of sums so payable shall be final and conclusive against the contractor.
- (c) **Currency of payment and Exchange Rate:** Payment shall be released to contractor in US Dollars or Euro or Indian Rupees. Exchange rate from one currency to another applicable for the entire period of contract shall be the rate prevailing on the date of opening of technical bid (Part-I). Rates to considered should be "Bill Selling Rate" in case of conversion from Indian Rupees to US Dollars or Euro and "Bill Buying Rate" in case of conversion from US Dollars or Euro to Indian Rupees based on the card rates, which shall be obtained by BHEL from State bank of India. These rates shall be as ruling on the date of opening of technical bid. If the date happens to be holiday the exchange rate of next working day will be considered.

9.0 Inspection and completion or work:

- 9.1 The work being carried out by the contractor will be supervised and inspected by our Site Engineers under the overall supervision of BHEL Engineer In charge.
- 9.2 The work will be deemed as complete when BHEL Engineer finally accepts it and job completion certificate is issued. No extra payment will be made for any rework carried out by the contractor to rectify any defective work.
- 9.3 The contractor shall not be entitled for labour idling charges under any circumstances.

10.0 Tools, Tackles, Test Equipments & Consumables:

- 10.1 Unless otherwise mentioned in the notice inviting tender, all tools and tackles and consumables required for day to day work like gases, gas cutting sets with accessories, AC/DC welding sets, TIG welding kits, welding cables, electrodes etc. all temporary electrical connection boards, required for the work shall be arranged by the contractor at his own cost. However in case of emergency, BHEL may supply certain items, if available, to contractor at actual cost plus handling charges. These will be deducted from contractor's running bills. T&P shall be regularly tested by the contractor to ensure that the same is available in fit condition for use. Testing equipment for conducting various tests, during the progress of overhauling/ re-commissioning shall have to be provided by the contractor. Spare parts going into permanent installation shall only be provided by BHEL.
- 10.2 The contractor shall provide inspection, measuring and test equipments duly calibrated against national standards. In case of any erratic behaviour of these items the same shall be immediately withdrawn and got recalibrated by the contractor. The contractor shall submit copy of test certificates in respect of T&P, electrodes and instruments as detailed above.

11.0 Accommodation for site staff and store space:

- 11.1 Contractor has to arrange for the stores and office at site and its maintenance. Space for the same shall be made available as per the availability at site. The contractor shall be responsible to provide all necessary facilities, like residential accommodation with sanitary facilities transport, electricity, water, medical, bonus etc. as required under various labour laws and statutory rules and regulations framed there under to the personnel employed by him. BHEL assumes no liability in this regard.

12.0 Responsibilities of the contractor:

12.1 Supervisory staff and labour :

The contractor shall employ, specially skilled technicians, supervisors and engineers thoroughly conversant with particular type of work to ensure quality work. BHEL reserves the right to decide on the suitability of the workers and other staff employed by the contractor. BHEL reserves the right to insist on removal of any employees of the contractor at any time if they find him unsuitable and the contractor should forthwith remove him and provide a suitable substitute.

12.2 Planning and Execution:

Contractor shall submit a job planning in form of a Bar Chart or PERT chart. A list of manpower category-wise, indicating individual's responsibility job/ activities-wise, shall have to be submitted. Daily program of job shall be displayed on a board near work site one day in advance. A daily progress report along with Manpower utilized has to be submitted and backlog of the

work, if any, shall be covered up in consultation with BHEL Engineer.

12.3 Safety and Accident Coverage:

12.3.1 Contractor shall ensure safety of all his employees at site of work. All employees shall be covered by insurance (workman compensation) against accident, failing which proper action will be taken against the contractor.

12.3.2 Contractor shall also ensure proper safety of the equipments under overhauling by deputing personnel to guard the equipments round the clock. Open oil spaces, steam spaces shall be covered properly against ingress of foreign material while working.

12.4 House keeping and preservation :

12.4.1 Work floor/ area shall be cleaned every day and be kept absolutely clean. A regular cleaning gang may be engaged for the purpose.

12.4.2 All dismantled components of the equipments under overhauling should be tag marked and be stored properly according to type of components, namely all loose/ small parts shall be kept in boxes bearing and matching components, shall kept on wooden planks. A list of such components shall be maintained to identify/ locate, be preserved properly against probable damages. No floor shall be damaged by the contractor while working and necessary steps shall be taken by the contractor for repair in case of any damage.

12.5 Tool stores and consumables:

12.5.1 Tools & tackles, other than special tools & tackles supplied alongwith the equipments, shall be arranged and stored properly by the contractor. A register must be maintained and updated regularly.

12.5.2 The contractor for daily use shall store all consumables including welding electrodes, other than those going permanently into the equipments. Regular check shall be made at end of each day's work and exhausted consumables shall be replenished immediately.

12.5.3 BHEL engineers may visit the contractor's store without notice to contractor for verification.

13.0 General

13.1 Standard printed conditions if enclosed with the offer by the tenderers will not be considered but only if stated in main body of the offer will be considered for acceptance.

14.0 Information Security of PSNR

14.1 The contractor shall ensure that the drawing, documents used during execution of contract are kept strictly confidential. The contractor shall ensure that the information confidentiality, integrity and availability are maintained as per business requirement. The information shall not, under any circumstances, be used in any form with any other agency or for any purpose other than that for which it is intended. Memorandum of understanding shall be signed as per Annexure – II.

15.0 Social Accountability

15.1 PSNR is committed to follow the Social accountability in line with SA 8000. The contractor shall duly follow the same during the tenure of execution of the contract.

15.2 The Contractor shall not employ any employee less than 15 years of age in pursuant to ILO convention. If any child labour were found to have been

engaged, the contractor shall be levied with expenses of bearing his education expenditure which will include stipend to substantiate appropriate education or employ any other member of family enabling to bear the child education expenditure.

- 15.3 The contractor shall not engage Forced/ Bonded Labour and shall abide by abolition of Bonded labour System (Abolition) Act, 1976.
- 15.4 The contractor shall maintain Health & Safety requirement as stipulated in the contract and Contract labour (Regulation & Abolition) Act, 1970.
- 15.5 The Contractor shall abide UN convention w.r.t. Human Rights and shall be liable for Discrimination/ Corporal punishment for failure in meeting with relevant requirements.
- 15.6 The contractor shall abide, the requirement of Contract labour (Regulation & Abolition) Act 1970 for working hours.
- 15.7 The Contractor shall abide by the Statutory requirement of Minimum Wages Act 1948 payment of Wages Act 1936.

16.0 SERVICE TAX AND EDUCATION CESS

- 16.1 **"Price quoted shall be exclusive of service tax and education cess.** The service tax, as legally leviable & payable by the contractor under the provisions of applicable law/act, shall be paid by BHEL as per contractor's bill. However, contractor shall have to submit proof of service tax deposited by them immediately after the deposit but not later than the next bill submitted after the due date of deposit. The contractor shall furnish proof of Service Tax registration with Central Excise Division covering the services covered under this contract. Registration should also bear endorsement for the premises from where the billing shall be done by contractor on BHEL for this project. Overseas contractor having no office in India, the service tax on his behalf shall be deposited by BHEL.

- 16.2 **Withholding Tax** as applicable on prevailing rates shall be deducted at source.

17.0 Past Performance

- 17.1 BHEL reserves the right to reject a bidder based on their unsatisfactory past performance at any other project.

18.0 Liquidated damages

- 18.1 For delay in completion of work attributable to the contractor, the LD shall be applicable at the rate of ½ % of the contract value per day of delay or part thereof limited to ceiling of 10% of the contract value as mentioned under clause no. 25.5 of GCC of the tender.

19.0 Insurance

- 19.1 Besides provisions under clause no 29.0 of GCC regarding insurance, the following shall also be applicable. The contractor shall also take care of the same while submitting their offer.
- 19.2 If due to negligence / carelessness on the part of the contractor, any material/equipment gets damaged, the contractor shall submit necessary documents for lodging insurance claim as required by BHEL Engineer. BHEL shall however reserve the right to recover deductible franchise and also unsettled portion of insurance claim amount from the contractor bills.
- 19.3 If due to negligence / carelessness on the part of the contractor, any surrounding properties also get damaged, the contractor shall submit necessary documents for lodging insurance claim as required by BHEL Engineer. BHEL shall however reserve the right to recover deductible franchise

and also unsettled portion of insurance claim amount from the contractor bills.

20.0 Security Deposit

- 20.1 The contractor shall submit Security Deposit within 15 days from the date of issue of Letter of Intent as per clause no. 16.2 of GCC. In case contractor opts to furnish Bank Guarantee (BG) as part of Security Deposit, the BG shall be issued as per Performa enclosed as per Annexure –H of the GCC and also that the BG should be issued preferably through any of the Member Bank List on page no. 56.
- 20.2 For BG through any other Bank (Not covered in the list of Member banks of GCC), the discretion of its acceptance shall lie solely with BHEL.

21.0 Rate Schedule

- 21.1 The tenderer shall quote the prices/rate for entire scope of work as per tender specifications in part II price bid (Original) in Annexure – III. Conditional price bids or price bids with any deviation are liable to be rejected. No cutting / erasing / over writing shall be done.
- 21.2 The tenderer shall quote price /rate in one currency only i.e. either in Indian Rupees OR US Dollars OR Euro only.
- 21.3 The finally accepted price/rate for scope of work as defined in this tender shall be firm throughout the contract period.
- 21.4 The tenderer shall fully understand description and scope of work before quoting. The scope of work and responsibility of the contractor as mentioned under these specification shall covered within the quoted / finally accepted rates.
- 21.5 The rate shall be entered in figures as well as in words. In case of difference in rates between words and figures, the lesser of the two will be treated as valid rate.

22.0 Qualifying Requirements:

- 22.1 Tenderers should have experience of having carried out similar jobs of in-situ machining of at-least two units of turbine casings of 110 MW or higher ratings during the last 7 years. The party should submit relevant work orders and satisfactory completion certificate or any other proof in support of above qualifying requirement. Tenderers should also have an average annual financial turnover of minimum of Indian Rupees 24.0 millions or equivalent during last three years (2003-04, 2004-05 and 2005-06).

23.0 Others

- 23.1 In case of any contradiction between General Condition of Contract (GCC) and Special Conditions of Contract (SCC), the later shall prevail.
- 23.2 The tenderer shall specifically confirm as per Annexure – I that he has inspected the site of work and is fully conversant with the prevailing conditions under which work is to be executed and will not raise claim of any nature due to lack of knowledge of site condition. He will also confirm that local taxation laws at the site have been clearly understood by him.
- 23.3 **The Price Bids of only those bidders will be opened who will be qualified for the subject job on the basis of pre-qualification evaluation / techno-commercial bids and acceptance. BHEL reserves the right to reject the bidders with unsatisfactory past performance in the execution of a contract. BHEL's decision in this regard shall be final and binding.**

CERTIFICATE OF DECLARATION FOR CONFIRMING THE KNOWLEDGE OF SITE CONDITIONS

We,.....
..... hereby declare and confirm that
we have studied/visited the project site under the subject namely
PANIPAT THERMAL POWER STATION, PANIPAT-INDIA and
acquired full knowledge and information about **site conditions, wage
structure, Industrial climate and total work involved**. We further
confirm that the above information is true and correct and we will not
raise any claim of any nature due to lack of knowledge of site condition.

Tenderers Name and Address

(Signature of the Tenderers with stamp)

Place:

Date

NON-DISCLOSURE AGREEMENT

Memorandum of Understanding

BHEL PSNR is committed to Information Security Management System as per Information Security Policy.

M/S
providing service to BHEL, PSNR, Noida
hereby undertake to comply with the following in line with Information Security Policy
of BHEL PSNR;

- To maintain confidentiality of documents and information which shall be used during the execution of the Contract.
- The documents and information shall not be revealed to or shared with third party which shall not be in the business interest of BHEL PSNR.

(
M/S BHEL, PSNR)

(
M/S)

RATE SCHEDULE**IN-SITU MACHINING OF STEAM TURBINE CASINGS OF BHEL MAKE**

(The tenderer shall quote price /rate in one currency only i.e. either in Indian Rupees OR US Dollars OR Euro only.)

Sl. No.	DESCRIPTION	LUMPSUM RATE IN INDIAN RUPEES (In Figures and Words)
1.	Lump sum Rate for in-situ machining of steam turbine casings of BHEL make (Skoda design) for Renovation and Uprating of unit no. 1 from 110 MW to 117.8 MW at Panipat Thermal Power Station, Panipat, Haryana (India) as per tender specifications.	

OR

Sl. No.	DESCRIPTION	LUMPSUM PRICE IN US DOLLARS (In Figures and Words)
2.	Lump sum Rate for in-situ machining of steam turbine casings of BHEL make (Skoda design) for Renovation and Uprating of unit no. 1 from 110 MW to 117.8 MW at Panipat Thermal Power Station, Panipat, Haryana (India) as per tender specifications.	

OR

Sl. No.	DESCRIPTION	LUMPSUM PRICE IN EURO (In Figures and Words)
3.	Lump sum Rate for in-situ machining of steam turbine casings of BHEL make (Skoda design) for Renovation and Uprating of unit no. 1 from 110 MW to 117.8 MW at Panipat Thermal Power Station, Panipat, Haryana (India) as per tender specifications.	

NOTES:

1. The tenderer shall quote the prices/rate for entire scope of work as per tender specifications in part II price bid (Original). Conditional price bids or price bids with any deviation are liable to be rejected. No cutting / erasing / over writing shall be done.
2. The finally accepted price/rate for scope of work as defined in this tender shall be firm throughout the contract period.

3. The tenderer shall fully understand description and scope of work before quoting. The scope of work and responsibility of the contractor as mentioned under these specification shall covered within the quoted / finally accepted rates.
4. The rate shall be entered in figures as well as in words. In case of difference in rates between words and figures, the lesser of the two will be treated as valid rate.
5. Exchange rate from one currency to another applicable for the entire period of contract shall be the rate prevailing on the date of opening of technical bid (Part-I). Rates to considered should be “Bill Selling Rate” in case of conversion from Indian Rupees to US Dollars or Euro and “Bill Buying Rate” in case of conversion from US Dollars or Euro to Indian Rupees based on the card rates, which shall be obtained by BHEL from State bank of India. These criteria shall be used for price comparison also.

Signature and seal of tenderer

SECTION- I (GCC)

GENERAL INSTRUCTIONS TO TENDERERS

- 1 This tender specification as a whole, furnishing all the details and other documents as required in the following pages, shall be duly signed and sent in a sealed cover (IN DUPLICATE) super-scribing the name of work as given in the tender notice.
- 2 The tender shall be addressed to: OFFICER INVITING TENDER AS INDICATED IN THE TENDER NOTICE.
3. Tenders submitted by post shall be sent as **"REGISTERED/ SPEED/ COURIER POST "** and shall be posted with due allowance for any postal delay. The tenders received after the due date and time of opening are liable to be rejected. Offers received by Telegram/telex/ Fax/ E-mail/ Internet may be considered as per terms of NIT.
- 4 Tenders shall be opened at the time and date as specified in the tender notice in the presence of such of those tenderers or their authorised representatives who may be present.
- 5 The tenderers shall closely peruse all the clauses, specifications and drawings indicated in the Tender Documents before quoting. Should the tenderer have any doubt about the meaning of any portion of the Tender Specifications or find discrepancies / omission in the Drawings or the tender documents issued are incomplete or shall require clarification on any of the technical aspect, scope of work etc., he shall atonce contact the authority inviting the tender for clarification before the submission of the tender.
- 6 Before tendering, the tenderers are advised to inspect the site of work and the environments and be acquainted with the actual working and other prevalent conditions, facilities available, position of material and labour. No claim will be entertained later on grounds of lack of knowledge.
- 7 Tenderer must fill up all the schedules and furnish all the required information as per the instructions given in various sections of the tender specification. Each and every page of the Tender Specification must be SIGNED, STAMPED AND SUBMITTED ALONG WITH THE OFFER by the Tenderer in token of complete acceptance thereof. The information furnished shall be complete by itself.
- 8 The tenderer shall quote the rates in English Language and international numerals. These rates shall be entered in figures as well as in words. In case of difference in rates between words and figures THE LESSER OF THE TWO will be treated as valid rate. For the purpose of tender, the metric system of units shall be used.
- 9 All entries in the tender shall either be typed or be written in ink. Erasure and over writings are not permitted and may render such tenders liable to

summary rejection. All cancellations and insertions shall be duly attested by the tenderer.

- 10 **QUALIFICATIONS OF TENDERERS:** Only tenderers who have previous experience in the work of this nature and description detailed in this tender specification are expected to quote for this work. Offers from tenderers who do not have proven and established experience in the field are not likely to be considered.
- 11 **DATA TO BE ENCLOSED :** Full information shall be given by the tenderer in respect of the following. Non submission of these information may lead to rejection of the offer.
- 11.1 **FINANCIAL STATUS :** Financial viability as per proforma enclosed at **ANNEXURE-`A`**
- 11.2 **INCOME TAX CERTIFICATES :** A Certificate of Income tax clearance from the appropriate authority in the forms prescribed therefor duly indicating annual turnover. These certificates shall be valid for one year from the date of issue or for the period prescribed therein for all tenders submitted during the period.
- 11.3 **PREVIOUS EXPERIENCE :** A statement giving particulars (duly supported by documentary evidence) of the various service rendered in progress for each similar works by the tenderer indicating the particulars and value of each work, the site location, the duration, date of completion etc., strictly as per proforma enclosed at **ANNEXURE-B**.
- 11.4 **ORGANISATION CHART :** The organisation pattern that are totally available with him and that will be employed by the tenderer for this work in the form of monthwise and categorywise deployment plan duly indicating the number of Engineers, Supervisors, skilled and unskilled workers etc., as per proforma enclosed at **ANNEXURE-`C`**.
- 11.5 An attested copy of the **Power of Attorney**, in case the tender is signed by an individual other than the sole Proprietor, shall also be attached.
- 11.6 **IN CASE OF AN INDIVIDUAL:** His full name, experience, address and nature of business.

OR

IN CASE OF PARTNERSHIP FIRMS: The names of all the partners with addresses and their experience. A copy of the partnership deed/ instrument of Partnership duly certified by a Notary Public shall be enclosed.

OR

IN CASE OF COMPANIES: Date and place of registration including date of commencement certificate in case of public companies and the nature of business carried or by the Company. Certified copies of memorandum and Articles of Association are also to be furnished. Also indicate names, addresses and experience of the Directors.

11.7 A list of tools and tackles (including machines for in-situ machining like boring machine, flange facing machine, key mills, portable lathes, drilling machines, welding sets etc., wherever applicable) that the tenderer is having and those that will be deployed on this job as per proforma enclosed at **ANNEXURE-`D`**.

~~11.8 Analysis of unit rate quoted as per proforma enclosed at ANNEXURE-`E`.:
Not applicable for this tender~~

11.9 Declaration sheet as per proforma enclosed at **ANNEXURE-`F`**.

11.10 In addition to the above, the particulars required elsewhere in tender documents.

11.11 Checklist and schedule of general particulars duly filled in, signed and stamped as per **ANNEXURE-`G`**.

NOTE : In terms of clauses 11.1 to 11.11 above of GCC, all the data required to be enclosed with the tender need to be furnished neatly typed, signed and stamped in the given formats only (in the form of separate sheets) failing which the tender may be considered as incomplete and is liable for rejection. Documentary proofs wherever necessary also need to be enclosed.

12 **EARNEST MONEY DEPOSIT** : Every tender must be accompanied by the prescribed amount of Earnest Money Deposit in any one of the following forms.

NOTE : Bank Guarantee, Cheques, Currency Notes, Money Orders or Postal Orders will not be accepted.

12.1 **Cash(As permissible under Income Tax Act)** : The amount should be remitted by the party to the Cashier of Bharat Heavy Electricals Limited and cash receipt issued by him shall be enclosed along with the tender.

12.2 Pay Order or Demand Draft in favour of Bharat Heavy Electricals Limited, Noida.

12.3 Tenders received without Earnest Money in full in the manner prescribed above will not be considered.

12.4 The Earnest Money Deposit of the successful tenderer will be retained towards part of Security Deposit.

12.5 In the case of unsuccessful tenderers, the Earnest Money will be refunded normally within fifteen days of acceptance of award of work by the successful tenderer.

12.6 BHEL reserves the right of **forfeiture of Earnest Money deposit** in case the successful tenderer,

(a). After opening of Tender, revokes his tender within the validity period or increases his earlier quoted rates.

- (b) 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.

12.7 EMD shall not carry any interest.

12.8 Tenderers, who so ever desires, may deposit one time Earnest Money Deposit of Rs. 1,00,000/- in cash(**As permissible under Income Tax Act**) /DD/pay order only with the cashier of BHEL. Tenderers who furnish one time EMD as above, will not be required to furnish EMD time and again alongwith their tenders submitted to BHEL/ PSNR. However they will be required to indicate the cash receipt No. and date of one time EMD in all their tenders.

13 **AUTHORISATION AND ATTESTATION:** Tenders shall be signed by persons duly authorised / empowered to do so. Certified copies of such authority and relevant documents shall be submitted alongwith the tenders.

14 **VALIDITY OF OFFER :** *THE OFFER SHALL BE KEPT OPEN FOR ACCEPTANCE FOR A MINIMUM PERIOD OF SIX MONTHS FROM THE DATE OF OPENING OF TENDERS.* In case Bharat Heavy Electricals Limited calls for negotiations, such negotiations shall not amount to cancellation or withdrawal of the original offer which shall be binding on the tenderers.

15 **EXECUTION OF CONTRACT :** The successful tenderer's responsibility under this contract commences from the date of issue of the Letter of Intent by Bharat Heavy Electricals Limited. The successful tenderer shall be required to execute an agreement in the prescribed form as per **ANNEXURE-'I'** with the BHEL within a reasonable time after the acceptance of his tender and in any case before submitting the first bill for payment.

16 **SECURITY DEPOSIT :** Upon acceptance of tender, the successful tenderer must deposit the required amount of security deposit within the time specified in the Letter of Intent for satisfactory completion of work.

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

(a) In case of work costing upto 10 lakhs : 10% of the contract value.

(b). In case of work costing above Rs 10 lakhs and upto Rs 50 lakhs : 1 Lakh + 7.5 % of the amount exceeding Rs. 10 Lakhs.

(c). In case of work costing more than Rs 50 lakhs : 4 Lakhs + 5 % of the amount exceeding Rs. 50 Lakhs.

16.2 The Security Deposit will be deposited within 15 days from the date of issue of Letter of Intent but before start of work in any one of the following forms :-

(a). The total Security Deposit as indicated in the Letter of Intent in **cash** (As permissible under Income Tax Act).

- (b) Pay Order, Demand Draft in favour of BHEL.
- c) Local cheques of scheduled banks, subject to realization.
- d) Securities available from Post Offices such as National Savings Certificates, Kisan Vikas Patras etc.
(Certificates should be held in the name of Contractor furnishing the security and duly pledged in favour of BHEL and discharged on the back).
- e) Bank Guarantee from Scheduled Banks / Public Financial Institutions as defined in the Companies Act subject to a maximum of 50% of the total security deposit value. The balance 50% has to be remitted either by cash or in the other form of security. The Bank Guarantee format should have the approval of BHEL.
- f) 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.
- g) Security deposit can also be recovered at the rate of 10% from the running bills. However in such cases at least 50% of the Security Deposit should be collected before start of the work and the balance 50% may be recovered from the running bills.
- h) EMD of the successful tenderer shall be converted and adjusted against the security deposit.

16.3 The security deposit shall not carry any interest.

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

16.4 Security deposit shall not be refunded to the contractor except in accordance with the terms of the contract.

16.5 The validity of the Bank Guarantee furnished towards Security Deposit under (e) above shall be upto the period of completion of work as stipulated in the Letter of Intent + 1 month and the same will be kept valid by proper renewal till the satisfactory completion of the Guarantee Period.

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

- 16.7 Failure to deposit the Security Deposit within the stipulated time, may lead to forfeiture of Earnest Money Deposit and Cancellation of the award of work.
- 16.8 If any part of Security Deposit of the Contractor is held in the form of approved securities, it shall be kept transferred in the name of Bharat Heavy Electricals Limited, in such a manner that the same can be realised fully without referring to the Contractor. BHEL shall not be responsible for any depreciation in the value of the Security while in BHEL's custody or for any loss of interest thereon.
- 16.9 BHEL reserves the right of **forfeiture of Security Deposit** in addition to other claims and penalties in the event of the contractor's failure to fulfil any of the contractual obligations or in the event of termination of contract as per terms and conditions of contract. BHEL reserves the right to set off the Security Deposit, against any claims of any other contracts with BHEL.
- 16.10 **RETURN OF SECURITY DEPOSIT** : If the contractor fully performs and completes the work in all respects to the entire satisfaction of BHEL and presents an absolute "**No Demand Certificate**" in the prescribed form and returns properties belonging to BHEL taken, borrowed or hired by him for carrying out the said works, half the amount of Security Deposit will be released to the contractor after deducting all costs, expenses and other amounts that are to be paid to BHEL under this or other contracts entered into with the Contractor. It may be noted that in no case the Security Deposit shall be refunded / released prior to passing of final bill. Balance half of the amount of Security Deposit will be released only after the Guarantee Period is over.

NOTE : All the BGs are to be submitted as per BHEL/PSNR performa.

- 17 **No interest** shall be payable by BHEL on Earnest Money Deposit, Security Deposit or on any moneys due to the contractor.
- 18 **REJECTION OF TENDER AND OTHER CONDITIONS** :
- 18.1 The acceptance of Tender will rest with BHEL which does not bind itself to accept the lowest tender or any tender and reserves to itself full rights for the following without assigning any reasons whatsoever.
- (a) To reject any or all of the tenders.
 - (b) To split up the work amongst two or more Tenderers.
 - (c) To award the work in part.
 - (d) In either of the contingencies stated in (b) and (c) above to modify the time for completion suitably.
- 18.2 Conditional and un-witnessed tenders, tenders containing absurd or unworkable rates and amounts, tenders which are incomplete or otherwise

considered defective and tenders not in accordance with the tender conditions, specifications, etc., are liable to be rejected.

- 18.3 If a tenderer expires after the submission of his tender or after the acceptance of his tender, BHEL may at its discretion, cancel such tender. If a partner of a firm expires after the submission of the tender or after the acceptance of the tender, BHEL may cancel such tender at its discretion unless the firm retains its character.
- 18.4 BHEL will not be bound by any Power of Attorney granted by the tenderer or by changes in the composition of the firm made subsequent to the execution of the contract. BHEL may, however, recognise such Power of Attorney and changes after obtaining proper legal advice, the cost of which will be chargeable to the contractor concerned.
- 18.5 If the tenderer deliberately gives wrong information in his tender, BHEL reserves the right to reject such tender at any stage or to cancel the contract, if awarded and forfeit the Earnest Money/ Security Deposit/ any other moneys due.
- 18.6 Canvassing in any form in connection with the tender is strictly prohibited and the tenders submitted by the contractor who resorts to canvassing are liable to be rejected.
- 18.7 Should a tenderer or contractor or in the case of a firm or Company of contractors/ one or more of its Partners/ share holders / Directors have a relation or relations employed in BHEL, the authority inviting tender shall be informed to the fact alongwith the offer, failing this BHEL may, at its sole discretion reject the tender or cancel the contract and forfeit the Earnest Money/ Security Deposit
- 18.8 The successful tender should not sub-contract the part or complete work detailed in the tender specification without written permission of BHEL. The tenderer is solely responsible to BHEL for the work awarded to him.
- 18.9 **NO DEVIATIONS** to the tender conditions will normally be accepted. However, if the tendered insists for certain deviations to the conditions, financial implication thereof shall be loaded to the quoted price for evaluating the tenderer's offer.

SECTION - II

GENERAL TERMS AND CONDITIONS

- 19.0 The following terms and expressions shall have the meaning hereby assigned to them except where the context otherwise requires.
- 19.1 **BHEL** (or B.H.E.Ltd.) shall mean Bharat Heavy Electricals Limited, a Company registered under the Indian Companies Act, 1956, with its Registered Office at BHEL HOUSE, SIRI FORT, NEW DELHI-110049 or its

authorised officers or its Engineer or other employees authorised to deal with any matters with which these persons are concerned, on its behalf.

- 19.2 **`GENERAL MANAGER'** shall mean the Officer in Administrative charge of the contracting Unit of BHEL.
- 19.3 **`ENGINEER' or `ENGINEER-IN-CHARGE'** shall mean Engineer deputed by BHEL. The terms includes Deputy General Manager, Construction Manager, Resident Manager, Site Engineer, Resident Engineer and Assistant Site Engineer of BHEL at the site as well as the officers in charge at Head Office.
- 19.4 **`SITE'** shall mean the place or places at which the plants/ equipment are to be erected and services are to be performed as per the specifications of this Tender.
- 19.5 **`CLIENTS OF BHEL' or `CUSTOMER'** shall mean the project authorities to whom BHEL is supplying the equipment.
- 19.6 **`CONTRACTOR'** shall mean the individual, firm or company who enters into contract with BHEL and shall include their executors, administrators, successors and permitted assigns.
- 19.7 **`CONTRACT' or `CONTRACT DOCUMENT'** shall mean and include the agreement, the work order, the accepted appendices of rates, Schedules of Quantities, if any, General Conditions of Contract, Special Conditions of Contract, Instructions to Tenderers, the drawings, the technical specifications, the special specifications, if any, the tender documents and the Letter of Intent/ Acceptance letter issued by BHEL. Any conditions or terms stipulated by the tenderer in the tender documents or subsequent letters shall not form part of the Contract unless specifically accepted in writing by BHEL in the Letter of Intent and incorporated in the Agreement.
- 19.8 **`GENERAL CONDITIONS OF CONTRACT'** shall mean the `Instructions to Tenderers' and `General Conditions of Contract' pertaining to the work detailed.
- 19.9 **`TENDER SPECIFICATIONS'** shall mean the Special Conditions, Technical Specifications, appendices, Site information and drawings pertaining to the work for which the tenderers are required to submit their offer. Individual Specifications Number will be assigned to each tender specifications.
- 19.10 **`TENDER DOCUMENTS'** shall mean the General Conditions of Contract (19.8) and Tender Specifications (19.9).
- 19.11 **`LETTER OF INTENT'** shall mean the intimation by a letter / telegram / telex / fax to the tenderer that the tender has been accepted in accordance with provisions contained in the letter. The responsibility of the contractor commences from the date of issue of this letter and all the terms and conditions of contract are applicable from this date.
- 19.12 **`COMPLETION TIME'** shall mean the period by date specified in the Letter of Intent or date mutually agreed upon for handing over the erected

equipment/ plant which are found acceptable by the Engineer being of required standard and conforming to the specifications of the Contract.

19.13 **'PLANT'** shall mean and connote the entire assembly of the plant and equipment covered by the Contract.

19.14 **'EQUIPMENT'** shall mean all equipment, machineries, materials, structurals, electricals and other components of the plant covered by the Contract.

19.15 **'TESTS'** shall mean and include such test or tests to be carried out by the contractor as are prescribed in the Contract or considered necessary by BHEL in order to ascertain the quality, workmanship, performance and efficiency of the contracted work or part thereof.

19.16 **'APPROVED', 'DIRECTED' or 'INSTRUCTED'** shall mean approved, directed or instructed by BHEL.

19.17 **'WORK' or 'CONTRACT WORK'** shall mean and include supply of all categories of labour, specified consumables, tools and tackles required for complete and satisfactory site transportation, handling, stacking, storing, erecting, testing and commissioning of the equipment to the entire satisfaction of BHEL.

19.18 **'SINGULAR' and 'PLURAL'** etc. Words carrying singular number shall also include plural and vice versa where the context so requires. Words importing masculine gender shall be taken to include the feminine gender and words importing persons shall include any Company or Association or Body of Individuals, whether incorporated or not.

19.19 **'HEADINGS'** The headings in these General Conditions are solely for the purpose of facilitating reference and shall not be deemed to be part thereof or be taken into consideration in the interpretation or construction thereof or the contract.

19.20 **'MONTH'** shall mean calendar month.

19.21 **"WRITING"** shall include any manuscript, type written or printed statement under the signature or seal as the case may be.

20 **LAW GOVERNING THE CONTRACT AND COURT JURISDICTION:** The Contract shall be governed by the Law for the time being in force in the Republic of India. The Civil Court at Delhi/ New Delhi, having ordinary Original Civil Jurisdiction shall alone have exclusive jurisdiction in regard to all claims in respect of this Contract.

21 **ISSUE OF NOTICE** The Contractor shall furnish to the Engineer, the name, designation and address of his authorised agent and all complaints, notices, communications and references shall be deemed to have been duly given to the Contractor, if delivered to the Contractor or his authorised agent or left at or posted to the address either of the contractor or his authorised agent and shall be deemed to have been so given in the case of posting on the day on which they would have reached such

address in the ordinary course of post or at which they were so delivered or left.

- 22 **USE OF LAND** No land belonging to BHEL or its customer under temporary possession of BHEL shall be occupied by the Contractor without the written permission of BHEL.

23 **COMMENCEMENT AND COMPLETION OF WORK**

- 23.1 The contractor shall commence the work within the time indicated in the Letter of Intent and shall proceed with the same with due expedition without delay.

- 23.2 If the successful tenderer fails to commence the work within the stipulated time, BHEL, at its sole discretion, will have the right to cancel the contract. His Earnest Money and/ or Security Deposit will stand forfeited without any further reference to him without prejudice to any and all of BHEL's other rights and remedies in this regard.

- 23.3 All the works shall be carried out under the direction and to the satisfaction of BHEL.

- 23.4 The transported equipment, erected /constructed plant or work performed under the Contract, as the case may be, shall be taken over when it has been completed in all respects and/or satisfactorily put into operation at site.

24 **MEASUREMENT OF WORK AND MODE OF PAYMENT**

- 24.1 All payments due to the contractor shall be made by 'Account Payee' Cheques.

- 24.2 For progress/ running bill payments, the contractor shall present detailed measurement sheets in triplicate duly indicating all relevant details based on technical documents and connected drawings for the work done during the month/ period under different categories in line with terms of payment as per Letter of Intent. The basis of arriving at the quantities/ weights shall be the relevant documents and drawings released by BHEL. These measurement sheets shall be prepared jointly with Engineer and signed by both the parties.

- 24.3 These measurement sheets will be checked by the Engineer and quantities and percentages eligible for payment under different groups shall be decided by him. The abstract of quantities and percentages so arrived at based on the terms of payment shall be entered in the **Measurement Book and signed by both the parties.**

- 24.4 Based on the above quantities, contractor shall prepare the bills in the prescribed proforma and work out the financial value. These will be entered in the Measurement Book and signed by both the parties. Payment shall be made by BHEL after effecting the recoveries due from the contractor.

- 24.5 All recoveries due from the contractor for the month / period shall be effected in full from corresponding running bills unless specific approval from Competent authority is obtained to the contrary.
- 24.6 Measurement shall be restricted to that quantity for which it is required to ascertain the financial liability of BHEL under this contract.
- 24.7 Measurement shall be taken jointly by persons duly authorised by BHEL and the Contractor.
- 24.8 The Contractor shall bear the expenditure involved, if any, in making the measurements and testing of materials to be used/ used in the work. The Contractor shall, without extra cost to BHEL, provide all the assistance with appliances and other things necessary for measurement.
- 24.9 If, at any time due to any reason whatsoever, it becomes necessary to re-measure the work done, in full or in part, the expenses towards such remeasurement shall be borne by the Contractor.
- 24.10 ***Passing of bills covered by such measurements does not amount to acceptance by BHEL of the completion of the work measured. Any left out work has to be completed by the Contractor, as directed.***
- 24.11 Final measurement bill shall be prepared in the proforma prescribed for the purpose, based on the certificate issued by the Engineer that the entire work as stipulated in the tender specifications has been completed in all respects to the entire satisfaction of BHEL. The Contractor shall give unqualified 'No Claim' and 'No Demand' certificates. All the tools and tackles loaned to him should be returned in condition satisfactory to BHEL. The abstract of final quantities and financial values shall also be entered in the Measurement Book and signed by both the parties. The final bill shall be paid within a reasonable time after completion of the work. After the payment of final bill, only the guarantee obligation percentage value shall remain unpaid which shall be released in accordance with clause 32.

25 RIGHTS OF BHEL

BHEL reserves to itself the following rights in respect of this contract without entitling the contractor to any compensation.

- 25.1 To get the work done through another agency at the risk and cost of the contractor, in the event of poor progress or the contractor's inability to progress the work for completion as stipulated in the contract, poor quality of work, persistent disregard of instructions of BHEL, assignment, transfer, subletting of the contracted work without written permission of BHEL, non-fulfillment of any contractual obligations etc. and to claim / recover compensation for such losses from the contractor including BHEL's supervision charges and overheads from Security Deposit/ other dues.
- 25.2 To withdraw any portion of work and / or to restrict / alter quantum of work as indicated in the contract during the progress of work and get it done through another agency and/ or by the departmental labour to suit BHEL's

commitments to its customer or in case BHEL decides to advance the completion due to other emergent reasons/ BHEL's obligation to its customer.

- 25.3 To terminate the contract after due notice and forfeit the Security Deposit and recover the loss sustained in getting the balance work done through other agencies in addition to liquidated damages in the event of :
- (a) Contractor's continued poor progress.
 - (b) Withdrawal from or abandonment of the work before completion of the work.
 - (c) Corrupt act of the contractor.
 - (d) Insolvency of the contractor.
 - (e) Persistent disregard of the instructions of BHEL.
 - (f) Assignment, transfer, subletting of the contract work without BHEL's written permission.
 - (g) Non-fulfillment of any contractual obligations.
- 25.4 To recover any moneys due from the Contractor from out of any moneys due to the Contractor under this or any other Contract or from the Security Deposit.
- 25.5 To claim compensation for losses sustained including BHEL's supervision charges and overheads in case of termination of contract and to levy liquidated damages for delay in completion of work, at the rate of 1/2% of the contract value per day of delay or part thereof subject to a ceiling **of 10% of the contract value.**
- 25.6 To determine the Contract or to restrict the quantum of work and pay for the portion of work done in case BHEL's contract with its customer is terminated for any reason.
- 25.7 To effect recoveries from any amounts due to the contractor under this or any other contract or in any other form the moneys which BHEL is forced to pay to anybody due to contractor's failure to fulfil any of his obligations.
- 25.8 To restrict or increase the quantity and nature of work to suit site requirements, since the tender specification is based on preliminary documents and quantities furnished therein are indicative and approximate and the rates quoted shall not be subject to revision.
- 25.9 To deploy BHEL's skilled and semiskilled workmen in case of emergency / poor progress/ deficiency in skill on the part of the employees of the contractor and to recover the expenditure on account of the same from the moneys due to the contractor.

25.10 While every endeavor will be made by BHEL to this end, BHEL can not guarantee uninterrupted work due to conditions beyond its control. The Contractor will not be entitled to any compensation/ extra payment on this account.

25.11 In the event of any dispute of technical nature, the decision of BHEL shall be final and binding on the Contractor.

26 RESPONSIBILITIES OF CONTRACTOR IN RESPECT OF LOCAL LAWS, EMPLOYMENT OF WORKERS, ETC.

The following are the responsibilities of the Contractor in respect of observance of local laws, employment of personnel, payment of taxes etc.:

26.1 As far as possible, unskilled workers shall be engaged from the local areas in which the work is being executed.

26.2 The contractor at all times during the continuance of this contract, shall in all his dealings with the local labour for the time being employed on or in connection with the work, have due regard to all local festivals, religious and other customs.

26.3 The Contractor shall comply with all State and Central Laws, Statutory Rules, Regulations, etc., such as The payment of wages Act, The Minimum Wages Act, The workmen's Compensation Act, The Employer's Liability Act, The industrial Disputes Act, The Employees' Provident Fund Act, Employees' State Insurance Scheme, the Contract Labour (Regulations and Abolition Act, 1970) and other Acts, Rules and Regulations for labour as may be enacted by the Government during the tenure of the Contract and having force or jurisdiction at site. The contractor shall give to the local Governing Body, Police and other concerned Authorities all such notice as may be required under law.

26.4 The Contractor, in the event of his engaging 20 or more workmen, will obtain independent license under the Contract Labour (Regulations and Abolition Act, 1970) from the concerned authorities based on the certificate (Form-V) issued by the principal employer/ customer.

26.5 The contractor shall pay all taxes, fees, license charges, deposits, duties, tolls, royalty, commissions or other charges which may be leviable on account of any of his operations connected with this contract. In case BHEL is forced to make any such payment, BHEL shall recover the same from the contractor either from moneys due to him or otherwise as deemed fit.

26.6 While BHEL will pay the **inspection fees of the Boiler/ Electrical** Inspectorate, all other arrangements for the periodical visits of Boiler/ Electrical Inspector to site, inspection certificates etc. will have to be made by the contractor at his cost. The contractor will also meet all expenses in connection with his welder's qualification/ requalification tests etc.

- 26.7 The contractor shall be responsible for the provision of health and sanitary arrangements more particularly described in the Contract Labour (Regulations and Abolition Act, 1970) and safety precautions as may be required for safe and satisfactory execution of the contract.
- 26.8 The contractor shall be responsible for proper accommodation including adequate medical facilities for the personnel employed by him.
- 26.9 The contractor shall be responsible for the proper behavior and observance of all regulations by the staff employed by him.
- 26.10 The contractor shall ensure that no damage is caused to any person / property of other parties working at site. If any such damage is caused, it shall be the responsibility of the contractor to make good the losses and compensate them.
- 26.11 All the properties/ equipment/ components of BHEL/ its customer loaned with or without deposit, to the contractor shall remain the properties of BHEL/ its customer. The contractor shall use such properties for the purpose of execution of this contract. All such properties/ equipment/ components shall be taken to be in good condition unless notified to the contrary by the contractor within 48 hours. The contractor shall return them in good condition as and when required by BHEL/ its customer. In case of non-return, loss, damage, repairs etc., the cost thereof, as may be fixed by the Engineer, will be recovered from the contractor.
- 26.12 It shall not be obligatory on the part of BHEL to supply any tools and tackles or materials other than those specifically agreed to be given by BHEL. However, depending upon availability / possibility, BHEL/ its customer's equipment and other materials may be made available to the contractor on payment of hire charges as fixed by them, subject to the conditions laid down by BHEL/ its customer from time to time. Unless paid in advance, such hire and other charges shall be recovered from out of dues to the contractor or security deposit in one installment.
- 26.13 The contractor shall fully indemnify and keep indemnified BHEL/ its customer against all claims of whatever nature arising during the course of execution of this contract.
- 26.14 In case the contractor is required to undertake any work outside the scope of this contract, the amount payable shall be as may be mutually agreed upon.
- 26.15 Any delay in completion of works or non-achievement of periodical targets, due to reasons attributable to the contractor, will have to be compensated by the contractor either by increased manpower and resources or by working extra hours or more than one shift at no extra cost to BHEL.
- 26.16 The contractor shall execute the work under the conditions usual to such power plant construction and in conjunction with numerous other operations at site. The contractor and his personnel shall cooperate and coordinate

with other agencies at project site and proceed in a manner that shall help in the progress of work at site as a whole.

- 26.17 The contractor will be directly responsible for payment of wages to his workmen. A pay-roll sheet giving details of all payments made to the workmen duly signed by the contractor's representative should be furnished to BHEL, if called for.
- 26.18 In case of any class of work for which there is no specification laid down in the contract, such work shall be carried out in accordance with the instructions and requirements of the Engineer.
- 26.19 No levy, payment or charges made or imposed shall be impeached by reason of any clerical error or by reason of any mistake in the amount levied, demanded or charged.
- 26.20 ***No idle labour charges will be admissible in the event of any stoppage of work resulting in the contractor's workmen being rendered idle due to any reason at any time.***
- 26.21 The contractor shall take all reasonable care to protect the materials and the work till such time the plant / equipment has been taken over by BHEL / its customer.
- 26.22 Contractor shall not stop work or abandon the site for whatsoever reason or dispute, excepting for force majeure conditions. All problems / disputes shall be separately discussed and settled without effecting the progress of work. Stoppage or abandonment of work, other than under force majeure conditions, shall be treated as breach of work of contract and dealt with accordingly.
- 26.23 The contractor shall keep the area of work clean and shall remove the debris etc. while executing day-to-day work. Upon completion of work, the contractor shall remove from the vicinity of work, all scrap, packing materials, rubbish, unused and other materials and deposit them in places specified by the Engineer. The contractor will also demolish all the hutments, sheds, offices, etc. constructed and used by him and shall clean the debris. In the event of his failure to do so, the same will be arranged to be done by the Engineer and the expenses recovered from the contractor.
- 26.24 The contractor shall execute the work in the most substantial and workman like manner in the stipulated time. Accuracy of work and timely execution shall be the essence of this contract. The contractor shall be responsible to ensure that the quality, assembly and workmanship conform to the dimensions and clearance given in the drawings and/ or as per the instructions of the Engineer.
- 26.25 The contractor shall furnish fortnightly labour deployment report indicating the classification and number of workmen engaged, date wise and category wise. Besides, the contractor shall also furnish progress reports on work at regular intervals as required by the Engineer.

27 RESPONSIBILITIES OF CONTRACTOR IN RESPECT OF SAFETY OF MEN, EQUIPMENT, MATERIAL AND ENVIRONMENT.

- 27.1 All safety rules and codes applied by BHEL and its customer at site shall be observed by the contractor and his workmen without exception. The contractor shall be responsible for the safety of the equipment / material and work to be performed by him and shall maintain all lights, fencing guards, signs etc. or other protections necessary for the purpose. Contractor shall also take such additional precautions as may be indicated from time to time by the Engineer, with a view to prevent pilferage, accidents, fire hazards etc. Suitable number of clerical staff, watch and ward, store keepers to take care of equipment, materials, construction tools and tackles shall be posted at site by the contractor till the completion of the work under this contract. The contractor shall arrange for such safety devices as are necessary for this type of work and carry out the requisite site tests of handling equipment, lifting tools, tackles etc. as per usual standards and practices.
- 27.2 The contractor shall provide to it's work force and ensure the use of the following personal protective equipment as found necessary and as directed by the authorized BHEL officials.
- (a) Safety Helmets conforming to IS-2925
 - (b) Safety Belts conforming to IS-3521
 - (c) Safety shoes conforming to IS-1989
 - (d) Eye & Face Protection devices conforming to IS-8520 and IS-8940
 - (e) Hand & body protection devices conforming to IS-2573, IS-6994, IS-8807 & IS-8519.
- 27.3 All tools, tackles, lifting appliances, material handling equipment, scaffolds, cradles, safety nets, ladders, equipment etc. used by the contractor shall be of safe design and construction. These shall be tested and certificate of fitness obtained before putting them to use and from time to time as instructed by authorized BHEL official who shall have the right to ban the use of any item.
- 27.4 All electrical equipment, connections and wiring for construction power, it's distribution and use shall conform to the requirements of Indian Electricity Act and Rules. Only electricians licensed by the appropriate statutory authority shall be employed by the contractor to carry out all types of electrical works. All electrical appliances including portable electric tools used by contractor shall have safe plugging system to source of power and be appropriately earthed.
- 27.5 The contractor shall not use any hand lamp energised by electric power with supply voltage of more than 24 volts. For work in confined spaces, lighting shall be arranged with power source of not more than 24 volts.
- 27.6 Where it becomes necessary to provide and / or store petroleum products, explosives, chemicals and liquid or gaseous fuel or any other substance

that may cause fire or explosion, the contractor shall be responsible for carrying out such provision and/or storage in accordance with the rules and regulations laid down in the relevant Government Acts, such as Petroleum Act, Explosives Act, petroleum and Carbides of Calcium Manual of the Chief Controller of Explosives, Government of India etc. Prior approval of the authorised BHEL official at the site shall also be taken by the contractor in all such matters.

- 27.7 The contractor shall arrange at his cost (wherever not specified) appropriate illumination at all work spots for safe working, when natural daylight may not be adequate for clear visibility.
- 27.8 In case of a fatal or disabling injury / accident to any person at construction sites due to lapses by the contractor, the victim and / or his / her dependents shall be compensated by the contractor as per statutory requirements. However, if considered necessary, BHEL shall have the right to impose appropriate financial penalty on the contractor and recover the same from payments due to the contractor for suitably compensating the victim and / or his / her dependents. Before imposing any such penalty, appropriate enquiry shall be held by BHEL giving opportunity to the contractor to present his case.
- 27.9 In case of any damage to property due to lapses by the contractor, BHEL shall have the right to recover the cost of such damages from the payments due to the contractor after holding an appropriate enquiry.
- 27.10 In case of any delay in the completion of a job due to mishaps attributable to lapses by the contractor, BHEL shall have the right to recover cost of such delay from the payments due to the contractor, after notifying the contractor suitably and giving him opportunity to present his case.
- 27.11 If the contractor fails to improve the standards of safety in its operation to the satisfaction of BHEL after being given reasonable opportunity to do so and / or if the contractor fails to take appropriate safety precautions or to provide necessary safety devices and equipment or to carry out instructions regarding safety issued by the authorized BHEL official, BHEL shall have the right to take the corrective steps at the risk and cost of the contractor after giving a notice of not less than seven days indicating the steps that would be taken by BHEL.
- 27.12 The contractor shall submit report of all accidents, fires, property damage and dangerous occurrences to the authorized BHEL official immediately after such occurrence, but in any case not later than 12 hours of the occurrence. Such reports shall be furnished in the manner prescribed by BHEL. In addition, periodic reports on safety shall also be submitted by contractor to the authorized BHEL official from time to time as prescribed.
- 27.13 During the course of construction, alteration or repairs scrap lumbars with protruding nails, sharp edges etc., and all other debris including combustible scrap shall be kept cleared from working areas, passage ways and stairs in and around site.

- 27.14 Cylinders shall be moved by tilting and rolling them on their bottom edges. They shall not be intentionally dropped, struck or permitted to strike each other violently. When cylinders are transported by powered vehicles, they shall be secured in a vertical position.
- 27.15 The contractor shall be responsible for the safe storage of his radioactive sources.
- 27.16 All the contractor's supervisory personnel and sufficient number of workers shall be trained for fire fighting and shall be assigned specific fire protection duties. Enough number of such trained personnel must be available during the tenure of the contract.
- 27.17 Contractor shall provide enough fire protecting equipment of the types and numbers at his office, stores, erection site, other temporary structures, labour colony area etc. Access to such fire protection equipment shall be easy and kept open at all times. Compliance of the above requirement under fire protection shall in no way relieve the contractor of any of his responsibility and liabilities to fire accident occurring. In the event fire safety measures are not to BHEL's satisfaction, BHEL shall have option to provide the same and recover the cost plus incidentals from contractor's bills and / or impose penalty as deemed fit by the Engineer.
- 27.18 Before commencing the work, the contractor shall appoint /nominate a responsible officer to supervise implementation of all safety measures and liaison with his counterpart of BHEL.
- 27.19 If safety record of the contractor in execution of the awarded job is to the satisfaction of Safety Department of BHEL, issue of an appropriate certificate to recognize the safety performance of the contractor may be considered by BHEL after completion of the job.

28.0 CONSEQUENCES OF CANCELLATION

- 28.1 Whenever BHEL exercises its authority to terminate the contract / withdraw a portion of work under clause 25, the work may be got completed by any other means at the contractor's risk and cost provided that in the event of the cost of completion (as certified by the Engineer which shall be final and binding on the contractor) being less than the contract value, the advantage shall accrue to BHEL. If the cost of completion exceeds the moneys due to the contractor under the contract, the contractor shall either pay the excess amount demanded by BHEL or the same shall be recovered from the contractor. This will be in addition to the forfeiture of Security Deposit and recovery of liquidated damages as per relevant clauses.
- 28.2 In case BHEL completes the work under the provisions of this clause, the cost of such completion to be taken into account for determining the excess cost to be charged to the contractor shall consist of cost of materials purchased and / or labour provided by BHEL with an addition of such percentage to cover supervision and establishment charges as may be decided by BHEL.

29.0 INSURANCE

- 29.1 BHEL / its customer shall arrange for insuring the materials / property of BHEL / its customer covering the risks during transit, storage, erection and commissioning.
- 29.2 It shall be the sole responsibility of the contractor to insure his workmen against risks of accidents and injury while at work as required by the relevant Rules and to pay compensation, if any, to them as per Workmen's Compensation Act. The contractor shall also insure his staff against accidents. The work will be carried out in a protected area and all the Rules and Regulations of BHEL / its client in the Project Area which are in force from time to time will be followed by the contractor.
- 29.3 If due to negligence and/or non-observance of safety and other precautions, any accident / injury occurs to any other persons/ public, the contractor shall pay necessary compensation and other expenses, if so decided by the appropriate authority.
- 29.4 The contractor will take necessary precautions and due care to protect the material, while in his custody from any damage/ loss till the same is taken over by BHEL or customer. For lodging / processing of insurance claim the contractor will submit necessary documents. BHEL will reserve the right to recover the loss from the contractor, in case the damage / loss is due to carelessness / negligence on the part of the contractor. In case of any theft of material under contractor's custody, matter shall be reported to police by the contractor immediately and copy of FIR and subsequently police investigation report shall be submitted to BHEL for taking up with insurance.
- 29.5 If due to negligence/ carelessness on the part of the contractor, any material/ equipment gets damaged, the contractor shall submit necessary documents for lodging insurance claims as required by BHEL Engineer. BHEL shall however reserves the right to recover deductible franchise and also unsettled portion of insurance claim amount from the contractor.
- 29.6 If due to negligence/ carelessness on the part of the contractor, any surrounding properties also gets damaged, the contractor shall submit necessary documents for lodging insurance claims as required by BHEL Engineer. BHEL shall however reserves the right to recover deductible franchise and to unsettled portion of insurance claim amount from the contractor.
- 29.7 The contractor may note that BHEL T&Ps / IMTEs are not insured. The Contractor will take necessary precautions and due care to protect the same while in his custody from any damage/ loss till the same is handed over back to BHEL. In case the damage / loss is due to carelessness/ negligence on the part of the contractor, the Contractor is liable to get them repair/ replaced immediately and in case of his failure to do so within a reasonable time, BHEL will reserve the right to recover the loss from the contractor.

30.0 STRIKES AND LOCKOUTS

- 30.1 The contractor will be solely responsible for all disputes and other issues connected with his workmen. In the event of contractor's workmen resorting to strike or the contractor resorting to lockout and if the strike or lockout so declared is not settled within a period of one month, BHEL shall have the right to get the erection work executed by employing its own men or through other agencies or both. The cost incurred by BHEL in this regard shall be recovered from the contractor.
- 30.2 For any purpose whatsoever, the employees of the contractor shall not be deemed to be in the employment of BHEL

31.0 FORCE MAJEURE

- 31.1 The following shall amount to force majeure conditions. Acts of God, Act of any Government, War, Sabotage, Riots, Civil Commotion, Police Action, Revolution, Flood, Fire, Cyclone, Earthquake and Epidemic and other similar causes over which the contractor has no control.
- 31.2 If the contractor suffers delay in the due execution of the contract, due to delays caused by force majeure conditions, as defined above, the agreed time for completion of the work covered by this contract shall be extended by a period of time equal to the period of delay, provided that on the occurrence of any such contingency, the contractor immediately reports to BHEL in writing the causes for the delay but the Contractor shall not be eligible for any compensation on this account.

- 32.0 **GUARANTEE** Even though the work will be carried out under the supervision of the Engineer, the contractor will be responsible for the quality of the workmanship and shall guarantee the work done for a period of twelve months from the date of completion of work as certified by the Engineer, and shall rectify, free of cost to BHEL, all defects arising out of faulty erection during the guarantee period starting from the date of completion of rectification. In the event of the contractor failing to repair the defective works within the time specified by the Engineer, BHEL may proceed to undertake the repairs of such defective works at the contractor's risk and cost, without prejudice to any other rights and recover the same from out of any moneys payable to the contractor or by other legal means.

- 33.0 **ARBITRATION** : All disputes between the parties to the contract arising out of or in relation to the contract, other than those for which the decision of the Engineer 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 sole arbitration of the General Manager or his nominee. The arbitration shall be conducted in accordance with the provisions of the Arbitration and Reconciliation Act, 1996. The parties to the contract understand and agree that it will be no objection that the General Manager or the person nominated as Arbitrator had earlier in his official capacity to deal directly or indirectly with the matters to which the contract

relates or that in the course of his official duties had expressed views on all or any of the matters in dispute or difference. The award of the Arbitrator shall be final and binding on the parties to this contract. In the event of the Arbitrator dying, neglecting or refusing to act or resigning or being unable to act for any reason or his award being set aside by the Court for any reason, it shall be lawful for the General Manager or his successor, as the case may be, either to act himself as the Arbitrator or to appoint another Arbitrator in place of the outgoing Arbitrator in the manner aforesaid. The Arbitrator may, from time to time, with the consent of both the parties to the contract, enlarge the time for making the award. Work under the contract shall be continued during the arbitration proceedings. The venue of the arbitration shall be the place from which the contract is issued or such other place as the Arbitrator at his discretion may determine.

--X--X--

ANNEXURE-A

FINANCIAL VIABILITY

1. Owner's capital in the business (incase of Partnership, please mention percentage shares and amounts).
2. Quantum of business done during last three financial years.
 - i) Rs.
 - ii) Rs.
 - iii) Rs.
3. Value of fixed Assets of the business in last three years.
 - i) Rs.
 - ii) Rs.
 - iii) Rs.
4. Guarantee limits (if any) enjoyed by the firm.
5. Over draft limits (if any enjoyed by the firm.
6. Please enclose audited profit and loss account and balance sheet for last 3 years (indicate no. of sheets).
7. Certificate from Scheduled Bank to prove Contractor's financial capacity to undertake the work duly indicating the financial limits the tenderer enjoys.

(Signature of tenderer)
With Stamp

NOTE:

All the above documents should be duly certified by auditors/ Bank as may be applicable.

ANNEXURE – B

SIMILAR JOBS EXECUTED / IN PROGRESS IN LAST SEVEN YEARS

S.No.	Agency By whom Awarded	Location of project	Capacity & unit nos.	Scope of work	Date of award	Contract value
1	2	3	4	5	6	7

(SIGNATURE OF TENDERER)
WITH STAMP

ANNEXURE – C

MONTHWISE MANPOWER DEPLOYMENT PLAN

S.No.	Category	No. of Person available on roll of the Orga- nisation	Month (Indicate No. of persons to be deployed in each month)					
			1st	2 nd	3 rd	4 th	5 th	6 th and so on
1.								
2.								
3.								
Total								

(SIGNATURE OF TENDERER)
WITH STAMP

ANNEXURE – D

STATUS OF TOOLS & PLANTS AND IMTE

S.No.	Name of Equipment	Quantity owned	Registration no. wherever Applicable	Documents enclosed for proof of Ownership	Present Location	Quantity proposed to be deployed for this job
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(SIGNATURE OF TENDERER)
WITH STAMP

(Not applicable for this tender)**ANNEXURE - E****ANALYSIS OF UNIT RATE QUOTED**

S.NO.	DESCRIPTION	PERCENTAGE OF THE UNIT RATE QUOTED	REMARKS
1.	Salary & wages for staff & workers		
2.	Consumables		
	(a) Gases		
	(b) Welding Electrodes		
	(c) P.O.L.		
	(d) Others		
3.	Depreciation & maintenance for T&P		
4.	Depreciation & Maintenance for other items		
5.	Establishment and Administration expenses of site		
6.	Overheads		
7.	Profit		

(SIGNATURE OF TENDERER)
WITH STAMP

ANNEXURE - F

DECLARATION SHEET

I, -----hereby certify that, all the information and data furnished by me with regard to this Tender Specification No.----- are true and complete to the best of my knowledge. I have gone through the specification, conditions and stipulations in detail and agree to comply with the requirements and intent of specification.

I, further certify that I am the duly authorised representative of the under mentioned tenderer and a valid power of attorney to this effect is also enclosed.

Tenderer's Name & Address

Authorised representative's signature with name and address.

ANNEXURE - 'G'

CHECKLIST AND SCHEDULE OF GENERAL PARTICULARS

NOTE : Tenderers are requested to fill in the following details and no column should be left blank

1. Name and address of the tenderer
2. Telegraphic/ telex address
3. Phone No. (Office)/ Fax No.
4. Name & designation of the official of the tenderer to whom all the references shall be made.
5. Tenderer's proposal No. & date
6. Whether EMD submitted (By cash/Pay order / bank draft) by.....
7. Validity of offer/ rates quoted for six months from the date of opening of tender Yes/No
8. Financial Status as per Clause 11.1 (in the format as per Annexure-A) Yes/No
9. Income tax Clearance certificate as per Clause 11.2 Yes/No
10. Details of experience as per clause 11.3 (in the format as per Annexure-B) Yes/No
11. Monthwise & Categorywise manpower deployment plan as per Clause 11.4 (in the format as per Annexure-C) Yes/No
12. Attested copy of power of attorney as per clause 11.5 Yes/No
13. Details about type of the firm as per clause 11.6 Yes/No
14. Status of T&P and monthwise deployment plan as per clause 11.7 (in the format as per Annexure-D) Yes/No
15. Analysis of unit rate quoted as per Clause 11.8 (in the format as per Annexure-E) Yes/No

16. Declaration sheet as per clause 11. 09
(in the format as per Annexure-F)

Yes/No

Date _____

(SIGNATURE OF TENDERER)
WITH STAMP

WITNESS
(SIGNATURES WITH FULL PARTICULARS)

1.

2.

ANNEXURE - H

BANK GUARANTEE FOR SECURITY DEPOSIT

B.G. NO.

Date

This deed of Guarantee made this ----- day of -----two thousand by ----- (Bank) hereinafter called the "The Guarantor" (which expression shall unless repugnant to the context or meaning thereof be deemed to include its successors and assigns) in favour of M/s Bharat Heavy Electrical Limited (A Govt. of India Undertaking) a company incorporated under the Companies Act, 1956, having its registered office at BHEL House, Siri Fort, Asiad, New Delhi – 110049 through its unit at Power Sector – Northern Region, Noida, Distt. Gautam Budh Nagar, (UP) hereinafter called "The Company" (which expression shall unless repugnant to the context or meaning thereof be deemed to include its successors and assigns)

WHEREAS -----(hereinafter referred to as the Contractor) have entered into a contract arising out of Letter of Intent no.----- dt.----- (hereinafter referred to as "the contract") for the construction of --- ----- with the company.

AND WHEREAS the contract inter-alia provides that the contractor shall furnish to the company a sum of Rs.----- (Rupees-----) towards security deposit for due and faithful performance of the contract in the form and manner specified therein.

AND WHEREAS the contractor has approached the Guarantor and in consideration of the arrangement arrived at between the contractor and the Guarantor, the Guarantor has agreed to give the Guarantee as hereinafter mentioned in favour of the company.

The Guarantor do hereby guarantee to the company the due and faithful performance, observance or discharge of the Contract by the contractor and further unconditionally and irrevocably undertake to pay to the Company without demur and merely on a demand, to the extent of Rs.----- (Rupees-----) against any claim by the company on them for any loss, damage, costs, charges and expenses caused to or suffered by the company by reasons of the contractor making any default in the performance, observance or discharge of the terms, conditions, stipulations or undertakings or any of them as contained in the contract.

The decision of the company whether any default has occurred or has been committed by the contractor in the performance, observance or discharge of any of the terms, conditions, stipulations or undertakings or any one of them as contained in the contract and / or as to the extent of loss, damage, costs, charges and expenses caused to or suffered by the company by reason of the contractor making any default

in the performance, observance or discharge of any of the terms, conditions, stipulations or undertakings or any one of them shall be conclusive and binding on the Guarantor irrespective of the fact whether the contractor admits or denies the default or questions the correctness of any demand made by the company in any Court, Tribunal or Arbitration proceedings or before any other Authority.

The company shall have the fullest liberty without affecting in any way the liability of the Guarantor under this Guarantee, from time to time to vary any of the terms and conditions of the contract or extend time of performance by the contractor or to postpone for any time and from time to time any of the powers exercisable by it against the contractor and either enforce or forebear from enforcing any of the terms and conditions governing the contract or securities available to the company and the Guarantor shall not be released from its liability under these presents by any exercise by the company of the liberty with reference to the matters aforesaid or by reasons of time being given to the contractor or any other forbearance, act or commission on the part of the company or any indulgence by the company to the contractor or any other matter or thing whatsoever which under the law relating to sureties would, but for this provision have the effect of so releasing the Guarantor from its liability under this guarantee.

The Guarantor further agrees that the Guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the contract and its claim satisfied or discharged and till the company certifies that the terms and conditions of the contract have been fully and properly carried out by the contractor and accordingly discharges this Guarantee, subject however, that the company shall have no claim under this Guarantee after -----
- i.e. (the present date of validity of Bank Guarantee unless the date of validity of this Bank Guarantee is further extended from time to time, as the case may be) unless a notice of the claim under this Guarantee has been served on the Guarantor before the expiry of the said period in which case the same shall be enforceable against the Guarantor notwithstanding the fact that the same is enforced after the expiry of the said period.

The Guarantor undertakes not to revoke this Guarantee during the period it is in force except with the previous consent of the Company in writing and agrees that any liquidation or winding up or insolvency or dissolution or any change in the constitution of the contractor or the Guarantor shall not discharge the Guarantor's liability hereunder.

It shall not be necessary for the company to proceed against the contractor before proceeding against the Guarantor and the Guarantee herein contained shall be enforceable against them notwithstanding any security which the Company may have obtained or obtain from the Contractor shall at the time when proceedings are taken against the Guarantor hereunder be outstanding or unrealized.

Notwithstanding anything contained herein before, our liability under the Guarantee is restricted to Rs.----- (Rupees-----). Our guarantee shall remain in force until -----, i.e. (the present date of validity of Bank Guarantee unless the date of validity of this Bank Guarantee is further extended from time to time) unless a claim or demand under this guarantee is made against us on or before ----- we shall be discharged from our liabilities under this Guarantee thereafter.

Any claim or dispute arising under the terms of this documents shall only be enforced or settled in the courts of at New Delhi / Delhi only.

The Guarantor hereby declares that it has power to execute this guarantee and the executant has full powers to do so on behalf of the Guarantor.

IN WITNESS whereof the ----- (Bank) has hereunto set and subscribed its hand the day, month and year first, above written.

Signed for and on behalf of the Bank

(Signatory No.-----)

WITNESSES

1. Name & Address

2. Name & Address

Notes :

1. The above BG shall be executed on the non-judicial stamp papers of adequate value procured in the name of the bank in the state where the bank is located.
2. The above BG is required to be sent by the executing bank directly to BHEL at the address where tender is submitted / accepted under seal cover.

LIST OF MEMBER BANKS

- | | |
|---|---|
| 1. State Bank of India
CAG Branch,
10 th Floor, Vijaya Building,
Barakhamba Road,
New Delhi – 110001. | 9. HDFC Bank Ltd.,
5 th Floor, HT House,
K.G. Marg,
New Delhi – 110001. |
| 2. Canara Bank
74, Janpath,
New Delhi – 110001. | 10. Citi Bank N A
Jeevan Vihar Building,
Sansad Marg,
New Delhi – 110001. |
| 3. Punjab National Bank,
74, Janpath,
New Delhi – 110001. | 11. Standard Chartered Bank,
H2 Block, Connaught Place,
New Delhi – 110001. |
| 4. Bank of Baroda,
Corporate Banking Branch,
11 th Floor, BOB Building,
Sansad Marg,
New Delhi – 110001. | 12. ICICI Bank Ltd.,
ICICI Tower,
Bisham Pitamah Marg,
Pragati Vihar,
New Delhi – 110003. |
| State Bank of Hyderabad,
Surya Kiran Building, K.G. Marg,
New Delhi – 110001. | 13. IDBI Bank Ltd.,
19, K.G. Marg,
Surya Kiran Building,
New Delhi. |
| 5. State Bank of Mysore,
Antriksh Bhawan, K.G. Marg,
New Delhi – 110001. | 14. HSBC Ltd.,
ECE House,
28 KG Marg,
New Delhi – 110001. |
| 6. State Bank of Mysore,
Industrial Finance Branch,
18, Ramanashree Arcade,
M.G. Road, Bangaloe – 560001. | |
| 7. State Bank of Travancore,
Travancore House, IF Branch,
K.G. Marg, New Delhi – 110001. | |
| 8. Deutsche Bank,
Tolstoy Marg,
New Delhi–110001. | |

ANNEXURE - I

AGREEMENT

Agreement No. and Date _____
 Name of the Work _____

 Name of the Contractor with full address _____

 Value of work awarded _____
 Letter of Intent No. and Date _____
 Scheduled Commencement Date _____
 Scheduled Completion Date _____

THIS AGREEMENT MADE THIS _____ DAY OF _____ 2006 between BHARAT HEAVY ELECTRICALS LIMITED (A Government of India Enterprise) a Company incorporated under the Companies Act, 1956, having its Registered Office at BHEL House, Siri Fort New Delhi- 110049 (herein after called BHEL) of the ONE PART.

AND

M/S _____ (hereinafter called the 'Contractor') of the SECOND PART.

WHEREAS M/s -----state that they have acquired and possess extensive experience in the field of -----

And Whereas in response to an Invitation to Tender No. ----- issued by BHEL for execution of ----- the contractor submitted their offer No.-----dated -----And whereas BHEL has accepted the offer of the Contractor on terms and conditions specified in the Letter of Intent No.-----dated -----read with the references cited therein.

THIS AGREEMENT WITNESSES AND it is hereby agreed by and between the parties as follows:

1. That the contractor shall execute the work of -----and more particularly described in Tender Specification No -----including Drawings and Specifications (hereinafter called the said works) in accordance with and subject to terms and conditions contained in these presents, instructions to Tenderers, General Conditions of Contract, Special Conditions, Annexures, Letter of Intent dated -----and such other instructions, Drawings, Specifications given to him from time to time by BHEL.
2. The Contractor is required to furnish to BHEL Security deposit in the form of cash/ approved securities/ Bank Guarantee valid upto ----- for a sum of Rs.----- towards satisfactory performance and completion of the Contract.

3. The Contractor has furnished a Bank Guarantee bearing no.-----dated -----for a sum of Rs.-----executed by ----- in favour of BHEL towards Security Deposit valid upto -----

OR

The Contractor has furnished to BHEL an initial Security Deposit of Rs.-----in the form of cash / approved Securities/ B.G No.----- dated ----- for Rs.-----executed by ----- in favour of BHEL valid upto ----- and has agreed for recovery of the balance Security Deposit by BHEL @ 10% of the value of work done from each running bill till the entire security deposit is recovered.

OR

The contractor has furnished to BHEL an initial Security Deposit of Rs.-----(Rs.----- vide Bank draft No.-----dated -----and by adjusting EMD of Rs.-----submitted vide Bank draft No.----- dt.-----) and has agreed for recovery of balance Security Deposit by BHEL @ 10% of the value of work done from each running bill till the entire security deposit is recovered.

4. The Contractor hereby agrees to extend the validity of the Bank Guarantee for such further period or periods as may be required by BHEL and if the Contractor fails to obtain such extension(s) from the Bank, the Contractor, shall pay forthwith or accept recovery of Rs.----- from the bills in one installment and the contractor further agrees that failure to extend the validity of the Bank Guarantee or failure to pay the aforesaid amount in the manner specified above shall constitute breach of contract. In addition to above, BHEL shall be entitled to take such action as deemed fit and proper for recovering the said sum of Rs.-----.

OR

In case the contractor furnishes the bank guarantee at a later date the contractor hereby agrees to extend the validity of bank guarantee for such further period or periods as may be required by BHEL and if the contractor fails to obtain such extension(s) from the bank, the contractor shall pay forthwith or accept recovery of the amount of bank guarantee given in lieu of security deposit from the bills in one installment and the contractor further agrees that failure to extend the validity of bank guarantee or failure to pay the aforesaid amount in the manner specified above shall constitute breach of contract. In addition to above, BHEL shall be entitled to take such action as deemed fit and proper for recovering the said sum.

5. That in consideration of the payments to be made to the Contractor by BHEL in accordance with this Agreement the Contractor hereby covenants and undertakes with BHEL that they shall execute, construct, complete the works in conformity, in all respects, with the terms and conditions specified in this Agreement and the documents governing the same.
6. That the Contractor shall be deemed to have carefully examined this Agreement and the documents governing the same and also to have satisfied himself as to the nature and character of the Works to be executed by him.

7. That the Contractor shall carry out and complete the execution of the said works to the entire satisfaction of the Engineer or such other officer authorised by BHEL, within the agreed time schedule, the time of completion being the essence of the Contract.
8. That BHEL shall, after proper scrutiny of the bills submitted by the Contractor, pay to him during the progress of the said works such sum as determined by BHEL in accordance with this Agreement.
9. That this Agreement shall be deemed to have come into force from ----- the date on which the letter of intent has been issued to the Contractor.
10. That whenever under this contract or otherwise, any sum of money shall be recoverable from or payable by the Contractor, the same may be deducted in the manner as set out in the General Conditions of Contract or other conditions governing this Agreement.
11. That all charges on account of Octroi, Terminal and other taxes including sales tax or other duties on material obtained for execution of the said works shall be borne and paid by the Contractor.
12. That BHEL shall be entitled to deduct from the Contractor's running bills or otherwise Income Tax under Section 194 (C) of the Income Tax Act, 1961.
13. That BHEL shall be further entitled to recover from the running bills of the Contractor or otherwise such sum as may be determined by BHEL from time to time in respect of consumables supplied by BHEL, hire charges for tools and plants issued (Where applicable) and any other dues owed by the Contractor.
14. That it is hereby agreed by and between the parties that non- exercise, forbearance or omission of any of the powers conferred on BHEL and /or any of its authorities will not in any manner constitute waiver of the conditions hereto contained in these presents and the liability of the Contractor with respect to compensation payable to BHEL or Contractor's obligations shall remain unaffected.
15. It is clearly understood by and between the parties that in the event of any conflict between the Letter of Intent and other documents governing this Agreement, the provisions in the Letter of Intent shall prevail.
16. The following documents
 1. Invitation to Tender No-----
and the documents specified therein.
 2. Contractor's Offer No-----dated-----.
 3. _____
 4. _____
 5. _____

6. Letter of Intent No _____ dated _____.

7. _____

shall also form part of and govern this Agreement.

IN WITNESS HEREOF, the parties hereto have respectively set their signatures in the presence of

WITNESS

1.

2.

(CONTRACTOR)
(to be signed by a person holding
a valid Power of Attorney)

WITNESS

1.

2.

(For and on behalf of BHEL)

SECTION – I (a)

SPECIFICATION FOR HEALTH, SAFETY AND ENVIRONMENT (HSE)

1.0 SCOPE

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

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

2.0 REFERENCES

This document should be read in conjunction with following:

- General Conditions of Contract (GCC)
- Special Conditions of Contract (SCC)
- Scope of work
- Relevant IS Codes (refer Annexure-I)
- Reporting Formats (refer Annexure-II)

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

3.1 MANAGEMENT RESPONSIBILITY

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

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

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

- | | |
|----------------------------------|---|
| No. of workers deployed upto 250 | - Designate one safety Supervisor |
| Above 250 & upto 500 | - Deploy one qualified and
Experienced safety Engineer/
Officer |

Above 500
(for every 500 or less)

- One additional safety engineer/
officer, as above.

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

- 3.1.4 The Contractor shall ensure that the Health, Safety and Environment (HSE) requirements are clearly understood & faithfully implemented at all levels at site.
- 3.1.5 BHEL shall promote and develop consciousness for Health, Safety and Environment among all personnel working for the Contractor. Regular awareness programmes and work site meetings shall be arranged on HSE activities to cover hazards involved in various operations during construction.
- 3.1.6 The Contractor shall arrange suitable first aid measures such as First Aid Box, trained personnel to give First Aid and install fire protection measures such as adequate number of steel buckets with sand and water to the satisfaction of BHEL/Owner.
- 3.1.7 Non-Conformance on HSE by Contractor (including his Sub-contractors) as brought out during review / audit by BHEL/Owner representative shall be resolved forthwith by Contractor. Compliance report shall be provided to BHEL.
- 3.1.8 The Contractor shall ensure participation of his Resident Engineer / Site-In-Charge in the Safety Committee / HSE Committees meetings arranged by BHEL / Owner. The compliance of any observations shall be arranged urgently. He shall assist BHEL / Owner to achieve the targets set by them on HSE during the project implementation.
- 3.1.9 The Contractor shall adhere consistently to all provisions of HSE requirements. In case of non-compliance or continuous failure in implementation of any of HSE provisions, BHEL / Owner may impose stoppage of work without any Cost & Time implication to BHEL / Owner and / or impose a suitable penalty for non-compliance with a notice of suitable period, up to a commutative limit of 1.0% (one percent) of Contract value. This penalty shall be in addition to all other penalties specified else where in the contract. The decision of imposing stoppage of work, its extent & minority penalty shall rest with BHEL / Owner & binding on the Contractor.
- 3.1.10 All fatal accidents and other personnel accidents shall be investigated by a team of Contractor's senior personnel for root cause & recommended corrective and preventive actions. Findings shall be documented and

suitable actions taken to avoid recurrences shall be communicated to BHEL / Owner. BHEL / Owner shall have the liberty to independently investigate such occurrences and Contractor shall extend all necessary help and co-operation in this regard.

3.2 HOUSE KEEPING

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

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

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

3.3 HEALTH, SAFETY AND ENVIRONMENT

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

appliances for adequate safety and health of the workmen and protection of surrounding areas.

- 3.3.2 The contractor shall ensure that all their staff and workers wear Safety Helmet and Safety shoes. Contractor shall also ensure use of safety belt, protective goggles, gloves etc., by the personnel as per job requirements. All these gadgets shall conform to relevant IS specifications or equivalent.
- 3.3.3 The Contractor shall assign to his workmen, tasks commensurate with their qualification, experience and state of health for driving of vehicles, handling and erection of material and equipments. All lifting equipments shall be tested certified for its capacity before use. Adequate and suitable lighting at every work place and approach there to, shall be provided by the Contractor before starting the actual operations at night. It is mandatory for contractor to get his workmen medically examined / checked for fitness of work assigned once a year and furnish the certificate to that effect from RMP / Govt. Hospital.
- 3.3.4 Hazardous and / or toxic materials such as solvent, coating or thinners shall be stored in appropriate containers.
- 3.3.5 All hazardous materials shall be labeled with the name of the materials, the hazards associated with its use and necessary precautions to be taken.
- 3.3.6 Contractor shall ensure that during the performance of the work, all hazards of the health of personnel, have been identified, assessed and eliminated.
- 3.3.7 Chemical spills shall be contained and cleaned up immediately to prevent further contamination.
- 3.3.8 All personnel exposed to physical agents such as ionizing or non-ionizing radiation, ultraviolet rays or similar other physical agents shall be provided with adequate shielding or protection commensurate with the type of exposure involved.
- 3.3.9 Where contact or exposure of hazardous materials could exceed limits or could otherwise have harmful effects, appropriate personnel protective equipment such as gloves, goggles, aprons, chemicals resistant clothing and respirator shall be used.
- 3.3.10 All persons deployed at site shall be knowledgeable of and comply with the environmental laws, rules & regulations relating to the hazardous materials substances and wastes. Contractor shall not dump, release or otherwise discharge or dispose off any such materials without the express authorization of BHEL / Owner.

4.0 DURING JOB EXECUTION

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

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

ANNEXURE - I

RELEVANT IS – CODES FOR PERSONAL PROTECTION

IS: 2925-1984	Industrial Safety Helmets
IS: 4770-1968	Rubber gloves for electrical purposes
IS: 6994, 1973 (Part-I)	Industrial Safety Gloves (Leather & Cotton Gloves)
IS: 1989-1986 (Part I & III)	Leather safety boots and shoes
IS: 3738-1975	Rubber knee boots
IS: 5557-1969	Industrial and Safety rubber knee boots
IS: 6519-1971	Code of practice for selections, care and repair of Safety footwear
IS: 11226-1985	Leather Safety footwear having direct moulding sole
IS: 5983-1978	Eye protectors
IS: 9167-1979	Ear protectors
IS: 3521-1983	Industrial Safety belts and harness

ANNEXURE – II

1.0 HEALTH, SAFETY & ENVIRONMENT (HSE) PLAN

PROJECT: ----- CONTRACTOR :-----

DATE :----- OWNER :-----

(To be prepared by each construction Agency)

ACTIVITY DESCRIPTION	PROCEDURE/ W.I/ GUIDELIES	CODE OF CONFOR- MANCE	PERFORMING FUNCTIONS			AUDIT FUNCTION
			PERFOR- MER	CHECK- ER	APPRO- VER	
AUDIT						CUSTOMER REVIEW
						REQUIREMENT

PREPARED BY

REVIEWED BY

APPROVED BY
(RESIDENT ENGINEER)

2.0 MONTHLY HSE CHECKLIST CUM COMPLIANCE REPORT (1/6)

PROJECT:----- CONTRACTOR:-----

DATE :----- OWNER:-----

INSPECTION BY:-----

Note: Write 'NA' wherever the item is not applicable.

ITEM	YES	NO	REMARKS	ACTION
------	-----	----	---------	--------

HOUSING KEETING

Waste containers provided and used

Sanitary facilities adequate and clean

Passageways and Walkways Clear

General neatness of working areas

Others

PERSONNEL PROTECTIVE EQUIPMENT

Goggles: Shelds

Face protection

Hearing protection

Safety Shoes provided

Hand protection

Safety Belts

Others

EXCAVATIONS / OPENINGS

Openings properly covered or barricaded

Excavations shored

Excavations barricaded

Overnight lighting provided

Other

MONTHLY HSE CHECKLIST CUM COMPLIANCE REPORT (Contd.. 2/6)

ITEM	YES	NO	REMARKS	ACTION
WELDING, CUTTING				
Gas cylinders chained upright				
Cables and hoses not obstructing				
Screens or shields used				
Flammable materials protected				
Fire extinguisher (s) accessible				
Other				
SCAFFOLDING				
Fully decked platforms				
Guard and intermediate rails in place				
Toe boards in place				
Adequate shoring				
Adequate access				
Other				
LADDERS				
Extension side rails 1 m above				
Top of landing				
Properly secured				
Angle + 70 from horizontal				
Other				

MONTHLY HSE CHECKLIST CUM COMPLANCE REPORT (Contd.3/6)

ITEM	YES	NO	REMARKS	ACTION
<u>HOIST. CRANES AND DERRICKS</u>				
Condition of cables and sheaves OK				
Condition of slings, chains, hooks & eyes O.K.				
Inspection and maintenance logs maintained				
Outriggers used				
Signs/barricades provided				
Signals observed and understood				
Qualified operators				
Other				
<u>MACHINERY, TOOLS AND EQUIPMENT</u>				
Proper instruction				
Safety devices				
Proper cords				
Inspection and maintenance				
Other				
<u>VEHICLE AND TRAFFIC</u>				
Rules and regulations observed				
Inspection and maintenance				
Licensed drivers				
Other				

MONTHLY HSE CHECKLIST CUM COMPLIANCE REPORT (Contd.4/6)

ITEM	YES	NO	REMARKS	ACTION
TEMPORARY FACILITIES				
Emergency instructions posted				
Fire extinguishers provided				
Fire-aid equipment available				
Secured against storm damage				
General neatness				
In accordance with electrical requirements				
Other				
FIRE PREVENTION				
Personnel instructed				
Fire extinguishers checked				
No smoking in Prohibited areas				
Hydrants Clear				
Other				
ELECTRICAL				
Proper wiring				
ELCB's provided				
Ground fault circuit interrupters				
Protection against damage				
Prevention of tripping hazards				
Other				

MONTHLY HSE CHECKLIST CUM COMPLIANCE REPORT (Contd.5/6)

ITEM	YES	NO	REMARKS	ACTION
------	-----	----	---------	--------

HANDLING AND STORAGE OF MATERIALS

Properly stored or stacked

Passageways clear

Other

FLAMMABLE GASES AND LIQUIDS

Containers clearly identified

Proper storage

Fire extinguishers nearby

Other

WORKING AT HEIGHT

Erection plan

Safety belts and lanyards; chute lines

Other

ENVIRONMENT

Chemical and other Effluents properly disposed

Cleaning liquid of pipes disposed off properly

Water used for hydrotesting disposed off as
Per agreed procedure

Lubricant Waste/Engine Oil properly disposed

Waste from Canteen, offices, sanitation etc.,
Disposed properly

Disposal of surplus earth, stripping materials,
Oily rags and combustible materials done
Properly

MONTHLY HSE CHECKLIST CUM COMPLIANCE REPORT (Contd.6/6)

ITEM	YES	NO	REMARKS	ACTION
Green belt protection				
Hygienic conditions at labour camps O.K?				
Availability of First Aid facilities				
Proper sanitation at site, office and Labour camps				
Arrangement of medical facilities				
Measures for dealing with illness				
Availability of Potable drinking water For workmen & staff				

Signature of Resident
Engineer with Seal

3.0 ACCIDENT CUM FIRE REPORT
(To be submitted by contractor after every accident within 24 hours of accident)

Report : _____

Name of Site: _____ Date: _____

CONTRACTOR _____

NAME OF THE
INJURED _____
FATHER'S
NAME _____
SUB-CONTRACTOR
M/S _____
DATE & TIME OF ACCIDENT _____
LOCATION _____

BRIEF DESCRIPTION OF ACCIDENT

CAUSE OF ACCIDENT

NATURE OF INJURY/DAMAGE

MEDICAL AID PROVIDED/ACTIONS TAKEN

INTIMATION TO LOCAL AUTHORITIES

DATE:

SIGNATURE OF CONTRACTOR
WITH SEAL

TO: SITE-IN-CHARGE/BHEL 1 COPY

4.0 SUPPLEMENTARY ACCIDENT & INVESTIGATION REPORT

Project:_____Supplementary to Report

No._____

(Copy enclosed)

Site:_____

Date:_____

CONTRACTOR_____

NAME OF THE

INJURED _____

FATHER'S

NAME _____

SUB-CONTRACTOR

M/S _____

DATE & TIME OF ACCIDENT _____

LOCATION _____

BRIEF DESCRIPTION & CAUSE OF ACCIDENT

NATURE OF INJURY/DAMAGE

COMMENTS FROM MEDICAL PRCTICETIONER, WHO ATTENDED THE VICTIM /
INJURED

SUGGESTED IMPROVEMENT IN THE WORKING CONDITION, IF ANY

LOSS OF MANHOURS AND IMPACT ON SITE WORKS

ANY OTHER COMMENT BY SAFETY OFFICER

DATE:

SIGNATURE OF CONTRACTOR
WITH SEAL

TO: SITE-IN-CHARGE/BHEL

1 COPY

5.0 MONTHLY HEALTH, SAFETY & ENVIRONMENT (HSE) REPORT
(To be submitted by each Contractor)

Actual work start Date: _____ For the month of

Project: _____ Report
 No. _____

Name of the Contractor: _____ Status as
 on: _____

Name of Work: _____ Name of safety
 officer _____

ITEM	THIS MONTH	CUMMULATIVE
Total Strength (Staff + Workmen)		

Number of HSE meetings organized at site

Number of HSE awareness programmes
 Attended at site

Whether workmen compensation policy taken Y/N

Whether workmen compensation policy is valid Y/N

Whether workmen registered under ESI Act Y/N

Number of Fatal Accidents

Number of Loss Time Accidents (Other than Fatal

Other accidents (Non Loss Time)

Total No. of Accidents

Total man-hours worked

Man-hour loss due to fire and accidents

Compensation cases raised with Insurance

Compensation cases resolved and paid to workmen

Remarks

Date

Safety Officer/Resident Engineer
 (Signature & Name)

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TENDER NO. BHEL: DLI/PAN-1/R&M-TUR/MCH/06-094

TENDER SPECIFICATION

FOR

**“IN-SITU MACHINING OF STEAM TURBINE CASINGS OF BHEL MAKE
(SKODA DESIGN) FOR RENOVATION AND UPRATING OF UNIT NO. 1 FROM
110 MW TO 117.8 MW AT PANIPAT THERMAL POWER STATION, PANIPAT,
HARYANA (INDIA).”**

PART II – PRICE BID



Bharat Heavy Electricals Limited
(A Govt. Of India Undertaking)
Power Sector – Northren Region,
Plot No. 25 , Sector - 16A ,
Distt. Gautam Budh Nagar, NOIDA – 201 301.INDIA



ISO 9001-2000, ISO 14001
and OHSAS 18001 certified
Company

Regional Service Centre

Bharat Heavy Electricals Limited

(A Govt. Of India Undertaking)

Power Sector – Northren Region,

Plot No. 25 , Sector - 16A ,

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IMPORTANT NOTE

PURCHASER OF THIS TENDER DOCUMENT IS ADVISED TO CHECK AND ENSURE COMPLETION OF ALL PAGES OF TENDER DOCUMENT AND REPORT ANY DISCREPANCY TIMELY FOR CORRECTIVE ACTION, IF ANY, TO THE ISSUING AUTHORITY BEFORE THE BIDS ARE SUBMITTED. ORIGINAL COPY OF TENDER DOCUMENT COMPLETE IN ALL RESPECTS MUST BE SUBMITTED BACK AS PART OF THE BID WITHOUT WHICH THE SAME IS LIABLE TO BE REJECTED BY BHEL.

THIS TENDER SPECIFICATION ISSUED TO:

M/S-----

ANNEXURE – III

RATE SCHEDULE**IN-SITU MACHINING OF STEAM TURBINE CASINGS OF BHEL MAKE**

(The tenderer shall quote price /rate in one currency only i.e. either in Indian Rupees OR US Dollars OR Euro only.)

Sl. No.	DESCRIPTION	LUMPSUM RATE IN INDIAN RUPEES (In Figures and Words)
1.	Lump sum Rate for in-situ machining of steam turbine casings of BHEL make (Skoda design) for Renovation and Uprating of unit no. 1 from 110 MW to 117.8 MW at Panipat Thermal Power Station, Panipat, Haryana (India) as per tender specifications.	

OR

Sl. No.	DESCRIPTION	LUMPSUM PRICE IN US DOLLARS (In Figures and Words)
2.	Lump sum Rate for in-situ machining of steam turbine casings of BHEL make (Skoda design) for Renovation and Uprating of unit no. 1 from 110 MW to 117.8 MW at Panipat Thermal Power Station, Panipat, Haryana (India) as per tender specifications.	

OR

Sl. No.	DESCRIPTION	LUMPSUM PRICE IN EURO (In Figures and Words)
3.	Lump sum Rate for in-situ machining of steam turbine casings of BHEL make (Skoda design) for Renovation and Uprating of unit no. 1 from 110 MW to 117.8 MW at Panipat Thermal Power Station, Panipat, Haryana (India) as per tender specifications.	

NOTES:

1. The tenderer shall quote the prices/rate for entire scope of work as per tender specifications in part II price bid (Original). Conditional price bids or price bids with any deviation are liable to be rejected. No cutting / erasing / over writing shall be done.
2. The finally accepted price/rate for scope of work as defined in this tender shall be firm throughout the contract period.

3. The tenderer shall fully understand description and scope of work before quoting. The scope of work and responsibility of the contractor as mentioned under these specification shall covered within the quoted / finally accepted rates.
4. The rate shall be entered in figures as well as in words. In case of difference in rates between words and figures, the lesser of the two will be treated as valid rate.
5. Exchange rate from one currency to another applicable for the entire period of contract shall be the rate prevailing on the date of opening of technical bid (Part-I). Rates to considered should be “Bill Selling Rate” in case of conversion from Indian Rupees to US Dollars or Euro and “Bill Buying Rate” in case of conversion from US Dollars or Euro to Indian Rupees based on the card rates, which shall be obtained by BHEL from State bank of India. These criteria shall be used for price comparison also.

Signature and seal of tenderer