

# **TENDER SPECIFICATION**

**NO: BHE/PW/PUR/KRSR-MMS/1250**

**THE WORK RECEIPT, UNLOADING, VERIFYING, SHIFTING, STACKING, PRESERVATION, HANDLING AND HANDING OVER OF COMPONENTS OF MAIN PLANT, INSULATION AND OTHER MATERIALS INCLUDING BHEL T&P, PROVIDING SERVICES FOR MATERIAL MANAGEMENT ETC.**

**FOR**

**MAIN PLANT PACKAGE OF ENERGY EFFICIENT RENOVATION & MODERNIZATION (EE R&M)**

**UNIT # 6 (210 MW) OF KORADI THERMAL POWER STATION, MSPGCL**

**AT**

**KORADI**

**Dist.: NAGPUR**

**MAHARASHTRA**

**VOLUME – I**

## **CONSISTING OF:**

- **Notice Inviting Tender,**
- **Volume-IA : Technical Conditions of Contract-,**
- **Volume-IB : Special conditions of Contract,**
- **Volume-IC : General conditions of Contract**
- **Volume-ID : Forms & Procedures**

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# **Tender Specification Issue Details**

**Tender Specification No: BHE/PW/PUR/KRSR-MMS/1250**

THE WORK RECEIPT, UNLOADING, VERIFYING, SHIFTING, STACKING, PRESERVATION, HANDLING AND HANDING OVER OF COMPONENTS OF MAIN PLANT, INSULATION AND OTHER MATERIALS INCLUDING BHEL T&P, PROVIDING SERVICES FOR MATERIAL MANAGEMENT ETC.

FOR

MAIN PLANT PACKAGE OF ENERGY EFFICIENT RENOVATION & MODERNIZATION (EE R&M)

UNIT # 6 (210 MW) OF KORADI THERMAL POWER STATION, MSPGCL

AT

KORADI

Dist.: NAGPUR

MAHARASHTRA

EARNEST MONEY DEPOSIT: Refer Notice Inviting Tender

LAST DATE FOR TENDER SUBMISSION Refer Notice Inviting Tender

THESE TENDER SPECIFICATION DOCUMENTS CONTAINING VOLUME-I AND VOLUME- II ARE ISSUED TO:

M/s. ....

.....

PLEASE NOTE:  
THESE TENDER SPECS DOCUMENTS ARE NOT TRANSFERABLE.

For Bharat Heavy Electricals Limited

AGM (Purchase)  
Place: Nagpur  
Date :

1250

# NOTICE INVITING TENDER

Bharat Heavy Electricals Limited



**BHEL PSWR**  
**Notice Inviting Tender**  
**Tender Specification No: BHE/PW/PUR/KRSR-MMS/1250**

Ref: BHE/PW/PUR/KRSR-MMS/1250

Date: 24/03/2014

**NOTICE INVITING TENDER (NIT)**  
**NOTE: BIDDER MAY DOWNLOAD FROM WEB SITES**  
**OR**  
**PURCHASE TENDERS FROM THIS OFFICE ALSO**

To

Dear Sir/Madam

**Sub: NOTICE INVITING TENDER**

Sealed offers in two part bid system are invited from reputed & experienced bidders (meeting [PRE QUALIFICATION CRITERIA](#) as mentioned in Annexure-I) for the subject job by the undersigned on the behalf of BHARAT HEAVY ELECTRICALS LIMITED as per the tender document. Following points relevant to the tender may please be noted and complied with.

**1.0 Salient Features of NIT**

SL NO	ISSUE	DESCRIPTION
i	TENDER NUMBER	<b>BHE/PW/PUR/KRSR-MMS/1250</b>
ii	Broad Scope of job	<b>THE WORK RECEIPT, UNLOADING, VERIFYING, SHIFTING, STACKING, PRESERVATION, HANDLING AND HANDING OVER OF COMPONENTS OF MAIN PLANT, LINING &amp; INSULATION AND OTHER MATERIALS INCLUDING BHEL T&amp;P, PROVIDING SERVICES FOR MATERIAL MANAGEMENT ETC OF MAIN PLANT PACKAGE FOR 1X210 MW KORADI THERMAL POWER STATION, MSPGCL AT KORADI.NAGPUR, MAHARASHTRA.</b>
iii	<b>DETAILS OF TENDER DOCUMENT</b>	
a	Volume-IA	<i>Technical Conditions of Contract (TCC) consisting of Scope of work, Technical Specification, Drawings, Procedures, Bill of Quantities, Terms of payment, etc</i> <span style="float: right;">Applicable</span>
b	Volume-IB	<i>Special Conditions of Contract (SCC)</i> <span style="float: right;">Applicable</span>
c	Volume-IC	<i>General Conditions of Contract (GCC)</i> <span style="float: right;">Applicable</span>
d	Volume-ID	<i>Forms and Procedures</i> <span style="float: right;">Applicable</span>
e	Volume-II	<i>Price Schedule (Absolute value).</i> <span style="float: right;">Applicable</span>
iv	Issue of Tender Documents	<b>1. <u>Sale from BHEL PS Regional office at :</u> <b>Start :24/03/2014</b> <b>Closes : 28/03/2014, Time : 16.00 hrs</b></b> <span style="float: right;">Applicable</span>

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		2. From BHEL website ( <a href="http://www.bhel.com">www.bhel.com</a> ) Tender documents will be available for downloading from website till due date of submission	
v	<b>DUE DATE &amp; TIME OF OFFER SUBMISSION</b>	<b>Date : 31/03/2014 Time : 15.00 hrs</b> <b>Place : BHEL, PSWR Nagpur HQ.</b>  Tenders being submitted through representative shall be handed over to any of the following BHEL officials <b>after making entry/registration at the reception:</b>  <b>Pratish Gee Varghese/ Engineer(Purchase)</b> <b>Nirmal P.G/ Asst.Engineer(Purchase)</b>	Applicable
vi	<b>OPENING OF TENDER</b>	<b>Date: 27/02/2014 Time : 16.00 hrs</b>  Notes: (1) In case the due date of opening of tender becomes a non-working day, then the due date & time of offer submission and opening of tenders get extended to the next working day. (2) Bidder may depute representative to witness the opening of tender	Applicable
vii	<b>EMD AMOUNT</b>	Rs. 1.5 Lakhs	Applicable
viii	<b>COST OF TENDER</b>	Rs 2000/-.	Applicable
ix	<b>LAST DATE FOR SEEKING CLARIFICATION</b>	2 days before the latest due date for offer submission. Along with soft version also, addressing to undersigned & to others as per contact address given below Bidders are requested send all queries to the following e-mail ids;  <b><a href="mailto:pgv@bhelPSWR.co.in">pgv@bhelPSWR.co.in</a></b> <b><a href="mailto:nirmalpg@bhelPSWR.co.in">nirmalpg@bhelPSWR.co.in</a> (PH: 0712-3048713)</b>	Applicable
x	<b>SCHEDULE OF Pre Bid Discussion (PBD)</b>		Not applicable.
xi	<b>INTEGRITY PACT &amp; DETAILS OF INDEPENDENT EXTERNAL MONITOR (IEM)</b>		Not Applicable
xii	<b>Latest updates</b>	<b>Latest updates on the important dates, Amendments, Correspondences, Corrigenda, Clarifications, Changes, Errata, Modifications, Revisions, etc to Tender Specifications will be hosted in BHEL webpage (<a href="http://www.bhel.com">www.bhel.com</a> --&gt;Tender Notifications →View Corrigendums)</b>	

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		<b>and not in the newspapers. Bidders to keep themselves updated with all such information</b>	
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- 2.0 The offer shall be submitted as per the instructions of tender document and as detailed in this NIT. Bidders to note specifically that all pages of tender document, including these NIT pages of this particular tender together with subsequent correspondences shall be submitted by them, duly signed & stamped on each page, as part of offer. **Rates/Price including discounts/rebates, if any, mentioned anywhere/in any form in the techno-commercial offer other than the Price Bid, shall not be entertained.**
- 3.0 Unless specifically stated otherwise, bidder shall remit cost of tender and courier charges if applicable, in the form of Demand Draft drawn in favour of Bharat Heavy Electricals Ltd, payable at Power Sector Regional HQ at Nagpur issuing the Tender, along with techno-commercial offer. Bidder may also choose to deposit the Tender document cost by cash at the Cash Office as stated above against sl no iv of 1, on any working day; and in such case copy of Cash receipt is to be enclosed with the Techno Commercial offer. Sale of tender Documents shall not take place on National Holidays, holidays declared by Central or State Governments and BHEL PS HQ at Nagpur, Sundays and second/ last Saturdays
- 4.0 Unless specifically stated otherwise, bidder shall deposit EMD through Demand Draft/Pay Order in favour of Bharat Heavy Electricals Ltd, payable at Nagpur. For other details and for 'One Time EMD' please refer General Conditions of Contract.
- 5.0 **Procedure for Submission of Tenders:** The Tenderers must submit their Tenders to Officer inviting Tender, as detailed below:
- PART-I consisting of 'PART-I A (Techno Commercial Bid)' & 'PART-I B (EMD/COST of TENDER)' in two separate sealed and superscribed envelopes (ENVELOPE-I & ENVELOPE-II)
  - PART-II (Price Bid) – in sealed and superscribed envelope (ENVELOPE-III)
  - One set of tender documents shall be retained by the bidder for their reference
- 6.0 The contents for ENVELOPES and the superscription for each sealed cover/Envelope are as given below. **(All pages to be signed and stamped)**

Sl no	Description	Remarks
	<b>Part-I A</b>	
	<b>ENVELOPE – I superscribed as :</b> PART-I (TECHNO COMMERCIAL BID) TENDER NO : NAME OF WORK : PROJECT: DUE DATE OF SUBMISSION:	
	<b>CONTAINING THE FOLLOWING:-</b>	
i.	Covering letter/Offer forwarding letter of Tenderer.	
ii.	Duly filled-in 'No Deviation Certificate' as per prescribed format to be placed after document under sl no (i) above.  <b>Note:</b> a. In case of any deviation, the same should be submitted separately for technical & commercial parts, indicating respective clauses of tender against which deviation is taken by bidder. The list of such deviation shall be placed after document under sl no (i) above. It shall be specifically noted that deviation recorded elsewhere shall not be entertained. b. BHEL reserves the right to accept/reject the deviations without assigning any reasons,	

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	and BHEL decision is final and binding. i). In case of acceptance of the deviations, appropriate loading shall be done by BHEL ii). In case of unacceptable deviations, BHEL reserves the right to reject the tender	
iii.	Supporting documents/ annexure/ schedules/ drawing etc as required in line with Pre-Qualification criteria.  It shall be specifically noted that all documents as per above shall be indexed properly and credential certificates issued by clients shall distinctly bear the name of organization, contact ph no, FAX no, etc.	
iv.	All Amendments/Correspondences/Corrigenda/Clarifications/Changes/ Errata etc pertinent to this NIT.	
v.	Integrity Pact Agreement (Duly signed by the authorized signatory)	If applicable
vi.	Duly filled-in annexures, formats etc as required under this Tender Specification/NIT	
vii.	Notice inviting Tender (NIT)	
viii.	Volume – I A : <u>Technical</u> Conditions of Contract (TCC) consisting of Scope of work, Technical Specification, Drawings, Procedures, Bill of Quantities, Terms of payment, etc	
ix.	Volume – I B : Special Conditions of Contract (SCC)	
x.	Volume – I C : General Conditions of Contract (GCC)	
xi.	Volume – I D : Forms & Procedures	
xii.	Volume – II (UNPRICED – without disclosing rates/price, but mentioning only 'QUOTED' or 'UNQUOTED' against each item	
xiii.	Any other details preferred by bidder with proper indexing.	

	<b>PART-I B</b>	
	<b>ENVELOPE – II superscribed as:</b> PART-I (EMD/COST of TENDER) TENDER NO : NAME OF WORK : PROJECT: DUE DATE OF SUBMISSION:  <b>CONTAINING THE FOLLOWING:-</b>	
i.	1. Earnest Money Deposit (EMD) in the form as indicated in this Tender <p style="text-align: center;"><b>OR</b></p> Documentary evidence for 'One Time EMD' with the Power Sector Region of BHEL floating the Tender  2. Cost of Tender ( Demand Draft or copy of Cash Receipt as the case may be)	

	<b>PART-II</b>	
	<b>PRICE BID</b> consisting of the following shall be enclosed	
	<b>ENVELOPE-III</b> superscribed as: PART-II (PRICE BID) TENDER NO : NAME OF WORK : PROJECT:	

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	DUE DATE OF SUBMISSION:	
	<b>CONTAINING THE FOLLOWING</b>	
i	Covering letter/Offer forwarding letter of Tenderer enclosed in Part-I	
ii	Volume II – PRICE BID ( Duly Filled in Schedule of Rates – rate/price to be entered in words as well as figures)	

	<b>OUTER COVER</b>	
	<b>ENVELOPE-IV (MAIN ENVELOPE / OUTER ENVELOPE)</b> superscribed as: TECHNO-COMMERCIAL BID, PRICE BID & EMD TENDER NO: NAME OF WORK: PROJECT: DUE DATE OF SUBMISSION:  <b>CONTAINING THE FOLLOWING:</b>	
i	<ul style="list-style-type: none"> <li>○ Envelopes I</li> <li>○ Envelopes II</li> <li>○ Envelopes III</li> </ul>	

**SPECIAL NOTE :** All documents/ annexures submitted with the offer shall be properly annexed and placed in respective places of the offer as per enclosure list mentioned in the covering letter. BHEL shall not be responsible for any missing documents.

7.0 Deviation with respect to tender clauses and additional clauses/suggestions in Techno-commercial bid / Price bid shall NOT be considered by BHEL. Bidders are requested to positively comply with the same.

8.0 BHEL reserves the right to accept or reject any or all Offers without assigning any reasons thereof. BHEL also reserves the right to cancel the Tender wholly or partly without assigning any reason thereof. Also BHEL shall not entertain any correspondence from bidders in this matter (except for the refund of EMD).

**9.0 Assessment of Capacity of Bidders:**

**Bidders capacity for executing the job under tender shall be assessed 'LOAD' wise and 'PERFORMANCE' wise as per the following:**

- I. **LOAD:** Load takes into consideration **ALL** the contracts of the Bidder under execution with BHEL Regions, irrespective of whether they are similar to the tendered scope or not. The 'Load' is the sum of the unit wise identified packages (refer Table-1) for contracts with BHEL Regions. The cut off month for reckoning 'Load' shall be the month, two (2) months preceding the month corresponding to the 'latest date of bid submission', in the following manner:

(Note: For example if latest bid submission is in Aug 2011, then the 'load' shall be calculated upto and inclusive of June 2011)

- i). 
$$\frac{\text{Total number of Packages}}{\text{Total number of Packages in hand}} = P$$
Where

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- 'P' is the sum of all unit wise identified packages under execution with BHEL Regions as of the cut off month defined above, including packages yet to be commenced, excepting packages which are on HOLD due to reasons not attributable to Bidder..

II. **PERFORMANCE:** Here 'Monthly Performance' of the bidder for all the packages (**under execution/** executed during the 'Period of Assessment' in all the Power Sector Regions of BHEL) **SIMILAR** to the packages covered under the tendered scope, excepting packages not commenced shall be taken into consideration. The 'Period of Assessment' shall be 6 months preceding the cut off month. The cut off month for reckoning 'Period of Assessment' shall be the month two (2) months preceding the month corresponding to the 'latest date of bid submission', in the following manner:

**(Note:** For example if 'latest date of bid submission' is in Aug 2011, then the 'performance' shall be assessed for a 6 month period upto and inclusive of June 2011, for all the unit wise identified packages (refer Table I)

- i). Calculation of Overall 'Performance Rating' for 'similar Package/Packages' for the tendered scope under execution at Power Sector Regions for the 'Period of Assessment':  
This shall be obtained by summing up the 'Monthly Performance Evaluation' scores obtained by the bidder in all Regions for all the similar Package/packages', divided by the total number of Package months for which evaluation should have been done, as per procedure below:
- a)  $P_1, P_2, P_3, P_4, P_5, \dots, P_N$  etc be the packages (**under execution/** executed during the 'Period of Assessment' in all Regions) **SIMILAR** to the packages covered under the tendered scope, excepting packages not commenced. Total number of similar packages for all Regions =  $P_T$  (ie  $P_T = P_1 + P_2 + P_3 + P_4 + \dots + P_N$ )
  - b) Number of Months ' $T_1$ ' for which 'Monthly Performance Evaluation' as per relevant formats, should have been done in the 'Period of Assessment' for the corresponding similar package  $P_1$ . Similarly  $T_2$  for package  $P_2$ ,  $T_3$  for package  $P_3$ , etc for the tendered scope. Now calculate cumulative total months ' $T_T$ ' for total similar Packages ' $P_T$ ' for all Regions ( i.e  $T_T = T_1 + T_2 + T_3 + T_4 + \dots + T_N$ )
  - c) Sum ' $S_1$ ' of 'Monthly Performance Evaluation' Scores ( $S_{1-1}, S_{1-2}, S_{1-3}, S_{1-4}, S_{1-5}, \dots, S_{1-N}$ ) for similar package  $P_1$ , for the 'period of assessment' ' $T_1$ ' (i.e  $S_1 = S_{1-1} + S_{1-2} + S_{1-3} + S_{1-4} + S_{1-5} + \dots + S_{1-N}$ ). Similarly  $S_2$  for package  $P_2$  for period  $T_2$ ,  $S_3$  for package  $P_3$  for period  $T_3$ , etc for the tendered scope for all Regions. Now calculate cumulative sum ' $S_T$ ' of 'Monthly Performance Evaluation' Scores for total similar Packages ' $P_T$ ' for all Regions (i.e ' $S_T = S_1 + S_2 + S_3 + S_4 + S_5 + \dots + S_N$ .)
  - d) **Overall Performance Rating ' $R_{BHEL}$ ' for the similar Package/Packages (under execution/** executed during the 'Period of Assessment') in all the Power Sector Regions of BHEL):

**Aggregate of Performance scores for all similar packages in all the Regions**

= -----

**Aggregate of months for each of the similar package for which performance should have been evaluated in all the Regions**

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$$= \frac{S_T}{T_T}$$

e) Bidders to note that the risk of non evaluation or non availability of the 'Monthly Performance Evaluation' reports as per relevant formats is to be borne by the Bidder

f) Table showing methodology for calculating 'a', 'b' and 'c' above

Sl no	Item Description	Details for all Regions							Total
		(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	
1	Similar Packages for all Regions → (under execution/ executed during period of assessment)	P <sub>1</sub>	P <sub>2</sub>	P <sub>3</sub>	P <sub>4</sub>	P <sub>5</sub>	...	P <sub>N</sub>	Total No of similar packages for all Regions = P <sub>T</sub> ie Sum (Σ) of columns (iii) to (ix)
2	Number of Months for which 'Monthly Performance Evaluation' as per relevant formats should have been done in the 'period of assessment for corresponding similar Package' (as in row 1)	T <sub>1</sub>	T <sub>2</sub>	T <sub>3</sub>	T <sub>4</sub>	T <sub>5</sub>	...	T <sub>N</sub>	Sum (Σ) of columns (iii) to (ix)  = T <sub>T</sub>
3	Monthly performance scores for the corresponding period (as in Row 2)	S <sub>1-1</sub> , S <sub>1-2</sub> , S <sub>1-3</sub> , S <sub>1-4</sub> , ... S <sub>1-T1</sub>	S <sub>2-1</sub> , S <sub>2-2</sub> , S <sub>2-3</sub> , S <sub>2-4</sub> , ... S <sub>2-T2</sub>	S <sub>3-1</sub> , S <sub>3-2</sub> , S <sub>3-3</sub> , S <sub>3-4</sub> , ... S <sub>3-T3</sub>	S <sub>4-1</sub> , S <sub>4-2</sub> , S <sub>4-3</sub> , S <sub>4-4</sub> , ... S <sub>4-T4</sub>	S <sub>5-1</sub> , S <sub>5-2</sub> , S <sub>5-3</sub> , S <sub>5-4</sub> , ... S <sub>5-T5</sub>	.. ... ...	S <sub>N-1</sub> , S <sub>N-2</sub> , S <sub>N-3</sub> , S <sub>N-4</sub> , ... S <sub>N-TN</sub>	-----
4	Sum of Monthly Performance scores of the corresponding Package for the corresponding period (as in row-3)	S <sub>1</sub>	S <sub>2</sub>	S <sub>3</sub>	S <sub>4</sub>	S <sub>5</sub>	...	S <sub>N</sub>	Sum (Σ) of columns (iii) to (ix)  = S <sub>T</sub>

ii) Calculation of Overall 'Performance Rating' (R<sub>BHEL</sub>) in case 'similar Package/Packages' for the tendered scope ARE NOT AVAILABLE, during the 'Period of Assessment':

This shall be obtained by summing up the 'Monthly Performance Evaluation' scores obtained by the bidder in all Regions for ALL the packages, divided by the total number of Package months for which evaluation should have been done. 'R<sub>BHEL</sub>' shall be calculated subject to availability of 'performance scores' for at least.6 'package months' in the order of precedence below:

- a) 'Period of Assessment.
- b) 12 months preceding the cut-off month

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- c) 24 months preceding the cut-off month
- d) 36 months preceding the cut-off month

In case,  $R_{BHEL}$  cannot be calculated as above, then Bidder shall be treated as 'NEW VENDOR'. Further eligibility and qualification of this bidder shall be as per definition of 'NEW VENDOR' described in 'Explanatory Notes'

iii) Factor "L" assigned based on Overall Performance Rating ( $R_{BHEL}$ ) at Power Sector Regions.:

Sl no	Overall Performance Rating ( $R_{BHEL}$ )	Corresponding value of 'L'
1	$=60$	NA
2	$> 60$ and $\leq 65$	0.4
3	$> 65$ and $\leq 70$	0.35
4	$> 70$ and $\leq 75$	0.25
5	$> 75$ and $< 80$	0.2
6	$\geq 80$	NA

III. **'Assessment of Capacity of Bidder':**

'Assessment of Capacity of Bidder' is based on the Maximum number of packages for which a vendor is eligible, considering the performance scores of similar packages, as below:

Max number of packages  $P_{Max} = (R_{BHEL} - 60)$  divided by corresponding value of 'L'  
i.e.  $(R_{BHEL} - 60)/L$

**Note:**

- i. In case the value of  $P_{Max}$  results in a fraction, the value of  $P_{Max}$  is to be rounded off to next whole number
- ii. For  $R_{BHEL} = 60$ ,  $P_{Max} = '1'$
- iii. For  $R_{BHEL} \geq 80$ , there will be no upper limit on  $P_{Max}$

The Bidder shall be considered 'Qualified' as per 'Assessment of Capacity of Bidder' for the subject Tender if  $P \leq P_{Max}$   
(where P is calculated as per clause 9.1)

IV. **Explanatory note:**

- a) Similar package means Boiler or ESP or Piping or Turbine or Civil or Structure or Electrical or CI, etc at the individual level irrespective of rating of Plant, and irrespective of whether the subject tender is a single package or as part of combined/composite packages. Normally Boiler, ESP, Piping, Turbine, Electrical, CI, Civil, Structure, etc is considered individual level of package. For example in case the tendered scope is a Boiler Vertical Package comprising of Boiler, ESP and Power Cycle Piping (i.e the 'identified packages as per Table-1 below), the 'PERFORMANCE' part against sl no II above, needs to be evaluated considering all the identified packages (ie Boiler, ESP and Power Cycle Piping) and finally the Bidder's capacity to execute the tendered scope is assessed in line with III above
- b) Identified Packages (Unit wise)

**Table-1**

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	Civil	Electrical & CI	Mechanical
	i). Enabling works ii). Pile and Pile Caps iii). Civil Works including foundations iv). Structural Steel Fabrication & Erection v). Chimney vi). Cooling Tower vii). Others (Civil)	i). Electrical ii). CI iii). Others (Elec & CI)	i). Boiler & Aux (All types including CW Piping if applicable) ii). Power Cycle Piping/Critical Piping iii). LP Piping iv). ESP v). Steam Turbine Generator set & Aux vi). Gas Turbine Generator set & Aux vii). Hydro Turbine Generator set & Aux viii). Turbo Blower (including Steam Turbine) ix). Material Handling x). Material Management xi). Material Handling & Material Management xii). Others (Mechanical)

- c) Bidders who have not been evaluated for at least six package months in the last 36 months in the online BHEL system for contractor performance evaluation in BHEL PS Regions, wef July'2010 shall be considered "NEW VENDOR".

A 'NEW VENDOR' shall be considered qualified subject to satisfying all other tender conditions

A 'NEW VENDOR' if awarded a job (of package/packages identified under this clause) shall be tagged as "FIRST TIMER" on the date of first LOI from BHEL.

The "FIRST TIMER" tag shall remain till execution of work for a period of not less than 09 months, from the commencement of work of first package

A Bidder shall not be eligible for the next job as long as the Bidder is tagged as "FIRST TIMER" excepting for the Tenders which have been opened on or before the date of the bidder being tagged as 'FIRST TIMER'.

After removal of 'FIRST TIMER' tag, the Bidder shall be considered 'QUALIFIED' for the future tenders subject to satisfying all other tender conditions including 'Capacity Evaluation of Bidders'.

- d) In the unlikely event of all bidders shortlisted against Technical and Financial Qualification criteria not meeting the criteria on 'Assessment of Capacity of Bidders' detailed above, OR leads to a single tender response on applying the criteria of 'Assessment of Capacity of Bidders' or due to non-approval by Customer, then BHEL at its discretion reserves the right to consider the further processing of the Tender based on the **Overall Performance Rating** '**R<sub>BHEL</sub>**' only, starting from the upper band.

- e) 'Under execution' shall mean works in progress as per the following:

- i. up to Boiler Steam Blowing in case of Steam Generator and Auxiliaries

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- ii. upto Synchronisation in case of all other works excepting sl no (i) and (iii)
- iii. Upto execution of at least 90% of anticipated contract value in case of Civil & Structures (unit wise), Enabling works and upto 90% of material unloading (in tonnage) as per the original contract in case of MM Package.

Note : BHEL at its discretion can extend (or reduce in exceptional cases in line with Contract conditions) the period defined against (i), (ii) and (iii) above, depending upon the balance scope of work to be completed.

- f) Performance evaluation in CL 9 above is applicable to Prime bidder and consortium partner (or Technical tie up partner) for their respective scope of work

- 10.0 Since the job shall be executed at site, bidders must visit site/ work area and study the job content, facilities available, availability of materials, prevailing site conditions including law & order situation, applicable wage structure, wage rules, etc before quoting for this tender. They may also consult this office before submitting their offers, for any clarifications regarding scope of work, facilities available at sites or on terms and conditions.
- 11.0 For any clarification on the tender document, the bidder may seek the same in writing or through e-mail, as per specified format, within the scheduled date for seeking clarification, from the office of the undersigned. BHEL shall not be responsible for receipt of queries after due date of seeking clarification due to postal delay or any other delays. Any clarification / query received after last date for seeking clarification may not be normally entertained by BHEL and no time extension will be given.
- 12.0 BHEL may decide holding of pre-bid discussion [PBD] with all intending bidders as per date indicated in the NIT. The bidder shall ensure participation for the same at the appointed time, date and place as may be decided by BHEL. Bidders shall plan their visit accordingly. The outcome of pre-bid discussion (PBD) shall also form part of tender.
- 13.0 In the event of any conflict between requirement of any clause of this specification/ documents/drawings/data sheets etc or requirements of different codes/standards specified, the same to be brought to the knowledge of BHEL in writing for clarification before due date of seeking clarification (whichever is applicable), otherwise, interpretation by BHEL shall prevail. Any typing error/missing pages/ other clerical errors in the tender documents, noticed must be pointed out before pre-bid meeting/submission of offer, else BHEL's interpretation shall prevail.
- 14.0 Unless specifically mentioned otherwise, bidder's quoted price shall deemed to be in compliance with tender including PBD.
- 15.0 Bidders shall submit Integrity Pact Agreement (Duly signed by authorized signatory who signs in the offer), **if applicable**, along with techno-commercial bid. This pact shall be considered as a preliminary qualification for further participation. **The names and other details of Independent External Monitor (IEM) for the subject tender is as given at point (1) above.**
- 16.0 The Bidder has to satisfy the Pre Qualifying Requirements stipulated for this Tender in order to be qualified. The Price Bids of only those bidders will be opened who will be qualified for the subject job on the basis of satisfying the Pre Qualification Criteria specified in this NIT as per Annexure-I (as applicable), past performance etc. and date of opening of price bids shall be intimated to only such bidders. BHEL reserves the right not to consider offers of parties under HOLD.
- 17.0 In case BHEL decides on a 'Public Opening', the date & time of opening of the sealed PRICE BID shall be intimated to the qualified bidders and in such a case, bidder may depute one authorised representative to witness the price bid opening. BHEL reserves the right to open 'in-camera' the 'PRICE BID' of any or all Unsuccessful/Disqualified bidders under intimation to the respective bidders.

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- 18.0 Validity of the offer shall be for **six months** from the latest due date of offer submission (including extension, if any) unless specified otherwise.
- 19.0 BHEL reserves the right to decide the successful bidder on the basis of Reverse Auction process. In such case all qualified bidders will be intimated regarding procedure/ modality for Reverse Auction process prior to Reverse Auction and price will be decided as per the rules for Reverse Auction. .
- However, if reverse auction process is unsuccessful as defined in the RA rules/procedures, or for whatsoever reason, then the sealed 'PRICE BIDS' will be opened for deciding the successful bidder. BHEL's decision in this regard will be final and binding on bidder.
- 20.0 On submission of offer, further consideration will be subject to compliance to tender & qualifying requirement and customer's acceptance, as applicable.
- 21.0 In case the bidder is an "Indian Agent of Foreign Principals", 'Agency agreement has to be submitted along with Bid, detailing the role of the agent along with the terms of payment for agency commission in INR, along with supporting documents.
- 22.0 The bidders shall not enter into any undisclosed M.O.U. or any understanding amongst themselves with respect to tender.
- 23.0 Consortium Bidding (or Technical Tie up) shall be allowed only if specified in Pre Qualifying Requirement (PQR) criteria, and in such a case the following shall be complied with:
- 23.1 Prime Bidder and Consortium Partner or partners are required to enter into a consortium agreement with a validity period of six months initially. In case the consortium is awarded the contract, then the Consortium Agreement between the Prime Bidder and Consortium Partner or partners shall be extended till contractual completion period including extension periods if any applicable.
- 23.2 'Stand alone' bidder cannot become a **Prime Bidder** or a **Consortium bidder** or **Technical Tie up bidder** in a consortium (or Technical Tie up) bidding. Prime bidder shall neither be a consortium partner to other prime bidder nor take any other consortium partners. However, consortium partner may enter into consortium agreement with other prime bidders. In case of non compliance, consortium bids of such Prime bidders will be rejected.
- 23.3 Number of partners for a consortium Bidding (or Technical Tie up) shall be as specified in the PQR
- 23.4 Prime Bidder shall be as specified in the Pre Qualification Requirement, else the bidder who has the major share of work
- 23.5 In order to be qualified for the tender, Prime Bidder and Consortium partner or partners shall satisfy (i) the Technical 'Pre Qualifying Requirements' specified for the respective package, (ii) "Assessment of Capacity of Bidder" as specified in clause 9.0
- 23.6 Prime Bidder shall comply with additional 'Technical' criteria of PQR as defined in 'Explanatory Notes for the PQR'

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- 23.7 Prime Bidder shall comply with all other Pre Qualifying criteria for the Tender unless otherwise specified
- 23.8 In case customer approval is required, then Prime Bidder and Consortium Partner or partners shall have to be individually approved by Customer for being considered for the tender.
- 23.9 Prime Bidder shall be responsible for the overall execution of the contract
- 23.10 In case of award of job, Performance shall be evaluated for Prime Bidder and Consortium Partner or partners for their respective scope of work(s) as per prescribed formats
- 23.11 In case the Consortium partner or partners back out, their SDs shall be encashed by BHEL. In such a case, other consortium partner or partners meeting the PQR have to be engaged by the Prime Bidder, and if not, the respective work will be withdrawn and executed on risk and cost basis of the Prime Bidder. The new consortium partner or partners shall submit fresh SDs as applicable.
- 23.12 In case the prime Bidder withdraws, the whole contract shall be considered cancelled and short closed.
- 23.13 After execution of work, the work experience shall be assigned to the Prime Bidder and the consortium partner or partners for their respective scope of work. After successful execution of two similar works with the same consortium partner or partners under direct orders of BHEL, the Prime Bidder shall be eligible for becoming a 'stand alone' bidder for similar works, subject to certification from BHEL about the active involvement of the Prime Bidder for satisfactory execution of the works.
- 23.14 The consortium partner shall submit SD equivalent to 2% of the total contract value in addition to the SD to be submitted by the prime Bidder for the total contract value. In case there are two consortium partners, then each partner shall submit SD equivalent to 1% of the total contract value in addition to the SD to be submitted by the prime Bidder for the total contract value.
- 23.15 In case of a Technical Tie up, all the clauses applicable for the Consortium partner shall be applicable for the Technical Tie up partner also
- 24.0 The bidder shall submit documents in support of possession of 'Qualifying Requirements' duly self certified and stamped by the authorized signatory, indexed and properly linked in the format for PQR. In case BHEL requires any other documents/proofs, these shall be submitted immediately.
- 25.0 The bidder may have to produce original document for verification if so decided by BHEL.
- 26.0 Order of Precedence  
In the event of any ambiguity or conflict between the Tender Documents, the order of precedence shall be in the order below:
- a. Amendments/Clarifications/Corrigenda/Errata etc issued in respect of the tender documents by BHEL
  - b. Notice Inviting Tender (NIT)
  - c. Price Bid
  - d. Technical Conditions of Contract (TCC)—Volume-1A
  - e. Special Conditions of Contract (SCC)—Volume-1B
  - f. General Conditions of Contract (GCC)—Volume-1C
  - g. Forms and Procedures —Volume-1D

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It may please be noted that guidelines/rules in respect of suspension of business dealings', 'Vendor evaluation format', 'Quality, Safety & HSE guidelines', etc may undergo change from time to time and the latest one shall be followed

for BHARAT HEAVY ELECTRICALS LTD

AGM Purchase

**Enclosure**

01. Annexure-1: Pre Qualifying criteria.
02. Annexure – 2 IMPORTANT INFORMATION
03. Annexure-3 Check List.
04. Other Tender documents as per this NIT.

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**ANNEXURE - 1**

**PRE QUALIFYING REQUIREMENTS**

JOB	THE WORK RECEIPT, UNLOADING, VERIFYING, SHIFTING, STACKING, PRESERVATION, HANDLING AND HANDING OVER OF COMPONENTS OF MAIN PLANT, LINING & INSULATION AND OTHER MATERIALS INCLUDING BHEL T&P, PROVIDING SERVICES FOR MATERIAL MANAGEMENT ETC OF MAIN PLANT PACKAGE FOR 1X210 MW KORADI THERMAL POWER STATION, MSPGCL AT KORADI.NAGPUR, MAHARASHTRA.
TENDER NO	BHE/PW/PUR/KRSR-MMS/1250

SL NO	PRE QUALIFICATION CRITERIA	Bidders claim in respect of fulfilling the PQR Criteria	
		Name and Description of qualifying criteria	Page no of supporting document. Bidder must fill up this column as per applicability
A	Submission of Integrity Pact duly signed (if applicable) (Note: To be submitted by Prime Bidder & Consortium/Technical Tie up partner jointly in case Consortium bidding is permitted, otherwise by the sole bidder)	Not Applicable	
B	<p><b><u>Technical</u></b></p> <p>B) <u>Bidder must have, achieved any one of the following:</u></p> <p>B.1) <b><u>Bidder must have, achieved/Executed any one of the following in last seven years as on the latest date of offer Submission.</u></b></p> <p>B.1.1) One job of material handling (*) of 7450 MT or higher in a single Work Order OR One job of material handling (*) of value of Rs. 72.8 Lakhs or higher in a single Work Order in any Industry, Industrial or Infrastructure project.</p> <p style="text-align: center;">OR</p> <p>B.1.2) 2 jobs of material handling (*) each of 4660 MT or higher OR 2 jobs of material handling (*) each of value Rs.45.5 Lakhs or higher in any Industry, Industrial or Infrastructure project.</p> <p style="text-align: center;">OR</p> <p>B.1.3) 3 jobs of material handling (*) each of 3726 MT or higher OR 3 jobs of material handling (*) each of value Rs. 36.4 Lakhs or higher in any Industry, Industrial or Infrastructure project.</p>	Applicable	

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C-1	<b><u>Financial TURNOVER</u></b> Bidders must have achieved an average annual financial turnover (Audited) of <b>Rs.27.3 Lakhs</b> or more over last three Financial Years (FY) i.e. 2010-2011, 2011-2012, 2012-2013	Applicable	
C-2	<b><u>NETWORTH (only in case of Companies)</u></b> Net worth of the Bidder based on the latest Audited Accounts as furnished for 'C-1' above should be positive	Applicable	
C-3	<b><u>PROFIT</u></b> Bidder must have earned cash profit in any one of the three Financial Years as applicable in the last three Financial Years defined in 'C-1' above based on latest Audited Accounts.	Applicable	
D	Assessment of Capacity of Bidder to execute the work as per sl no 9 of NIT	Applicable	By BHEL
E	Approval of Customer	Not Applicable	BY BHEL
F	Consortium criteria	Not Applicable	
<p><b><u>Explanatory Notes for the PQR (unless otherwise specified in the PQR):</u></b></p> <p>1. <b><u>Explanatory Notes for QR 'B'</u></b></p> <p><b><u>(*) - Handling of Cement bags, Sacks and Packages shall not be considered.</u></b></p> <p>2. Bidder to submit Audited Balance Sheet and Profit and Loss Account for the respective years as indicated against C-1 above along with all annexures</p> <p>3. In case audited Financial statements have not been submitted for all the three years as indicated against C-1 above, then the applicable audited statements submitted by the bidders against the requisite three years, will be averaged for three years i.e total divided by three.</p> <p>4. C-2:-NETWORTH : Shall be calculated based on the latest Audited Accounts as furnished for C-1 above. Net worth = Paid up share capital + Reserves. (Net worth is required to be evaluated in case of companies)</p> <p>5. C-3:- PROFIT : shall be NET profit (PAT + Non cash expenditure viz depreciation) earned during any one of the three financial years as in C-1 above</p> <p>6. 'Additional' Criteria in respect of 'Technical' criteria of PQR (as in 'B' above) for Civil, Electrical, CI, unless otherwise specified:-</p> <p>1. Bidder should have executed similar work of any one of the following:</p> <p>a. One (1) work of value not less than Rs XXX _____ OR</p> <p>b. Two (2) works of not less than Rs YYY _____ OR</p> <p>c. Three (3) works of not less than Rs ZZZ (Value XXX, YYY, ZZZ shall be as indicated by BHEL</p> <p>2. 'Similar' work for criteria 5 above means</p>			

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	<ul style="list-style-type: none"><li>a. <del>Civil or Structures or Civil &amp; Structures or Chimney respectively as applicable to the tendered scope in respect of 'CIVIL' Works</del></li><li>b. <del>Electrical works in respect of 'ELECTRICAL'</del></li><li>c. <del>CI works in respect of 'CI' Works</del></li><li>d. <del>Material Handling and/or Management works in respect of 'MM' works</del></li></ul> <p>7. Time period for achievement of the 'Technical' criteria of PQR (as in 'B' above) will be the last 7 years ending on the 'latest date' of Bid submission</p> <p>8. 'EXECUTED' means the Vendor should have achieved the criteria specified in the Technical criteria of PQR (as in 'B' above) even if the Contract has not been completed or closed</p> <p>9. Unless otherwise specified, for the purpose of 'Technical' criteria of PQR ( as in 'B' above), the word 'EXECUTED' means:</p> <ul style="list-style-type: none"><li>3. <del>"BOILER LIGHT UP" in respect of Boiler &amp; Aux and ESP</del></li><li>4. <del>"SYNCHRONISATION" in respect of STG/GTG and 'SPINNING' in case of HTG</del></li><li>5. <del>"STEAM BLOWING COMPLETION" in respect of at least Main Steam Line of Power Cycle Piping</del></li><li>6. <del>"HYDRAULIC TEST" of the system in respect of Structures, Pressure parts/IBR Piping</del></li><li>7. <del>"CHARGING" in respect of power Transformers, Bus ducts, HT/LT switchgears</del></li><li>8. <del>"Completion of RCC Shell and liner (steel or brick as per tendered scope) up to the HEIGHT specified using slip form" in case of RCC Chimney.</del></li><li>9. <del>Achievement of physical Quantities as per respective PQRs in respect of Civil &amp; Structures and Piling Works</del></li><li>10. <del>'Readiness for coal Filling" in respect of Bunker Structure Work.</del></li></ul> <p>10. <del>Boiler means HRSG or WHRB or any other types of Steam Generator</del></p> <p>11. <del>Critical/Power Cycle piping means Main Steam, Hot Reheat, Cold Reheat, HP Bypass, LP Bypass lines</del></p> <p>12. <del>For the purpose of evaluation of the PQR, one MW shall be considered equivalent to 3.5TPH where ever rating of HRSG/BOILER is mentioned in MW. Similarly, where ever rating of Gas Turbine is mentioned in terms of Frame size, ISO rating in terms of MW shall be considered for evaluation.</del></p> <p>13. <del>In case the experience/PO/WO certificate enclosed by bidders do not have separate break up prices for the E&amp;C portion of Electrical and CI Works, (i.e. the certificates enclosed are for composite order for supply and erection of Electrical &amp; CI and other works if any), then value of Erection and Commissioning for the Electrical &amp; CI portion shall be considered as 15% of the supply &amp; erection of Electrical &amp; CI, unless otherwise specifically indicated in the PQR.</del></p> <p>14. <del>Scope for capital overhaul of STG shall cover Bearing Inspection work and overhauling of all cylinders of the Turbine unless otherwise specifically indicated in the PQR.</del></p> <p>15. <del>In case the tendered scope is not a Pulverised Fuel Boiler, experience of Oil/Gas Fired Boilers also can be considered unless otherwise specifically indicated in the PQR.</del></p> <p>16. <b>The value of work (Experience submitted against PQR B) shall be updated as per the PVC indices for "All India Avg. Consumer Price Index for Industrial Workers" with base month as date of execution (completion of contract/work) and indexed upto two months prior to bid opening month.</b></p>
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BIDDER SHALL SUBMIT ABOVE PRE-QUALIFICATION CRITERIA FORMAT, DULY FILLED-IN, SPECIFYING RESPECTIVE ANNEXURE NUMBER AGAINST EACH CRITERIA AND FURNISH RELEVANT DOCUMENT INCLUSIVE OF WORK ORDER AND WORK COMPLETION CERTIFICATE ETC IN THE RESPECTIVE ANNEXURES IN THEIR OFFER.

**Annexure-2**

**IMPORTANT INFORMATION**

1. The offers of the bidders who are on the banned list as also the offer of the bidders, who engage the services of the banned firms, shall be rejected. The list of banned firms is available on BHEL web site ( [www.bhel.com](http://www.bhel.com) ) --> Tender Notification -> List of Banned Firms )
2. All Statutory Requirements as applicable for this project shall be complied with.
3. Please take note of following Revised Tender Clauses:
  - i. Notice Inviting Tender: SI No 9
  - ii. General conditions of Contract: Clause No 1.15.13 (New), Clause No 2.8.3, 2.8.4 and 2.8.5 .
4. Following Notes are added to Form F- 15 of Volume I D 'Forms & procedures'
  - i. It is only indicative and shall be as per the online format issued by BHEL time to time.
  - ii. No request will be entertained after specified date of the current month w.r.t the changes requested in the scores of immediate previous month.
5. The performance guarantee period for workman ship as per clause no. 2.24.1 of GCC, shall be 180 days
6. **Price Variation Compensation**

**Clause No. 2.17.9 of Vol IC GCC is revised as below:-**

PVC shall be applicable only during the extended period of contract (if any) after the schedule completion date for the portion of work delayed / backlog for the reasons not attributable to Contractor. However total quantum of Price Variation amount payable/recoverable shall be regulated as follows:

- i. For the portion of backlog attributable to the contractor and for the portion of backlog due to force majeure condition during contract period, PVC shall not be paid.
- ii. For the period of force Majeure during extended contract period, PVC will be as per the indices applicable at the beginning of the force majeure period.
- iii. Void
- iv. PVC will be applicable only for Section A items of Price bid and total payable Price Variation Compensation is limited to 20% of total executed value during extended contract period against Section A items (Material handling Charges) in pricebid.

**Clause No. 2.17.5 of Vol IC GCC is modified as below:-**

Base date shall be the calendar month of the (schedule completion date of the contract + Period extended for the reasons due to Force Majeure Condition). Schedule

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Completion date shall be the actual start date plus contract period as defined in Chapter VI 'Vol IA TCC'.

**7. Overrun compensation**

**Modification in Price Variation Compensation Clause no. 2.12 of Vol I C GCC:**

**Clause No. 2.12 of Vol IC GCC is Revised as below:-**

IF THE CONTRACT IS EXTENDED BEYOND THE CONTRACT PERIOD FOR ANY REASON OTHER THAN THOSE ATTRIBUTABLE TO THE CONTRACTOR OR FORCE MAJEURE CONDITIONS, THE CONTRACTOR WILL BE COMPENSATED BY PAYMENT OF OVERRUN CHARGES AT THE RATE OF RS.30,000/- (RUPEES THIRTY THOUSAND ONLY) PER MONTH. OVERRUN COMPENSATION WILL BE PAID FOR THE EXTENSION ATTRIBUTABLE TO BHEL ONLY. NO OVERRUN COMPENSATION WILL BE PAYABLE FOR THE EXTENSION ON ACCOUNT OF REASONS ATTRIBUTABLE TO CONTRACTOR AND/OR FORCE MAJEURE CONDITIONS. OVERRUN COMPENSATION FOR ELIGIBLE PERIOD SHALL BE IN PROPORTION TO THE PROGRESS ACHIEVED AGAINST THE PLAN FOR RESPECTIVE PERIOD.

**8. Broad Terms & Conditions of Reverse Auction**

In continuation to Clause 19.0 of NIT (Notice Inviting Tender) following are the broad terms and conditions of Reverse Auction is given in Annexure V of NIT:

- 8.1. Against this enquiry for the subject item/ system with detailed scope of supply as per enquiry specifications, BHEL may resort to "REVERSE AUCTION PROCEDURE" i.e., ON LINE BIDDING (THROUGH A SERVICE PROVIDER). The philosophy followed for reverse auction shall be English Reverse (No ties).
- 8.2. BHEL reserves the right to go for Reverse Auction (RA) instead of opening the sealed envelope price bid, submitted by the bidder. This will be decided after techno-commercial evaluation. All bidders to give their acceptance for participation in RA. Non-acceptance to participate in RA may result in non-consideration of their bids. In case BHEL decides to go for Reverse Auction, only those bidders who have given their acceptance to participate in RA will be allowed to participate in the Reverse Auction. Those bidders who have given their acceptance to participate in Reverse Auction will have to necessarily submit „online sealed bid" in the Reverse Auction. Non-submission of „online sealed bid" by the bidder will be considered as tampering of the tender process and will invite action by BHEL as per extant guidelines in vogue.
- 8.3. For the proposed reverse auction, technically and commercially acceptable bidders only shall be eligible to participate.
- 8.4. Those bidders who have given their acceptance for Reverse Auction (quoted against this tender enquiry) will have to necessarily submit 'online sealed bid' in the Reverse Auction. Non-submission of 'online sealed bid' by the bidder for any of the eligible items for which techno-commercially qualified, will be considered as tampering of the tender process and will invite action by BHEL as per extant guidelines in vogue.

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- 8.5. BHEL will engage the services of a service provider who will provide all necessary training and assistance before commencement of on line bidding on internet.
- 8.6. In case of reverse auction, BHEL will inform the bidders the details of Service Provider to enable them to contact & get trained.
- 8.7. Business rules like event date, time, bid decrement, extension etc. also will be communicated through service provider for compliance.
- 8.8. Bidders have to fax the Compliance form (annexure IV) before start of Reverse auction. Without this, the bidder will not be eligible to participate in the event.
- 8.9. In line with the NIT terms, BHEL will provide the calculation sheet (e.g., EXCEL sheet) which will help to arrive at “Total Cost to BHEL” like Packing & forwarding charges, Taxes and Duties, Freight charges, Insurance, Service Tax for Services and loading factors (for noncompliance to BHEL standard Commercial terms & conditions) for each of the bidder to enable them to fill-in the price and keep it ready for keying in during the Auction.
- 8.10. Reverse auction will be conducted on scheduled date & time.
- 8.11. At the end of Reverse Auction event, the lowest bidder value will be known on auction portal.
- 8.12. The lowest bidder has to fax/e-mail the duly signed and filled-in prescribed format for price breakup including that of line items, if required, (Annexure VII) as provided on case-to-case basis to Service provider within two working days of Auction without fail.
- 8.13. In case BHEL decides not to go for Reverse Auction procedure for this tender enquiry, the Price bids and price impacts, if any, already submitted and available with BHEL shall be opened as per BHEL’s standard practice.
- 8.14. Bidders shall be required to read the “Terms and Conditions” section of the auctions site of Service provider, using the Login IDs and passwords given to them by the service provider before reverse auction event. Bidders should acquaint themselves of the “Business Rules of Reverse Auction”, which will be communicated before the Reverse Auction.
- 8.15. If the Bidder or any of his representatives are found to be involved in Price manipulation/ cartel formation of any kind, directly or indirectly by communicating with other bidders, action as per extant BHEL guidelines, shall be initiated by BHEL and the results of the RA scrapped/ aborted.
- 8.16. The Bidder shall not divulge either his Bids or any other exclusive details of BHEL to any other party.
- 8.17. In case BHEL decides to go for reverse auction, the H1 bidder (whose quote is highest in online sealed bid) may not be allowed to participate in further RA process.

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**ANNEXURE - 3**

**CHECK LIST**

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

1	Name and Address of the Tenderer		
2	Details about type of the Firm/Company		
3	Details of Contact person for this Tender	Name : Mr/Ms Designation: Telephone No: Mobile No: Fax No:	
4	EMD DETAILS	DD No:                      Date : Bank :                      Amount: <u>Please tick (√) whichever applicable:-</u> ONE TIME EMD / ONLY FOR THIS TENDER	
		APPLICABILITY	BIDDER REPLY
5	Whether the format for compliance with <b>PRE QUALIFICATION CRITERIA</b> (ANNEXURE-I) is understood and filled with proper supporting documents referenced in the specified format	Applicable	YES / NO
6	Whether Audited profit and Loss Account for the last three years submitted	Applicable	YES/NO
7	Whether Copy of PAN Card submitted	Applicable	YES/NO
8	Whether all pages of the Tender documents including annexures, appendices etc are read understood and signed	Applicable	YES/NO
9	Integrity Pact	Not Applicable	Not Applicable
10	Declaration by Authorised Signatory	Applicable	YES/NO
11	Whether No Deviation Certificate submitted	Applicable	YES/NO
12	Whether Declaration confirming knowledge about Site Conditions submitted	Applicable	YES/NO
13	Whether Declaration for relation in BHEL submitted	Applicable	YES/NO
14	Whether Non Disclosure Certificate submitted	Applicable	YES/NO
15	Whether Bank Account Details for E-Payment submitted	Applicable	YES/NO
16	Capacity Evaluation of Bidder for current Tender	Applicable	
17	Tie Ups/Consortium Agreement are submitted as per format	Not Applicable	Not Applicable
18	Whether Power of Attorney for Submission of Tender/Signing Contract Agreement submitted	Applicable	YES/NO
19	Whether Analysis of Unit rates submitted	Applicable	YES/NO

NOTE: STRIKE OFF 'YES' OR 'NO', AS APPLICABLE

AUTHORISED SIGNATORY

<p>Registered Office: BHEL House, Siri Fort, New Delhi – 110 049, India  Website: www.bhel.com</p>
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# TECHNICAL CONDITIONS OF CONTRACT (TCC)

BHARAT HEAVY ELECTRICALS LIMITED



# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter - I : Project Information

SI No	DESCRIPTION	Chapter	No. OF PAGES
<b>Volume-IA</b>	<b>Part-I: Contract specific details</b>		
1	Project Information	Chapter-I	1
2	Scope of Works	Chapter-II	2
3	Facilities in the scope of Contractor/BHEL (Scope Matrix)	Chapter-III	5
4	T&Ps and MMEs to be deployed by Contractor	Chapter-IV	2
5	T&Ps and MMEs to be provided by BHEL	Chapter-V	1
6	Time Schedule	Chapter-VI	1
7	Terms of Payment	Chapter-VII	3
8	Taxes and other Duties	Chapter- VIII	2
<b>Volume-IA</b>	<b>Part-II : Technical Specifications</b>		
1	General	Chapter-I	2
2	Material Handling & Material Management of Material Received by Road	Chapter-II	6
3	Material Handling & Material Management of Material Received by Rail	Chapter-III	1
4	Re-shifting & Restacking	Chapter-IV	1
5	Material Handling & Material Management of Material Collections/Dispatches	Chapter-V	2
6	Material Management Services	Chapter-VI	2
7	<b>Annexure -I:</b> Technical Specs and suppliers for Tarpaulins.	Chapter-VII	1
8	Annexure -II Quantity & weight of items	Chapter-VIII	13

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter - I : Project Information

1.0	<b>Project Information</b>
1.1	<p>1. Purchaser / Owner : <b>MSPGCL</b></p> <p>2. Project Title : Koradi Thermal Power Station Unit # 6 (210 MW)</p> <p><b><u>LOCATION AND APPROACH :</u></b></p> <p>1. Location : KORADI, DIST. :NAGPUR, MAHARASHTRA ( INDIA)</p> <p>2. Nearest City : The site is about 14 Km from Nagpur city.</p> <p>3. Nearest Air Port : Nagpur</p> <p>4. Railway Approach : Nearest Railway Station : Nagpur</p> <p>The Bidder shall visit site and get acquainted himself with the conditions prevailing at site before submission of the bid. The information's given here in under are for general guidance and shall not be contractually binding on BHEL/ Owner. All relevant site data's/information's as may be necessary shall have to be obtained /collected by the Bidder.</p>

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter - II : Scope of Works

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### 2.0 SCOPE OF WORK

#### 2.0 BROAD SCOPE OF WORK

**The Scope of work under Materials Handling & Material Management services for the Scope of Equipments / Items / Systems covered under these tender specifications shall broadly as under:**

- Receipt, unloading, verifying, shifting, stacking, preservation, handling and handing over of components of Main Plant, insulation, cladding and other materials including providing services for material management etc of Main Plant Package of Energy Efficient Renovation & Modernization (EE R&M) for 1X210 MW at MSPGCL, Koradi Thermal Power Station. Dist. – Nagpur (MS).
- Unloading of all types of consignments directly from trailers by suitable crane or by jack and sleeper method (all to be arranged by the contractor), including levelling of the unloading area and attendant works.
- Receipt of materials dispatched by road transport on door delivery basis at the BHEL stores and unloading thereof.
- Preliminary verification of materials at the time of unloading from road transport vehicle or while receiving consignments from railway/ transporters' Go-down - as the case may be, reporting immediately the discrepancies like damages and shortages noticed.
- Detailed verification of materials with reference to packing list and loading advice slip after unpacking of boxes & crates; repacking, where called for, after detailed verification; preparation of receipt inspection reports.
- Stacking and storing at BHEL open storage yard/ covered stores/ closed & semi-closed sheds at MSPGCL Koradi TPS, and submission of stacking/storing records.
- Preservation of the materials in accordance with BHEL preservation manual and as per BHEL instructions.
- General cleaning, grass cutting and upkeep of storage yard, covered and semi-closed stores sheds within the quoted rates for unloading, verification and stacking.
- Providing Materials Management Services as specified in relevant chapter.
- Re-handling and restacking of materials as and when called for by BHEL.

#### 2.3

**Total Approx. Weight of Main Plant Equipment to be handled : 9315 M Tons**

**Quantity & Weight details of items are detailed in Annexure- II enclosed herewith.**

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter - II : Scope of Works

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**The weight indicated above are only the tentative indication and should in no way become a basis for any claim on account of any variation in actual weight. Work shall be carried out for all the Equipments received from various manufacturing units and their vendors for the project under this specifications and drawings.**

### **2.4**

The intent of specification is to provide Material Handling and Materials Management services according to the most modern and proven Techniques and codes. The omission of specific reference to any method, equipment or materials necessary for proper and efficient unloading, transportation, verification, stacking & preservation etc shall not relieve the contractor of the responsibility of providing such facilities to complete the work without any extra compensation.

### **2.5**

All the work shall be carried out as per the instructions of BHEL engineer. BHEL engineer's decision regarding correctness of the work and method of working shall be final and binding on the contractor.

### **2.6**

The contractor shall perform all required services which may not be specified herein but nevertheless required for the completion of work within quoted rates.

### **2.7**

All necessary certificates and licenses required to carry out this work are to be arranged by the contractor expeditiously.

### **2.8**

All cranes, transport equipments, handling equipment, tools, tackles, fixtures, equipment, manpower, supervisors/engineers, consumables (excluding those indicated as BHEL scope), etc required for this scope of work shall be provided by the contractor.

### **2.9**

All expenditure including taxes and incidentals in this connection will have to be borne by the contractor unless otherwise specified in the relevant clauses elsewhere here. The contractor's quoted rates shall include of all such contingencies. In this connection refer relevant clause of general conditions of contract.

**TECHNICAL CONDITIONS OF CONTRACT (TCC)**  
**Chapter – III: Facilities in the scope of Contractor/BHEL**

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Sl.No	Description	Scope / to be taken care by		Remarks
		BHEL	Bidder	
3.1	<b>ESTABLISHMENT</b>			
3.1.1	<b>FOR CONSTRUCTION PURPOSE:</b>			
a	Open space for office (as per availability)	Yes		Location will be finalized after joint survey with owner.
b	Open space for storage (as per availability)	Yes		Location will be finalized after joint survey with owner
c	Construction of bidder's office, canteen and storage building including supply of materials and other services		Yes	
d	Bidder's all office equipments, office / store / canteen consumables		Yes	
e	Canteen facilities for the bidder's staff, supervisors and engineers etc		Yes	
f	Fire fighting equipments like buckets, extinguishers etc		Yes	
g	Making the storage area good for enabling better stacking & Fencing of storage area, office, canteen etc.		Yes	
3.1.2	<b>FOR LIVING PURPOSES OF THE BIDDER</b>			

**TECHNICAL CONDITIONS OF CONTRACT (TCC)**  
**Chapter – III: Facilities in the scope of Contractor/BHEL**

Sl.No	Description <b>PART I</b>	Scope / to be taken care by		Remarks
		BHEL	Bidder	
a	Open space for labour colony		no	
b	Labour Colony with internal roads, sanitation, complying with statutory requirements			Bidder to find out accommodation on hire as available locally
3.2.0	<b>ELECTRICITY</b>			
3.2.1	<b>Electricity For construction purposes</b> of Voltage 415 V, A.C., 3 Phase, 50 Hz	Yes		FREE (however any taxes, duties, levy etc. as charged by customer, shall be paid by contractor.)
a	Single point source	Yes		At a distance of 1000 M from site (Distance is only tentative, it may vary upto an extent depending on site condition)
b	Further distribution including all materials, Energy Meter, Protection devices and its service		Yes	
c	Duties and deposits including statutory clearances if applicable		Yes	
3.2.2	<b>Electricity for the office, stores, canteen etc of the bidder</b>			As available from customer and charges as charged by customer
a	Single point source	Yes		At a distance of 500 M from site (Distance is only estimated, it may vary upto an extent depending on site condition)

**TECHNICAL CONDITIONS OF CONTRACT (TCC)**  
**Chapter – III: Facilities in the scope of Contractor/BHEL**

Sl.No	Description <b>PART I</b>	Scope / to be taken care by		Remarks
		BHEL	Bidder	
b	Further distribution including all materials, Energy Meter, Protection devices and its service		Yes	
c	Duties and deposits including statutory clearances if applicable		Yes	
3.2.3	<b>Electricity for living accommodation of the bidder's staff, engineers, supervisors etc</b>			As available from customer and charges as charged by customer
a	Single point source	Yes		<b>Chargeable Basis</b> At a distance of 1000 M from site (Distance is only estimated, it may vary upto an extent depending on site condition)
b	Further distribution including all materials, Energy Meter, Protection devices and its service		Yes	
c	Duties and deposits including statutory clearances if applicable		Yes	
3.3.0	<b>WATER SUPPLY</b>			
3.3.1	<b>For construction purposes:</b>			
a	Making the water available at single point		Yes	

**TECHNICAL CONDITIONS OF CONTRACT (TCC)**  
**Chapter – III: Facilities in the scope of Contractor/BHEL**

Sl.No	Description	Scope / to be taken care by		Remarks
		BHEL	Bidder	
b	Further distribution as per the requirement of work including supply of materials and execution		Yes	
3.3.2	<b><u>Water supply for bidder's office, stores, canteen etc</u></b>			
a	Making the water available at single point		Yes	
b	Further distribution as per the requirement of work including supply of materials and execution		Yes	
3.3.3	<b><u>Water supply for Living Purpose</u></b>			
a	Making the water available at single point		Yes	
b	Further distribution as per the requirement of work including supply of materials and execution		Yes	
3.4.0	<b>LIGHTING</b>			
a.	For construction work (supply of all the necessary materials) 1. At office/storage area 2. At the preassembly area 3. At the construction site /area		Yes	

**TECHNICAL CONDITIONS OF CONTRACT (TCC)**  
**Chapter – III: Facilities in the scope of Contractor/BHEL**

Sl.No	Description <b>PART I</b>	Scope / to be taken care by		Remarks
		BHEL	Bidder	
b	For construction work (execution of the lighting work/ arrangements) 1. At office/storage area 2. At the preassembly area 3. At the construction site /area		Yes	
c	Providing the necessary consumables like bulbs, switches, etc during the course of project work		Yes	
d	Lighting for the living purposes of the bidder at the colony / quarters			As available locally
3.5.0	<b>COMMUNICATION FACILITIES FOR SITE OPERATIONS OF THE BIDDER</b>			
a	Telephone, fax, internet, intranet, e-mail etc		Yes	
3.6.0	<b>COMPRESSED AIR wherever required for the work</b>			
3.7.0	<b>Demobilization of all the above facilities</b>		<b>YES</b>	
3.8.0	<b>TRANSPORTATION</b>			
a	For site personnel of the bidder		Yes	
b	For bidder's equipments and consumables (T&P, Consumables etc)		Yes	

**TECHNICAL CONDITIONS OF CONTRACT (TCC)**  
**Chapter – IV: T&Ps & MMEs to be deployed by the Contractor**

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**LIST OF TOOL & PLANTS TO BE DEPLOYED BY THE CONTRACTOR -**

<b>SN</b>	<b>DESCRIPTION OF EQUIPMENTS</b>	<b>CAPACITY (MINIMUM)</b>	<b>MINIMUM QUANTITY</b>	<b>REMARKS</b>
1	MOBILE CRANE (HYDRAULICALLY OPERATED WITH TURRET FUNCTION)	14 T	01	TO BE AVAILABLE FROM THE START OF CONTRACT PERIOD.
2	PICK & CARRY MOBILE CRANE	12 T	01	TO BE AVAILABLE FROM THE START OF CONTRACT PERIOD.
3	DIESEL FORK LIFT	3 T	01	FROM THE BEGNING
4	TRUCK	ADEQUATE CAPACITY	AS REQUIRED	
5	WOODEN SLEEPERS(*)	Assorted sizes (3' ft x 6" x 6")	2000 Nos.	Progressively from the start of work
6	SLINGS, 'D'-SHACKLES, HYDRAULIC JACKS, ETC.	AS REQUIRED	AS REQUIRED	WITH TEST REPORTS
7	TARPAULINS(**)	Size & Specs as per tender conditions(Annexure-i)	50 nos.	Progressively from the 1 <sup>st</sup> month of start of the work

**MEASURING AND MONITORING DEVICES (MMD):**

AS PER REQUIREMENT TO BE FINALISED AT SITE, SHALL MEET THE REQUIREMENTS AS PER FIELD QUALITY PLAN AND OTHER ERECTION, TESTING RELATED ACTIVITIES.

**NOTE:**

1. THIS ABOVE LIST IS ONLY INDICATIVE AND NEITHER EXHAUSTIVE NOR LIMITING. QUANTITIES INDICATED ABOVE ARE ONLY THE MINIMUM REQUIRED. CONTRACTOR SHALL DEPLOY ALL NECESSARY T&P TO MEET THE SCHEDULES & AS PRESCRIBED BY BHEL ENGINEER AND REQUIRED FOR COMPLETION OF WORK.
2. IF ABOVE MENTIONED T&P ARE NOT DEPLOYED IN SPECIFIED TIME BHEL WILL CHARGE TO CONTRACTOR AS PER GCC-REV 01.
3. IF WORK GETS DELAYED DUE TO NON AVAILABILITY OF T&P, BHEL RESERVES THE RIGHT TO GET THE WORK DONE AT THE RISK AND COST OF CONTRACTOR WITHOUT PREJUDICE TO RIGHTS OF BHEL AS IN GCC. OVERHEADS WILL BE CHARGED ON DIFFERENTIAL AMOUNT.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter – IV: T&Ps & MMEs to be deployed by the Contractor

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4. IN CASE OF NON COMPLIANCE IF ANY AS LISTED BELOW IN SL. NO. 4.1, THE CHARGES AS MENTIONED IN SL. NO. 5 SHALL BE DEDUCTED FROM THE RUNNING BILLS OF THE RESPECTIVE MONTHS.
- 4.1. LIST OF NON COMPLIANCE:
- NON AVAILABILITY/NOT WORKING CONDITION OF THE PARTICULAR CRANE CUMULATIVELY FOR MORE THAN FIVE DAYS IN THE CALENDAR MONTH DURING THE PERIOD MENTIONED IN THE DEPLOYMENT PLAN.
  - NON AVAILABILITY/NOT WORKING CONDITION OF THE PARTICULAR CRANE FOR MORE THAN FIVE CONSECUTIVE WORKING DAYS IN THE MONTH DURING THE PERIOD MENTIONED IN THE DEPLOYMENT PLAN.
5. THE DEDUCTION SHALL BE AS GIVEN BELOW:  
DEDUCTION FOR THE MONTH = OUTAGE BEYOND FIVE DAYS X (MONTHLY CRANE CHARGES/30)  
**NOTE: I) FOR CALCULATION NO. OF DAYS IN A CALENDAR MONTH IS TAKEN AS 30.**  
**II) MONTHLY CRANE CHARGES AS DERIVED IN THE PRICE BID SECTION B.**
6. THE MANUFACTURING YEAR OF ALL MAJOR T&PS DEPLOYED BY THE CONTRACTOR (14 MT AND 12 MT MOBILE CRANE) SHOULD NOT BE MORE THAN 10 YEARS AS ON THE DATE OF DEPLOYMENT. THE DOCUMENTARY PROOF TO BE SUBMITTED TO SITE INCHARGE.
7. CRANE LOG SHEET FOR EACH OF THE CRANE ON DAILY BASIS ARE TO BE CERTIFIED BY THE BHEL ENGINEER. CONTRACTOR SHALL SUBMIT THE MONTHLY RUNNING ACCOUNT BILLS ALONG WITH DULY CERTIFIED LOG SHEETS.
8. ANY OR PART OR ALL OF THE T & PS OF THE CONTRACTOR IDENTIFIED FOR THE TENDERED PACKAGE SHALL NOT BE ENGAGED FOR ANY WORKS OTHER THAN THAT OF THE WORKS INTENDED IN THIS TENDER.
9. DURING THE EXTENDED PERIOD OF CONTRACT, SERVICES OF T&PS SHALL BE PROVIDED BY THE CONTRACTOR AS PER THE INSTRUCTION OF BHEL ENGINEER. THE MONTHLY CHARGES TOWARDS DEPLOYMENT OF THE PARTICULAR CRANE SHALL BE PAID AT THE RATE OF 90 % OF MONTHLY RATE OF PRICE BID FOR A PERIOD OF 12 MONTHS AFTER COMPLETION OF CONTRACT PERIOD. THEREAFTER (CONTRACT PERIOD+12 MONTHS) RATE WILL BE DECIDED AFTER MUTUAL AGREEMENT. NO EXTRA PAYMENT SHALL BE MADE FOR T&PS OTHER THAN CRANES.
10. **(\*) THE FIRST RA BILL SHALL BE RELEASED ONLY AFTER RECEIPT OF 25% OF WOODEN SLEEPERS AT SITE. THE SUBSEQUENT RA BILLS OF NEXT THREE MONTHS WILL BE RELEASED ONLY AFTER RECEIPT OF THE BALANCE QUANTITY OF CONCRETE & WOODEN SLEEPERS IN NEXT THREE MONTHS (25% IN EACH MONTH).**
11. **(\*\*) THE FIRST RA BILL WILL BE RELEASED ONLY AFTER RECEIPT OF 25% OF TARPULINS AT SITE. THE SUBSEQUENT RA BILLS OF NEXT THREE MONTHS WILL BE RELEASED ONLY AFTER RECEIPT OF BALANCE QUANTITY OF TARPULINS IN NEXT THREE MONTHS (25% IN EACH MONTH).**

TECHNICAL CONDITIONS OF CONTRACT (TCC)  
Chapter – IV: T&Ps & MMEs to be deployed by BHEL

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**NOTE: BHEL WILL NOT PROVIDE ANY TOOLS AND PLANTS FOR THIS WORK.**

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter – VI: Time Schedule

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### 6.1 INITIAL MOBILIZATION

AFTER RECEIPT OF FAX LOI, CONTRACTOR SHALL DISCUSS WITH PROJECT MANAGER / CONSTRUCTION MANAGER REGARDING INITIAL MOBILISATION. CONTRACTOR SHALL MOBILIZE NECESSARY RESOURCES WITHIN 2 WEEKS OF ISSUE OF FAX LETTER OF INTENT OR AS PER THE DIRECTIVE OF PROJECT MANAGER / CONSTRUCTION MANAGER. SUCH RESOURCES SHALL BE PROGRESSIVELY AUGMENTED TO MATCH THE SCHEDULE OF MILESTONES AND COMMISSIONING.

### 6.2 AUGMENTATION OF MOBILISATION.

CONTRACTOR SHALL SUBSEQUENTLY AUGMENT HIS RESOURCES IN SUCH A MANNER THAT DAILY ERRANDS/ACTIVITIES SHALL BE COMPLETED ON DAILY BASIS AND THE ENTIRE WORK IS COMPLETED WITHIN THE TIME SCHEDULE/CONTRACT PERIOD. MOBILIZATION OF CONTRACTOR'S RESOURCES SHALL BE MADE AND AUGMENTED FROM TIME TO TIME IN SUCH A MANNER THAT THE WORK IN SCOPE IS CARRIED OUT IN AN UNINTERRUPTED MANNER.

### 6.3 CONTRACT PERIOD

THE CONTRACT PERIOD FOR COMPLETION OF ENTIRE WORK UNDER SCOPE SHALL BE **30 (THIRTY) MONTHS FROM THE "START OF CONTRACT PERIOD"**.

THE DATE OF RECEIPT / UNLOADING THE VERY FIRST CONSIGNMENT BY THE CONTRACTOR AS DEFINED IN SCOPE OF THIS CONTRACT SHALL BE RECKONED AS THE START OF THE CONTRACT PERIOD.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-VII: Terms of Payment

SL NO	Description of Activity	% of payment
<b>7.1.0</b>	<b>UNLOADING FROM TRUCKS/TRAILERS (For item nos A.1 &amp; A.4 of Rate Schedule)</b>	
7.1.1	UNLOADING, SHIFTING TO OPEN/ COVERED STORES	30%
7.1.2	UPDATION OF RECEIPT DETAILS, IN STORE MATERIAL REGISTERS/BHEL MM PACKAGE SYSTEM	15%
7.1.3	STACKING AND VERIFICATION	15%
7.1.4	UPDATION OF VERIFICATION DETAILS IN MATERIAL STOCK REGISTERS, SUBMISSION OF REPORTS AS PER SPECIFIED FORMATS FOR SHORTAGE/OPEN DELIVERY, LODGING OF POLICE REPORTS IF REQUIRED, DOCUMENTS FOR INSURANCE CLAIMS ETC, AND PREPARATION OF MATERIAL RECEIPT CERTIFICATES IN PRESCRIBED FORMATS WHERE EVER APPLICABLE	25%
7.1.5	IDENTIFICATION OF MATERIAL IN READY TO LIFT POSITION FOR ISSUE TO BHEL/ERECTION AGENCY, AND UPDATION OF ISSUE DETAILS IN STORES RECORDS	12%
7.1.6	COMPLETION OF CONTRACTUAL OBLIGATIONS	3%
	Total	100%
<b>7.2.0</b>	<b>UNLOADING FROM RAILWAY WAGONS AND COLLECTION FROM TRANSPORTER GODOWN (For item A.2 &amp; A.3 of Rate Schedule)</b>	
7.2.1	UNLOADING FROM RAILWAY WAGONS OR COLLECTION FROM TRANSPORTER GODOWNS, RE-LOADING, TRANSPORTATION TO SITE AND UNLOADING	30%
7.2.2	UPDATION OF RECEIPT DETAILS, IN STORE MATERIAL REGISTERS/BHEL MM PACKAGE SYSTEM	15%
7.2.3	STACKING AND VERIFICATION	15%
7.2.4	UPDATION OF VERIFICATION DETAILS IN MATERIAL STOCK REGISTERS, SUBMISSION OF REPORTS AS PER SPECIFIED FORMATS FOR SHORTAGE/OPEN DELIVERY, LODGING OF POLICE REPORT IF REQUIRED, DOCUMENTS FOR INSURANCE CLAIMS ETC, AND PREPARATION OF MATERIAL RECEIPT CERTIFICATES IN PRESCRIBED FORMATS WHERE EVER APPLICABLE	25%
7.2.5	IDENTIFICATION OF MATERIAL IN READY TO LIFT POSITION FOR ISSUE TO BHEL/ERECTION AGENCY, AND UPDATION OF ISSUE DETAILS IN STORES RECORDS	12%
7.2.6	COMPLETION OF CONTRACTUAL OBLIGATIONS	3%
7.3	<b>MATERIAL RE-SHIFTING/RE STACKING WITHIN THE PROJECT PREMISE (For item- A.5 of Rate Schedule)</b>	
7.3.1	MATERIAL RE-SHIFTING/RE STACKING	85%
7.3.2	UPDATION OF STORE MATERIAL REGISTERS/BHEL MM PACKAGE SYSTEM	12%
7.3.3	COMPLETION OF CONTRACTUAL OBLIGATIONS	3%

## TECHNICAL CONDITIONS OF CONTRACT (TCC)

### Chapter-VII: Terms of Payment

	Total	100%
<b>7.4</b>	<b>OUTGOING MATERIALS ( For item A.6 of rate Schedule)</b>	
7.4.1	IDENTIFICATION OF MATERIALS, TAGGING, PACKING IF REQUIRED, PREPARATION OF GATE PASSES ETC	40%
7.4.2	LOADING OF MATERIALS, INCLUDING T&P OF BHEL, INTO TRUCKS/CARRIERS AT SITE STORES/ERECTION SITE FOR ONWARD TRANSPORTATION TO OTHER DESTINATIONS (TRANSPORTATION BY OTHER AGENCIES.)	45%
7.4.3	UPDATION OF STORE DOCUMENTS/BHEL MM PACKAGE SYSTEM	12%
7.4.4	COMPLETION OF CONTRACTUAL OBLIGATIONS	3%
	Total	100%
<b>7.5</b>	<b>OTHERS</b>	
	<b>% from every RA Bill to be paid only after satisfactory completion otherwise forfeited</b>	
1	REMOVAL OF GRASS/WEEDS AND OTHER PLANT GROWTH IN THE STORE AREA	1%
2	PRESERVATION planned for the month	1%
3	Safe working & availability of adequate illumination at the place of work	1%
<b>7.6</b>	<b>Cranes (For Section B)</b>	
	PAYMENT FOR CRANES SHALL BE MADE ON MONTHLY BASIS AS PER THE DERIVED MONTHLY RATE OF PRICE BID AGAINST EACH CRANE. NO OTHER PAYMENT SHALL BE PAID FOR THE OTHER / ADDITIONAL T & PS DEPLOYED FOR CARRYING OUT THE WORK AS THE SCOPE OF THIS TENDER.	
<b>7.7</b>	<b>Section C (Manpower Services)</b>	
	Payment for Manpower services shall be made on monthly basis as per derived monthly rate	
SL NO	Description of Activity	% of payment
<b>7.1.0</b>	<b>UNLOADING FROM TRUCKS/TRAILERS (For item nos A.1 &amp; A.4 of Rate Schedule)</b>	
7.1.1	UNLOADING, SHIFTING TO OPEN/ COVERED STORES	30%
7.1.2	UPDATION OF RECEIPT DETAILS, IN STORE MATERIAL REGISTERS/BHEL MM PACKAGE SYSTEM	15%
7.1.3	STACKING AND VERIFICATION	15%

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-VII: Terms of Payment

7.1.4	UPDATION OF VERIFICATION DETAILS IN MATERIAL STOCK REGISTERS, SUBMISSION OF REPORTS AS PER SPECIFIED FORMATS FOR SHORTAGE/OPEN DELIVERY, LODGING OF POLICE REPORTS IF REQUIRED, DOCUMENTS FOR INSURANCE CLAIMS ETC, AND PREPARATION OF MATERIAL RECEIPT CERTIFICATES IN PRESCRIBED FORMATS WHERE EVER APPLICABLE	25%
7.1.5	IDENTIFICATION OF MATERIAL IN READY TO LIFT POSITION FOR ISSUE TO BHEL/ERECTION AGENCY, AND UPDATION OF ISSUE DETAILS IN STORES RECORDS	12%
7.1.6	COMPLETION OF CONTRACTUAL OBLIGATIONS	3%
	Total	100%
<b>7.2.0</b>	<b>UNLOADING FROM RAILWAY WAGONS AND COLLECTION FROM TRANSPORTER GODOWN (For item A.2 &amp; A.3 of Rate Schedule)</b>	
7.2.1	UNLOADING FROM RAILWAY WAGONS OR COLLECTION FROM TRANSPORTER GODOWNS, RE-LOADING, TRANSPORTATION TO SITE AND UNLOADING	30%
7.2.2	UPDATION OF RECEIPT DETAILS, IN STORE MATERIAL REGISTERS/BHEL MM PACKAGE SYSTEM	15%
7.2.3	STACKING AND VERIFICATION	15%
7.2.4	UPDATION OF VERIFICATION DETAILS IN MATERIAL STOCK REGISTERS, SUBMISSION OF REPORTS AS PER SPECIFIED FORMATS FOR SHORTAGE/OPEN DELIVERY, LODGING OF POLICE REPORT IF REQUIRED, DOCUMENTS FOR INSURANCE CLAIMS ETC, AND PREPARATION OF MATERIAL RECEIPT CERTIFICATES IN PRESCRIBED FORMATS WHERE EVER APPLICABLE	25%
7.5	<b>OTHERS</b>	
	<b>% from every RA Bill to be paid only after satisfactory completion otherwise forfeited</b>	
1	REMOVAL OF GRASS/WEEDS AND OTHER PLANT GROWTH IN THE STORE AREA	1%
2	PRESERVATION PLANNED FOR THE MONTH	1%
3	SAFE WORKING & AVAILABILITY OF ADEQUATE ILLUMINATION AT THE PLACE OF WORK	1%
7.6	<b>Cranes (For Section B)</b>	
	PAYMENT FOR CRANES SHALL BE MADE ON MONTHLY BASIS AS PER THE DERIVED MONTHLY RATE OF PRICE BID AGAINST EACH CRANE. NO OTHER PAYMENT SHALL BE PAID FOR THE OTHER / ADDITIONAL T & PS DEPLOYED FOR CARRYING OUT THE WORK AS THE SCOPE OF THIS TENDER.	
7.7	<b>Section C (Manpower Services)</b>	
	Payment for Manpower services shall be made on monthly basis as per derived monthly rate.	

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-I General

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### **8.0 TAXES, DUTIES, LEVIES (Consolidated Rev 03 dated 09/04/2013)**

#### **8.1. For All types of works excepting works covered under sl no 8.2**

##### **8.1.1**

The contractor shall pay all (save the specific exclusions as enumerated in this contract) taxes, fees, license charges, deposits, duties, tools, royalty, commissions or other charges which may be levied on the input goods & services consumed and output goods & services delivered in course of his operations in executing the contract. In case BHEL is forced to pay any of such taxes, BHEL shall have the right to recover the same from his bills or otherwise as deemed fit.

**However, provisions regarding Service Tax and Value Added Tax (VAT) on output services and goods shall be as per following clauses.**

##### **8.1.2 Service Tax & Cess on Service Tax**

Contractor's price/rates shall be exclusive of Service Tax and Cess on Services. In case, it becomes mandatory for the contractor under provisions of relevant act/law to collect the Service Tax & Cess from BHEL and pay the same to the concerned tax authorities, such applicable amount will be paid by BHEL at the prevailing Service Tax Rate (presently 12.36 %) on the admitted bill value.

**Contractor shall submit to BHEL documentary evidence of Service Tax registration certificate specifying name of services covered under this contract. Contractor shall submit serially numbered Service Tax and Cess Invoice, signed by him or a person authorized by him in respect of taxable service provided, and shall contain the following, namely,**

- 1. The name, address and the registration number of the contractor,**
- 2. The name and address of the party receiving taxable service,**
- 3. Description, classification and value of taxable service provided and,**
- 4. The service tax payable thereon.**

**All the Four conditions shall be fulfilled in the invoice before release of service tax payment.**

**Wherever, more than one route/option are available for discharge of service tax liability under a particular service, (e.g. "works contract Service"), contractor shall obtain prior written consent from BHEL site before billing the amount towards Service Tax.**

##### **8.1.3 VAT (Sales Tax /WCT)**

As regards Value Added Tax (VAT)/CST on transfer of property in goods involved in Works Contract (previously known as Works Contract Tax) applicable as per local laws, the price quoted by the contractor shall be inclusive of the same and in no case input or output VAT/CST will be reimbursed extra.

In any case the Contractor shall register himself with the respective Sales Tax authorities of the state and submit proof of such registration to BHEL along with the first RA bill. Contractor will submit all the details of VAT/CST paid for the contract in the prescribed format of the respective state VAT laws. Also, the

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-I General

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contractor will issue the tax Invoices to BHEL as per the Tax laws of respective state on monthly basis. Contractor shall also be required to furnish to BHEL necessary proof of VAT remittance on monthly basis.

Deduction of tax at source shall be made as per the provisions of law and is to be construed as an advance tax paid by the contractor and no reimbursement thereof will be made.

Further, if BHEL, at the instance of customer or otherwise adopts the specific route for discharging output VAT liability itself, benefit of the reduction in liability of the contractor will be passed on to BHEL.

In case, BHEL is forced to pay any VAT liability on behalf of contractor, the same will be recovered from contractor's bill or otherwise as deemed fit

### 8.2 'Enabling Works'

~~The contractor shall pay all (save the specific exclusions as enumerated in this contract) taxes, fees, license charges, deposits, duties, tools, royalty, commissions or other charges which may be levied on the input goods & services consumed and output goods & services delivered in course of his operations in executing the contract. In case BHEL is forced to pay any of such taxes, BHEL shall have the right to recover the same from his bills or otherwise as deemed fit. ( i.e. rates quoted by bidder shall be inclusive of Service Tax, VAT/WCT and all other taxes and duties )~~

~~However, Since the proposed work is in the nature of 'Works Contract service' as per Service tax law, Hence, For non-corporate contractors being Individual, HUF, Proprietary Firm, Partnership Firm or Association of Persons (AOP), BHEL shall recover the applicable Service Tax under reverse charge mechanism from the contractor and remit the same with the Government as per the provisions of Law. Necessary advice/confirmation of remittance shall be issued to the contractor. The contractor shall not be eligible for any refund/reimbursement of such service tax from BHEL. It shall be the responsibility of the contractor to submit proper invoice giving all the requisite details as per Service Tax Law for the determination of the service tax liability of BHEL under reverse charge mechanism. BHEL reserves the right to determine such liability based on the invoice submitted by the contractor or otherwise independently and remittance of the same with the Government.~~

### 8.3 New Taxes/Levies

In case the Government imposes any new levy/tax on the output service/ goods/work after award of the contract, the same shall be reimbursed by BHEL at actual.

In case any new tax/levy/duty etc. becomes applicable after the date of Bidder's offer, the Bidder/Contractor must convey its impact on his price duly substantiated by documentary evidence in support of the same **before opening of Price Bid**. Claim for any such impact after opening the Price Bid will not be considered by BHEL for reimbursement of tax or reassessment of offer.

No reimbursement/recovery on account of increase/reduction in the rate of taxes, levies, duties etc. on input goods/services/work shall be made. Such impact shall be taken care of by the Price Variation/Adjustment Clause (PVC) if any. In case PVC is not applicable for the contract, Bidder has to make his own assessment of the impact of future variation if any, in rates of taxes/duties/ levies etc. in his pricebid.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-I General

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### 9.1

THE INTENT OF SPECIFICATION IS TO PROVIDE MATERIAL HANDLING AND MATERIALS MANAGEMENT SERVICES ACCORDING TO THE MOST MODERN AND PROVEN TECHNIQUES AND CODES. THE OMISSION OF SPECIFIC REFERENCE TO ANY METHOD, EQUIPMENT OR MATERIALS NECESSARY FOR PROPER AND EFFICIENT UNLOADING, TRANSPORTATION, VERIFICATION, STACKING & PRESERVATION ETC SHALL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF PROVIDING SUCH FACILITIES TO COMPLETE THE WORK WITHOUT ANY EXTRA COMPENSATION.

### 9.2

THE WORK SHALL BE EXECUTED UNDER USUAL CONDITIONS AFFECTING MAJOR THERMAL POWER PROJECTS IN AN EXISTING POWER PLANT AND IN CONJUNCTION WITH NUMEROUS OTHER OPERATIONS AT SITE. THE CONTRACTOR AND HIS PERSONNEL SHALL COOPERATE WITH PERSONNEL OF CUSTOMER'S CONTRACTORS, COORDINATING HIS WORK WITH OTHERS AND PROCEED IN A MANNER THAT SHALL NOT DELAY OR HINDER THE PROGRESS OF WORK AS A WHOLE.

### 9.3

ALL THE WORK SHALL BE CARRIED OUT AS PER THE INSTRUCTIONS OF BHEL ENGINEER. BHEL ENGINEER'S DECISION REGARDING CORRECTNESS OF THE WORK AND METHOD OF WORKING SHALL BE FINAL AND BINDING ON THE CONTRACTOR.

### 9.4

THE CONTRACTOR SHALL PERFORM ALL REQUIRED SERVICES WHICH MAY NOT BE SPECIFIED HEREIN BUT NEVERTHELESS REQUIRED FOR THE COMPLETION OF WORK WITHIN QUOTED RATES.

### 9.5

ALL NECESSARY CERTIFICATES AND LICENSES REQUIRED TO CARRY OUT THIS WORK ARE TO BE ARRANGED BY THE CONTRACTOR EXPEDITIOUSLY.

### 9.6

ALL CRANES, TRANSPORT EQUIPMENTS, HANDLING EQUIPMENT, TOOLS, TACKLES, FIXTURES, EQUIPMENT, MANPOWER, SUPERVISORS/ENGINEERS, CONSUMABLES ETC REQUIRED FOR THIS SCOPE OF WORK SHALL BE PROVIDED BY THE CONTRACTOR.

### 9.7

ALL EXPENDITURE INCLUDING TAXES AND INCIDENTALS IN THIS CONNECTION WILL HAVE TO BE BORNE BY THE CONTRACTOR UNLESS OTHERWISE SPECIFIED IN THE RELEVANT CLAUSES ELSEWHERE IN THESE SPECIFICATIONS. THE CONTRACTOR'S QUOTED RATES SHALL INCLUDE ALL SUCH CONTINGENCIES. IN THIS CONNECTION REFER RELEVANT CLAUSE OF GENERAL CONDITIONS OF CONTRACT.

### 9.8

THE CONTRACTOR SHALL PERFORM ALL REQUIRED SERVICES WHICH MAY NOT BE SPECIFIED HEREIN BUT NEVERTHELESS REQUIRED FOR THE COMPLETION OF WORK WITHIN QUOTED RATES.

### 9.9

THE DISTANCES INDICATED IN THESE SPECIFICATIONS ARE ONLY APPROXIMATE. HOWEVER, THE TENDERERS SHOULD ASSESS THE VARIOUS DISTANCES AND SITE CONDITIONS BY VISITING SITE BEFORE SUBMITTING THEIR OFFER. NO ADDITIONAL/EXTRA CLAIMS FOR ANY VARIATION IN THIS REGARD WILL BE ENTERTAINED.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-I General

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9.10

CONTRACTOR SHALL ARRANGE FOR CUTTING AND REMOVAL OF VEGETATION GROWTH/GRASS ETC IN THE STORAGE YARD AS AND WHEN CALLED FOR BY BHEL AS INCIDENTAL TO WORK. BHEL WILL TAKE APPROPRIATE ACTION AT THE RISK & COST OF THE CONTRACTOR IN CASE OF FAILURE IN THIS REGARD.

9.11

IF THE CONTRACTOR OR HIS WORKMEN OR EMPLOYEES BREAK, DEFACE, INJURE OR DESTROY ANY PART OF A BUILDING, ROAD, KERBS, FENCE, ENCLOSURES, WATER PIPES, CABLES, DRAINS, ELECTRIC OR TELEPHONE POSTS OR WIRES, TREES OR ANY OTHER PROPERTY OR TO ANY PART OF ERECTED EQUIPMENTS, STORED COMPONENTS ETC. WITHIN THE PROJECT PREMISES OR OUTSIDE THE CONTRACTOR SHALL MAKE THE SAME GOOD AT HIS OWN EXPENSES.

9.12

SLEEPERS & TARAPULINS WILL BE RETURNED BACK AFTER THE COMPLETION OF CONTRACT PERIOD TO THE CONTRACTOR ON AS IS WHERE IS BASIS.

9.13

HOUSEKEEPING OF CLOSED SHEDS AND SEMICLOSED SHEDS ARE ALSO INCLUDED IN THE SCOPE OF WORK. CONTRACTOR SHALL CARRY OUT THE HOUSEKEEPING WORKS ON REGULAR INTERVALS (ONCE A WEEK).

9.14

TARAPULINS SPECIFICATION IS GIVEN IN ANNEXURE – I.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-II MATERIAL HANDLING AND MATERIAL MANAGEMENT OF MATERIALS RECEIVED BY ROAD

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### 10.1

MAJORITY OF CONSIGNMENTS SHALL REACH SITE DIRECTLY FOR DELIVERY. HOWEVER A GOOD NUMBER OF CONSIGNMENTS SHALL BE BOOKED ON GODOWN DELIVERY BASIS OR DOOR DELIVERY AGAINST CONSIGNEE COPY BASIS, THE PROCEDURE OF MATERIAL COLLECTION SHALL BE ADOPTED AS DETAILED IN RELEVANT CHAPTER

### 10.2

IT WILL BE RESPONSIBILITY OF THE CONTRACTOR TO KEEP IN TOUCH WITH OFFICIALS OF BHEL REGARDING ADVANCE INFORMATION ABOUT ARRIVAL OF CONSIGNMENTS. THE CONTRACTOR SHALL COLLECT LORRY WAY BILLS OR OTHER SUCH DESPATCH DOCUMENTS.

### 10.3

THE CONTRACTOR SHALL REMAIN IN REGULAR CONTACT WITH THE CONCERNED TRANSPORTERS OR BASED ON THE DESPATCH DETAILS OBTAINED AS STATED ABOVE AND MAKE ALL NECESSARY ARRANGEMENTS FOR COLLECTION / RECEIPT OF THE CONSIGNMENT AS APPLICABLE. CONTRACTOR SHALL TAKE ADVANCE ACTION TO DEPLOY ALL NECESSARY RESOURCES FOR LOCAL TRANSPORTATION, HANDLING AND UNLOADING OF THE ANTICIPATED CONSIGNMENTS SO AS TO ENSURE NO LOSS OF TIME UPON ARRIVAL OF THE CONSIGNMENTS.

### 10.4

PAYMENT OF DEMURRAGE/ WHARFAGE ETC., WHICH RESULT DUE TO CONTRACTOR'S FAULT, SHALL BE THE RESPONSIBILITY OF CONTRACTOR AND TO HIS ACCOUNT. IF BHEL HAS TO MAKE PAYMENT OF SUCH DEMURRAGE/ WHARFAGE TOGETHER WITH FREIGHT (PAYMENT OF FREIGHT ALONE IS IN BHEL SCOPE), THE AMOUNTS SO PAID AS DEMURRAGE/WHARFAGE FOR THE REASONS STATED ABOVE SHALL BE PAID TO BHEL BY THE CONTRACTOR FORTHWITH OR SHALL BE RECOVERED FROM THE BILL PAYMENTS DUE TO THE CONTRACTOR.

### 10.5

IT WOULD BE RESPONSIBILITY OF THE CONTRACTOR TO EXAMINE THE PACKAGES, CONSIGNMENTS ETC. IMMEDIATELY ON ARRIVAL AND BRING TO THE NOTICE OF BHEL AUTHORITIES REGARDING LOSS/DAMAGE/SHORTAGE/DISCREPANCY, IF ANY, OBSERVED IN THE CONSIGNMENTS BEFORE TAKING DELIVERY OF THE SAME.

### 10.6

ANY DISCREPANCY/SHORTAGE/DAMAGE FOUND IN THE CONSIGNMENT AFTER TAKING CLEAN DELIVERY FROM THE CARRIERS SHALL BE THE RESPONSIBILITY OF CONTRACTOR AND THE RESULTANT LOSS TO BHEL ON SUCH ACCOUNT SHALL BE RECOVERABLE FROM THE CONTRACTOR.

### 10.7

CONSIGNMENTS ARE EXPECTED TO ARRIVE DURING ANY TIME OF THE DAY, AND COUNT DOWN FOR DETENTION/DEMURRAGE/WHARFAGE CHARGES IS LIABLE TO START IMMEDIATELY. UNLOADING OF SUCH CONSIGNMENTS MAY BE NECESSITATED EVEN IN THE NIGHT OR ROUND THE CLOCK. CONTRACTOR SHALL ARRANGE TO DEPLOY HIS RESOURCES IMMEDIATELY AND CONTINUE ROUND THE CLOCK ON SUCH OCCASIONS WITHOUT ANY ADDITIONAL COST TO BHEL. CONTRACTOR SHALL ARRANGE ALL NECESSARY RESOURCES INCLUDING SPOT LIGHTING FOR WORKING AT NIGHT. THE CONTRACTOR SHALL SIMILARLY UNLOAD CONSIGNMENTS ARRIVING ON WEEKLY OFF DAYS AND HOLIDAYS.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-II MATERIAL HANDLING AND MATERIAL MANAGEMENT OF MATERIALS RECEIVED BY ROAD

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10.8

UNLOADING AT STORAGE AREA/WORK SITE, STACKING AND RESTACKING IF NECESSITY ARISES, OF ALL MATERIALS INCLUDING HEAVY/SOPHISTICATED EQUIPMENTS LIKE TUBED WALL PANELS OF BOILER, HEAVY MOTORS, HEAVY BEARING PEDESTALS, ELECTRICAL PANELS AND TG EQUIPMENT LIKE HEAVY TURBINE COMPONENTS, PUMPS, PANELS, ETC. SHALL BE DONE AS PER STORAGE AND PRESERVATION MANUAL OF RELEVANT EQUIPMENT/COMPONENTS OF BHEL AND/OR AS PER DIRECTIONS OF BHEL ENGINEER.

10.9

THE CONTRACTOR SHALL VERIFY THE CONSIGNMENTS IN DETAIL **WITHIN 12 DAYS OF RECEIPT AND REPORT THE DISCREPANCIES IN PRESCRIBED FORMATS NOT LATER THAN 14<sup>TH</sup> DAY.** ANY LOSS ON ACCOUNT OF DELAYED REPORTING SHALL BE RECOVERABLE FROM CONTRACTORS BILL/ANY PAYMENT DUE. CONTRACTOR SHALL ARRANGE ALL FACILITIES TO OPEN PACKAGES - WHERE REQUIRED IN THE PRESENCE OF BHEL ENGINEER, VERIFY THE CONTENTS, REPACK WHEREVER AND WHENEVER CALLED FOR AND PROPERLY STACK THEM AS PER STORAGE MANUAL OR/AND AS MAY BE DIRECTED BY BHEL.

10.10

THE MATERIAL SHALL BE SO STACKED THAT IT SHOULD FACILITATE EASY IDENTIFICATION, RETRIEVAL AND HANDLING FOR ISSUE AS AND WHEN NEED ARISES.

10.11

PRE-DEFINED IDENTIFICATION SYSTEM OF THE LOCATIONS OF OPEN STORAGE YARD, SEMI-CLOSED SHED, COVERED STORES AS WELL AS STORAGE RACKS HAS TO BE DESIGNED BY THE CONTRACTOR WITH THE APPROVAL OF BHEL. CONTRACTOR SHALL PUT UP PROMINENT IDENTIFICATION BOARDS OF SEGMENTAL LOCATIONS (FOR OPEN AND SEMI-CLOSED STORES) OR INSCRIPTION (ON THE STORAGE RACKS) WITH CLEAR VISIBILITY FROM A DISTANCE. CONTRACTOR SHALL ALSO ARRANGE TO DISPLAY PLOT PLAN AT REGULAR INTERVALS IN THE COVERED/SEMI-CLOSED/OPEN STORAGE. THE CONTRACTOR SHALL ARRANGE PROPER DISPLAYS/SIGNS FOR VARIOUS REQUIREMENTS AS PER INSTRUCTIONS OF BHEL.

THE DISPLAY BOARDS SHALL BE MADE WITH STRUCTURAL STEEL & M.S. PLATES AND SHALL BE PAINTED WITH SYNTHETIC ENAMEL PAINT. CONTRACTOR SHALL HAVE TO PERIODICALLY REPEAT SUCH EXERCISE AS THE ORIGINAL DISPLAYS MAY GET LOST / DAMAGED / DETERIORATE WITH TIME. ALL MATERIALS AND CONSUMABLES FOR THIS PURPOSE SHALL BE ARRANGED BY THE CONTRACTOR. CONTRACTOR SHALL HAVE TO MAKE HIS OWN ARRANGEMENTS INCLUDING SUPPLY OF MATERIALS FOR DISPLAYING THE PROPER IDENTIFICATION TAGS, BOARDS, MARKING, INSCRIPTION ETC. AS SCOPE OF WORK.

10.12

THE CONTRACTOR SHALL EXECUTE THE WORK IN A PROFESSIONAL MANNER. THE STORES SHALL BE HANDLED WITH DUE CARE AND DILIGENCE. THE CONTRACTOR AT HIS RISK AND COST SHALL MAKE GOOD ANY LOSS TO BHEL DUE TO CONTRACTOR'S LAPSE.

10.13

FOR ALL CONSIGNMENTS, OBSERVATIONS REGARDING LOSS/DAMAGE/SHORTAGE/ DISCREPANCY IS TO BE RECORDED IN APPROPRIATE DOCUMENT AND INFORMED TO BHEL. IN CASE IT BECOMES NECESSARY TO TAKE '**OPEN DELIVERY**' FROM THE AUTHORITIES, CONTRACTOR SHALL MAKE ALL ARRANGEMENTS FOR TAKING OPEN DELIVERIES. ALL EXPENSES CONNECTED THEREWITH SHALL BE TO THE ACCOUNT OF CONTRACTOR. ANY LOSS THAT ACCRUES TO BHEL ON ACCOUNT OF SUCH

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-II MATERIAL HANDLING AND MATERIAL MANAGEMENT OF MATERIALS RECEIVED BY ROAD

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FAILURES SHALL BE DEBITED TO THE CONTRACTOR AND RECOVERY EFFECTED FROM HIS RUNNING BILLS.

### **10.14 HANDLING HEAVIER CONSIGNMENTS:**

#### 10.14.2

CONTRACTOR SHALL SUBMIT PROCEDURE WITH SKETCHES OF HANDLING OF ALL HEAVY COMPONENTS TO BHEL WELL IN ADVANCE AND OBTAIN PRIOR APPROVAL BEFORE UNLOADING AND STACKING.

#### 10.15

SINCE THIS CONTRACT IS INTENDED TO BE A COMPLETE PACKAGE FROM MATERIAL RECEIPT THROUGH ISSUE/TRANSACTIONS RIGHT UPTO MATERIAL RECONCILIATION, FULL RESPONSIBILITY W.R.T THE PROPER UPKEEP OF FACILITIES E.G. COMPUTERS, STATIONARY ITEMS; ENSURING BEFITTING DISCIPLINE AMONG THE STORE ASSISTANTS/STAFF UNDER ITS CONTROL AND ACCOUNTING OF MATERIALS ON STOCK SHALL REST WITH THE CONTRACTOR AT ALL TIMES.

IN THE REMOTE POSSIBILITY OF ANY UNTRACEABLE MATERIAL, CUSTOMARILY BHEL HAS TO PROCESS THE INSURANCE CLAIM. TO KICK OFF SUCH CLAIM, THE CONTRACTOR SHALL RENDER ALL NECESSARY ASSISTANCE INCLUDING AUGMENTATION OF DOCUMENTS (FIR ETC) WITHIN THE QUOTED PRICE AS MAY BE REQUIRED FOR REALIZATION OF THE INSURANCE CLAIM.

#### 10.16

THE CONTRACTOR UNDER THIS CONTRACT SHALL COMPLETE INDUCTION OF FOLLOWING CATEGORIES OF RESOURCES WITHIN THE QUOTED ITEM RATES, TO ENSURE ESTABLISHMENT OF PROPER **MATERIALS MANAGEMENT** AT THE PROJECT SITE.

- 1. COMPUTERS (along with experienced Operators) WITH LATEST UP-GRADATION, PRINTER, MEMORY AND COMPATIBLE WITH BHEL COMPUTERS/LAN EQUIPMENT TO BE INSTALLED/USED WITHIN BHEL SITE OFFICE- 02 SETS**
2. ITEM RATE IN THE RATE SCHEDULE HAS SPECIFIC MENTION OF "MATERIALS MANAGEMENT" WITH SOLE PURPOSE TO EMPHASIZE THE REQUIREMENT OF SUFFICIENT NO. OF ADEQUATELY QUALIFIED MANPOWER TO ENSURE BEST OBTAINABLE QUALITY OF WORK. ACCORDINGLY, SUPERVISORS/MANPOWER (APART FROM WORKMEN ON CRANES AND MATERIAL HANDLING PURPOSE) AS INDICATED AGAINST EACH ACTIVITY IN THE TABLE BELOW, NORMALLY TO WORK AT (BUT NOT LIMITED TO) BHEL SITE OFFICE

### **RESPONSIBILITIES OF THE CONTRACTOR -**

#### **(1) RECEIPT & ISSUE**

SCOPE INCLUDES EXECUTION OF VARIOUS ACTIVITIES AS FOLLOWS:

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-II MATERIAL HANDLING AND MATERIAL MANAGEMENT OF MATERIALS RECEIVED BY ROAD

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- (I) RECEIPT, UNLOADING, CARRYING OUT RECEIPT INSPECTION, DETAILED VERIFICATION, STACKING AND REGULAR STOCK VERIFICATION OF PROJECT MATERIALS AT SITE.
- (II) PREPARING VARIOUS REPORTS AT APPROPRIATE STAGES AND REPORTING DAMAGE/LOSS DURING RECEIPT AS WELL AS STORAGE AND ANY OTHER ASSOCIATED RESPONSIBILITY AS ASSIGNED BY BHEL FROM TIME TO TIME. RESPONSIBILITY SHALL INCLUDE THE FOLLOWING ACTIVITIES:
- a. EXAMINATION OF INCOMING CONSIGNMENTS TO DETECT ANY LOSS OR SHORTAGE OR OUTWARD DAMAGE AND RECORDING IT ON THE LR/LWB BEFORE MAKING ACKNOWLEDGEMENT OF IT'S RECEIPT FROM THE TRANSPORTER AND SIMULTANEOUSLY OBTAINING ENDORSEMENT OF THE VEHICLE DRIVER ON THE SAME.
  - b. REPORTING SUCH DISCREPANCY TO BHEL IMMEDIATELY ON RECEIPT OF CONSIGNMENT.
  - c. ASSISTING BHEL IN LODGING INSURANCE CLAIMS IN RESPECT OF LOSS/DAMAGE AS STATED ABOVE.
- (III) ISSUE OF MATERIALS TO BHEL'S ERECTION CONTRACTORS, PRESERVATION OF STACKED MATERIALS, RE-STACKING/RE-HANDLING AS NECESSARY, PROGRESSIVE AND FINAL RECONCILIATION WITH BHEL'S ERECTION AGENCIES AND PREPARATION OF NECESSARY DOCUMENT/ RECORD IN RESPECT OF THESE ACTIVITIES.
- (IV) RETURN OF EXCESS/DEFECTIVE MATERIALS BY VARIOUS ERECTION CONTRACTORS OF BHEL.

### EXPECTED MINIMUM QUALITY OF SERVICE

CONTRACTOR SHALL RENDER THE SERVICES BY ENSURING DEPLOYMENT OF REQUISITE PERSONNEL WITH ADEQUATE EDUCATIONAL QUALIFICATION HAVING THOROUGH EXPERIENCE IN RELATED FIELD TO ENABLE UNDERSTANDING THE INTRICACIES OF AND SPECIAL REQUIREMENTS INVOLVED IN HANDLING OF PROJECT MATERIALS, INCONSISTENCIES AND UNCERTAINTIES ASSOCIATED WITH IN/OUT FLOW OF MATERIALS, PROJECT ACTIVITIES AT ODD HOURS & HOLIDAYS AND IRREGULAR WORKING HOURS. CONTRACTOR SHALL ENSURE PROMPT AND TIMELY AVAILABILITY OF SUCH SERVICES.

### **(2) PRESERVATION OF COMPONENTS -**

CONTRACTOR SHALL ARRANGE FOR PRESERVATION OF COMPONENTS AS PER BHEL'S STORAGE AND PRESERVATION MANUAL AND/OR AS PER INSTRUCTIONS OF BHEL ENGINEERS.

ONE OR MORE OF FOLLOWING METHODS SHALL BE ADOPTED FOR PRESERVATION.

- 1) COATING WITH PRESERVATIVE PAINTS/LUBRICANT/INHIBITORS

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-II MATERIAL HANDLING AND MATERIAL MANAGEMENT OF MATERIALS RECEIVED BY ROAD

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- 2) CAPPING/WRAPPING/COVERING
- 3) FILLING/IMMERSION IN OIL/CHEMICALS ETC
- 4) PERIODIC CHECKS/MAINTAINING REQUIRED NITROGEN PRESSURE IN TANKS OF TRANSFORMERS; BHEL WILL PROVIDE THE NITROGEN GAS FOR THE SAME. HOWEVER CONTRACTOR SHALL HANDLE THE CYLINDERS AT STORES, TRANSPORT TO POINT OF USE, FIT-UP REFILLS AND RETURN EMPTY CYLINDERS TO BHEL STORES.
- 5) HT MOTORS

FOR PRESERVATION OF HT MOTORS, SPACE HEATERS HAVE TO BE KEPT ENERGIZED TO AVOID INGRESS OF MOISTURE. INSULATION RESISTANCE HAS TO BE MEASURED AND RECORDED AT SPECIFIED INTERVALS TILL THESE ARE ISSUED FOR ERECTION. BHEL WILL PROVIDE NECESSARY CABLES, SWITCHES ETC. FOR THIS, HOWEVER CONTRACTOR SHALL INSTALL, OPERATE AND MAINTAIN THE SAME.

BHEL WILL PROVIDE FREE OF COST ALL PRESERVATIVES LIKE PRESERVATIVE OIL, LUBRICANTS, CHEMICALS, INHIBITORS, CAPS ETC EXCEPT PRIMERS & PAINTS. CONTRACTOR SHALL PROVIDE RED OXIDE ZINC CHROMATE (ROZC) PRIMER CONFORMING TO IS: 2074 OF REPUTED MANUFACTURES (E.G. ASIAN PAINTS, BERGER, JENSON & NICHOLSON, BOMBAY PAINTS, SHALIMAR OR ANY OTHER BHEL APPROVED MANUFACTURER) REQUIRED FOR PRESERVATION SHALL BE PROVIDED BY THE CONTRACTOR AND USED FOR THIS PURPOSE.

IN THE PROCESS THE IDENTIFICATION MARKS, COMPONENT/MATERIAL CODES, MATCH MARKS MAY HAVE TO BE REPAINTED. THIS WORK AFTER PRESERVATION COMPONENTS ARE TO BE STACKED PROPERLY, PERIODICAL REPORTS ON THE PRESERVATION CARRIED OUT SHOULD BE SUBMITTED TO BHEL IN THE PRESCRIBED FORMATS.

### **(3) RECORD KEEPING –**

CONTRACTOR SHALL PREPARE, MAINTAIN AND UPDATE VARIOUS MM RECORDS, ASSOCIATED WITH MATERIALS MANAGEMENT OPERATION OF BHEL AT PROJECT SITE. TWO SYSTEMS OF RECORD KEEPING/CAPTURING INFORMATION & DATA AT VARIOUS STAGES ARE IN VOGUE VIZ.

- i. MANUAL LEDGERS & RECORDS.
- ii. COMPUTERIZED DATABASE APPLICATION: BHEL HAS DEVELOPED A SOFTWARE APPLICATION NAMED **E-STORE** THAT CAPTURES ALL THE DATA IN THE ENTIRE CHAIN OF TRANSACTIONS STARTING WITH MASTER LIST OF PROJECT MATERIALS, RECORDS OF DISPATCH, RECEIPT, INSPECTION, ISSUE, RETURN, CONSUMPTION ETC.

SOME OF THESE RECORDS ARE MASTER SHIPPING/PACKING LIST, LR/RR REGISTER, DAYBOOK REGISTER, STOCK REGISTER, RECORDS OF ISSUES TO & RETURN OF MATERIALS IN RESPECT OF VARIOUS ERECTION SUBCONTRACTORS, INSURANCE CLAIM RECORDS, PERIODICAL STATUS REPORTS IN VARIOUS FORMATS COVERING DESIRED ASPECTS AND OUTPUT INFORMATION AS PER BHEL/CLIENT'S REQUIREMENT.

**TECHNICAL CONDITIONS OF CONTRACT (TCC)**  
**Chapter-II MATERIAL HANDLING AND MATERIAL MANAGEMENT OF**  
**MATERIALS RECEIVED BY ROAD**

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CONTRACTOR WILL PROVIDE NECESSARY HARDWARE, SOFTWARE & STATIONARY ETC. AND SHALL TAKE UTMOST CARE TO ENSURE THAT THESE PROPERTIES AND RECORDS ARE PROTECTED FROM ANY DAMAGE OR LOSS. BHEL WILL RECOVER THE COST OF SUCH PROPERTY / EXPENSES OF RESTORATION FROM THE CONTRACTOR WITH OVERHEAD CHARGES IN CASE OF ANY LOSS/DAMAGE ATTRIBUTABLE TO NEGLIGENCE/FAILURE ON CONTRACTOR'S PART.

<b>SL NO</b>	<b>ACTIVITY/DESCRIPTION</b>	<b>MINIMUM NO. OF PERSONS</b>	<b>REMARKS</b>
1	MATERIALRECEIPT/UNLOADING, COLLECTION/ BOOKINGS/PRESERVATION	2	TO BE DEPLOYED FROM BEGINNING
2	DETAILED VERIFICATION	1	TO BE DEPLOYED FROM BEGINNING
3	MATERIAL ISSUE	1	TO BE DEPLOYED FROM BEGINNING
4	RECORD KEEPING (ALSO INCLUDES T&P STOCK, MRC, ASSISTANCE IN INSURANCE CLAIMS, PURCHASE ETC)	2	TO BE DEPLOYED FROM BEGINNING

**NOTE:** THE NO. OF PERSONS INDICATED ABOVE IS TENTATIVE AND ACTUAL DEPLOYMENT MAY VARY BASED ON WORK LOAD AND SITE REQUIREMENT. **THE MANPOWER REQUIREMENT SHALL BE FINALISED IN THE BEGINNING OF THE CONTRACT PERIOD WITH ENGINEER INCHARGE.** THIS DOES NOT ABSOLVES THE CONTRACTOR FROM HIS RESPONSIBILITY TOWARDS THE SATISFACTORY EXECUTION OF THE JOB

IN CASE THE CONTRACTOR DOES NOT DEPLOY OR DELAYS DEPLOYMENT OF ABOVE SAID MANPOWER WITH REFERENCE TO SPECIFIC INSTRUCTIONS FROM BHEL, BHEL WILL RECOVER NON-REFUNDABLE PENALTY PER MAN- DAY @ Rs 500

SEPARATE RECORDS FOR MATERIAL UNLOADING, VERIFICATION AND ISSUES TO ERECTION VENDORS TO BE MAINTAINED

DAILY POSITION STATUS OF MATERIAL RECEIPTS & STACKING AND ISSUES TO BE SUBMITTED.

DETAILS OF LABOUR/MANPOWER & STAFF DEPLOYMENT TO BE SUBMITTED ON DAILY BASIS.

**10.17**

PAYMENT FOR ALL MATERIALS INCLUDING OVER DIMENSIONAL AND HEAVIER COMPONENTS SHALL BE REGULATED ON THE ACCEPTED UNIT **RATE -ITEM NO A.1 OF RATE SCHEDULE. ITEM NO. A.1 OF RATE SCHEDULE IS INCLUSIVE OF PAYMENT AGAINST ABOVE LISTED MANPOWER. No separate payment will be made for the above listed manpower.**

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-IV RESHIFTING AND RESTACKING

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### 2.1 RE-SHIFTING AND RE-STACKING

OWING TO SEVERAL PROJECT REQUIREMENTS, MANY COMPONENTS MAY HAVE TO BE SHIFTED FROM ORIGINALLY STACKED LOCATIONS TO ELSEWHERE WITHIN THE PROJECT PREMISES FOR THE LEAD DISTANCE NOT EXCEEDING 2.5 KMS. THIS MAY INVOLVE LOADING OF SUCH MATERIAL ONTO A VEHICLE MOVING TO A NEW LOCATION AND UNLOADING/STACKING INCLUDING PROPER INSCRIPTION OF IDENTIFICATION MARKS IF NEEDED. LIST OF ITEMS DULY CERTIFIED BY BHEL OFFICIAL, SHIFTED, UPDATED STOCK RECORDS ABOUT CHANGE IN LOCATION ETC SHALL BE PREPARED/SUBMITTED ALONG WITH THE MONTHLY BILLS

SEPARATE ITEM RATE IS THERE FOR RESHIFTING AND RE-STACKING OF STACKED MATERIALS AND THE PAYMENT WILL BE REGULATED ON PRO-RATA BASIS ON THE ACCEPTED UNIT **RATE AS PER SL NO A.5 OF RATE SCHEDULE**

### 12.2 RE-STACKING/RE-ARRANGING

OVER A PERIOD OF TIME, RESTACKING/REARRANGING OF THE MATERIALS STACKED EARLIER MAY ARISES DUE TO VARIOUS REASONS. THE HANDLING OF SUCH ITEMS WILL ALSO BE IN THE SCOPE OF THIS CONTRACT. THE RESTACKING/ RE-HANDLING MAY BE NECESSITATED FOR ANY EQUIPMENT/ MATERIALS COVERED WITHIN THIS WORK SPECIFICATION. CONTRACTOR SHALL DEPLOY NECESSARY RESOURCES LIKE MANPOWER, T&P, EQUIPMENTS ETC TO CARRY OUT THIS EXERCISE INCLUDING PROPER INSCRIPTION OF IDENTIFICATION MARKS IF NEEDED. LIST OF ITEMS DULY CERTIFIED BY BHEL OFFICIAL, RESTACKED, UPDATED STOCK RECORDS ABOUT CHANGE IN LOCATION ETC SHALL BE PREPARED/SUBMITTED ALONG WITH THE MONTHLY BILLS

RESTACKING AND REARRANGING SHALL BE APPLICABLE FOR MATERIALS RETURNED BY BHEL'S ERECTION CONTRACTORS ALSO.

BIDDER SHALL NOT QUOTE ANY SEPARATE RATE FOR RE-STACKING/RE-ARRANGING OF MATERIAL. **THE RATE SHALL BE DERIVED AS 40% OF UNIT RATE CALCULATED FOR ITEM NO A.5 OF RATE SCHEDULE.**

**TECHNICAL CONDITIONS OF CONTRACT (TCC)**  
**Chapter-V MATERIAL HANDLING AND MATERIAL MANAGEMENT OF**  
**MATERIAL COLLECTION/ DISPATCHES**

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**13.1 INCOMING MATERIALS (SMALLS ETC)**

13.1.1

EVEN THOUGH MAJORITY OF CONSIGNMENTS SHALL REACH SITE DIRECTLY FOR DELIVERY, A GOOD NUMBER OF CONSIGNMENTS SHALL BE BOOKED ON GOWDOWNS DELIVERY/ DOOR DELIVERY BASIS AGAINST ORIGINAL CONSIGNEE COPY BASIS, THE PROCEDURE OF MATERIAL COLLECTION SHALL BE ADOPTED AS DETAILED HERE BELOW:

13.1.2

CONTRACTOR SHALL KEEP IN TOUCH WITH OFFICIALS OF BHEL REGARDING ADVANCE INFORMATION ABOUT ARRIVAL OF CONSIGNMENTS. THE CONTRACTOR SHALL COLLECT ORIGINAL LRs/RRs/LORRY WAY BILLS OR OTHER SUCH DISPATCH DOCUMENTS

13.1.3

THE CONTRACTOR SHALL REMAIN IN REGULAR CONTACT WITH THE CONCERNED TRANSPORTERS OR RAILWAYS BASED ON THE DISPATCH DOCUMENTS OBTAINED AS STATED ABOVE AND MAKE ALL NECESSARY ARRANGEMENTS FOR COLLECTION / RECEIPT OF THE CONSIGNMENT AS APPLICABLE. CONTRACTOR SHALL TAKE ADVANCE ACTION TO DEPLOY ALL NECESSARY RESOURCES FOR LOCAL TRANSPORTATION, HANDLING AND UNLOADING OF THE ANTICIPATED CONSIGNMENTS SO AS TO ENSURE NO LOSS OF TIME UPON ARRIVAL OF THE CONSIGNMENTS. LOADING AT TRANSPORTERS GODOWN, LOCAL TRANSPORT UP TO BHEL/ CLIENT'S STORES/ SITE AND UNLOADING AT STORES/STORAGE YARD/SITE, VERIFICATION AND STACKING SHALL ALSO BE IN THE SCOPE OF CONTRACT.

13.1.4

DETENTION CHARGES/ DEMURRAGE/ WHARFAGE ETC., WHICH RESULT DUE TO CONTRACTOR'S FAULT, SHALL BE RECOVERED FROM THE BILL PAYMENT DUE TO THE CONTRACTOR.

13.1.5

SEPARATE ITEM RATE SHALL BE QUOTED FOR MATERIAL HANDLING AND MATERIAL MANAGEMENT OF INCOMING MATERIALS (SMALLS/FULL TRUCK LOADS) FROM TRANSPORTERS GODOWNS AND THE PAYMENT WILL BE REGULATED ON PRO-RATA BASIS ON THE **ACCEPTED UNIT RATE AS PER SL NO A.3 OF RATE SCHEDULE**. NO OTHER PAYMENT SUCH AS MINIMUM CHARGES FOR CARRIER ETC WILL BE MADE. ALL ARRANGEMENTS INCLUDING TRANSPORT, LABOUR AND OTHER T&P ETC IS IN CONTRACTOR'S SCOPE.

13.1.6

ALL THE RESPONSIBILITIES SPECIFIED IN THE CONTRACTOR'S SCOPE FOR THE MATERIALS RECEIVED BY ROAD SHALL ALSO BE APPLICABLE MUTATIS-MUTANDIS FOR ALL THE CONSIGNMENTS (INCOMING SMALLS) RECEIVED FROM TRANSPORTERS GODOWN/S.

**TECHNICAL CONDITIONS OF CONTRACT (TCC)**  
**Chapter-V MATERIAL HANDLING AND MATERIAL MANAGEMENT OF**  
**MATERIAL COLLECTION/ DISPATCHES**

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**13.2 OUTGOING MATERIALS/DISPATCHES**

13.2.1

FOR VARYING REASONS MANY A TIMES, PROJECT MATERIALS / BHEL ASSETS ARE TO BE DISPATCHED TO OTHER SITES/LOCATIONS.

13.2.2

CONTRACTOR SHALL IDENTIFY, TAG, PACK AND PREPARE GATE PASSES FOR THE MATERIALS TO BE DISPATCHED. MATERIALS SHALL BE LOADED ONTO THE OUTGOING VEHICLES WITH DUE CARE AND HANDED OVER TO THE TRANSPORTER WITH CLEAR GOODS RECEIPT WHICH SHALL BE SUBMITTED WITH BHEL PROMPTLY. BHEL SHALL MAKE ARRANGEMENT FOR THE TRANSPORT VEHICLES AT ITS OWN COST.

SEPARATE ITEM RATE SHALL BE QUOTED FOR MATERIAL HANDLING AND MATERIAL MANAGEMENT OF DISPATCH/OUTGOING MATERIALS AND THE PAYMENT WILL BE REGULATED ON PRO-RATA BASIS ON **THE ACCEPTED UNIT RATE AS PER SL NO A.6 OF RATE SCHEDULE.**

13.2.3

SUCH MATERIALS WHICH NEED TO BE BROUGHT TO TRANSPORTER'S/RAILWAY GODOWN FOR BOOKING, ARRANGEMENTS SHALL BE ADOPTED AS MENTIONED BELOW:

CONTRACTOR SHALL ARRANGE SUITABLE VEHICLE FOR TRANSPORTATION OF MATERIALS /SMALLS FROM STORES/STORAGE YARD/SITE TO TRANSPORTERS GODOWNS, IDENTIFY, TAG, PACK AND PREPARE GATE PASSES FOR THE MATERIALS TO BE DISPATCHED. MATERIALS SHALL BE LOADED ONTO THE OUTGOING VEHICLE WITH DUE CARE AND HANDED OVER TO THE TRANSPORTER WITH CLEAR GOODS RECEIPT WHICH SHALL BE SUBMITTED WITH BHEL PROMPTLY WITHIN THE QUOTED RATES AS PER SL NO **A.6 OF RATE SCHEDULE.**

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-VI Material Management Services

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14.1

THE CONTRACTOR UNDER THIS CONTRACT SHALL PROVIDE FOLLOWING CATEGORIES OF SERVICES AT THE PROJECT SITE. THE RESOURCES DEPLOYED FOR MM SERVICES BY THE CONTRACTOR SHALL BE AT THE EXCLUSIVE DISPOSAL OF BHEL ON A FULL TIME BASIS. THESE SHALL NOT BE USED FOR ANY ACTIVITIES ASSOCIATED WITH THE NORMAL RESPONSIBILITIES ENVISAGED UNDER THIS CONTRACT OF MATERIAL HANDLING AND MATERIAL MANAGEMENT:

### **A. SUPERVISION/SECRETARIAL SERVICES**

WORKING LEVEL SUPERVISION OF EACH WORK SPOT SHALL BE IN THE SCOPE OF CONTRACTOR UNDER REGULAR MATERIAL HANDLING WORK. ON THE OTHER HAND, SUPERVISORY SERVICES UNDER MM SERVICES SHALL BE AT ONE LEVEL HIGHER THAN WORKING LEVEL SUPERVISION BEING DONE AS CONTRACTOR'S RESPONSIBILITY TOWARDS MATERIAL HANDLING WORK. BHEL REQUIRES THAT THESE SERVICES SHALL BE TO OVERSEE AND MONITOR THE VARIOUS OPERATIONS/ACTIVITIES OF MATERIAL HANDLING PROCESS. MM SUPERVISORY SERVICES SHALL ENSURE SETTING BROAD GUIDELINES TO THE WORKING LEVEL SUPERVISORS, MONITORING PROGRESS OF OVERALL PLAN VIS-À-VIS IMPLEMENTATION, PROPER AND PROMPT TRACEABILITY OF STOCK IN THE STORES, IDENTIFICATION OF CORRECTIVE & PREVENTIVE ACTIONS IN MATERIAL HANDLING & STORAGE WORK AND IMPLEMENTATION OF A SYSTEMATIC PROCESS TO FINALLY ENSURE ACHIEVEMENT OF THE PROJECT SCHEDULE.

THESE SHALL ALSO INCLUDE SERVICES OF PERSONAL ASSISTANCE IN THE OFFICIAL WORK OF BHEL'S CONSTRUCTION MANAGER, SECRETARIAL SERVICES FOR CORRESPONDENCES AND DOCUMENTATION OF VARIOUS DEPARTMENTS OF BHEL SITE (ERECTION, COMMISSIONING, FINANCE & ACCOUNTS, STORES/MATERIAL MANAGEMENT ETC).

CONTRACTOR SHALL RENDER THE SERVICES BY ENSURING DEPLOYMENT OF REQUISITE PERSONNEL WITH ADEQUATE (MINIMUM DIPLOMA IN ENGINEERING FOR MM SUPERVISION, GRADUATION FOR SECRETARIAL SERVICES) EDUCATIONAL QUALIFICATION, HAVING THOROUGH EXPERIENCE IN RELATED FIELD TO ENABLE UNDERSTANDING THE INTRICACIES OF AND SPECIAL REQUIREMENTS INVOLVED IN HANDLING OF PROJECT MATERIALS, INCONSISTENCIES AND UNCERTAINTIES ASSOCIATED WITH IN/OUT FLOW OF MATERIALS, PROJECT ACTIVITIES AT ODD HOURS & HOLIDAYS AND IRREGULAR WORKING HOURS. CONTRACTOR SHALL ENSURE PROMPT AND TIMELY AVAILABILITY OF SUCH SERVICES.

THE UNIT OF MEASUREMENT OF SUCH SERVICES RENDERED SATISFACTORILY BY ONE PERSON DURING ONE MONTH SHALL BE TERMED AS ONE '**SERVICE MONTH**'.

**APPROXIMATELY 90 SERVICE-MONTHS**, SPREAD ACROSS VARIOUS NATURE OF SERVICES SHALL BE DEPLOYED PROMPTLY AS PER THE INSTRUCTION OF BHEL.

PAYMENT FOR THE SAME SHALL BE MADE AS PER THE SERVICE-MONTH RATE FIXED BY BHEL UNDER **ITEM NO C.1 OF RATE SCHEDULE**, ON PRO-RATA BASIS AS AT ACTUALS.

### **B. MENIAL SERVICES FOR BHEL OFFICE AND STORES ETC**

SCOPE SHALL INCLUDE SERVICES OF OFFICE BOY/ MESSENGER/PEON AT BHEL OFFICE AND STORES, FOR HANDLING CORRESPONDENCES (DAK, DOCUMENTS, DRAWINGS ETC), AND OTHER SERVICES E.G. GARDENING, CLEANING ETC. **APPROXIMATELY 150 SERVICE-MONTHS**, SPREAD ACROSS VARIOUS NATURE OF SERVICES SHALL BE DEPLOYED PROMPTLY AS PER THE INSTRUCTION OF BHEL. FOR DEFINITION OF SERVICE MONTH REFER ABOVE.

PAYMENT FOR THE SAME SHALL BE MADE AS PER THE SERVICE-MONTH RATE FIXED IN **ITEM NO C.2 OF RATE SCHEDULE**, ON PRO-RATA BASIS AS AT ACTUALS.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-VI Material Management Services

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**THE ACTUAL REQUIREMENT OF MANPOWER SHALL BE DISCUSSED AND FINALISED WITH ENGINEER INCHARGE BEFORE START OF THE WORKS.**

**RATES FOR ITEM C.1 AND C.2 OF PRICE BID ARE FIXED ON THE BASIS OF TOTAL MINIMUM WAGES FOR MAHARASHTRA AT THE TIME OF NIT AND THE SAME SHALL BE REVISED AT TIMES WHEN IT IS CHANGED BY THE GOVERNMENT AUTHORITIES.**

**THEREFORE PRICE VARIATION COMPENSATION AND OVERRUN COMPENSATION WILL NOT BE APPLICABLE FOR ITEMS IN SECTION.C OF THE PRICE BID.**

Payment against items in Section.C of price bid shall be calculated & paid in following manner;

- Per service month rate= 1.41 X Minimum Wages per Month (Rounded to next higher Fifty value)

Minimum wages per Month

Minimum wages per month = (Basic Wages + Special Allowance)

The minimum wages per month wage shall be paid as per the rate of Department of Labor, Government of Maharashtra given in the website [http://www.mahashramm.gov.in/lc/download\\_pdf/Minimum\\_Wages.pdf](http://www.mahashramm.gov.in/lc/download_pdf/Minimum_Wages.pdf) , Sr.No.5, and Scheduled No. 7: Road construction Building Operation and Maintenance, Zone –I for Unskilled (Applicable for item no.C.2) & Skilled –A category (Applicable for item no.C.1).

Since the rates against manpower services are variable according to periodic revision, the Overrun compensation as per General Condition of Contract shall not be applicable for item no. C.1 (Supervision and Secretarial Services) & C.2 (Menial services for BHEL office and stores, site offices) of Price bid.

**NOTE:** BHEL AT ITS SOLE DISCRETION RESERVES THE RIGHT TO RE-SHUFFLE THE WORK ALLOCATION OF THE PERSONNEL DEPLOYED.

IN CASE THE CONTRACTOR DOES NOT DEPLOY OR DELAYS DEPLOYMENT OF ABOVE SAID MANPOWER WITH REFERENCE TO SPECIFIC INSTRUCTIONS FROM BHEL, BHEL WILL RECOVER NON-REFUNDABLE PENALTY PER DAY OF DELAY IN THE FOLLOWING MANNER:

A. SUPERVISION/SECRETARIAL SERVICES @ Rs 500 PER SERVICE-DAY

B. MENIAL SERVICES FOR BHEL OFFICE AND STORES ETC @ Rs 300 PER SERVICE-DAY

**TECHNICAL CONDITIONS OF CONTRACT (TCC)**  
**Annexure-II: Quantity & Weight details of supply items**

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**TECHNICAL SPECIFICATION OF TARPAULINS TO BE DEPLOYED AT SITE:**

SL. NO.	DESCRIPTION	Unit	SPECIFICATION	TEST METHOD
01	SIZE	meter	6m x 6m	
02	PVC Coated		Both Side	
03	WEIGHT (GSM i.e. gram per sq metre)	gram	360+/-30	IS – 7016 (Part I)
04	BREAKING STRENGTH WRAP WEFT	Kg/5 cm	200 MINIMUM 190 MINIMUM	IS – 7016 (Part II)
05	TEARING STRENGTH WRAP WEFT	Kg	25 MINIMUM 25 MINIMUM	BS 3424 – 7A (Tongue Tear)
06	ADHESION OF PVC TO BASE FABRIC WRAP WEFT	Kg/2.5 cm	3.5 MINIMUM 3.5 MINIMUM	IS – 7016 (Part 5)
07	WATER PROOFING @ 100CM WATER COLUMN		No Leak	IS – 7016 (Part 7)

**GENERAL SPECIFICATION :**

1. CROSS JOINTS SHALL BE MAXIMUM OF TWO NUMBER IN ANY OF TYPE OF THE PANELS EXCEPT SIDE PANELS WITH EYELETS
2. NUMBER OF EYELETS ON 6 MTRS SIDE SHALL BE 5/6 NUMBERS
3. INTERNAL PANEL JOINT OVERLAP SHALL BE 25 MM
4. 12 MM DIA ROPE SHALL BE INSERTED AROUND THE PERIPHERY WELDED IN 40 MM HEM
5. BRASS EYELETS AT 4 FEET EQUIDISTANCE (SIZE 30 No.) SHALL BE FIXED AROUND PERIPHERY
6. REINFORCEMENT TO BE PROVIDED AT FOUR CORNERS.

**TECHNICAL CONDITIONS OF CONTRACT (TCC)**  
**Annexure-II: Quantity & Weight details of supply items**

TOTAL WT. SUMMARY			
S.No	MANUFACTURING UNIT	Description	Wt. in MT
1	TRICHY	BOILER	4168
2	RANIPET	ROTATING EQUIP & ESP	3935
3	HYDERABAD	BOWL MILLS	107
4		HP HEATERS	85.2
5		PUMPS	17
6	HARDWAR	TURBINE	245
7		GEN. STATOR	200
8		HXE & EME	126
9		C&I ITEMS	46
10	JAGDISHPUR	CERAMIC ITEMS	110
11	EDN B'LORE		155
12	BHOPAL	MOTORS	59
13	JHANSI	DTT & RECIFIERS	62
		TOTAL	9315.2

**1.0 Hardwar Supply ( Turbine & Aux.)**

**TECHNICAL CONDITIONS OF CONTRACT (TCC)**  
**Annexure-II: Quantity & Weight details of supply items**

<b>SUMMARY LIST OF PACKAGES FOR KORADI R&amp;M</b>						
SL. NO.	PACKAGE NO.	DESCRIPTION	Net. WT KG	Package Drg.no.	Approx. packing Case dimensions LXBXH	Nature of Pkg
1	501	HP CYLINDER WITH REAR SEALING (UPPER HALF)	15068	32714022	3700X3260X2250	ODC
2	502	HP CYLINDER WITH REAR SEALING (LOWER HALF)	15000	32714023	3985X3640X2500	ODC
3	503	FASTENERS AND SEALING SEGMENTS OF HPC	2815	32714074	2900X2100X1140	NON ODC
4	504	NOZZLE SEGMENT AND SEALING HOUSING OF HPC	2745	32714111	3800X2500X1270	NON ODC
5	505	BLADED HP ROTOR WITH EMERGENCY GOVERNOR	9076	32714045	4960X1800X1910	NON ODC
6	506	HP BLADED LINER NO.1	2546	31711020	2300X2076X981	NON ODC
7	507	HP BLADED LINER NO.2	3645	32714049	1800X1650X1140	NON ODC
8	508	HP BLADED LINER NO.3	7232	31711020	2300X2076X981	NON ODC
9	515	BLADED IP ROTOR WITH HALF COUPLING	16173	32714046	6650X2700X2600	NON ODC
10	516	IP CYLINDER (FRONT PART) U/H	9900	32714024	4120X2412X2470	NON ODC
11	517	IP CYLINDER (FRONT PART) L/H	9900	32714025	4120X2412X2471	NON ODC
12	518	IP CYLINDER (EXHAUST PART) U/H	8080	32714026	5160X2585X1860	NON ODC
13	519	IP CYLINDER (EXHAUST PART) L/H	7730	32714027	5360X1880X1610	NON ODC
14	520	IP DIAPHRAGM & LINER NO.1	3039	32714051	1900X1900X800	NON ODC

**TECHNICAL CONDITIONS OF CONTRACT (TCC)**  
**Annexure-II: Quantity & Weight details of supply items**

15	521	IP DIAPHRAGM & LINER NO.2	3963	32714052	2200X2100X990	NON ODC
16	522	IP DIAPHRAGM & LINER NO.3	4881	32714053	2700X2700X890	NON ODC
17	523	NOZZLE SEGMENT & SEALING HOUSING OF IPC	1540	1-10001-00059	3200X1800X800	NON ODC
18	524	FASTENERS AND SEALING SEGMENTS OF IPC	1600	31711046	2300X1300X1410	NON ODC
19	525	FLANGE HEATING DEVICE	55.55	HW0232899	1000X500X300	NON ODC
20	531	BLADED LP ROTOR WITH HALF COUPLING	34442	32714013	7710X3390X3560	ODC
21	532	ASSEMBLY PARTS OF DIAPHRAGMS LINER NO-1,LPC (FRONT + REAR BOTH) WITH GUIDE BLADES	2500	HW0232899	2000X500X500	NON ODC
22	533	DIAPHRAGMS LINER NO-1, LPC (TS) WITH GUIDE BLADES	4500	HW0232899	3000X3000X600	NON ODC
23	534	DIAPHRAGMS LINER NO-1, LPC (GS) WITH GUIDE BLADES	4500	HW0232899	3000X3000X600	NON ODC
24	535	SHIELD RING LINER NO-1, LPC (GS)	750	HW0232899	2000X2000X400	NON ODC
25	536	SHIELD RING LINER NO-1, LPC (TS)	750	HW0232899	2000X2000X400	NON ODC
26	537	ANGLE RING FOR ASSEMBLY OF DIAPHRAGMS LINER NO-1, LPC	40	HW0232899	1700X1700X100	NON ODC

**TECHNICAL CONDITIONS OF CONTRACT (TCC)**  
**Annexure-II: Quantity & Weight details of supply items**

27	538	ANGLE RING FOR ASSEMBLY OF DIAPHRAGMS LINER NO-1, LPC	40	HW0232899	1700X1700X100	NON ODC
28	539	LINER NO-2 , 2R OF LPC	6500	32714056	3900X3900X600	NON ODC
29	540	LINER NO-2, 2L OF LPC	5500	32714056	3900X3900X601	NON ODC
30	541	FRONT AND REAR SEALING HOUSING HOUSING LPC	1500	HW0232899	2000x2000x1000	NON ODC
31	542	LP MODIFICATIONS	5550	HW0232899	3050X2240X1210	NON ODC
32	543	LP STRENGTHENING	3600	HW0232899	2350X1340X910	NON ODC
33	544	LP STRENGTHENING	530	HW0232900	5450X500X510	NON ODC
34	545	JOURNAL BEARINGS NOS.1, 3, 4 & 5	2695	32714070	2300X2130X980	NON ODC
35	546	JOURNAL BEARINGS NOS.2 & 6	2515	1-10001-00060	2500X1200X1000	NON ODC
36	547	BARRING GEAR	4591	32714068	3000X2300X1860	NON ODC
37	548	FALSE SHAFTS	2598	32714081	6400X1300X830	NON ODC
38	549	DEVICE FOR HOISTING LPC COVER AND DEVICE FOR HOISTING DIAPHRAGM	3500	HW0232899	4100X1650X1140	NON ODC
39	901	Nozzle Segment of HP casing	135	00032119000	900X400X300	Non-ODC
40	905	Nozzle Segment of IP casing	301	00032166000	1500X750X400	Non-ODC
41	906/1	IP Diaphragm 14th stage	784	00032168000	1500X800X600	Non-ODC
42	906/2	IP Diaphragm 15th stage	641	00032168000	1600X800X500	Non-ODC
43	907/1	IP Diaphragm 16th stage	584	00032168000	1650X800X450	Non-ODC
44	907/2	IP Diaphragm 17th stage	548	00032168000	1600X800X400	Non-ODC

**TECHNICAL CONDITIONS OF CONTRACT (TCC)**  
**Annexure-II: Quantity & Weight details of supply items**

45	907/3	IP Diaphragm 18th stage	568	00032168000	1600X800X500	Non-ODC
46	908/1	IP Diaphragm 19th stage	635	00032168000	1600X1000X450	Non-ODC
47	908/2	IP Diaphragm 20th stage	669	00032168000	1750X900X500	Non-ODC
48	908/3	IP Diaphragm 21th stage	304	00032168000	1800X950X500	Non-ODC
49	909/1	IP Diaphragm 22th stage	946	00032168000	1600X800X500	Non-ODC
50	909/2	IP Diaphragm 23th stage	1680	00032168000	2600X1550X850	Non-ODC
51	916/1	Guide Blade Carrier LP 1R	726	01110153000	2500X2500X200	Non-ODC
52	916/2	Guide Blade Carrier LP 1L	726	01112153000	2500X2500X200	Non-ODC
53	916/3	Assembly of G.B.Carrier LP2R & LP3R (L/H )	2590	01114253000	3600X1800X700	Non-ODC
54	916/4	Assembly of G.B.Carrier LP2R & LP3R ( U/H )	2590	01114253000	3600X1800X700	Non-ODC
55	916/5	Assembly of G.B.Carrier LP2L & LP3L (L/H )	2590	01114253000	3600X1800X700	Non-ODC
56	916/6	Assembly of G.B.Carrier LP2L & LP3L ( U/H )	2590	01114253000	3600X1800X700	Non-ODC
57	600/1	BLANKING ARR. FOR HYD. TESTING OF HP STEAM PIPES	870	00032144000 /00	2500x2000x1500	NON ODC
58	600/2	BLANKING ARR. FOR STEAM BLOWING OF HP STEAM PIPES	2007	00032179000 /00	1500X1000X1000	NON ODC
59	600/3	BLANKING ARR. FOR HYD. TESTING OF IP STEAM PIPES	1404	00032146000 /00	2500x2000x1000	NON ODC
60	600/4	BLANKING ARR. FOR STEAM BLOWING OF IP STEAM PIPES	5100	00032147000 /00	4000x3500x1500	NON ODC

**TECHNICAL CONDITIONS OF CONTRACT (TCC)**  
**Annexure-II: Quantity & Weight details of supply items**

61	607	CENTRIFUGAL OIL PUMP ALONG WITH GEAR COUPLING	870	00032527000 /00 00032515000 /00	1700X1150X950	NON ODC
62	609/1	INTERNALS OF EMERGENCY STOP VALVE	250	00032101000 /00, 00032139000 /11	1200X1000X500	NON ODC
63	609/2	INTERNALS OF EMERGENCY STOP VALVE	250	00032101000 /00, 00032139000 /11	1200X1000X500	NON ODC
64	609/3	INTERNALS OF H.P. CONTROL VALVE NO. 1-DIA. 125	70	00032111000 /00	1600X1200X800	NON ODC
65	609/4	INTERNALS OF H.P. CONTROL VALVE NO. 2-DIA. 150	510	00032190000 /00	2100X1800X1500	NON ODC
66	609/5	INTERNALS OF H.P. CONTROL VALVE NO. 3 & 4-DIA. 150	140	00031111000 /00	1500X1000X600	NON ODC
67	609/6	STEAM STRAINER FOR TOP H.P. CONTROL VALVE	20	00032117000 /00	600X600X500	NON ODC
68	609/7	STEAM STRAINER FOR EMERGENCY STOP VALVES	56	00032148000 /00	1200X1000X800	NON ODC
69	610/1	INTERNALS OF INTERCEPTOR VALVE & IT'S CHEST	785	00032151000 /00, 00032152000 /10	2500X2500X1800	NON ODC
70	610/2	INTERNALS OF INTERCEPTOR VALVE & IT'S CHEST	785	00032151000 /00, 00032152000 /10	2500X2500X1800	NON ODC

**TECHNICAL CONDITIONS OF CONTRACT (TCC)**  
**Annexure-II: Quantity & Weight details of supply items**

71	610/3	INTERNALS OF SIDE I.P. CONTROL VALVE- LEFT & IT's CHEST	560	00032159000 /00, 00032172000 /10	3500X3000X1800	NON ODC
72	610/4	INTERNALS OF SIDE I.P. CONTROL VALVE- RIGHT & IT's CHEST	560	00032159000 /00, 00032172000 /10	3500X3000X1800	NON ODC
73	610/5	INTERNALS OF TOP I.P. CONTROL VALVE- LEFT	530	00032158000 /00	1600X1530X800	NON ODC
74	610/6	STEAM STRAINER FOR INTERCEPTOR VALVE	84	00032153000 /00	1100X1000X800	NON ODC
75	611/1	WORKING CAMS FOR HP & IP CONTROL VALVES	190	00032116000 /00, 00032163000 /00	1500X1000X500	NON ODC
76	612/1	POSITION MEASURING ARRANGEMENT	30	00032505200 /00	1000X650X300	NON ODC
77	612/2	EHG RACK ASSEMBLY AND TRANSPORT DEVICE	883	00032402500 /00 00032402600 /00 00032402200 /00 00032506500 /00 81142211060 /00 81142211070 /00 81144916100 /00 00032402700 /00	2450X1300X2250	NON ODC

**TECHNICAL CONDITIONS OF CONTRACT (TCC)**  
**Annexure-II: Quantity & Weight details of supply items**

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**2.0 SIZE & WEIGHT SCHEDULE OF MAJOR EQUIPMENT EXCLUDING BOILER & AUXILIARIES**

**1. MOTORS**

Description	L X B X H in MM	Weight in KG
Mill Motor	2500 X 2100 X 1300	4300
ID Fan Motor	4400 X 3500X 2200	15500
PA Fan Motor	2900 X 2600 X 1650	9500

**2. PUMPS**

SL. No.	DESCRIPTION	QTY. /UNIT	APPROX. WT. (KGS)	PACKING SIZE (mm) (L x W x H)
01	200 KHI/S full pump	3	6000	2600 x 1800 x 1800
02	Hydraulic Coupling	3	3560	1800 x 1700 x 1800
03	HC Working Oil Coolers & accessories	3	1475	3700 x 1500 x 500
04	HC Lube Oil Coolers & accessories	3	775	3100 x 1300 x 450
05	BFP Recirculation Valve (On-Off type)	3	350	1800 x 550 x 1400
06	Mechanical seal water cooler DE	3	110	700 x 700 x 1200

**TECHNICAL CONDITIONS OF CONTRACT (TCC)**  
**Annexure-II: Quantity & Weight details of supply items**

07	<b>Mechanical seal water cooler NDE</b>	3	110	700 x 700 x 1200
08	<b>Flexible membrane connecting coupling between BFP &amp; HC</b>	3	45	600 x 300 x 300
09	Flexible membrane type connecting coupling between Motor & HC	3	170	750 x 400 x 400
10	Flexible membrane type connecting coupling between Motor & BP	3	25	400 x 250 x 250
11	Booster pump	3	2250	1650 x 1200 x 950
12	Drip pump	2	2100	φ 1100 x 3250

**3. TRANSFORMERS**

Sl	Jhansi WO	Equipment Description	Qty	Per Trfr			Per Trfr	Remarks
				L (mm approx)	W (mm approx)	H (mm approx)		
1	70842A	2500KVA Excitation Trfr ( DTT ) without cubicle	1 no	3650	1400	2700	8000	
2	70843A	95KVp 1000mA HVR Trfr	20 nos	2010	1675	1980	1880	
3	70844A	95KVp 1200mA HVR Trfr	8 no	2200	1700	1980	2010	

**4. HP HEATERS**

Sl	Equipment Description	Qty				Weight (MT)
			L (mm approx)	W (mm approx)	H (mm approx)	

**TECHNICAL CONDITIONS OF CONTRACT (TCC)**  
**Annexure-II: Quantity & Weight details of supply items**

SLNO	DESCRIPTION	QTY/MILL	QTY/PROJECT	APPROX. DIMENSIONS ( IN MM )	APPROX. WEIGHT (KG)/ EACH	APPROX. WEIGHT (KG)/ PROJECT
1	<b>HP HEATERS-5</b>	1 no	7800	1900	1750	23.50
2	<b>HP HEATERS-6</b>	1 no	9800	1900	1750	31.50
3	<b>HP HEATERS-7</b>	1 no	8600	9700	1750	30.20

**5. CONTROL PANELS**

Sl	Equipment Description	Qty	L (mm approx)	W (mm approx)	H (mm approx)	Weight (kgs)
1	ELECTRICAL/CONTROL PANEL	5 nos	1000	800	2000	500 / panel
2	LOOSE INSTRUMENS BOX	4 nos	550	550	550	300 / box
3	INSTRUMENTATION CABLE	40 drums				1000 / box
4	INSTRUMENTATION ACCESSORIES	4 nos	10000	400	400	450 / box

**6. BOWL MILLS**

**TECHNICAL CONDITIONS OF CONTRACT (TCC)**  
**Annexure-II: Quantity & Weight details of supply items**

	<b><u>JOURNAL ASSEMBLY</u></b> <b>(61080)</b>					
1	<b>SET OF INSERT TYPE GRINDING ROLLS</b>	<b>ONE SET</b>	<b>SIX SETS</b>	<b>37"</b>	<b>1225 KG ( ONE GRINDING ROLL)</b>  <b>ONE SET HAS 3 NOS. OF ROLLS</b>	<b>22050</b>
	<b><u>MILL DRIVE &amp; BOWL ASSEMBLY</u></b> <b>(61180)</b>					
2	<b>SET OF MATCHING BULL RING SEGMENTS</b>	<b>ONE SET</b>	<b>SIX SETS</b>	<b>-</b>	<b>1043</b>	<b>6258</b>
3	<b>AIR PORT ASSLY RING ASSLY</b>	<b>ONE NO</b>	<b>SIX NO</b>	<b>-</b>	<b>860</b>	<b>5160</b>
4	<b>MECHANICAL FACE SEAL ASSEMBLY</b>	<b>ONE NO</b>	<b>SIX NO</b>	<b>-</b>	<b>147 kg (16 nos. of loose items)</b>	<b>882</b>
5	<b>OIL SEAL WITH WEAR SLEEVE FOR WORM SHAFT</b>	<b>ONE SET</b>	<b>SIX SETS</b>	<b>Dia: 127 x 76</b>	<b>2</b>	<b>12</b>
	<b><u>MILL MOTOR COUPLING</u></b> (61780)					
6	<b>SUITABLE MILL MOTOR COUPLING</b>	<b>ONE NO</b>	<b>SIX NO</b>	<b>To be finalised after site visit</b>	<b>127</b>	<b>762</b>
	<b><u>SEPARATOR ASSLY</u></b> (61308)					

**TECHNICAL CONDITIONS OF CONTRACT (TCC)**  
**Annexure-II: Quantity & Weight details of supply items**

7	CONVENTIONAL SEPARATOR TOP ASSEMBLY	ONE NO	SIX NO	Dia: 2953 x 315 mm	1786	10716
8	CERAMIC LINED INNER CONE ( BOTH INSIDE& OUTSIDE)	ONE NO	SIX NO	Dia: 2391 x 1300	1000	6000
9	CERAMIC LINED VENTURI VANE SET	ONE SET	SIX SETS	422x262x90	15 ( one no.)	360
10	VENTURI, COLLAR & INVERTED CONE ASSEMBLY	ONE NO	SIX NO	1.dia: 698x1828 2.dia: 1422x425 3.dia: 767 x 354	=340+260+55	3930
11	BEARINGLESS SPRING ASSEMBLY	THREE NOS.	EIGHTEEN NOS.	DIA: 324 X1060	1290	23220
12	MILL DISCHARGE VALVE ( FLAP TYPE ) ASSEMBLY	ONE NO	SIX NO	DIA: 1562X1250	3040	18240
13	VICTAULIC COUPLING BETWEEN MDV AND PC PIPES SET	ONE SET	SIX SETS	19.5"	26	156
14	APPLICABLE FASTENERS FOR ABOVE SET	ONE SET	SIX SETS	-	-	
<b><u>SPECIAL TOOLS AND TACKLES</u></b>						
15	MDV MAINTENANCE PLATFORM WITH LADDER	ONE NO	SIX NO	DIA: 1568X1100	1120	6720
16	OIL FILETRING UNIT ( PER BOILER REMNT)			2000X1500X2000 ( APPROX)	2000	2000
17	SPECIAL TOOLS AND TACKLES					
	1. BOX WRENCH TRUNION SHAFT END CAP	1 NO	1 NO	DIA:330 X 915	16	16

**TECHNICAL CONDITIONS OF CONTRACT (TCC)**  
**Annexure-II: Quantity & Weight details of supply items**

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	2. DRIVE CAP JOURNAL SHAFT	1 NO	1 NO	DIA: 241 X 200L	50	50
	3. SAMPLING DEVICE ASSLY	1 NO	1 NO	SET OF 7 LOOSE	-	
	4. SPRING PRELOAD FIXTURE	1 NO	1 NO	ITEMS	93	93
				-		