

**TENDER SPECIFICATION  
NO. BHE/PW/PUR/KKRN-MMS/1181**

**RECEIPT/COLLECTION, UNLOADING, HANDLING, STACKING, SHIFTING, VERIFICATION, PRESERVATION OF ENTIRE PROJECT MATERIALS INCLUDING ELECTRICAL, CONTROL & INSTRUMENTATION EQUIPMENTS / ITEMS, BHEL T&P AND OTHER MATERIALS IN BHEL/CUSTOMER'S STORES/STORAGE YARD AS RECEIVED BY ROAD/RAIL FROM MANUFACTURING UNITS/ TRANSPORTERS GODOWN AND PROVIDING SERVICES FOR MATERIAL MANAGEMENT FOR UNIT-3 AND 4 OF 2X700 MWe NPCIL ATOMIC POWER PROJECT**

AT

**NPCIL (NUCLEAR POWER CORPORATION OF INDIA)  
KAKRAPAR ATOMIC POWER PROJECT  
KAKRAPAR, DIST. SURAT, STATE- GUJARAT**

**TECHNICAL BID - VOLUME- I**

Tender Specifications consists of:

- **Notice Inviting Tender**
- **Volume 1 A - Technical Conditions of Contract,**
- **Volume 1 B - Special conditions of Contract,**
- **Volume 1 C - General conditions of Contract**
- **Volume 1 D - Forms & Procedures**
- **AERB Safety guidelines.**



**Bharat Heavy Electricals Limited**  
(A Government of India Undertaking)  
Power Sector - Western Region  
345-Kingsway, Nagpur-440001

# TENDER SPECIFICATION

NO: BHE/PW/PUR/KKRN-MMS/1181

RECEIPT/COLLECTION, UNLOADING, HANDLING, STACKING, SHIFTING, VERIFICATION, PRESERVATION OF ENTIRE PROJECT MATERIALS INCLUDING ELECTRICAL, CONTROL & INSTRUMENTATION EQUIPMENTS / ITEMS, BHEL T&P AND OTHER MATERIALS IN BHEL/CUSTOMER'S STORES/STORAGE YARD AS RECEIVED BY ROAD/RAIL FROM MANUFACTURING UNITS/ TRANSPORTERS GODOWN AND PROVIDING SERVICES FOR MATERIAL MANAGEMENT FOR UNIT-3 AND 4 OF 2X700 MWe NPCIL ATOMIC POWER PROJECT

AT

**NPCIL (NUCLEAR POWER CORPORATION OF INDIA)  
KAKRAPAR ATOMIC POWER PROJECT  
KAKRAPAR, DIST. SURAT, STATE- GUJARAT**

VOLUME – I

**CONSISTING OF:**

- Notice Inviting Tender,
- Volume-IA : Technical Conditions of Contract.

## CONTENTS

Volume No	Description	No. of pages	Hosted in website bhel.com as files titled
	Tender Specification Issue Details	1	(Part of <b><u>Vol-IA-1181</u></b> )
	Notice Inviting Tender	19	(Part of <b><u>Vol-IA-1181</u></b> )
I-A	Technical Conditions of Contract	45	<b><u>Vol-IA-1181</u></b>
I-B	Special Conditions of Contract	44	<b><u>Vol-IBCD-1181</u></b>
I-C	General Conditions of Contract	23	(Part of <b><u>Vol-IBCD-1181</u></b> )
I-D	Forms & Procedures	77	(Part of <b><u>Vol-IBCD-1181</u></b> )
	AERB Safety Guidelines	124	
II	Price Bid Specification	5	<b><u>Vol-II-1181</u></b>

## **Tender Specification Issue Details**

**Tender Specification No: BHE/PW/PUR/KKRN-MMS/1181**

**RECEIPT/COLLECTION, UNLOADING, HANDLING, STACKING, SHIFTING, VERIFICATION, PRESERVATION OF ENTIRE PROJECT MATERIALS INCLUDING ELECTRICAL, CONTROL & INSTRUMENTATION EQUIPMENTS / ITEMS, BHEL T&P AND OTHER MATERIALS IN BHEL/CUSTOMER'S STORES/STORAGE YARD AS RECEIVED BY ROAD/RAIL FROM MANUFACTURING UNITS/ TRANSPORTERS GODOWN AND PROVIDING SERVICES FOR MATERIAL MANAGEMENT FOR UNIT-3 AND 4 OF 2X700 MWe NPCIL ATOMIC POWER PROJECT**

AT

**NPCIL (NUCLEAR POWER CORPORATION OF INDIA)  
KAKRAPAR ATOMIC POWER PROJECT  
KAKRAPAR, DIST. SURAT, STATE- GUJARAT**

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

1181

# NOTICE INVITING TENDER

Bharat Heavy Electricals Limited



Ref: BHE/PW/PUR/KKRN-MMS/1181

Date: 26/09/2013

**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/KKRN-MMS/1181</b>
ii	Broad Scope of job	RECEIPT/COLLECTION, UNLOADING, HANDLING, STACKING, SHIFTING, VERIFICATION, PRESERVATION OF ENTIRE PROJECT MATERIALS INCLUDING ELECTRICAL, CONTROL & INSTRUMENTATION EQUIPMENTS / ITEMS, BHEL T&P AND OTHER MATERIALS IN BHEL/CUSTOMER'S STORES/STORAGE YARD AS RECEIVED BY ROAD/RAIL FROM MANUFACTURING UNITS/ TRANSPORTERS GODOWN AND PROVIDING SERVICES FOR MATERIAL MANAGEMENT FOR <u>UNIT-3 AND 4</u> OF 2X700 MWe NPCIL ATOMIC POWER PROJECT AT NPCIL (NUCLEAR POWER CORPORATION OF INDIA) KAKRAPAR ATOMIC POWER PROJECT KAKRAPAR, DIST. SURAT, STATE- GUJARAT
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> <b>Start : 26/09/2013</b> <span style="float: right;">Applicable</span>

**BHEL PSWR**  
**Notice Inviting Tender**  
**Tender Specification No: BHE/PW/PUR/KKRN-MMS/1181**

		<p><b>Closes: 05/10/2013, Time : 16.00 hrs</b></p> <p><b>2. From BHEL website (<a href="http://www.bhel.com">www.bhel.com</a>)</b>  Tender documents will be available for downloading from website till due date of submission</p>	
v	<b>DUE DATE &amp; TIME OF OFFER SUBMISSION</b>	<p><b>Date : 07/10/2013 , Time : 15.00 hrs</b>  <b>Place : BHEL, PSWR Nagpur HQ.</b></p> <p>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>  Pratish Gee Varghese/ Sr. Engineer(Purchase)  P Sharavana Kumar (Engineer/ Purchase)  Nirmal P.G/ Asst.Engineer(Purchase)</p>	Applicable
vi	<b>OPENING OF TENDER</b>	<p><b>Date : 07/10/2013 Time : 16.00hrs</b></p> <p>Notes:  (1) In case the due date of opening of tender becomes a non-working day, then the due date &amp; 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</p>	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>	<p>3 days before the latest due date for offer submission.  Along with soft version also, addressing to undersigned &amp; to others as per contact address given below  Bidders are requested send all queries to the following e-mail ids;  <a href="mailto:pgv@bhelpswr.co.in">pgv@bhelpswr.co.in</a>  <a href="mailto:nirmalpg@bhelpswr.co.in">nirmalpg@bhelpswr.co.in</a></p>	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>	<p>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>and not in the newspapers.</b> Bidders to keep themselves updated with all such information</p>	

**BHEL PSWR**  
**Notice Inviting Tender**  
**Tender Specification No: BHE/PW/PUR/KKRN-MMS/1181**

---

- 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 \_\_\_\_\_ 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 \_\_\_\_\_, 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 \_\_\_\_\_. 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.	

**BHEL PSWR**  
**Notice Inviting Tender**  
**Tender Specification No: BHE/PW/PUR/KKRN-MMS/1181**

	<p>b. BHEL reserves the right to accept/reject the deviations without assigning any reasons, and BHEL decision is final and binding.</p> <p>i). In case of acceptance of the deviations, appropriate loading shall be done by BHEL</p> <p>ii). In case of unacceptable deviations, BHEL reserves the right to reject the tender</p>	
iii.	<p>Supporting documents/ annexure/ schedules/ drawing etc as required in line with Pre-Qualification criteria.</p> <p>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.</p>	
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>	
	<p><b>ENVELOPE – II superscribed as:</b>  PART-I (EMD/COST of TENDER)  TENDER NO :  NAME OF WORK :  PROJECT:  DUE DATE OF SUBMISSION:</p> <p><b>CONTAINING THE FOLLOWING:-</b></p>	
i.	<p>1. Earnest Money Deposit (EMD) in the form as indicated in this Tender</p> <p style="text-align: center;"><b>OR</b></p> <p>Documentary evidence for 'One Time EMD' with the Power Sector Region of BHEL floating the Tender</p> <p>2. Cost of Tender ( Demand Draft or copy of Cash Receipt as the case may be)</p>	

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

Registered Office: BHEL House, Siri Fort, New Delhi – 110 049, India  
Website: www.bhel.com

**BHEL PSWR**  
**Notice Inviting Tender**  
**Tender Specification No: BHE/PW/PUR/KKRN-MMS/1181**

	NAME OF WORK : PROJECT: 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). Total number of Packages  
Total number of Packages in hand = P

**BHEL PSWR**  
**Notice Inviting Tender**  
**Tender Specification No: BHE/PW/PUR/KKRN-MMS/1181**

---

Where

- '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 =  $P_T$  ( i.e  $P_T = P_1 + P_2 + P_3 + P_4 + \dots + P_N$  )
  - 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):

$$= \frac{\text{Aggregate of Performance scores for all similar packages in all the Regions}}{\text{Aggregate of months for each of the similar package for which performance should have been evaluated in all the Regions}}$$

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

**BHEL PSWR**  
**Notice Inviting Tender**  
**Tender Specification No: BHE/PW/PUR/KKRN-MMS/1181**

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
(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)
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 = <b>P<sub>T</sub></b> 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)  = <b>T<sub>T</sub></b>
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)  = <b>S<sub>T</sub></b>

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

In case, R<sub>BHEL</sub> 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<sub>BHEL</sub>) at Power Sector Regions.:

**BHEL PSWR**  
**Notice Inviting Tender**  
**Tender Specification No: BHE/PW/PUR/KKRN-MMS/1181**

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**

	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

**BHEL PSWR**  
**Notice Inviting Tender**  
**Tender Specification No: BHE/PW/PUR/KKRN-MMS/1181**

			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
- 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

**BHEL PSWR**  
**Notice Inviting Tender**  
**Tender Specification No: BHE/PW/PUR/KKRN-MMS/1181**

---

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.
- 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.

**BHEL PSWR**  
**Notice Inviting Tender**  
**Tender Specification No: BHE/PW/PUR/KKRN-MMS/1181**

---

- 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'
- 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.

**BHEL PSWR**  
**Notice Inviting Tender**  
**Tender Specification No: BHE/PW/PUR/KKRN-MMS/1181**

---

- 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
  - h. Drawings & Specifications for welding & sfety- Vol-I E

for BHARAT HEAVY ELECTRICALS LTD

AGM (Purchase)

**Enclosure**

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

**BHEL PSWR**  
**Notice Inviting Tender**  
**Tender Specification No: BHE/PW/PUR/KKRN-MMS/1181**

**ANNEXURE - 1**

**PRE QUALIFYING REQUIREMENTS**

JOB	RECEIPT/COLLECTION, UNLOADING, HANDLING, STACKING, SHIFTING, VERIFICATION, PRESERVATION OF ENTIRE PROJECT MATERIALS INCLUDING ELECTRICAL, CONTROL & INSTRUMENTATION EQUIPMENTS / ITEMS, BHEL T&P AND OTHER MATERIALS IN BHEL/CUSTOMER'S STORES/STORAGE YARD AS RECEIVED BY ROAD/RAIL FROM MANUFACTURING UNITS/ TRANSPORTERS GODOWN AND PROVIDING SERVICES FOR MATERIAL MANAGEMENT FOR <u>UNIT-3 AND 4</u> OF 2X700 MWe NPCIL KAKRAPAR ATOMIC POWER PROJECT-3&4 .
TENDER NO	<b>BHE/PW/PUR/KKRN-MMS/1181</b>

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. <b>Bidder must fill up this column as per applicability</b>
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 4650 MT or higher in a single Work Order OR One job of material handling (*) of value of Rs.68.00 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 2900 MT or higher OR 2 jobs of material handling (*) each of value Rs.42.5 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 2350 MT or higher OR 3 jobs of material handling (*) each of value Rs. 34 Lakhs or higher in any Industry, Industrial or Infrastructure project.</p>	Applicable	
C-1	<b><u>Financial</u></b>	Applicable	

**BHEL PSWR**  
**Notice Inviting Tender**  
**Tender Specification No: BHE/PW/PUR/KKRN-MMS/1181**

	<b><u>TURNOVER</u></b> Bidders must have achieved an average annual financial turnover (Audited) of <b>Rs.25.5 Lakhs</b> or more over last three Financial Years (FY) i.e. 2010-2011, 2011-2012, 2012-2013 or for 2009-2010, 2010-2011, 2011-12 if Annual Accounts for FY 2012-2013 are not audited.		
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><b>1. <u>Explanatory Notes for QR 'B'</u></b></p> <p><b>(*) - Handling of Cement bags, Sacks and Packages shall not be considered.</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. <del>'Additional' Criteria in respect of 'Technical' criteria of PQR (as in 'B' above) for Civil, Electrical, CI, unless otherwise specified:</del></p> <p>1. <del>Bidder should have executed similar work of any one of the following:</del></p> <p style="margin-left: 40px;">a. <del>One (1) work of value not less than Rs XXX</del></p> <p style="margin-left: 80px;"><del>OR</del></p> <p style="margin-left: 40px;">b. <del>Two (2) works of not less than Rs YYY</del></p> <p style="margin-left: 80px;"><del>OR</del></p> <p style="margin-left: 40px;">c. <del>Three (3) works of not less than Rs ZZZ</del></p> <p style="margin-left: 40px;"><del>(Value XXX, YYY, ZZZ shall be as indicated by BHEL)</del></p> <p>2. 'Similar' work for criteria 5 above means</p> <p style="margin-left: 40px;">a. <del>Civil or Structures or Civil &amp; Structures or Chimney respectively as applicable to the tendered scope in respect of 'CIVIL' Works</del></p>			

**BHEL PSWR**  
**Notice Inviting Tender**  
**Tender Specification No: BHE/PW/PUR/KKRN-MMS/1181**

---

	<p>b. <del>Electrical works in respect of 'ELECTRICAL'</del></p> <p>c. <del>CI works in respect of 'CI' Works</del></p> <p>d. <del>Material Handling and/or Management works in respect of 'MM' works</del></p> <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> <ol style="list-style-type: none"><li>1. <del>"BOILER LIGHT UP" in respect of Boiler &amp; Aux and ESP</del></li><li>2. <del>"SYNCHRONISATION" in respect of STG/GTG and 'SPINNING' in case of HTG</del></li><li>3. <del>"STEAM BLOWING COMPLETION" in respect of at least Main Steam Line of Power Cycle Piping</del></li><li>4. <del>"HYDRAULIC TEST" of the system in respect of Structures, Pressure parts/IBR Piping</del></li><li>5. <del>"CHARGING" in respect of power Transformers, Bus ducts, HT/LT switchgears</del></li><li>6. <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>7. <del>Achievement of physical Quantities as per respective PQRs in respect of Civil &amp; Structures and Piling Works</del></li><li>8. <del>"Readiness for coal Filling" in respect of Bunker Structure Work.</del></li></ol> <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/POAWO 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>
--	--

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.

## **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.**

**a. 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

**3. Price variation compensation and overrun compensation will not be applicable for items in section B & C of price bid i.e for monthly hiring charges of cranes and Service month rate for Supervision /Secretarial and Menial Services.**

**Price variation compensation and overrun compensation as per general conditions of contract against above referred job shall be applicable only for items in section A of price bid.**

**3. Price Variation Compensation**

**The PVC will be applicable only for Section A of Price bid and total payable Price Variation Compensation is limited to 20% of total executed value against Section A items (Material handling Charges) in pricebid.**

**4. Overrun compensation**

**The Overrun compensation shall be applicable for this contract as per following conditions.**

**The following conditions supersedes the Clause no.2.12 of General Conditions of Contract for 'Overrun Compensation'.**

2.12.1 Over Run Compensation (ORC) is payable for works done during the extension period subject to the following terms and conditions.

2.12.2 . Void

2.12.3 The Overrun compensation per month shall be a fixed amount of Rs.30,000/- (Rupees Thirty Thousand Only).

2.12.4 Should there be any 'Time extension' for reasons attributable only to the contractor, then ORC shall not be applicable.

2.12.5 Payment of ORC shall be regulated as follows:

i) Contractor is entitled to Over Run Compensation (ORC) only for the portion of backlog attributable to BHEL.

ii) 50% of the compensation as per clause 2.12.3 is allocated for deployments of resources agreed as per the joint programme drawn vide 2.11.4. Payment shall however be based on the actual deployment of resources for the month as certified by BHEL, as per weightages assigned therein.

**BHEL PSWR**  
**Notice Inviting Tender**  
**Tender Specification No: BHE/PW/PUR/KKRN-MMS/1181**

---

iii) 50% of the compensation as per clause 2.12.3 is allocated for achieving of planned progress agreed as per the joint programme drawn vide 2.11.4. Payment shall be on pro rata basis for actual achieved quantities.

**BHEL PSWR**  
**Notice Inviting Tender**  
**Tender Specification No: BHE/PW/PUR/KKRN-MMS/1181**

**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: E-Mail::	
4	EMD DETAILS	DD No:                      Date : Bank :                              Amount: Please tick ( ✓ ) whichever applicable:- 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

Registered Office: BHEL House, Siri Fort, New Delhi – 110 049, India  
Website: www.bhel.com

1181

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

BHARAT HEAVY ELECTRICALS LIMITED



## TECHNICAL CONDITIONS OF CONTRACT (TCC) CONTENTS

---

S. No.	DESCRIPTION	CHAPTER	No. OF PAGES
<b>Technical Conditions of Contract (TCC)</b>			
1	Project Information	Chapter-1	
2	Scope of Works	Chapter-2	
3	Facilities in the scope of Contractor/BHEL (Scope Matrix)	Chapter-3	
4	T&Ps and MME to be deployed by the contractor	Chapter-4	
5	T&Ps and MME to be deployed by BHEL on sharing basis	Chapter-5	
6	Time Schedule	Chapter-6	
7	Terms of Payment	Chapter-7	
8	Taxes and Other Duties	Chapter-8	
9	General (MM)	Chapter-9	
10	Material Handling and Material Management of materials received by Road	Chapter-10	
11	Material Handling and Material Management of materials received by Rail	Chapter-11	
12	Re-shifting and Restacking	Chapter-12	
13	Material Handling and Material Management of material collection/ dispatches	Chapter-13	
14	Material Management Services	Chapter-14	
15	Industrial Safety	Chapter-15	
16	<b>Annexure-1</b> : Technical specifications of tarpaulins	Annexure-1	
17	<b>Annexure-2</b> : AERB Safety Guidelines	Annexure-2	

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter - 1: Project Information

---

### 1.0 PROJECT INFORMATION

#### 1.1 INTRODUCTION

Nuclear Power Corporation of India (NPCIL) intends to set up two (2) nos. of 700 MWe PHWR type Nuclear Power Plants (KAPP-3 and KAPP-4) at Kakrapar near Surat, Gujarat, India. The Kakrapar site is situated on the left bank of the river Tapi, in Mandvi Taluka of Surat District of Gujarat state. The site is accessible by road from Surat from Mumbai-Ahmedabad National Highway (NH-8) and is about 86 km from NH-8. Nearest seaport is Kandla (about 665 km away) but loading and unloading barge facility is available at Hazira which is about 90 km from site. Nearest railway station, Vyara, is about 20 km from Site, on Surat Bhusawal broad gauge section.

#### 1.2 SITE INFORMATION

a)	Location	Kakrapar, Dist. Surat, Gujarat-394651
b)	Nearest Railway Station	Vyara and Madhi (Western Railway)
c)	Nearest Air port	Surat
d)	Elevation (RL)	Varies from +47m to +50m

#### 1.3 CLIMATIC CONDITION

<b>1)</b>	<b>Seismic data</b>	
	Seismic Intensity	Acc to BIS- 1893-2002, Part-1
	Zone	III
<b>2)</b>	<b>Ambient Air Temperature</b>	
	Maximum dry bulb temperature with corresponding relative humidity	43.8 deg C – 2%
	Minimum dry bulb temperature with corresponding relative humidity	4.5 deg C – 98%
	Design temperature for electrical equipment/devices	50 deg C
<b>3)</b>	<b>Relative Humidity</b>	
	Maximum during monsoon	98%
	Minimum during Dec-Jan	2%
<b>4)</b>	<b>Wind Pressures</b>	
	<b>Height above mean Retarding Surface, m</b>	<b>Design Wind Speed m/sec</b>
	@ 10m	69.26

## TECHNICAL CONDITIONS OF CONTRACT (TCC)

### Chapter - 1: Project Information

---

	@ 30m	76.26
<b>5)</b>	<b>Rain fall</b>	
	Annual Average	1941 mm
	Maximum intensity for 1 hour	90 mm
	Maximum intensity sustained for 24 hours	482 mm (max rainfall in a day of 24 hours)
	Period	Year 1994 year 2002
<b>6)</b>	<b>Wind data</b>	
	Wind code	IS-875-1964
	Base wind pressure	150 kg/m <sup>2</sup>
	Wind load Upto 30 M	150 kg/m <sup>2</sup>

#### 1.4

**The bidder is advised to visit and examine the site of WORKS and its surroundings and obtain for himself on his own responsibility all information that may be necessary for preparing the bid and entering into the CONTRACT. All costs for and associated with site visits shall be borne by the bidder.**

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter – 2: Scope of Works

---

### **2.0 SCOPE OF WORK**

#### **2.1**

The scope of work covers the complete work of receipt/collection, unloading, handling, stacking, verification of entire project materials including electrical, control & instrumentation equipments / items and other materials in BHEL/customer's stores/storage yard as received by road/rail from manufacturing units/ transporters godown and providing services for material management for Unit-3 and 4 of 2x700 MWe NPCIL Kakrapar Atomic Power Project as per tender specifications

The work to be carried out under the scope of these specifications is broadly as under: -

#### **2.2 Broad Scope of work for Material Handling and Material Management Services:**

The scope of work of this tender specification of material handling and materials management services **for Units 3 and 4** of 2x700 MWe KAPP at NPCIL Kakrapar Atomic Power Plant, near Vyara in Surat district in Gujarat shall be broadly as under:

- 1 Receipt, unloading, verifying, shifting, stacking, preservation, handling and handing of components of components of complete TG package with auxiliaries consisting of but not limited to HP turbine modules, LP turbine modules, Generators, Moisture Separator reheaters, condensers, integral piping including HP-MSR-LP piping with hangers and supports, valves and fittings, LP Heaters, tanks, vessels, oil coolers, vacuum pumps, reheater condenser, structural steel, insulation, BHEL T&Ps (except heavy duty cranes), electrical, control and instrument items, other auxiliaries and equipments of various other systems along with spares, tools & tackles and providing services of material management for units 3 and 4 of 2x700 MWe NPCIL Kakrapar Atomic Power Project-3&4.
- 2 Receipt, unloading, verifying, shifting, stacking, preservation, handling and handing of complete Control and instrumentation systems which includes but not limited to UPS system, 24 V DC Supply System, 220 V DC supply system, batteries, master salve clock, SWAS system, vibration monitoring system, vibration analyser system, cables, mechanical lab items, control desks, Turbine Supervisory system, vibration analysis for TG etc.
- 3 Receipt, Unloading Stacking, Verification of Other items supplied by BHEL units, their sub-vendors, bought-out items including Lubricants etc.
- 4 Receipt, Unloading Stacking, Verification of any other material like BHEL's T&P (except heavy duty cranes), Furniture, Erection materials etc.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter – 2: Scope of Works

---

- 5 Unloading of all types of heavy and/or over-dimensional consignments (e.g. HP&LP turbine modules, generators, heaters, moisture separator reheaters, tanks, vessels and other equipments) directly from the trailers by suitable cranes or by jack and sleeper method (all to be arranged by contractor), including leveling of the unloading area and attendant works.
- 6 Receipt of materials dispatched by road transport on door delivery basis at the BHEL stores and unloading thereof.
- 7 Collection of materials dispatched by road transport on go-down delivery basis from transporter's godowns, loading at transporter's godown, local transport upto BHEL stores/storage yard in 2x700 MWe NPCIL Kakrapar project and unloading thereof.
- 8 Preliminary verification of all materials at the time of unloading from transport vehicle or while receiving consignments from transporters' Godown - as the case may be, reporting immediately the discrepancies like damages and shortages noticed.
- 9 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.
- 10 Stacking and storing at BHEL/NPCIL open storage yard / covered stores / closed & semi-closed sheds in 2X700 MWe NPCIL Kakrapar Atomic Power Project, and submission of stacking / storing records.
- 11 Preservation of the materials received inside the project premises in accordance with BHEL/NPCIL's preservation manual or as per BHEL/NPCIL's instructions.
- 12 General cleaning, grass cutting and upkeep of storage yard, covered and semi-closed stores sheds within the quoted rates for unloading, verification and stacking.
- 13 Providing services for Materials Management Services, operation of computerized materials management system (**E-STORE/other IT based system**) – feeding data, updation, generation of status reports etc.
- 14 Re-handling and restacking of materials as and when called for by BHEL. This also includes excess/redundant materials returned to stores by BHEL's erection contractors.
- 15 Handling and loading of outgoing materials that are to be sent to other destinations.
- 16 Providing services of secretarial assistance for office & stores and office up-keeping/messengers at BHEL Site Office and Stores.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter – 2: Scope of Works

---

- 17 To provide two sets of computer with printer and all required accessories at BHEL store office for Material entry/ report generation and updation of material records etc. its subsequent maintenance to keep it in fully working condition and operational.
- 18 To provide required quantity and size of concrete / wooden sleepers for material storing and handling work as per requirement as scope of work.

### **2.3 Major packages to be handled are as under:**

1. Turbines and Auxiliaries (Steam Turbines modules, Condensers, Moisture Separator Reheaters and their support structure, LP Heaters, Vacuum Pumps, MSR drain tank, Reheater condensers etc.)
2. Turbo Generators and Auxiliaries (Steam Generators components, brushless exciter set, cooler housing frame, seal oil storage tanks, hydrogen coolers, exciter air coolers and other equipments).
3. Piping equipments consisting of HP turbine to MSR to LP turbine piping, turbine by pass valves piping, MSR drain and condensate recovery piping, LP Heater piping, drain and condensate recovery piping, Condenser air evacuation piping, lube oil piping, lube oil treatment piping, turbine supervisory system piping, turbine protection system piping, Jacking System piping, Control Oil system piping, Gland Steam Sealing piping, Generator integral piping etc.
4. Control and Instrumentation system package ( UPS system, 24 V DC system, 220V DC supply system, batteries, vibration monitoring system , cables, DCS, DAVR and other control and instrumentation equipments).
5. Other BHEL/ALSTOM (manufacture/brought out items) packages.
6. Other items sent by BHEL site/regions etc.
7. Steel structures, platforms, walkway, supports, handrails and other structural steel material being supplied by BHEL/ALSTOM/NPCIL.
8. Foundation parts of pedestals.
9. Insulation and other insulation item.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter – 2: Scope of Works

### 2.4 Some of the Major Heavy Consignments are:

S.No.	Description of the equipment	Approx. Equipment dimension	Approx. Weight (MT) of single consignment
1.0	<b>HP Module (total 2 nos. for 2 unit)</b>		
1.1	HP Main steam valve set	5m x 3m x 2.1m	23.8 MT
1.2	HP Bladed Rotor	7.4m x 1.7m x 1.7m	22 MT
1.3	Upper HP casing	5.8m x 4.2m x 1.6m	29.7 MT
1.4	Lower HP casing	5.2m x 4.2m x 2.1m	34.6 MT
2.0	<b>LP Module (total 6 nos. for 2 units)</b>		
2.1	LP bladed rotor	8.5m x 3.7m x 3.7m	61.2 MT
2.2	Half lower exhaust hood	3.9m x 8.6m x 2.9m	27.4 MT
2.3	Half upper exhaust hood	3.5m x 8.1m x 3.2m	15.3 MT
3	<b>MSR (total 4 nos. for 2 units)</b>		
3.1	MSR lower half	5.3 m dia, 10.8 m height	59.3 MT
3.2	MSR upper half	5.3 m dia, 12.5m height	125 MT
4.0	<b>Assembly of LP Heater 1 (total 6 nos. in 2 units)</b>	10.4m x 1.7m x 1.8m	17 MT
5.0	<b>Generator (total 2 nos. for 2 units)</b>		
5.1	Generator Stator*	9.8m x 4.4m x 4.3m	312 MT
5.2	Generator rotor without skid plate	14.1m x 1.8m x 1.7m	84.3 MT
5.3	Cooler Housing frame	4.3m x 4.45m x 1.4m	21.5 MT
5.4	Brushless Exciter Set	5.7m x 2.4m x 3.4m	33 MT
6.0	<b>Main Oil Tank (total 2 nos. for 2 units)</b>	75m <sup>3</sup> volume	27.5 MT

\* Generator stator shall be unloaded from trailer near the site for which suitable capacity crane shall be provided by BHEL/NPCIL. Contractor to provide suitable assistance for unloading.

**NOTE:** Contractor to submit the detailed scheme for unloading from carriers of the above mentioned major heavy consignments in consultation with BHEL engineer and arrange necessary tools and tackles with due test certificate/calibration report. The contractor shall take note of the layout and make suitable arrangement.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter – 2: Scope of Works

---

**NOTE:**

**2.5 Total Tentative Weight of Main Plant equipments of 2 units- 5800 MT**

**2.5.1** The weight and dimensions 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.

**2.6**

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.

**2.7**

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.

**2.8**

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

**2.9**

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

**2.10**

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.

**2.11**

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 – 3: Facilities in the scope of Contractor/BHEL (Scope Matrix)**

---

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	Fencing of storage area, office, canteen etc of the bidder		Yes	
3.1.2	<b>FOR LIVING PURPOSES OF THE BIDDER</b>			
a	Open space for labor colony (as per availability)	Yes		There may be space constraint, contractor shall manage/adjust his requirements within the space area as provided by NPCIL.
b	Colony with internal roads, sanitation, complying with statutory requirements		Yes	
3.2.0	<b>ELECTRICITY</b>			
3.2.1	<b>Electricity for construction purposes 3 Phase 415/440 V (To be specified whether chargeable or free)</b>	Yes		Free

## TECHNICAL CONDITIONS OF CONTRACT (TCC)

### Chapter – 3: Facilities in the scope of Contractor/BHEL (Scope Matrix)

Sl.No	Description <b>PART I</b>	Scope / to be taken care by		Remarks
		BHEL	Bidder	
a	Single point source	Yes		Shall be provided by BHEL/NPCIL free of cost (three phase, 415 V/ 440 V) at one point near the site at a distance of approx. 500M
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><i>Electricity for the office, stores, canteen etc of the bidder.</i></b>			
a	Single point source	Yes		Free Only for office
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><i>Electricity for living accommodation of the bidder's staff, engineers, supervisors etc</i></b>		Yes	
a	Single point source		Yes	
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><i>WATER SUPPLY</i></b>			
3.3.1	<b><i>For construction purposes: (to be specified whether chargeable or free)</i></b>			chargeable

## TECHNICAL CONDITIONS OF CONTRACT (TCC)

### Chapter – 3: Facilities in the scope of Contractor/BHEL (Scope Matrix)

Sl.No	Description <b>PART I</b>	Scope / to be taken care by		Remarks
		BHEL	Bidder	
a	Making the water available at single point	Yes		Construction water will be on chargeable basis on charges as charged by NPCIL. At present, the charges are Rs. 12.10 per 1000 litres and this rate is subject to revision from time to time. The charges as charged by NPCIL shall be charged to contractor.
b	Further distribution as per the requirement of work including supply of materials and execution		Yes	
3.3.2	<b>Water supply for bidder's office, stores, canteen etc</b>			Chargeable
a	Making the water available at single point	Yes		Chargeable
b	Further distribution as per the requirement of work including supply of materials and execution		Yes	
3.3.3	<b>Water supply for Living Purpose</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>			

## TECHNICAL CONDITIONS OF CONTRACT (TCC)

### Chapter – 3: Facilities in the scope of Contractor/BHEL (Scope Matrix)

Sl.No	Description <b>PART I</b>	Scope / to be taken care by		Remarks
		BHEL	Bidder	
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	Contractor has to make his own arrangement.
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	Contractor has to make his own arrangement.
c	Providing the necessary consumables like bulbs, switches, etc during the course of project work		Yes	Contractor has to make his own arrangement.
d	Lighting for the living purposes of the bidder at the colony / quarters		Yes	
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>		Yes	
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 – 3: Facilities in the scope of Contractor/BHEL (Scope Matrix)

---

#### 3.9

The contractor shall use the construction power in the most efficient and judicious manner so as to avoid any wastage. It is to be clearly understood that the construction power shall not be misused by the contractor for any activity other than construction purpose. If at any time it is found that the construction power is being misused, BHEL reserves the right to suspend the supply of construction power. In such cases as they may arise, contractor has to make his own arrangement of diesel generators to meet the requirement of power without causing any delay to project activities. No compensation in time or money shall be applicable to contractor in any such cases.

#### 3.10

It is to be clearly understood that the disruption in power supply or non availability of electricity shall not entitle the contractor for any claim for compensation either in time or money. **The contractor should make his own arrangement of diesel generators to meet his requirement of electrical power during interruptions in power supply and keep electrically operated equipment to the minimum in view of uncertainty of 24 hours power supply.** Temporary power as arranged by the contractor on his own shall be provided for bonafide construction purposes limited to the extent required for the job.

#### 3.11

BHEL/NPCIL shall meter the supply of power to the contractor at the points at which the supply is given. For this purpose, the **energy meter will be installed by the Contractor on their distribution panel.** Contractor shall also install the actual **Maximum Demand Meter** on the incoming panel. In case of any dispute on the accuracy of meter, the meter in dispute shall be checked in the standard laboratory of the State Government and the meter will be replaced if required. The fees levied by the Standard laboratory for testing the meter shall be charged to the contractor. The Engineer may at his discretion replace any meter installed at the cost of contractor, if found defective/faulty. It would be the contractor's responsibility to ensure the safety of the meter and to ensure protection so that the meter is not tampered with. In case, it is found that the meter has been tampered with, the supply will be disconnected and re-connection charges at State Electricity Board rates per BHP will be charged. In case the meter is found faulty, the charges will be recovered on the basis of average consumption for the preceding 6 months.

#### 3.12

The contractor shall make his own arrangements for the distribution of power to all his works from the point (s) of supply.

#### 3.13

It shall be the responsibility of the contractor to provide and maintain complete installation on the load side of the supply with due regard to safety requirements at site. All cabling and installation shall be subject to the approval of the Engineer/Safety Engineer and shall comply in all respects to the appropriate statutory requirements given in the following:

## TECHNICAL CONDITIONS OF CONTRACT (TCC)

### Chapter – 3: Facilities in the scope of Contractor/BHEL (Scope Matrix)

---

- Indian Electricity Act, 1910 (as amended)
- Electricity Supply Act, 1910 (as amended)
- Indian Electricity Rules, 1956 (as amended)
- Latest State Electricity Board regulations

#### 3.14

**The contractor shall maintain a power factor of not less than 0.9 by installing if necessary at his own cost suitable correction devices/ capacitor banks of suitable capacity. The contractor's failure in this regard within a period as stipulated by the Engineer-in-charge shall lead to disconnection of Power Supply. The individual, single-phase loads shall be suitably connected so that the total load at the supply point balances as much as possible.**

#### 3.15

BHEL will not be liable for any loss or damage to the contractor's equipment as a result of variations in voltage or frequency or interruptions planned or unplanned in power supply. The Purchaser will also not be liable for any loss to the contractor arising from any interruption, failure or stoppage of works and any attendant delays consequent on such failure, interruption or stoppage of power supply or variation voltage or frequency. The contractor shall install all safety devices for such purpose as deemed fit by him.

#### 3.16

After completion of the works, the contractor shall at his own cost promptly dismantle the distribution and other facilities he may have erected.

**TECHNICAL CONDITIONS OF CONTRACT (TCC)**  
**Chapter – 4: T&Ps AND MMEs TO BE DEPLOYED BY CONTRACTOR**

---

**A: TOOLS AND PLANTS TO BE DEPLOYED BY CONTRACTOR**

<b>SN</b>	<b>DESCRIPTION</b>	<b>CAPACITY (MINIMUM)</b>	<b>MINIMUM QUANTITY</b>	<b>DEPLOYMENT PERIOD</b>	<b>REMARKS</b>
1	Tyre Mounted Mobile/ Hydra crane	18 T	01	<b>From start of contract period</b>	For MM
2	Trailer with Prime Mover	Adequate Capacity	AS PER REQUIREMENT	AS PER REQUIREMENT	AS PER REQUIREMENT
3	Tractor Trailer	15/20	As required	As required	
4	Truck	Adequate Capacity	As required	As required	
5	Slings of various capacity and quantities for handling of equipments	As per requirement	As required	As per requirement	As per requirement
6	Concrete sleepers for material handling (*)	Assorted sizes 6 ft length, 6 inch width and 6 inch height	As required (minimum 500 nos.)	PROGRESSIVELY FROM START OF WORK	FOR MM WORKS
7	Wooden sleepers for material handling (*)	Assorted sizes 6 ft length, 6 inch width and 6 inch height	As required (minimum 100 nos.)	Progressively from start of work	For MM works
8	Fire extinguisher	As Per Requirement	AS REQUIRED	AS PER REQUIREMENT	AS PER REQUIREMENT
09	Truck	Adequate capacity	AS REQUIRED	AS PER REQUIREMENT	With test reports
10	Tarapulins (**)	Size and specs as per tender conditions (Annexure-1)	100	Progressively from start of work	FOR MM WORKS
11	ENERGY METER	As per requirement	1	From Start of work	

**TECHNICAL CONDITIONS OF CONTRACT (TCC)**  
**Chapter – 4: T&Ps AND MMEs TO BE DEPLOYED BY CONTRACTOR**

---

SN	DESCRIPTION	CAPACITY (MINIMUM)	MINIMUM QUANTITY	DEPLOYMENT PERIOD	REMARKS
12	MAXIMUM DEMAND METER	As per requirement	1	From start of work	

**B: MEASURING AND MONITORING DEVICES (MMD) TO BE DEPLOYED BY CONTRACTOR**

AS PER REQUIREMENT TO BE FINALIZED AT SITE.

**NOTE:**

- 1) THIS LIST ABOVE IS ONLY INDICATIVE AND NEITHER EXHAUSTING NOR LIMITING. ALL THE TOOLS AND PLANTS REQUIRED FOR THIS SCOPE OF WORK, EXCEPT THE TOOLS & PLANTS PROVIDED BY BHEL ARE TO BE ARRANGED BY CONTRACTOR WITHIN THE QUOTED RATES. THE LIST IS SUGGESTIVE IN NATURE. ANY ADDITIONAL T&P REQUIRED TO BE ARRANGED BY THE CONTRACTOR WITHIN THE QUOTED RATES.
- 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.
- 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: 1.) FOR CALCULATION NO. OF DAYS IN A CALENDER MONTH IS TAKEN AS 30**

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter – 4: T&Ps AND MMEs TO BE DEPLOYED BY CONTRACTOR

---

### 2.) MONTHLY CRANE CHARGES AS DERIVED IN THE PRICE BID SECTION B

- 6) THE MANUFACTURING YEAR OF ALL MAJOR T&PS DEPLOYED BY THE CONTRACTOR (18 MT HYDRA CRANE) SHOULD NOT BE MORE THAN 10 YEARS AS ON THE DATE OF DEPLOYMENT. THE DOCUMENTARY PROOF TO BE SUBMITTED TO SITE INCHARGE. IF AT ANY MOMENT OF TIME DURING THE EXECUTION OF WORK, ANY CRANE IS FOUND TO BE NOT IN A GOOD WORKING CONDITION AND NON-PERFORMING AT DESIRED MINIMUM CAPACITY, AS CERTIFIED BY BHEL ENGINEER, THE CONTRACTOR SHALL DEPLOY ANOTHER CRANE IN GOOD WORKING CONDITION WITH MINIMUM DESIRED CAPACITY.
- 7) CRANE LOG SHEET FOR EACH OF THE CRANES 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 THE 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 RATES OF PRICE BID SECTION-B 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 VARIOUS LIFTING / HANDLING EQUIPMENT AND RIGGING TOOLS PROPOSED TO BE USED BY THE CONTRACTOR SHALL BE TESTED AS PER STATUTORY AND SAFETY REGULATIONS AND THE LATEST TEST CERTIFICATES SHALL BE FURNISHED TO THE SATISFACTION OF BHEL/NPCIL. IF BHEL/NPCIL FEELS THAT THE TOOLS AND TACKLES ARE INADEQUATE OR UNSUITABLE, THE CONTRACTOR SHALL ARRANGE TO PROVIDE SUCH TOOLS AND TACKLES CONSIDERED SUITABLE BY BHEL/NPCIL IN SUFFICIENT QUANTITIES ACCEPTABLE TO BHEL/NPCIL.
- 11) (\*) **THE FIRST RA BILL SHALL BE RELEASED ONLY AFTER RECEIPT OF 25% OF MINIMUM QUANTITIES OF CONCRETE SLEEPERS AND WOODEN SLEEPERS AT SITE. THE SUBSEQUENT RA BILL OF NEXT THREE MONTHS WILL BE RELEASED ONLY AFTER RECEIPT OF THE BALANCE QUANTITY OF CONCRETE AND WOODEN SLEEPERS IN NEXT THREE MONTHS (25% IN EACH MONTH)**

**TECHNICAL CONDITIONS OF CONTRACT (TCC)**  
**Chapter – 4: T&Ps AND MMEs TO BE DEPLOYED BY CONTRACTOR**

---

- 12) (\*\*) THE FIRST RA BILL SHALL 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 BLANACE QUANTITY OF TARPULINS IN NEXT THREE MONTHS (25% EACH MONTH)**

**TECHNICAL CONDITIONS OF CONTRACT (TCC)**  
**Chapter – 5: T&Ps and MMEs to be deployed by BHEL on sharing basis**

---

**C: LIST OF T&P TO BE PROVIDED BY BHEL FREE OF HIRE CHARGES ON SHARING BASIS FOR EACH BLOCK**

<b>SNO</b>	<b>DESCRIPTION</b>	<b>QUANTITY</b>	<b>REMARKS</b>
1	75 MT crane	01	At storage yard on sharing basis with other agencies
2	200 MT crane	01	At storage yard on sharing basis with other agencies

**Note:**

1. Cranes deployed by BHEL shall be owned or hired by BHEL.
2. Operator and O&M for BHEL owned cranes shall be arranged by BHEL free of charges.
3. Operator and O&M for BHEL hired crane will be provided by hiring agency free of charges.
4. Fuel for BHEL cranes (owned/hired) shall be provided by contractor for contractor's scope of operations within the quoted rates.
5. Contractor shall make necessary arrangements like laying of special sleeper beds, assembly and dismantling of heavy lift attachment, boom, jib etc. for smooth movement and operation of the crane. The contractor should fill the ditches, level the ground for smooth movement of crane. This is included as a part of scope of work of the contractor.
6. Cranes provided by BHEL will be on sharing basis with other agencies / contractors including agencies who are deployed for mechanical, electrical and C&I works by BHEL. The allocation of cranes shall be the discretion of BHEL engineer, which shall be binding on the contractor. Cranes will be deployed at appropriate time as decided by BHEL for suitable duration and intended purpose.
7. Cranes provided by BHEL shall be deployed and utilized based on requirement of heavy lifts as decided by BHEL engineer. Consignments within safe lifting capacity of contractor's crane shall be handled using contractor's crane. BHEL will periodically review the duration and requirement of these BHEL owned/hired cranes and BHEL reserves the right to withdraw BHEL cranes (owned and hired) based on their assessment/requirement as decided by BHEL engineer and any compensation/claim of contractor on such account shall not be tenable.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter – 6: Time Schedule

---

### **6.0 TIME SCHEDULE & MOBILIZATION**

#### **6.1 INITIAL MOBILIZATION**

After receipt of fax **Letter of Intent (LOI)**, Contractor shall discuss with Project Manager / Construction Manager regarding initial mobilization. Contractor shall mobilize necessary resources **within one week** 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 MOBILIZATION**

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**

##### 6.3.1 Commencement 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 for material handling and material management portion as defined in the tender specifications.**

##### 6.3.2 Contract Period

The entire contract period for the scope of material handling and material management activities as per tender specifications shall be **31 (Thirty One) Months** from the start of contract period as specified under 6.3.1.

**TECHNICAL CONDITIONS OF CONTRACT (TCC)**  
**Chapter – 4: T&Ps AND MMEs TO BE DEPLOYED BY CONTRACTOR**

---

**7.0** The progressive payment “**Material Handling & Materials Management Services**” on accepted price of contract value will be released as per the break up given hereinafter:

S.No.	Description of Activity	% of payment
<b>7.1</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%
	<b>Total</b>	<b>100%</b>
<b>7.2</b>	<b>UNLOADING FROM RAILWAY WAGONS AND COLLECTION FROM TRANSPORTER GODOWNS (For item no. 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 REPORTS 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%
	<b>Total</b>	<b>100%</b>
<b>7.3</b>	<b>MATERIAL RE-SHIFTING/RE STACKING WITHIN THE PROJECT PREMISE (For item A.5 of Rate Schedule)</b>	

**TECHNICAL CONDITIONS OF CONTRACT (TCC)**  
**Chapter – 4: T&Ps AND MMEs TO BE DEPLOYED BY CONTRACTOR**

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%
	<b>Total</b>	<b>100%</b>
<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%
	<b>Total</b>	<b>100%</b>
<b>7.5</b>	<b>OTHERS</b>	
	<b>% from every RA Bill to be paid only after satisfactory completion otherwise forfeited</b>	
7.5.1	REMOVAL OF GRASS/WEEDS AND OTHER PLANT GROWTH IN THE STORE AREA	1%
7.5.2	HOUSEKEEPING AND CLEANING OF CLOSED STORAGE SHEDS AND OTHER WORK AREA	2%
7.5.3	FOLLOWING SAFETY PROCEDURES AND SAFETY GUIDELINES OF BHEL/NPCIL AS PER TENDER SPECIFICATIONS AND OTHERWISE AND PROVIDING ADEQUATE ILLUMINATION AT PLACE OF WORK	5%
7.5.4	<b>IMPLEMENTATION OF E-STORE/OTHER IT BASED SYSTEM</b>	2%
<b>7.6</b>	<b>CRANES (FOR SECTION B)</b>	
	<b>PAYMENT FOR CRANES SHALL BE MADE ON MONTHLY BASIS AS PER THE DERIVED MONTHLY RATES OF PRICE BID AGAINST EACH CRANE. NO OTHER PAYMENT SHALL BE PAID FOR THE OTHER ADDITIONAL T&amp;Ps DEPLOYED FOR CARRYING OUT THE WORK AS PER SCOPE OF THIS TENDER</b>	

**NOTE:**

**1) (\*) THE FIRST RA BILL SHALL BE RELEASED ONLY AFTER RECEIPT OF 25% OF MINIMUM QUANTITIES OF CONCRETE SLEEPERS AND WOODEN SLEEPERS AT SITE. THE SUBSEQUENT RA BILL OF NEXT THREE MONTHS WILL BE RELEASED ONLY AFTER RECEIPT OF THE BALANCE QUANTITY OF CONCRETE AND WOODEN SLEEPERS IN NEXT THREE MONTHS (25% IN EACH MONTH)**

**TECHNICAL CONDITIONS OF CONTRACT (TCC)**  
**Chapter – 4: T&Ps AND MMEs TO BE DEPLOYED BY CONTRACTOR**

---

- 2) (\*\*) THE FIRST RA BILL SHALL BE RELEASED ONLY AFTER RECEIPT OF 25% OF TARPAULINS AT SITE. THE SUBSEQUENT RA BILLS OF NEXT THREE MONTHS WILL BE RELEASED ONLY AFTER RECEIPT OF BLANACE QUANTITY OF TARPAULINS IN NEXT THREE MONTHS (25% EACH MONTH).**
  
- 3) Price variation compensation and overrun compensation will not be applicable for items in section B & C of price bid i.e for monthly hiring charges of cranes and Service month rate for Supervision /Secretarial and Menial Services.**

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter - 8: TAXES DUTIES, LEVIES

---

### **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 - 8: TAXES DUTIES, LEVIES

---

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.

## TECHNICAL CONDITIONS OF CONTRACT (TCC)

### Chapter - 8: TAXES DUTIES, LEVIES

---

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 price bid.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter – 9: GENERAL (MM)

---

### GENERAL REQUIREMENTS

#### 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 as 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 – 9: GENERAL (MM)

---

### 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, curbs, 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, else BHEL shall levy/recover necessary compensation from contractor's bill payment.

### 9.12

Contractor shall submit periodical daily and monthly reports as per format provided by BHEL/NPCIL.

### 9.13

It is the responsibility of the contractor to arrange gate pass for all his employees, T&P etc. Necessary coordination with customer officials is the responsibility of the contractor. Contractor to follow all the procedures laid down by the customer for making gate passes. Where permitted, by customer/ BHEL, to work beyond normal working hours, the contractor shall arrange necessary work permit for working beyond normal working hours

### 9.14

Where permitted, by Customer/ BHEL, to work beyond normal working hours, the contractor shall arrange necessary work permit for working beyond normal working hours.

### 9.15

Contractor to note that in addition to BHEL requirements of safety, occupational health and environmental management, contractor shall strictly follow & abide the safety laws/rules & regulation requirements of NPCIL at site and in the event of any deviation/ dispute, the requirements of NPCIL in this regard shall be final and binding on contractor.

### 9.16

Sleepers and tarpaulins will be returned back after the completion of the contract period to the contractor on as is where is basis.

### 9.17

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).

### 9.18

Tarapulins specification and supplies are given in annexure-1.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter – 10: MATERIAL HANDLING AND MATERIAL MANAGEMENT OF MATERIALS RECEIVED BY ROAD

---

### 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 dispatch documents.

### 10.3

The contractor shall remain in regular contact with the concerned transporters or based on the dispatch 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

Detention charges/demurrage/wharfage etc., which result due to contractor's fault, shall be recovered from the bill payment due to the contractor. 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.

### 10.8

Unloading at storage area/work site, stacking and restacking if necessity arises, of all materials including heavy/sophisticated equipments like motors, bearing pedestals, Generator, Machined components,

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter – 10: MATERIAL HANDLING AND MATERIAL MANAGEMENT OF MATERIALS RECEIVED BY ROAD

---

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 failures shall be debited to the contractor and recovery effected from his running bills.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter – 10: MATERIAL HANDLING AND MATERIAL MANAGEMENT OF MATERIALS RECEIVED BY ROAD

---

### 10.14 HANDLING HEAVIER CONSIGNMENTS:

**Contractor shall prepare and submit the procedure with sketches for 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), handling of underwriter's representative visits 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 with latest up-gradation, 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 under section 10.18, normally to work at (but not limited to) BHEL site office.

### 10.17 RESPONSIBILITIES OF THE CONTRACTOR -

#### 10.17.1 Receipt & Issue

Scope includes execution of various activities as follows:

- (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 its 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.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter – 10: MATERIAL HANDLING AND MATERIAL MANAGEMENT OF MATERIALS RECEIVED BY ROAD

---

- (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.
- (v) Loading and dispatch of outgoing materials.

### **10.17.2 Expected minimum quality of service:**

Contractor shall render the services by ensuring deployment of requisite personnel with adequate educational qualification of engineering/technical background, 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.

### **10.17.3 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
- 2) Capping/wrapping/covering
- 3) Filling/immersion in oil/chemicals etc
- 4) 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.

**CONTRACTOR SHALL PROVIDE ALL PRESERVATIVES LIKE PRESERVATIVE PAINTS, GREASE, LUBRICANTS, , INHIBITORS, CAPS ETC FOR PRESERVATION INCLUDING PRIMERS & PAINTS FOR FINAL PAINTING AS PART OF SCOPE OF WORK. 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 MANUFACTURER) REQUIRED FOR PRESERVATION AND AS APPROVED BY CUSTOMER / BHEL ENGINEER AT SITE 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.

**TECHNICAL CONDITIONS OF CONTRACT (TCC)**  
**Chapter – 10: MATERIAL HANDLING AND MATERIAL MANAGEMENT**  
**OF MATERIALS RECEIVED BY ROAD**

---

**10.17.4 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/other IT based system** 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.

Contractor will be provided necessary 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 30% overhead charges in case of any loss/damage attributable to negligence/failure on contractor’s part.

**10.18**

The following table indicates the minimum number of personnels to be deployed by contractor against different activities in the scope of material handling and material management for the project.

<b>S.NO.</b>	<b>ACTIVITY/DESCRIPTION</b>	<b>NO. OF PERSONS</b>	<b>REMARKS</b>
1	Material Receipt/Unloading, Collection/Bookings/ Detailed Verification	2	To be deployed from beginning
2	Material Issue & Record keeping (TG, T&P, ELEC, C&I, &P stock, MRC, assistance in insurance claims, purchase etc)	2	To be deployed from beginning
3	Preservation	1	To be deployed from beginning
4	Documentation and preparation of necessary schemes and handling procedures	1	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 finalized in the beginning of the contract period with engineer in-charge. This does not absolves the contractor from his responsibility towards the satisfactory execution of the job.

TECHNICAL CONDITIONS OF CONTRACT (TCC)  
Chapter – 10: MATERIAL HANDLING AND MATERIAL MANAGEMENT  
OF MATERIALS RECEIVED BY ROAD

---

**DEPLOYMENT OF ABOVE MENTIONED MANPOWER IS THE PART OF SCOPE OF WORKS UNDER MATERIALS HANDLING & MATERIALS MANAGEMENT. RATE SCHEDULE IS INCLUSIVE OF PAYMENT AGAINST ABOVE LISTED MANPOWER. NO SEPARATE PAYMENT IS PAYABLE ON ABOVE ACCOUNT.**

**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.**

**10.19**

Payment for all materials including over-dimensional and heavier components shall be regulated on the accepted unit rate as per S.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 – 11: MATERIAL HANDLING AND MATERIAL MANAGEMENT OF MATERIALS RECEIVED BY RAIL

---

### 11.1

Presently there is no railway siding in the project premises. However, it may be made available at a later date. All the consignments reaching the project site by Rail shall be unloaded at the railway siding, followed by loading on truck/trailer, local transportation from railway siding to the storage yard/stores, unloading, verification and stacking and preservation as applicable to the consignments arriving by road.

### 11.2

It will be responsibility of the contractor to keep in touch with officials of BHEL and railways regarding advance information about arrival of consignments. The contractor shall collect railway receipts or other such dispatch documents.

### 11.3

Contractor shall deploy his crane, trailers/trucks and all other T&P including additional T&P and manpower etc for handling of materials at such unloading bay/ location and transport to stores/ storage yard.

### 11.4

Contractor shall in his own interest arrange to release the railway wagons/racks with utmost alacrity to avoid any demurrage charges. Demurrage/ wharfage etc., which result due to contractor's fault, shall be recovered from the bill payment due to the contractor.

### 11.5

Contractor shall provide area lighting at railway siding for handling of materials during evening/ night if required as per the instruction of BHEL engineer.

### 11.6

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 received by rail at railway siding.

### 11.7

For the consignments received by rail the payment will be regulated on pro-rata basis on the **accepted unit rate as per S.No. A.2 of rate schedule (Section A)**. The above also includes all costs towards unloading from the wagon at the unloading siding in the plant and loading on the transport and the cost towards internal transportation to storage yard/ stores shed of BHEL/ client

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter – 12: RESHIFTING AND RESTACKING

---

### 12.1 Re-shifting and re-stacking

**Contractor to note that already around 500 MT material has been received at the site and kept at different locations at a distance of 6-7 km within and outside the project premises.** Further, owing to several project requirements, many components may have to be shifted from originally stacked locations to elsewhere within the project premises. 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 shall be quoted 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 S.No. A.5 of rate schedule (section A).**

### 12.2 Re-stacking/Re-arranging

Over a period of time, requirement of restacking/rearranging of the materials stacked earlier may arise 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 quoted for item no A.5 of rate schedule.**

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter – 13: MATERIAL HANDLING AND MATERIAL MANAGEMENT OF MATERIAL COLLECTION/ DISPATCHES

---

### 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 godown's 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 transporter's 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 S.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. These godowns are expected to be located within a radius of 50 km approx from the project site.

#### 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 godowns.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-13 - MATERIAL HANDLING AND MATERIAL MANAGEMENT OF MATERIAL COLLECTION/ DISPATCHES

---

### 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 S.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 S.No. A.6 of rate schedule**

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter – 14: Material Management Services

---

### 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 and also in no way these are connected with 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, planning, 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 service – 120 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 man-month rate quoted by the bidder in **item no. C.1 of rate schedule**.

#### **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 service – 200 service months**, spread across various nature of services shall be deployed promptly as per the instruction of BHEL.

## TECHNICAL CONDITIONS OF CONTRACT (TCC) Chapter – 14: Material Management Services

---

Payment for the same shall be made as per the service-month rate quoted by the bidder in **item no. C.2 of rate schedule** on pro-rata basis as at actual.

**The actual requirement of manpower shall be discussed and finalized with engineer in-charge before the start of works.**

**Rates for Items C.1 and C.2 of price bid are fixed on the basis of total minimum wages for Gujarat 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.**

### 14.2

Payment against item in Section C of price bid shall be calculated and paid in the following manner;

- **Per service month rate = 1.41 X Minimum Wages per month (rounded to next higher fifty value)**

The minimum wages per month wage shall be paid as per the rate of Department of Labor, Gujarat Government, Schedule 9 " Maintenance of buildings and Construction and Maintenance of runways" Zone-I and Skilled –A for secretarial services and Unskilled for menial services. Or refer the web.-  
<http://www.paycheck.in/main/salary/minimumwages/gujarat> .

Since the rates against manpower services are variable according to periodic revision, the Overrun Compensation as per General Conditions of Contract shall not be applicable for items C.1 ( Supervision and secretarial services) and 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 | @ Rs 350 per service day |

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter – 15: INDUSTRIAL SAFETY

---

### **15.0 INDUSTRIAL SAFETY**

The contractor shall comply with all provisions of “AERB Safety Guide for Works Contract” Document No. AERB/SG/IS-1 (annexure-2) and other safety requirements as applicable to specific site. The Contractor shall meet statutory requirements as well as regulatory requirements applicable to the project, in general and NPCIL in particular, especially the requirements as per Factory Act-1948 (amended in 1987). Atomic Energy Factories Rule-1996 (AEFR-1996 or latest version applicable at the time of work execution), safety guidelines for Job Hazard Analysis (JHA) and AERB notifications on Industrial Fire & Safety. The copies of the same can be obtained from BHEL/NPCIL on request.

### **15.1 SAFETY GUIDELINES**

#### **15.1.1**

The contractor shall provide and maintain all lights, fencing, guards, warning signs and caution board and similar items as required to ensuring safe working conditions at work site.

#### **15.1.2**

The contractor shall comply with the instructions given by departmental safety officer or his representative regarding safety precautions, protection measures and housekeeping etc.

#### **15.1.3**

The contractor shall comply with all provisions of AERB Safety Guide for Works Contract Document no. AERB/SG/IS-1 and other safety requirements as applicable to specific site, A copy of guide can be requested from BHEL/NPCIL on request.

#### **15.1.4**

The contractor shall provide proper access and working platforms for all place of work as per laid down standards or as advised by Engineer –in-charge or Head-IS&F.

#### **15.1.5**

The contractor shall ensure that all floor openings in his work are guarded/barricaded during the course of work and at the end of each day's work.

#### **15.1.6**

The contractor shall meet statutory requirements applicable to the project in general and NPCIL in particular especially the requirements as per Factory Act-1948 (amended in 1987), Atomic Energy factories rule-1996 (AEFR-1006 or latest version available at the time of work execution) safety guidelines for Job Hazard Analysis (JHA) & AERB notifications on Industrial & Fire safety. The copies of the same can be obtained from BHEL/NPCIL on request.

#### **15.1.7**

The contractor's safety professionals shall be aware about Acts, Rules connected with Industrial Safety and practices particularly applicable to the project and to threat effect they have to undergo an assessment a the project within 15 days of their placement at the project at the cost of the contractor and then only he/she would be given permanent entry pass and considered in required strength of the safety professionals.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter – 15: INDUSTRIAL SAFETY

---

### 15.1.8

All PPE procured and provided to workers shall conform to relevant Indian Standards and should be maintained in healthy condition by suitable storage, maintenance and inspection.

### 15.1.9

Contractor working at the height of more than 2.5 metres above stable floor or ground floor must acquire height pass as per procedure including the worker's medical fitness certificate by certifying surgeon (having MBBS qualification) and worker's height qualification etc. If in any height work, the worker is found without having height pass, it will be recorded for regulation of payment. The decision of BHEL engineer with regards to the regulation of payment shall be final and binding.

### 15.1.10

Contractor shall ensure safe movement of man and material as well as vehicles in site premises as per rules/regulations applicable at or issued by plant. In case of violation of the rules/regulation it will be recorded for regulation of payment. The decision of BHEL engineer with regards to the regulation of payment shall be final and binding.

## 15.2 SAFETY PLAN

### 15.2.1

Contractor at his cost shall perform following tasks for the job having high risk as identified by Department Safety Group:

- a) Prepare Safe Working Procedures and ensure its implementation in field.
- b) Carry out Job Hazard Analysis (JHA) and implement in field.
- c) Based on JHA, the safe working procedures should be modified especially to include checklists as necessary checkpoints for job safety supervision.
- d) Worker (s) must be trained based on safe working procedure and explained about DOs and DON'Ts prior to assigning him the job.
- e) The workers must adhere to the safe working procedure for the job.
- f) Contractor shall ensure that all Tools, Appliances, erecting equipments and their safe use by the contractor work force shall be meeting Indian Standards. The contractor must ensure that necessary authorization exist with workmen prior to their deployment on a particular appliance/tool/equipment. The workmen would be required to acquire additional authorization for crane operation, crane signaling, blasting operation, welding and cutting operation, electrical work etc. And then only workmen shall be deployed for such job. He shall maintain all record of tools and equipment for their healthiness and safe use with a copy to departmental safety group.

**TECHNICAL CONDITIONS OF CONTRACT (TCC)**  
**Annexure -1: TECHNICAL SPECS OF TARPULINS**

---

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

S.NO.	DESCRIPTION	UNIT	SPECIFICATION	TEST METHOD
1	SIZE	meter	6m X 6m	
2	PVC COATED		Both side	
3	WEIGHT (GSM i.e. gram per square meter)	gram	360 ± 30	IS-7016 (Part-1)
4	BREAKING STRENGTH WRAP LEFT	Kg/5 cm	200 Minimum 190 Minimum	IS-7016 (part-1)
5	TEARING STRENGTH WRAP LEFT	Kg	25 Minimum 25 Minimum	BS 3424-7A
6	ADHESION OF PVC TO BASE FABRIC WRAP LEFT	Kg/2.5 cm	3.5 Minimum 3.5 Minimum	IS-7016 (Part-5)
7	WATER PROOFING @ 100cm WATER COLUMN		No Leak	IS-7016 (part-7)

**General Specifications:**

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.

**NO SEPARATE PAYMENT WILL BE MADE FOR SUPPLY OF TARPAULINS. CONTRACTOR HAS TO PROVIDE REQUIRED NUMBER OF TARPAULINS WITHIN QUOTED RATES.**

TECHNICAL CONDITIONS OF CONTRACT (TCC)  
Annexure -2: AERB SAFETY GUIDELINES

---

**AERB SAFETY GUIDELINES UPLOADED AS FILE TITLED (KAPP-  
AERB SAFETY)**