

# **TENDER SPECIFICATION**

**NO: BHE/PW/PUR/KNT-PLT/773**

HANDLING OF PAINTS AT SITE STORES/STORAGE YARD, TRANSPORTATION TO SITE OF WORK, **APPLICATION OF PAINTS** FOR BOILERS AND ITS AUXILIARIES, TG AND AUXILIARIES, LP PIPING, CW PIPING AND STRUCTURES AND HANGERS & SUPPORTS OF LP PIPINGS AND POWER CYCLE PIPING, TANKS AND VESSELS, AND OTHER EQUIPMENTS, PAINTING OF COLOUR BANDS, LETTERING, MARKING AND SIGNS FOR DIRECTION OF FLOW/ ROTATION, NAME PLATES ETC OF 1x500 MW STAGE-III UNIT-7.

AT

KORBA SUPER THERMAL POWER STATION

OF

NATIONAL THERMAL POWER CORPORATION LIMITED

KORBA, C.G.

## **TECHNICAL BID- VOLUME – I A**

### **TENDER SPECIFICATION CONSIST OF:**

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



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

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This document ( i.e. NIT & Vol-I A ) is hosted in BHEL web page ([www.bhel.com](http://www.bhel.com)) as a ( Vol- I ) of Technical Bid

\$: **“Vol I -BCD” of Part-I ( Vol- I )** Hosted in BHEL web page ([www.bhel.com](http://www.bhel.com)) separately as a part of Technical Bid.

@: **Price bid is** issued as a separate hard copy booklet ‘Tender Specifications – Volume-II (Price Bid-773)’. Hosted in BHEL web page ([www.bhel.com](http://www.bhel.com)) separately as titled **“PRICE BID- ”**

## **Tender Specification Issue Details**

**Tender Specification No: BHE/PW/PUR/KNT-PLT-773**

**NAME OF THE WORK:** HANDLING OF PAINTS AT SITE STORES/STORAGE YARD, TRANSPORTATION TO SITE OF WORK, APPLICATION OF PAINTS FOR BOILER STRUCTURES, STAIRCASE, RAILINGS AND BOILER AUXILIARIES, TG & AUXILIARIES, LP PIPING, CW PIPING AND STRUCTURES AND HANGERS & SUPPORTS OF LP PIPINGS AND POWER CYCLE PIPING, TANKS AND VESSELS, AND OTHER EQUIPMENTS, PAINTING OF COLOUR BANDS, LETTERING, MARKING AND SIGNS FOR DIRECTION OF FLOW/ ROTATION, NAME PLATES ETC OF 1x500 MW STAGE-III UNIT-7.

AT

KORBA SUPER THERMAL POWER STATION

OF

NATIONAL THERMAL POWER CORPORATION LIMITED

KORBA, C.G.

EARNEST MONEY DEPOSIT: Refer Notice Inviting Tender

LAST DATE FOR                      Refer Notice Inviting Tender  
TENDER SUBMISSION                      .

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

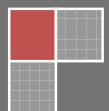
DGM (Purchase)

Place: Nagpur

Date :

# NOTICE INVITING TENDER

Bharat Heavy Electricals Limited



Ref: BHE/PW/PUR/KNT-PLT/773

Date: 12/09/2010

**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	<b>TENDER NUMBER</b>	<b>BHE/PW/PUR/KNT-PLT/773</b>
ii	<b>Broad Scope of job</b>	HANDLING OF PAINTS AT SITE STORES/STORAGE YARD, TRANSPORTATION TO SITE OF WORK, APPLICATION OF PAINTS FOR BOILER STRUCTURES, STAIRCASE, RAILINGS AND BOILER AUXILIARIES, TG & AUXILIARIES, LP PIPING, CW PIPING AND STRUCTURES AND HANGERS & SUPPORTS OF LP PIPINGS AND POWER CYCLE PIPING, TANKS AND VESSELS, AND OTHER EQUIPMENTS, PAINTING OF COLOUR BANDS, LETTERING, MARKING AND SIGNS FOR DIRECTION OF FLOW/ ROTATION, NAME PLATES ETC OF 1x500 MW STAGE-III UNIT-7 AT NTPC KORBA.
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	<b>Issue of Tender Documents</b>	<b>1. <u>Sale from BHEL PS Regional office at :Nagpur</u></b> <b>Start : 25 /10/ 2010</b> <b>Closes: 12/11/2010 , Time :16.00 Hrs</b> <span style="float: right;">Applicable</span>

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		<b>2. From BHEL website (<a href="http://www.bhel.com">www.bhel.com</a>)</b> Tender documents can however be downloaded from website till due date of submission	
v	<b>DUE DATE &amp; TIME OF OFFER SUBMISSION</b>	<b>Date : 15/11/ 2010 , Time :15.00Hrs</b> <b>Place : BHEL PS Regional office at :Nagpur</b> Tenders being submitted through representative shall be handed over to any of the following BHEL officials after making entry/registration at the reception: SM Borkar/ DGM (Purchase) RK Ranade/ Manager (Purchase) Vivek Kamal/ Engineer(Purchase) Pratish Gee Varghese/Engineer(Purchase)	Applicable
vi	<b>OPENING OF TENDER</b>	<b>1 hours after the latest due date and time of Offer submission</b> Notes: (1) In case the due date of opening of tender becomes a non-working day, tenders shall be opened on next working day at the same time. (2) Bidder may depute representative to witness the opening of tender	Applicable
vii	<b>EMD AMOUNT</b>	<b>Rs 1,,00,000/- (Rupees One Lakhs Only)</b>	Applicable
viii	<b>COST OF TENDER</b>	Rs 2000/-.	Applicable
ix	<b>LAST DATE FOR SEEKING CLARIFICATION</b>	Date: Atleast 5 days before the due date of offer submission Along with soft version also, addressing to undersigned & to others as per contact address given below	Applicable
x	<b>SCHEDULE OF Pre Bid Discussion (PBD)</b>	Date : Not applicable.	Not applicable.
xi	<b>INTEGRITY PACT &amp; DETAILS OF INDEPENDENT EXTERNAL MONITOR (IEM)</b>	Not Applicable	Not Applicable
xii	<b>Latest updates</b>	Latest updates on the important dates, Amendments, Correspondences, Corrigenda, Clarifications, Changes, Errata, Modifications, Revisions, etc to Tender Specifications will be hosted in BHEL webpage ( <a href="http://www.bhel.com">www.bhel.com</a> -->Tender Notifications →View Corrigendums) <b>and not in the newspapers</b> . Bidders to keep themselves updated with all such information	

2.0 The offer shall be submitted as per the instructions of tender document and as detailed in this NIT. Bidders to note specifically that all pages of tender document, including these NIT pages of this particular tender together with subsequent correspondences shall be submitted by them, duly signed & stamped on each page, as part of offer. **Rates/Price including discounts/rebates, if any, mentioned anywhere/in any form in the techno-commercial offer other than the Price Bid, shall not be entertained.**

3.0 Unless specifically stated otherwise, bidder shall remit cost of tender and courier charges if applicable, in the form of Demand Draft drawn in favour of Bharat Heavy Electricals Ltd, payable at Power Sector Regional HQ at Nagpur issuing the Tender, along with techno-commercial offer. Bidder may also choose to deposit the Tender document cost by cash at the Cash Office as stated above against sl no iv of 1, on any working day;

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and in such case copy of Cash receipt is to be enclosed with the Techno Commercial offer. Sale of tender Documents shall not take place on National Holidays, holidays declared by Central or State Governments and BHEL PS HQ at Nagpur, Sundays and second/ last Saturdays

4.0 Unless specifically stated otherwise, bidder shall deposit EMD through Demand Draft/Pay Order in favour of Bharat Heavy Electricals Ltd, payable at Nagpur. For other details and for 'One Time EMD' please refer General Conditions of Contract.

5.0 **Procedure for Submission of Tenders:** The Tenderers must submit their Tenders to Officer inviting Tender, as detailed below:

- PART-I consisting of 'PART-I A (Techno Commercial Bid)' & 'PART-I B (EMD/COST of TENDER)' in two separate sealed and superscribed envelopes (ENVELOPE-I & ENVELOPE-II)
- PART-II (Price Bid) – in sealed and superscribed envelope (ENVELOPE-III)

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> <ol style="list-style-type: none"> <li>a. In case of any deviation, the same should be submitted separately for technical &amp; 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.</li> <li>b. BHEL reserves the right to accept/reject the deviations without assigning any reasons, and BHEL decision is final and binding.               <ol style="list-style-type: none"> <li>i). In case of acceptance of the deviations, appropriate loading shall be done by BHEL</li> <li>ii). In case of unacceptable deviations, BHEL reserves the right to reject the tender</li> </ol> </li> </ol>	
iii.	Supporting documents/ annexure/ schedules/ drawing etc as required in line with Pre-Qualification criteria.  It shall be specifically noted that all documents as per above shall be indexed properly and credential certificates issued by clients shall distinctly bear the name of organization, contact ph no, FAX no, etc.	
iv.	All Amendments/Correspondences/Corrigenda/Clarifications/Changes/ Errata etc pertinent to this NIT.	
v.	Integrity Pact Agreement (Duly signed by the authorized signatory)	If applicable
vi.	Duly filled-in annexures, formats etc as required under this Tender	

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	Specification/NIT	
vii.	Notice inviting Tender (NIT)	
viii.	Volume – I A : <u>Technical</u> Conditions of Contract (TCC) consisting of Scope of work, Technical Specification, Drawings, Procedures, Bill of Quantities, Terms of payment, etc	
ix.	Volume – I B : Special Conditions of Contract (SCC)	
x.	Volume – I C : General Conditions of Contract (GCC)	
xi.	Volume – I D : Forms & Procedures	
xii.	Volume – II (UNPRICED – without disclosing rates/price, but mentioning only 'QUOTED' or 'UNQUOTED' against each item	
xiii.	Any other details preferred by bidder with proper indexing.	

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

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



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	<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 No Deviation with respect to tender clauses and no additional clauses/ suggestions/ in Techno-commercial bid/ Price bid shall normally 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: (Shall be applicable for Bid Evaluation after 1<sup>st</sup> Jan 2011)**  
**Bidders capacity for executing the job under tender shall be assessed as per the following:**

I. **Assigning Weightages (A) for Similar Jobs Under-Execution:** Weightages shall be worked out and assigned based on the average number of Similar Works under execution including works yet to be commenced by the agency, in the following manner:

i). Number of Similar Jobs

- a) No. of jobs in BHEL, PSER : Say 'J'
- b) No. of jobs in BHEL, PSSR : Say 'K'
- c) No. of jobs in BHEL, PSWR : Say 'L'
- d) No. of jobs in BHEL, PSNR : Say 'M'
- e) No. of jobs with other customers\* : Say 'N' (\*: Other than BHEL PSER, PSSR, PSWR & PSNR)
- f) Average No. of Jobs is 'P' = (J+K+L+M+N) divided by 5

ii). Weightage "A" assigned to bidders based on Average Number of jobs "P";

- a) If 'P' = 0-1, "A" will be equal to '3'
- b) If 'P' = 2-3, "A" will be equal to '2'
- c) If 'P' = 4-5, "A" will be equal to '1'
- d) If 'P' is Above 5, "A" will be equal to '0'

II. **Weightage "B" for Quarterly Performance Reports of Vendors:** This shall be based on the averages of the net weighted score obtained by the bidder for the jobs under execution (excluding works not commenced) for the quarter previous to the last quarter reckoned from the date of latest due date of submission, in all four Regions i.e BHEL PSER, PSSR, PSWR & PSNR, in the following manner.

i). Ratings by Power Sector Region:

- a) PS ER's Rating 'Rer' = (X<sub>1</sub> + X<sub>2</sub> + .. + X<sub>n</sub>) divided by n
- b) PS WR's Rating 'Rwr' = (X<sub>1</sub> + X<sub>2</sub> + .. + X<sub>n</sub>) divided by n
- c) PS SR's Rating 'Rsr' = (X<sub>1</sub> + X<sub>2</sub> + .. + X<sub>n</sub>) divided by n
- d) PS NR's Rating 'Rnr' = (X<sub>1</sub> + X<sub>2</sub> + .. + X<sub>n</sub>) divided by n
- e) **Over all Power Sector Region Rating 'R<sub>BHEL</sub>' = (Rer+ Rwr+ Rsr+ Rnr) divided by 4**

(where " $X_1, X_2, X_3, \dots, X_n$ " is the net weighted score obtained by the bidder as per the "Evaluation of Contractor Performance (Quarterly)" against the various contracts 'n' under execution in the respective Region).

ii) Weightage "B" assigned to bidders based on Overall Power Sector Rating ( $R_{BHEL}$ ):

- a) If  $R_{BHEL}$  is 80% and above, "B" will be equal to '6'
- b) If  $R_{BHEL}$  is  $> 70\% < 80\%$ , "B" will be equal to '5'
- c) If  $R_{BHEL}$  is  $> 60\% < 70\%$ , "B" will be equal to '4'
- d) If  $R_{BHEL}$  is  $\leq 60\%$ , "B" will be equal to '0'

III. Evaluation of Bidders capacity to execute the job under tender: shall be based on the sum of scores obtained in 'A' and 'B', as below:

- a) **6 or above : Considered 'Qualified' for the job under tender**
- b) **Less than 6: Considered 'NOT Qualified' for the job under tender**

IV. Explanatory note:

- a) Similar work means Boiler or Turbine or Civil or Electrical or CI, etc irrespective of rating of Plant
- b) Quarter shall be as per the quarter defined in the "Evaluation of Contractor performance (Quarterly)". For contracts where annexed Quarterly Evaluation performance was not part of the contract, 'Quarterly Performance Reports' previous to the last quarter reckoned from the date of latest due date of submission, given by the respective project site against the contract will be the basis for evaluation.
- c) Vendors who are not executing any jobs presently in the Region and first timers to the Region, may be considered subject to satisfying all other tender conditions
- d) 'Under execution' shall mean works in progress upto Boiler Steam Blowing (for Boiler and Auxiliaries) or Synchronisation (for all other jobs including Civil) shall be considered.

- 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 etc before quoting for this tender. They may also consult this office before submitting their offers, for any clarifications regarding scope of work, facilities available at sites or on terms and conditions. No additional claim shall be entertained by BHEL in future, on account of non-acquaintance of above.
- 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 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

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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 (xi) of 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 pre-qualification evaluation/ techno-commercial bids, approval/ acceptance of customer (as applicable), etc. and date of opening of price bids shall be intimated to only such bidders.
- 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) or specified otherwise in SCC of tender.
- 19.0 BHEL reserves the right to decide the successful bidder on the basis of Reverse Auction process. In such case all qualified bidders will be intimated regarding procedure/ modality for Reverse Auction process prior to Reverse Auction and price will be decided as per the rules for Reverse Auction. .
- However, if reverse auction process is unsuccessful as defined in the RA rules/procedures, or for whatsoever reason, then the sealed 'PRICE BIDS' will be opened for deciding the successful bidder. BHEL's decision in this regard will be final and binding on bidder.
- 20.0 On submission of offer, further consideration will be subject to compliance to tender & qualifying requirement and customer's acceptance, as applicable.
- 21.0 In case the bidder is an "Indian Agent of Foreign Principals", 'Agency agreement has to be submitted along with Bid, detailing the role of the agent along with the terms of payment for agency commission in INR, along with supporting documents.
- 22.0 The bidders shall not enter into any undisclosed M.O.U. or any understanding amongst themselves with respect to tender.
- 23.0 In case Consortium Bidding is allowed as per Pre Qualifying Requirement, then Prime Bidder and Consortium Partner shall enter into Consortium Agreement. Validity period of Consortium Agreement shall be 6 months after which the same can be re validated.
- 'Stand alone' bidder cannot become a '**prime bidder**' or a '**consortium bidder**' in a **consortium 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. .
- 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.

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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

for BHARAT HEAVY ELECTRICALS LTD

(SCT)

**Enclosure**

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

**ANNEXURE - 1**

**PRE QUALIFYING CRITERIA**

JOB	HANDLING OF PAINTS AT SITE STORES/STORAGE YARD, TRANSPORTATION TO SITE OF WORK, APPLICATION OF PAINTS FOR BOILER STRUCTURES, STAIRCASE, RAILINGS AND BOILER AUXILIARIES, TG & AUXILIARIES, LP PIPING, CW PIPING AND STRUCTURES AND HANGERS & SUPPORTS OF LP PIPINGS AND POWER CYCLE PIPING, TANKS AND VESSELS, AND OTHER EQUIPMENTS, PAINTING OF COLOUR BANDS, LETTERING, MARKING AND SIGNS FOR DIRECTION OF FLOW/ ROTATION, NAME PLATES ETC OF 1x500 MW STAGE-III UNIT-7 NTPC KORBA.
TENDER NO	<b>BHE/PW/PUR/KNT-PTE/XXX</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
A	Submission of Integrity Pact duly signed (if applicable)	NOT APPLICABLE	
B	Assessment of Capacity of Bidder to execute the work as per sl no 9 of NIT (if applicable)	<u>Shall be applicable for Bid Evaluation after 1<sup>st</sup> Jan 2011</u>	
C	<p><b><u>Technical</u></b>  <b>Bidders shall essentially meet all the Qualifying Requirements c (i.e. c.1 or c.2 or c.3 ,c.4 or c.5) , D.1,D.2 &amp; D.3 as under.</b></p> <p>c) Bidder must have successfully executed job of Application of Industrial Painting involving work up to an height of 30Meter minimum or above in last seven years as on 30/09/2010 as follows:</p> <p>c.1) One job of at least Rs 40.00Lakhs in a single work order,</p> <p style="text-align: center;"><b>OR</b></p> <p>c.2 )Two jobs of at least Rs 25.00 Lakhs each.</p> <p style="text-align: center;"><b>OR</b></p> <p>c.3) Three jobs of at least Rs 20.00Lakhs each.</p> <p>Note : Bidder who have executed E &amp; C of Boiler or E &amp; C work of Turbine or R &amp; M work of Boiler for 100 MW or higher rated thermal sets in last seven years as on 30/09/2010 as per c.1 or c.2 or c.3 above shall also considered for technical qualification of bidders.</p> <p style="text-align: center;"><b>OR</b></p> <p>c.4 ) Application of Paints for Boiler and its Auxiliaries in at least one unit of 100 MW or higher rated thermal power plant.</p>		

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	<b>OR</b>		
	c.5) Bidder should be empanelled with BHEL-PSWR-Nagpur for M-PT-1 or above category for Paint Application works		
D 1	<b><u>Financial TURNOVER</u></b> Bidders must have achieved an average annual financial turnover (Audited) of <b>Rs 15.00 Lakhs</b> or more over last three Financial Years (FY) i.e 2007-08, 2008-2009, 2009-2010 if Annual Accounts for FY 2009-10 are audited or for 2006-2007, 2007-2008 and 2008-2009 if not audited		
2	<b>NETWORTH</b> Net worth of bidder based on Audited Accounts of 2009-10 ( <b>OR</b> 2008-09 incase accounts for FY 09-10 has not been audited) should be higher than 50% of paid up capital in case of companies.		
3	<b>PROFIT</b> Bidder must have earned cash profit in any one of the three Financial Years as applicable in the last three years defined in 'D1 above based on latest Audited Accounts.		
E	Approval of Customer (if applicable) Note: Names of bidders who stand qualified after compliance of criteria A to D shall be forwarded to customer for their approval. Price bid of only those bidders shall be opened who are approved by customer.	<b>NOT APPLICABLE</b>	
F	Consortium criteria (if applicable)	<b>NOT APPLICABLE</b>	
	<b>Explanatory Notes for QR 'A'</b> 1. The word 'executed' means the bidder should have achieved the criteria specified in the QR even if the total contract has not been completed or closed 2. Bidder to submit Audited Balance Sheet and Profit and Loss Account for the respective years as given above along with all annexures <b>3. BIDDER SHOULD ESSENTIALLY MEET ALL THE PQR ( i.e. POR- C, D1,D2,D3 ) AS ABOVE TO GET QUALIFIED AGAINST THIS TENDER</b>		

**BIDDER SHALL SUBMIT ABOVE PRE-QUALIFICATION CRITERIA FORMAT, DULY FILLED-IN, SPECIFYING RESPECTIVE ANNEXURE NUMBER AGAINST EACH CRITERIA AND FURNISH RELEVANT DOCUMENT IN THE RESPECTIVE ANNEXURES IN THEIR OFFER along with copies of Work Orders, Work Completion certificates, Audited profit and Loss Account for the last three years and other related documents as per PQR & tender specification.**

**BIDDER MUST SIGN & STAMP ALL PAGES OF TECHNICAL BID- VOL-I AND SUBMIT IT WITH THEIR OFFER AS A PART OF TECHNICAL BID.**

**CHECK LIST**

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

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

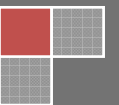
NOTE : STRIKE OFF 'YES' OR 'NO', AS APPLICABLE

DATE :

**AUTHORISED SIGNATORY**  
 (With Name, Designation and Company seal)

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

BHARAT HEAVY ELECTRICALS LIMITED





# TECHNICAL CONDITIONS OF CONTRACT (TCC)

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# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter - I : Project Information

<b>1.0</b>	<b>Project Information</b>
<b>1.1</b>	<p><b>INTROUCTION</b></p> <p>KORBA SUPER THERMAL POWER PROJECT, STAGE-III (1X500MW), A PIT HEAD COAL BASED THERMAL POWER PROJECT, IS LOCATED IN KORBA DISTRICT OF CHHATTISGARH STATE. STAGE-I (3X200 MW) AND STAGE-II (3X500 MW) OF THE PROJECT ARE UNDER COMMERCIAL OPERATION. BASIC INPUTS I.E, COAL, WATER AND LAND HAVE ALREADY BEEN TIED UP. THE PROJECT IS PROPOSED TO BE IMPLEMENTED AS MERCHANT PLANT FOR THE BENEFITS OF STATES AND UTS OF WESTERN REGION.</p> <p><b>LOCATION AND APPROACH</b></p> <p>THE SITE IS LOCATED ON THE WESTERN BANK OF RIVER HASDEO NEAR KORBA TOWN IN KORBA DISTRICT OF CHHATTISGARH STATE. THE SITE IS CONTIGUOUS TO THE RIGHT BANK IRRIGATION CANAL ORIGINATING FRO HASDEO BARRAGE. BALCO'S ALUMINIUM PLANT AND TWO POWER STATIONS ARE ALREADY LOCATED ON BOTH THE BANKS OF HASDEO RIVER IN THE VICINITY.</p> <p>KORBA TOWN IS A BROAD GAUGE RAIL HEAD 37 KMS. AWAY FROM CHAMPA RAILWAY STATION ON CALCUTTA-NAGPUR MAIN LINE OF SOUTH-EASTERN CENTRAL RAILWAY AND IS APPROXIMATELY 510 KMS. FROM NAGPUR BY RAIL. THE SITE IS VERY CLOSE TO ALL WEATHER ROAD BETWEEN KATGHORA &amp; KORBA AND IS APPROXIMATELY 110 KMS FROM BILASPUR AND 10 KMS FROM KORBA TOWN. THE NEAREST AIRPORT IS RAIPUR LOCATED AT A DISTANCE OF APPROXIMATELY 250 KMS. FROM THE PROJECT SITE.</p>

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter - II : Scope of Works

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### 2.0 SCOPE OF WORK INVOLVING SURFACE CLEANING AND APPLICATION OF PAINTS

THE WORK TO BE CARRIED OUT UNDER THE SCOPE OF THESE SPECIFICATIONS COVERS THE COMPLETE WORK OF LOADING, HANDLING, TRANSPORTING, UNLOADING, SURFACE CLEANING, APPLICATION OF PRIMER AND FINISH/FINAL PAINTS, GRINDING OF WELDING SPATTERS, KEROSENE CLEANING ETC OF BOILER & AUXILIARIES, TG & AUXILIARIES, LP PIPING, CW PIPING AND STRUCTURES AND HANGERS & SUPPORTS OF LP PIPINGS AND POWER CYCLE PIPING, TANKS AND VESSELS, AND OTHER EQUIPMENTS, PAINTING OF COLOUR BANDS, LETTERING, MARKING AND SIGNS FOR DIRECTION OF FLOW/ ROTATION, NAMEPLATES ETC OF 1 X 500 MW STAGE-III UNIT- 7. THE WORK SHALL CONFORM TO INSTRUCTIONS/SPECIFICATIONS/STANDARD PRACTICES AND APPROVED COLOUR CODES THAT WILL BE PROVIDED BY BHEL FROM TIME TO TIME. IF ANY PORTION OF THE WORK IS FOUND TO BE DEFECTIVE IN WORKMANSHIP OR NOT CONFORMING TO SPECIFICATIONS, THE CONTRACTOR SHALL CLEAN THE SURFACE AND RE-DO THE WORK AT HIS COST FAILING WHICH THE WORK WILL BE GOT DONE BY ENGAGING OTHER AGENCIES OR DEPARTMENTALLY AND RECOVERIES WILL BE EFFECTED FROM CONTRACTORS BILL TOWARDS EXPENDITURE INCURRED INCLUDING 30% DEPARTMENTAL CHARGES. ALL TOOLS, TACKLES, FIXTURES, EQUIPMENTS, MATERIALS, MANPOWER, SUPERVISORS/ ENGINEERS, CONSUMABLES ETC REQUIRED FOR THIS SCOPE OF WORK SHALL BE PROVIDED BY THE CONTRACTOR. ALL EXPENDITURE INCLUDING TAXES AND INCIDENTALS IN THIS CONNECTION WILL HAVE TO BE BORNE BY HIM UNLESS OTHERWISE SPECIFIED IN THE RELEVANT CLAUSE. THE CONTRACTOR'S QUOTED RATES SHOULD BE INCLUSIVE OF ALL SUCH CONTINGENCIES. SCOPE OF WORK IS FURTHER DETAILED HEREAFTER.

#### 2.1 FINAL PAINTING

##### 2.1.1

ALL EQUIPMENTS COVERED IN THIS WORK WILL BE SUPPLIED BY RESPECTIVE BHEL UNITS WITH ONE COAT OF PRIMER AND TWO COATS OF FINISH PAINT APPLIED AT THE MANUFACTURING SHOP; CONTRACTOR SHALL APPLY ONE COAT OF SPECIFIED PRIMER AND TWO COATS OF SPECIFIED FINISH PAINT ON ALL SUCH COMPONENTS/EQUIPMENTS (WHICH ARE NOT INSULATED) AFTER ERECTION AT SITE TO ACHIEVE REQUIRED DFT (DRY FILM THICKNESS). (REFER APPENDIX-VIII)

##### 2.1.2

IN ADDITION TO COMPONENTS/EQUIPMENT AS ABOVE, THERE COULD BE LIMITED FEW WITHOUT ANY PRIOR PROTECTIVE COATING. SUCH COMPONENTS SHALL FIRST BE THOROUGHLY CLEANED OF ALL DIRT, RUST, SCALE, GREASE, OIL AND OTHER SURFACE DEPOSITS BY WIRE BRUSHING, SCRAPING, WASHING, WIPING WITH SOLVENT OR ANY APPROPRIATE METHOD AND THE SAME BEING INSPECTED AND APPROVED BY BHEL FOLLOWED BY APPLICATION OF ONE COAT OF PRIMER. AFTERWARDS, THE ABOVE PARTS SHALL BE OVER-COATED WITH TWO COATS OF SPECIFIED PAINT AS PER APPLICATION PROCEDURE PRESCRIBED BY THE PAINT MANUFACTURER.

##### 2.1.3 TOUCH-UP PAINTING ON DAMAGED AREAS -

a) FOR COATINGS DAMAGED UP TO METAL SURFACE

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter - II : Scope of Works

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SURFACE PREPARATION SHALL BE CARRIED OUT BY MANUAL CLEANING. MINIMUM 6 INCHES ADJOINING AREA WITH EXISTING COATING SHALL BE ROUGHENED BY WIRE BRUSHING, EMERY PAPER RUBBING ETC., FOR BEST ADHESION OF PATCH PRIMER.

b)

PAINTING OF SITE-WELDED AREAS / PAINTING OF AREAS EXPOSED AFTER REMOVAL OF TEMPORARY SUPPORTS / TOUCH-UP PAINTING ON DAMAGED AREAS OF EMPLOYER'S STRUCTURES, WHERE INTER-CONNECTION, WELDING / MODIFICATION ETC HAS BEEN CARRIED OUT BY THE BIDDER.

- (A) CLEAN THE SURFACE TO REMOVE FLUX SPATTERS AND LOOSE RUST, LOOSE COATINGS IN THE ADJOINING AREAS OF WELD SEAMS BY WIRE BRUSH AND EMERY PAPER.
- (B) PAINTING PROCEDURE TO BE FOLLOWED AS MENTIONED ABOVE FOR TOUCH-UP PAINTING ON DAMAGED AREAS.

### 2.1.5

THE SCOPE OF WORK INCLUDES PAINTING OF COLOUR BANDS, LETTERING, MARKING AND SIGNS FOR DIRECTION OF FLOW/ROTATION, NAMES ETC OF APPROVED COLOURS AS PER THE STANDARD COLOUR CODES AND SPECIFICATIONS SPECIFIED IN TENDER SPECIFICATION OR AS ADVISED BY BHEL/CUSTOMER ENGINEER AT SITE FOR THE EQUIPMENTS/ COMPONENTS COVERED IN THESE SPECIFICATIONS.

### 2.1.6

ALL EXPOSED METAL PARTS OF THE EQUIPMENT INCLUDING PIPING, STRUCTURES, HAND RAILING, GRATING ETC SHALL BE THOROUGHLY CLEANED OFF DUST, RUST, SCALES AND OTHER FOREIGN MATERIALS BY MANUAL OR MECHANISED WIRE BRUSHING, SCRAPPING, SAND BLASTING ETC AND THE SAME BEING INSPECTED AND APPROVED BY BHEL/CUSTOMER ENGINEER BEFORE APPLICATION OF PRIMER. AFTERWARDS, THE ABOVE PARTS SHALL BE FINISH PAINTED WITH SPECIFIED NUMBER OF COATS AS PER SPECIFICATION.

### 2.1.7

IN CERTAIN ISOLATED INSTANCES WHERE IT IS NOT POSSIBLE TO CLEAN THE EQUIPMENTS AS EXPLAINED ABOVE, CLEANIN BY GRINDING MIGHT HAVE TO BE RESORTED TO. NO DAMAGE TO THE EQUIPMENT/COMPONENTS SHOULD BE CAUSED.

### 2.1.8

SURFACE TO BE PAINTED SHOULD BE FREE OF OIL AND GREASE. IT SHOULD BE REMOVED BY USING SUITABLE CLEANING AGENTS INCLUDING PERMITTED SOLVENTS. SURFACE CLEANED BY CHEMICAL AGENT, IF REQUIRED, SHALL BE TREATED FURTHER AS PRESCRIBED IN USE OF SUCH CLEANING AGENTS. THE CONTRACTOR AT HIS OWN COST SHALL PROVIDE ALL THE CONSUMABLES AND APPLICATION IMPLEMENTS.

### 2.1.9

DURING THE PREPARATION OF SURFACE, IF THE SHOP COAT IS DAMAGE BY CHEMICAL CLEANING OR BY MECHANICAL MEANS, CONTRACTOR SHALL REPAIR THE SAME FREE OF COST TO BHEL. BHEL WILL MAKE AVAILABLE ONLY THE PRIMER AND PAINTS FREE OF ANY CHARGE TO CONTRACTOR.

### 2.1.10

SPECIFIED DRYING TIME SHALL BE PERMITTED FROM ONE TO ANOTHER COAT.

### 2.1.11

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter - II : Scope of Works

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THIS WORK REQUIRES WORKING AT HIGHER ALTITUDES FROM GROUND LEVEL TO AS HIGH AS 90 M AND MORE. THE WORK SPREAD IS ALSO SUBSTANTIAL INVOLVING SUBSTANTIAL RUN OF STRUCTURES AND PIPING. CONTRACTOR SHALL TAKE SUFFICIENT PRECAUTIONS TO AVOID ANY ACCIDENT AND HAZARD IN ALL RESPECTS. THE ROPES, LADDERS, SCAFFOLDING MATERIALS, CLAMPS ETC AND CLIMBER USED SHOULD BE OF STANDARD QUALITY FOR SAFE AND SMOOTH EXECUTION OF WORK.

### 2.1.12

CONTRACTOR SHALL CARRY OUT THE WORK IN SUCH A WAY THAT OTHER ERECTED EQUIPMENT, STRUCTURE, CIVIL FOUNDATIONS AND OTHER PROPERTY ARE NOT DAMAGED. FOR DAMAGES IN ANY OF SUCH CASES DUE TO LAPSES BY CONTRACTOR, BHEL SHALL HAVE THE RIGHT TO RECOVER THE COST OF SUCH DAMAGES FROM THE CONTRACTOR.

### 2.1.13

CONTRACTOR SHALL TAKE DUE CARE TO COVER/PROTECT THE EQUIPMENT WHICH ARE ALREADY PAINTED WHILE CARRYING OUT THE PAINTING OF OTHER ADJACENT EQUIPMENT. IF SO HAPPENS, IT SHALL BE CLEANED AND REPAINTED BY THE CONTRACTOR WITHOUT ANY EXTRA CHARGES.

### 2.1.14

IN GENERAL, PAINTING OF STRUCTURAL PARTS AND COLOUR BANDS, LETTERING, MARKING OF DIRECTION OF FLOW/ROTATION ETC WILL BE CARRIED OUT BY BRUSH PAINTING. HOWEVER, AREAS/EQUIPMENT INACCESSIBLE FOR MANUAL PAINTING HAS TO BE PAINTED BY SPRAY PAINTING. THE DECISION OF BHEL ENGINEER, IN THIS REGARD, SHALL BE FINAL AND BINDING ON THE CONTRACTOR. FOR THE PURPOSE OF SPRAY PAINTING, AIR AT ONE POINT WILL BE MADE AVAILABLE BY BHEL FREE. LAYING OF AIR HOSE PIPE AND ANY OTHER LINE REQUIRED SHALL BE DONE BY CONTRACTOR AT HIS COST. THE CONTRACTOR SHALL PROVIDE SPRAY EQUIPMENT SET.

### 2.1.15

APPROXIMATE QUANTITY OF WORK INVOLVED IS INDICATED VIDE APPENDIX-I ONLY FOR GENERAL INFORMATION. THESE MAY VARY TO ANY EXTENT. NO CLAIM WHATSOEVER ON ACCOUNT OF ANY VARIATION IN THESE QUANTITIES SHALL BE ENTERTAINED.

## 2.2 COLLECTION OF MATERIALS AND STORAGE ETC.

### 2.2.1

THE CONTRACTOR SHALL TAKE DELIVERY OF PAINTS, PRIMER ETC FROM THE STORAGE YARD/STORES/SHEDS OF BHEL/CUSTOMER.

### 2.2.2

THE CONTRACTOR SHALL PROVIDE ACCOUNT OF ALL THE ITEMS ISSUED TO HIM AND RETURN ALL PRIMER, PAINTS ETC REMAINING EXTRA OVER THE NORMAL REQUIREMENT WITH PROPER IDENTIFICATION TAGS IN A PACKED CONDITION TO BHEL STORES. IN CASE OF ANY MISUSE OR EXCESS USE OVER THE NORMAL REQUIREMENT, BHEL RESERVES THE RIGHT TO RECOVER THE COST OF SUCH MISUSE/ EXCESS USE. DECISION OF BHEL ENGINEER IN THIS REGARD WILL BE FINAL AND BINDING ON THE CONTRACTOR.

### 2.2.3

THE CONTRACTOR SHALL MAKE ADEQUATE SECURITY ARRANGEMENTS INCLUDING EMPLOYMENT OF SECURITY PERSONNEL AND ENSURE PROTECTION FROM THEFT, FIRE, PILFERAGE, DAMAGE AND LOSS OF PAINTS ETC ISSUED TO HIM FOR THE WORK.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter - II : Scope of Works

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### 2.3 SITE CLEANLINESS

#### 2.3.1

DURING THE COURSE OF WORK, SCRAP LUMBER WITH PROTRUDING NAILS, SHARP EDGES ETC AND ALL THE DEBRIS SHALL BE KEPT CLEARED FROM WORKING AREA, PASSAGE WAYS AND STAIRS IN AND AROUND SITE. PROPER HOUSEKEEPING IS THE RESPONSIBILITY OF THE CONTRACTOR. CONTRACTOR SHALL DEPOSIT ALL THE SCRAP, PACKING MATERIAL, RUBBISH, UNUSED AND OTHER MATERIALS AT SPECIFIED PLACE.

#### 2.3.2

THE CONTRACTOR SHALL PROVIDE NECESSARY FIRST AID FACILITIES AND SAFETY APPLIANCES AND OUTFIT FOR ALL HIS EMPLOYEES, REPRESENTATIVES AND WORKMEN WORKING AT SITE.

### 2.4.0 GENERAL

#### 2.4.1

THE WORK COVERED UNDER THIS SPECIFICATION REQUIRES THE BEST QUALITY OF WORKMANSHIP. THE CONTRACTOR SHOULD ENSURE TIMELY COMPLETION OF WORK. THE CONTRACTOR MUST HAVE ADEQUATE QUANTITY OF TOOLS, CONSTRUCTION IMPLEMENTS, EQUIPMENTS ETC, IN HIS POSSESSION. HE MUST ALSO HAVE ON HIS ROLLS ADEQUATE, TRAINED, QUALIFIED & EXPERIENCED SUPERVISORY STAFF AND SKILLED PERSONNEL.

#### 2.4.2

THE WORK SHALL BE EXECUTED UNDER THE USUAL CONDITIONS AFFECTING MAJOR POWER PLANT CONSTRUCTION AND IN CONJUNCTION WITH NUMEROUS OTHER OPERATIONS AT SITE. THE CONTRACTOR AND HIS PERSONNEL SHALL CO-OPERATE WITH THE PERSONNEL OF OTHER OF OTHER AGENCIES, CO-ORDINATE HIS WORK WITH OTHERS AND PROCEED IN A MANNER THAT SHALL NOT DELAY OR HINDER THE PROGRESS OF WORK AS A WHOLE.

#### 2.4.3

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

#### 2.4.4

ALL THE NECESSARY CERTIFICATES AND LICENSES WHEREVER REQUIRED TO CARRYOUT THIS WORK ARE TO BE ARRANGED BY THE CONTRACTOR EXPEDITIOUSLY AT HIS COST.

#### 2.4.5

THE TERMINAL POINTS AS DECIDED BY BHEL SHALL BE FINAL AND BINDING ON THE CONTRACTOR.

#### 2.4.6

CONTRACTOR IS STRICTLY PROHIBITED FROM USING THE REGULAR COMPONENTS LIKE ANGLES, CHANNELS, BEAMS, PLATES, PIPE/TUBES, AND HANDRAILS ETC FOR ANY TEMPORARY SUPPORTING OR SCAFFOLDING WORKS. CONTRACTOR SHALL ARRANGE HIMSELF ALL SUCH MATERIALS. IN CASE OF SUCH MISUSE OF BHEL MATERIALS, A SUM AS DETERMINED BY BHEL ENGINEER WILL BE RECOVERED FROM CONTRACTOR'S BILLS. THE DECISION OF BHEL ENGINEER IS FINAL AND BINDING ON THE CONTRACTOR.

#### 2.4.7

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter - II : Scope of Works

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THE CONTRACTOR SHOULD VISIT THE SITE BEFORE QUOTING HIS RATES, EVALUATE THE VOLUME/ QUANTITY TO BE PAINTED, GET ACQUAINTED WITH SITE CONDITIONS AND SUBMIT HIS RATES. NO REVISION OF RATES SHALL BE ALLOWED UNDER ANY CIRCUMSTANCES.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter – III : Facilities in the scope of Contractor/BHEL

Sl.No	Description	Scope / to be taken care by		Remarks
		BHEL	Bidder	
3.1	<b>PART I ESTABLISHMENT</b>			
3.1.1	<b>FOR CONSTRUCTION PURPOSE:</b>			
a	Open space for office (as per availability)	Yes		Location will be finalized as per availability of space
b	Open space for storage (as per availability)	Yes		Location will be finalized as per availability of space
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 labour colony (as per availability)	Yes		Location will be finalized as per availability of space
b	Labour Colony with internal roads, sanitation, complying with statutory requirements		Yes	
3.2.0	<b>ELECTRICITY</b>			
3.2.1	Electricity For construction purposes of Voltage 415/440 V	YES		Free of charge, however all Taxes, Duties, Levies, charges etc shall be borne by the Contractor.
a	Single point source	Yes		At a distance of aprox. 500 M from site (Distance is only estimated, it may vary upto an extent depending on site condition)



# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter – III : Facilities in the scope of Contractor/BHEL

Sl.No	Description <b>PART I</b>	Scope / to be taken care by		Remarks
		BHEL	Bidder	
b	Further distribution including all materials, Energy Meter, Protection devices and its service		Yes	
c	Duties and deposits including statutory clearances if applicable		Yes	
3.2.2	<b>Electricity for the office, stores, canteen etc of the bidder</b>	Yes		
a	Single point source	Yes		At a distance of aprox. 500 M from site (Distance is only estimated, it may vary upto an extent depending on site condition)
b	Further distribution including all materials, Energy Meter, Protection devices and its service		Yes	
c	Duties and deposits including statutory clearances if applicable		Yes	
3.2.3	<b>Electricity for living accommodation of the bidder's staff, engineers, supervisors etc</b>	Yes		On chargeable basis
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>WATER SUPPLY</b>			
3.3.1	<b>For construction purposes</b>	Yes		Free of charge, however all Taxes, Duties, Levies, charges etc shall be borne by the Contractor
a	Making the water available at single point	Yes		
b	Further distribution as per the requirement of work including supply of materials and execution		Yes	
3.3.2	<b>Water supply for bidder's office, stores, canteen etc</b>	Yes		
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	

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter – III : Facilities in the scope of Contractor/BHEL

Sl.No	Description <b>PART I</b>	Scope / to be taken care by		Remarks
		BHEL	Bidder	
3.3.3	<b>Water supply for Living Purpose</b>			Contractor shall have to arrange construction water at his own expenses.
a	Making the water available at single point		Yes	
b	Further distribution as per the requirement of work including supply of materials and execution		Yes	
3.4.0	<b>LIGHTING</b>			
a	For construction work (supply of all the necessary materials) 1. At office/storage area 2. At the preassembly area 3. At the construction site /area		Yes	
b	For construction work (execution of the lighting work/ arrangements) 1. At office/storage area 2. At the preassembly area 3 At the construction site /area		Yes	
c	Providing the necessary consumables like bulbs, switches, etc during the course of project work		Yes	
d	Lighting for the living purposes of the bidder at the colony / quarters		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	COMPRESSED AIR wherever required for the work		Yes	
3.7.0	Demobilization of all the above facilities		Yes	
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 – III : Facilities in the scope of Contractor/BHEL**

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# TECHNICAL CONDITIONS OF CONTRACT (TCC)

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

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### **A: TOOL & PLANTS**

1. CONTRACTOR IS REQUIRED TO PROVIDE ALL NECESSARY TOOLS AND PLANTS, MEASURING INSTRUMENTS (ELCOMETER ETC) AND HANDLING EQUIPMENTS FOR THIS SCOPE OF WORK. BHEL IS NOT PROVIDING ANY T & P FOR THIS WORK.
2. THE CONTRACTOR SHALL PROVIDE ALL THE NECESSARY SCAFFOLDING MATERIALS, TEMPORARY STRUCTURES AND NECESSARY SAFETY DEVICES ETC, DURING EXECUTION OF THE WORK.
3. TIMELY DEPLOYMENT OF ADEQUATE QUANTITY OF T&P IS THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL BE PREPARED TO AUGMENT THE T&P AT SHORT NOTICE TO MATCH THE PLANNED PROGRAMME AND TO ACHIEVE THE MILESTONES.

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

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BHEL WILL NOT PROVIDE ANY T & P.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter – VI: Time Schedule

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### 6.1 TIME SCHEDULE & MOBILIZATION

#### 6.1 TIME SCHEDULE

CONTRACTOR HAS TO MOBILISE HIS RESOURCES AND WORK FORCE IN SUCH A MANNER THAT THE ENTIRE WORK AS DETAILED IN THIS SPECIFICATION IS COMPLETED SATISFACTORILY IN ALL RESPECTS IN **6 (SIX) MONTHS** FROM START OF WORK AT SITE.

#### 6.2 MOBILISATION

##### 6.2.1

THE CONTRACTOR SHOULD REACH SITE AND ESTABLISH HIS SITE OFFICE AND MOBILISE TO COMMENCE THE WORK AS PER DIRECTIONS OF BHEL ENGINEER. THE DATE OF START OF PAINTING WORK ON ANY EQUIPMENT AS DIRECTED BY BHEL ENGINEER AND SO CERTIFIED BY BHEL ENGINEER WILL BE CONSIDERED AS THE DATE OF START OF CONTRACT. THE TIME TAKEN FOR PREPARATORY WORK SHALL NOT BE CONSIDERED FOR RECONING THE COMMENCEMENT CONTRACT.

##### 6.2.2

CONTRACTOR SHALL MOBILISE AND ARRANGE HIS RESOURCES FOR COMPLETION OF WORK TO SUIT THE PEAK REQUIREMENTS AS ALSO TO ACHIEVE MONTHLY PROGRAMMES AND TARGETS SET BY BHEL ENGINEER. IN A PROJECT OF THIS MAGNITUDE, PREPONEMENT OF SCHEDULES ARE TO BE EXPECTED AND ALSO NORMAL DELAYS IN MATERIAL SUPPLIES AND FRONT AVAILABILITY ARE LIKELY. CONTRACTOR'S OFFER SHALL ACCOUNT FOR ALL SUCH CONTINGENCIES.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-VII: Terms of Payment

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### 7.00 Stages of Progressive Payments

#### 7.0.1 PROGRESSIVE PAYMENT FOR PAINTING WORK.

THE PERCENTAGE OF PAYMENT FOR PROGRESSIVE COMPLETION OF WORK IN VARIOUS CATEGORIES OF WORK SHALL BE AS UNDER:

##### 7.1

98% OF THE ITEM RATE ON PRORATA BASIS ON COMPLETION OF SURFACE CLEANING, COATINGS OF PRIMER AS APPLICABLE AND APPLICATION OF SPECIFIED COATS OF FINISH PAINTS AS PER THE REQUIREMENT.

##### 7.2

2% OF THE ITEM RATE ON PRORATA BASIS ON COMPLETION OF COLOUR BAND MARKING, LEGENDS, DIRECTION OF FLOW/ROTATION ETC.

The RA bill payment shall be made as made as per CI no 10.0 of Chapter –X of SCC ( page-43 ) & GCC cl no-2.23 ( page 28,29 ).

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-VIII: Taxes and Other Duties

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### 8.1.0 TAXES, DUTIES, LEVIES

#### 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

Service Tax and Cess on Service Tax as applicable on output Services are excluded from contractor's scope; therefore contractor's price/rates shall be **exclusive** of Service Tax and Cess on Output Services. In case, it becomes mandatory for the contractor under provisions of relevant act/law to collect the Service Tax & Cess from BHEL and deposit the same with the concerned tax authorities, such applicable amount will be paid by BHEL.

**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,**

- I. The name, address and the registration number of the contractor,**
- II. The name and address of the party receiving taxable service,**
- III. Description, classification and value of taxable service provided and,**
- IV. The service tax payable thereon.**

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

Contractor shall obtain prior written consent from BHEL before billing the amount towards such taxes.

With introduction of Cenvat Credit Rules 2004, which came into force w.e.f. 10.09.2004, Excise Duty paid on Input Goods including Capital Goods and Service Tax paid on Input Services that are used for providing the output services can be taken credit of against the Service Tax payable on output services. However BHEL may opt for availing the abatement provision in which case cenvat credit may not be available on input duty.

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

As regards Value Added Tax (VAT) 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 **exclusive** of the same. Where such taxes are required to be paid by the contractor, this will be reimbursed on production of proof of payment made to the authorities by the Contractor. In any case the Contractor shall



# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-VIII: Taxes and Other Duties

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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. The contractor has to take all necessary steps to **minimize tax on input goods** by purchasing the materials from any registered dealer of the concerned state only. In case contractor opts for composition, it will be with the prior express consent of BHEL. Deduction of tax at source shall be made as per the provisions of law unless otherwise found exempted. In case tax is deducted at source as per the provisions of law, this is to be construed as an advance tax paid by the contractor and no reimbursement thereof will be made unless specifically agreed to.

### 8.1.4 Modalities of Tax Incidence on BHEL

Wherever the relevant tax laws permit more than one option or methodology for discharging the liability of tax/levy/duty, BHEL will have the right to adopt the appropriate one considering the amount of tax liability on BHEL/Client as well as procedural simplicity with regard to assessment of the liability. The option chosen by BHEL shall be binding on the Contractor for discharging the obligation of BHEL in respect of the tax liability to the Contractor.

### 8.1.5 New Taxes/Levies

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

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

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

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-IX : SPECIFIC INCLUSIONS

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### **9.12 Consumables**

#### **9.12.1**

THE CONTRACTOR SHALL PROVIDE ALL CONSUMABLES REQUIRED FOR CARRYING OUT THE WORK COVERED UNDER THIS SCOPE OF WORK EXCEPTING THOSE WHICH ARE SPECIFICALLY INDICATED AS BHEL SUPPLY.

#### **9.12.2**

ALL CONSUMABLES, TO BE PROCURED AND USED FOR THE WORK SHALL HAVE PRIOR APPROVAL OF BHEL ENGINEER IN REGARD TO BRAND AND QUALITY SPECIFICATION.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-X : SPECIFIC EXCLUSIONS

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FOLLOWING ARE EXCLUDED FROM THE CONTRACTOR'S SCOPE OF WORK UNDER THIS TENDER SPECIFICATION:

SUPPLY OF PRIMER, PAINTS AND THINNER

ie PRIMER, PAINTS AND THINNER shall be supplied by BHEL .

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Annexure-I SUMMARY OF TENTATIVE WEIGHT OF EQUIPMENTS/SYSTEM (PER UNIT)

### APPENDIX-I

SN	EQUIPMENT / PACKAGE	UOM	APPROX. WT. (MT)
1.	Painting of structures of BOILER & Auxiliaries & other packages , hangers and supports of Piping (INCL PCP, LPP ETC), Pumps, Tanks and other components equipments / systems etc.	MT	14375
2.	Seal air fans , their lube oil system including lub oil piping ,if any , motors , Silencers , Hoods	SET	2
3.	ID Fans, their cooling water system, if any, motors, hoods etc. complete system etc. complete system.	SET	2
4	PA Fans, their lube oil system including lub oil piping ,if any ,silencers, hoods etc. complete system	SET	2
5.	FD Fans, their lube oil system including lub oil piping ,if any ,Silencers, hoods etc. complete system	SET	2
6.	Coal mills including motors, their lube oil system including lub oil piping, Feeders etc. complete system.	Nos.	10
7.	Condenser, Steam turbine, Turbo generator, other auxiliaries ,pumps, motors, coolers and plate heat exchangers, racks, tanks and such other equipments	SQ.M	2500
8.	ST-TG Piping such as lub oil, Control oil etc	SQ.M	500
9.	COAL PIPING INCLUDING BENDS AND OTHER FITTINGS AND SPECIALITIES FROM TP TO TP INCLUDING BOILER AND MILL REJECT SYSTEM	SQ.M	11000
10.	CW PIPING, LP PIPING, TG INTEGRAL PIPING ETC WITH ALL FITTINGS AND SPECIALITIES	SQ.M	1000

**NOTE:**

- Weight of various equipments, quantities of various items of work covered under these specifications are indicative with associated Aux, the price accepted shall remain unchanged and shall be applicable without any variation.

**TECHNICAL CONDITIONS OF CONTRACT (TCC)**  
**Annexure-II SUMMARY OF PAINTING SCHEDULE OF**  
**EQUIPMENTS/SYSTEM (PER UNIT)**

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**Annexure-II**

**DRAWINGS/DOCUMENTS ATTACHED AS PART OF TENDER DOCUMENT**

1. PAINTING SCHEME FOR BOILER – DOCUMENT NO: Q: PL: C3 - PS /0634, REVISION NO: 01 DATED: 09-08-2006,
2. PAINTING SCHEME FOR BOWL MILLS - DOCUMENT NO: BA/PS/NTPC KORBA/00, REV. NO: 00 DATED 16.06.2006,
3. PAINTING SCHEDULE FOR APH, ESP, FAN AND GATES & DAMPER - DOCUMENT NO: PR:QA:571, REV. NO: 04 DATED 19.12.2006 AND AMMENDMENT : A1 DATED 11.04.2008.
4. PAINTING SCHEDULE FOR HEATERS, COOLERS & DEARATOR – BHEL DRAWING NO: HY-DC-249-149-0014, DATED 19.01.2007.
5. PAINTING SCHEME FOR LP PIPING- QP No: 6893:QPC:12, REV NO:01 DATED 22.10.2007.
6. PAINTING SCHEULE FOR THE EQUIPMENTS UNDER BHEL HARDWAR SCOPE OF SUPPLY – REF:NTPC DOCUMENT NO: 2140-108-110-03HW-PVM-W-026 DATED 12.09.2006.

**NOTE:**

THE ABOVE DRAWINGS ARE PROVIDED ONLY FOR INFORMATION AND WORK HAS TO BE DONE WITH REFERENCE TO THE LATEST APPLICABLE DRAWING

PL SEE THE CORRIGENDUM UPLOADED IN WEB FOR THESE CHAPTERS.

**TECHNICAL CONDITIONS OF CONTRACT (TCC)**  
**Annexure-II SUMMARY OF PAINTING SCHEDULE OF**  
**EQUIPMENTS/SYSTEM (PER UNIT)**

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PL SEE THE CORRIGENDUM UPLOADED IN WEB FOR THESE CHAPTERS.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-I General

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PL SEE THE CORRIGENDUM UPLOADED IN WEB FOR THESE CHAPTERS.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-XII PAINTING

BHEL BHARAT HEAVY ELECTRICALS LIMITED PIPING CENTRE, CHENNAI- 17 QUALITY ASSURANCE & CONTROL DEPT.			PAINTING SCHEME FOR LP PIPING (CW / ACW / ECW / Plant water, Air Piping, etc.,) KORBA STPP STAGE III (1 X 500MW) MPP Customer Nos:-0634,6893,6894									Q R D
Sl. No.	FGMA Description	Surface Preparation & Surface Profile	Primer coat		Intermediate coat			Finish coat				
			Primer	No. of coats	Paint	No. of coats	Shade	Paint	No. of coats	Shade		
1	2	3	4	5	6	7	8	9	10	11		
1	(a) Internal Surface - CW Pipe (for pipe - 1000 mm and above)	Blast Cleaning SSPC-SP10 SA 2 1/2 (Refer Note 1)	Epoxy based Zinc Rich Primer (Refer Note 2)	2 (50 Microns Min. per coat)	---	---	---	Coal tar epoxy (Refer Note 3)	2 (75 Microns Min. per coat)	---	20 21 22	
(b) Holiday test (Refer Note 3): Holiday testing by low voltage (25 Volts Min. wet sponge Holiday detector or by High Voltage (Voltage permission of DIT is as recommended) subjected to minimum of 500 Microns). Holiday test equipment to be calibrated before testing.												
2	External Surface of CW -Rund Piping Encased in concrete (c) Temporary Protection to be done at works. (b) Protection coating to be done by HHEI Protection Group or else M	SSPC-SP5: Power Tool Cleaning	Red Oxide Zinc Phosphate (A) or base漆 (B) (2744)	2 (30 Microns per coat)	---	---	---	---	---	---	5	
3	External Surface (over ground) along CW/ACW/ECW (all diameters)	SSPC-SP5: Power Tool Cleaning	Red Oxide - Zinc Phosphate (A) or base漆 (B) (2744)	2 (30 Microns per coat)	---	---	---	Coal tar epoxy conforming to IS: 15225	2 (75 Microns Min. per coat)	---	12	
4	External Surface of ECW - Plant water For all diameters	SSPC-SP5: Power Tool Cleaning	Red Oxide - Zinc Phosphate (A) or base漆 (B) (2744)	2 (35 Microns per coat)	---	---	---	Synthetic enamel Long oil Alkyd to S: 2932	3 (35 microns per coat) (at shop at site)	Shade Grey (Shade No. 062 of S: 5)	12	
5	Potable water, instrument air & Service air piping	No painting for Galvanized pipes and components used				For bare portion of this piping, S: 2932, weather coating is applicable.						
Notes: 1. Blast cleaning to near white metal to obtain roughness as per epoxy paint data sheet. 2. Application of Epoxy based Zinc Rich Primer, Coal tar epoxy shall be done as per manufacturer's data sheet / recommendation, meeting the thickness requirements as per table. 3. Witness by BHEL / BHEL nominated inspection agency. 4. No painting for Galvanized and Stainless steel piping.												
PREPARED and REVIEWED BY: T. S. JANNARTHANAN, DM / QA						APPROVED BY: G. PANNEER SELVAM, SI						