

TENDERSPECIFICATION

NO: BHE/PW/PUR/PIVVG-CVL/1145
CIVIL WORKS RELATED TO REPAIR OF GRP PIPE LINE FOR CW
SUPPLY AND RETURN LINE IN MAIN PLANT AND BOP AREA

AT
2X350MW CCPP, GPPCL, PIPAVAV, 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



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

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LEGEND:

- 1) Technical Specifications- VOL-I-E is a separate book issued with tender in which 'Volume-I-E –Tender Drawings' is also written and it is a part of technical bid.
- 2) Price bid is issued as a separate booklet.

TENDER SPECIFICATION

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SUPPLY AND RETURN LINE IN MAIN PLANT AND BOP AREA**

AT

2X350MW CCPP, GPPCL, PIPAVAV, 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.

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PLEASE NOTE:
THESE TENDER SPECS DOCUMENTS ARE NOT TRANSFERABLE.

For Bharat Heavy Electricals Limited

DY. GENERAL MANAGER (Purchase)
Place: Nagpur
Date:

1145

NOTICE INVITING TENDER

Bharat Heavy Electricals Limited



Ref: BHE/PW/PUR/PIPVG-CVL/1145

dated 18/06/2013

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	BHE/PW/PUR/PIPVG-CVL/1145
ii	Broad Scope of job	<i>CIVIL WORKS RELATED TO REPAIR OF GRP PIPE LINE FOR CW SUPPLY AND RETURN LINE IN MAIN PLANT AND BOP AREA AT 2X350MW CCPP, GPPCL, PIPAVAV, GUJARAT.</i>
iii	DETAILS OF TENDER DOCUMENT	
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> <i>Applicable</i>
b	Volume-IB	<i>Special Conditions of Contract (SCC)</i> <i>Applicable</i>
c	Volume-IC	<i>General Conditions of Contract (GCC)</i> <i>Applicable</i>
d	Volume-ID	<i>Forms and Procedures</i>
e	Volume-II	<i>Price Schedule (Absolute value).</i> <i>Applicable</i>
iv	Issue of Tender Documents	<ol style="list-style-type: none"> 1. <u>Sale from BHEL PS Regional office at :</u> Start : 18/06/2013 Closes: 26/06/2013 , Time : 16: Hrs 2. From BHEL website (www.bhel.com) Tender documents will be available for downloading from website till due date of <i>Applicable/ Not applicable</i>

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		submission	
v	DUE DATE & TIME OF OFFER SUBMISSION	<p>Date : 27/06/2013 , Time : 15:00 Hrs Place : <u>BHEL PS Regional office at :Nagpur</u></p> <p>Tenders being submitted through representative shall be submitted at dispatch section of of PSWR HQ Office after making entry/registration at the reception. For any assistance on the matter kindly contact following officials: Shivkesh Meena / Engineer(Purchase Pratish Gee Varghese/Engineer(Purchase</p>	Applicable
vi	OPENING OF TENDER	<p>1 hours after the latest due date and time of Offer submission</p> <p>Notes: (1) In case the due date of opening of tender becomes a non-working day, then the due date & time of offer submission and opening of tenders get extended to the next working day. (2) Bidder may depute representative to witness the opening of tender</p>	Applicable
vii	EMD AMOUNT	Rs 2,00,000/- (Rupees Two Lakhs Only)	Applicable
viii	COST OF TENDER	Rs 2000/-.	Applicable
ix	LAST DATE FOR SEEKING CLARIFICATION	<p>Atleast 3 days before the due date of offer submission</p> <p>Along with soft version also, addressing to undersigned & to others as per contact address given below</p>	Applicable
x	SCHEDULE OF Pre Bid Discussion (PBD)	Date :	Applicable/Not applicable.
xi	INTEGRITY PACT & DETAILS OF INDEPENDENT EXTERNAL MONITOR (IEM)		Applicable/Not Applicable
xii	Latest updates	<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 (www.bhel.com -->Tender Notifications →View Corrigendums) and not in the newspapers. Bidders to keep themselves updated with all such information</p>	

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.**

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

Sl no	Description	Remarks
	Part-I A	
	<p>ENVELOPE – I superscribed as : PART-I (TECHNO COMMERCIAL BID) TENDER NO : NAME OF WORK : PROJECT: DUE DATE OF SUBMISSION:</p> <p>CONTAINING THE FOLLOWING:-</p>	
i.	Covering letter/Offer forwarding letter of Tenderer.	
ii.	<p>Duly filled-in 'No Deviation Certificate' as per prescribed format to be placed after document under sl no (i) above.</p> <p>Note:</p> <p>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.</p> <p>b. BHEL reserves the right to accept/reject the deviations without assigning any reasons, and BHEL decision is final and binding.</p> <p style="padding-left: 20px;">i). In case of acceptance of the deviations, appropriate loading shall be done by BHEL</p> <p style="padding-left: 20px;">ii). In case of unacceptable deviations, BHEL reserves the right to reject the tender</p>	

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

PART-I B		
	<p>ENVELOPE – II superscribed as: PART-I (EMD/COST of TENDER) TENDER NO : NAME OF WORK : PROJECT: DUE DATE OF SUBMISSION:</p> <p>CONTAINING THE FOLLOWING:-</p>	
i.	<p>1. Earnest Money Deposit (EMD) in the form as indicated in this Tender OR 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>	

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

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	DUE DATE OF SUBMISSION:	
	CONTAINING THE FOLLOWING	
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)	

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

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)

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i). Total number of Packages

Total number of Packages in hand = P

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 (ie $P_T = P_1 + P_2 + P_3 + P_4 + \dots + P_N$)
 - b) Number of Months ' T_1 ' for which 'Monthly Performance Evaluation' as per relevant formats, should have been done in the 'Period of Assessment' for the corresponding similar package P_1 . Similarly T_2 for package P_2 , T_3 for package P_3 , etc for the tendered scope. Now calculate cumulative total months ' T_T ' for total similar Packages ' P_T ' for all Regions (ie $T_T = T_1 + T_2 + T_3 + T_4 + \dots + T_N$)
 - 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 ' (ie $S_1 = S_{1-1} + S_{1-2} + S_{1-3} + S_{1-4} + S_{1-5} + \dots + S_{1-N}$). 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 (ie ' $S_T = S_1 + S_2 + S_3 + S_4 + S_5 + \dots + S_N$)
 - 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):

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

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

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

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

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

Sl no	Item Description	Details for all Regions							Total
		(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	
1	Similar Packages for all Regions → (under execution/ executed during period of assessment)	P ₁	P ₂	P ₃	P ₄	P ₅	...	P _N	Total No of similar packages for all Regions = P _T 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 ₁	T ₂	T ₃	T ₄	T ₅	...	T _N	Sum (Σ) of columns (iii) to (ix) = T _T
3	Monthly performance scores for the corresponding period (as in Row 2)	S _{1-1,} S _{1-2,} S _{1-3,} S _{1-4,} ... S _{1-T1}	S _{2-1,} S _{2-2,} S _{2-3,} S _{2-4,} ... S _{2-T2}	S _{3-1,} S _{3-2,} S _{3-3,} S _{3-4,} ... S _{3-T3}	S _{4-1,} S _{4-2,} S _{4-3,} S _{4-4,} ... S _{4-T4}	S _{5-1,} S _{5-2,} S _{5-3,} S _{5-4,} ... S _{5-T5}	S _{N-1,} S _{N-2,} S _{N-3,} S _{N-4,} ... S _{N-TN}	-----
4	Sum of Monthly Performance scores of the corresponding Package for the corresponding period (as in row-3)	S ₁	S ₂	S ₃	S ₄	S ₅	...	S _N	Sum (Σ) of columns (iii) to (ix) = S _T

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- ii) Calculation of Overall 'Performance Rating' (R_{BHEL}) 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_{BHEL} ' 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_{BHEL} cannot be calculated as above, then Bidder shall be treated as 'NEW VENDOR'. Further eligibility and qualification of this bidder shall be as per definition of 'NEW VENDOR' described in 'Explanatory Notes'

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

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

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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 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'.

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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_{BHEL}** 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 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

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- 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.
- 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:

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- 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.
 - 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.

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- 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

for BHARAT HEAVY ELECTRICALS LTD

(SCT)

Enclosure

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

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ANNEXURE - 1

PRE QUALIFYING REQUIREMENTS

JOB	CIVIL WORKS RELATED TO REPAIR OF GRP PIPE LINE FOR CW SUPPLY AND RETURN LINE IN MAIN PLANT AND BOP AREA AT 2X350MW CCPP, GPPCL, PIPAVAV, GUJARAT.
TENDER NO	BHE/PW/PUR/PIVVG-CVL/1145

SL NO	PRE QUALIFICATION CRITERIA	Bidders claim in respect of fulfilling the PQR Criteria	
		Name and Description of qualifying criteria	Page no of supporting document. Bidder must fill up this column as per applicability
A	Submission of Integrity Pact duly signed (if applicable) (Note: To be submitted by Prime Bidder & Consortium/Technical Tie up partner jointly in case Consortium bidding is permitted, otherwise by the sole bidder)	Not Applicable	
B	<p><u>Technical</u> Bidder must have, achieved B.1 AND B.2 in last seven (7) years as on latest date of bid submission:</p> <p><u>B.1)</u> B.1.1) Bidder must have Executed Civil Works consisting of at least 1860 CuM concreting within a period of twelve (12) consecutive months under a single work order in a power / industrial projects.</p> <p align="center">AND</p> <p><u>B.2)</u> Bidder must have also achieved any one of the following:</p> <p>B.2.1) Executed One Civil work of value not less than of Rs 152 Lakhs. OR B.2.2) Executed Two Civil works each of value not less than of Rs 95 Lakhs. OR B.2.3) Executed Three Civil works each</p>	Applicable	

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	of value not less than of Rs 76 Lakhs		
C-1	<p><u>Financial TURNOVER</u> Bidders must have achieved an average annual financial turnover (Audited) of Rs 57 Lakhs 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.</p>	Applicable	
C-2	<p>NETWORTH (only in case of Companies) Net worth of the Bidder based on the latest Audited Accounts as furnished for 'C-1' above should be positive</p>	Applicable	
C-3	<p>PROFIT 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.</p>	Applicable	
D	Assessment of Capacity of Bidder to execute the work as per sl no 9 of NIT (if applicable)	Applicable	By BHEL
E	<p>Approval of Customer (if applicable)</p> <p>Note: Names of bidders (including consortium/Technical Tie up partners in case consortium bidding is permitted) who stand qualified after compliance of criteria A to D shall be forwarded to customer for their approval.</p>	Applicable	BY BHEL
F	<p>Price Bid Opening</p> <p>Note: Price Bids of only those bidders shall be opened who stand qualified after compliance of criteria A to E</p>	Applicable	BY BHEL
F	Consortium criteria (if applicable)	Not Applicable	
<p><u>Explanatory Notes for the PQR (unless otherwise specified in the PQR):</u></p> <ol style="list-style-type: none"> 1. 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 2. 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. 3. 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) 4. 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 5. 'Additional' Criteria in respect of 'Technical' criteria of PQR (as in 'B' above) for Civil, Electrical, CI, unless otherwise specified : <ol style="list-style-type: none"> 1. Bidder should have executed similar work of any one of the following: 			

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	<p>a. One (1) work of value not less than Rs XXX OR</p> <p>b. Two (2) works of not less than Rs YYY OR</p> <p>c. Three (3) works of not less than Rs ZZZ (Value XXX, YYY, ZZZ shall be as indicated by BHEL</p> <p>2. 'Similar' work for criteria 5 above means</p> <p>a. Civil or Structures or Civil & Structures or Chimney respectively as applicable to the tendered scope in respect of 'CIVIL' Works</p> <p>b. Electrical works in respect of 'ELECTRICAL'</p> <p>c. CI works in respect of 'CI' Works</p> <p>d. Material Handling and/or Management works in respect of 'MM' works</p> <p>6. 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>7. '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>8. Unless otherwise specified, for the purpose of 'Technical' criteria of PQR (as in 'B' above), the word 'EXECUTED' means:</p> <p>1. Achievement of physical Quantities as per respective PQRs in respect of Civil & Structures and Piling Works</p> <p>2. 'Readiness for coal Filling" in respect of Bunker Structure Work.</p>
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BIDDER SHALL SUBMIT ABOVE PRE-QUALIFICATION CRITERIA FORMAT, DULY FILLED-IN, SPECIFYING RESPECTIVE ANNEXURE NUMBER AGAINST EACH CRITERIA AND FURNISH RELEVANT DOCUMENT INCLUSIVE OF WORK ORDER WITH BOQ AND WORK COMPLETION CERTIFICATE AND TDS CERTIFICATE ETC IN THE RESPECTIVE ANNEXURES IN THEIR OFFER.

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ANNEXURE - 2

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.a	Details of Contact person for this Tender	Name : Mr/Ms Designation: Telephone No: Mobile No: Email ID: Fax No:	
3.b	Details of alternate Contact person for this Tender	Name : Mr/Ms Designation: Telephone No: Mobile No: Email ID: Fax No:	
4	EMD DETAILS	DD No: Date : Bank : Amount: <u>Please tick (√) whichever applicable:-</u> ONE TIME EMD / ONLY FOR THIS TENDER	
5	Validity of Offer	TO BE VALID FOR SIX MONTHS FROM DUE DATE	
		APPLICABILITY(B Y BHEL)	ENCLOSED BY BIDDER
6	Whether the format for compliance with PRE QUALIFICATION CRITERIA (ANNEXURE-I) is understood and filled with proper supporting documents referenced in the specified format	Applicable	YES / NO
7	Audited profit and Loss Account for the last three years	Applicable/Not Applicable	YES/NO
8	Copy of PAN Card	Applicable/Not Applicable	YES/NO
9	Whether all pages of the Tender documents including annexures, appendices etc are read understood and signed	Applicable/Not Applicable	YES/NO
10	Integrity Pact	Applicable/Not Applicable	YES/NO
11	Declaration by Authorised Signatory	Applicable/Not Applicable	YES/NO
12	No Deviation Certificate	Applicable/Not Applicable	YES/NO

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13	Declaration confirming knowledge about Site Conditions	Applicable/Not Applicable	YES/NO
14	Declaration for relation in BHEL	Applicable/Not Applicable	YES/NO
15	Non Disclosure Certificate	Applicable/Not Applicable	YES/NO
16	Bank Account Details for E-Payment	Applicable/Not Applicable	YES/NO
17	Capacity Evaluation of Bidder for current Tender	Applicable/Not Applicable	YES/NO
18	Tie Ups/Consortium Agreement are submitted as per format	Applicable/Not Applicable	YES/NO
19	Power of Attorney for Submission of Tender/Signing Contract Agreement	Applicable/Not Applicable	YES/NO
20	Analysis of Unit rates	Applicable/Not Applicable	YES/NO

NOTE : STRIKE OFF 'YES' OR 'NO', AS APPLICABLE. TENDER NOT ACCOMPANIED BY THE PRESCRIBED **ABOVE APPLICABLE DOCUMENTS** ARE LIABLE TO BE SUMMARILY REJECTED.

**DATE :
SIGNATORY**

AUTHORISED
(With Name, Designation and Company seal)

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ANNEXURE - 3

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 ---> Tender Notification -> List of Banned Firms)
2. All Statutory Requirements as applicable for this project shall be complied with.
3. Please take note of following Revised Tender Clauses:
 - i. Notice Inviting Tender: SI No 9
 - ii. General conditions of Contract: Clause No 1.15.13 (New), Clause No 2.8.3, 2.8.4 and 2.8.5

1145

TECHNICAL CONDITIONS OF CONTRACT (TCC)

BHARAT HEAVY ELECTRICALS LIMITED



TECHNICAL CONDITIONS OF CONTRACT (TCC) CONTENTS

Sl. No.	DESCRIPTION	CHAPTER	NO. OF PAGES
Volume-IA	Part-I: Contract specific details		
1	Project Information	Chapter-I	2
2	Scope of Works and Technical Specifications	Chapter-II	4
3	Facilities in the scope of Contractor/BHEL (Scope Matrix)	Chapter-III	6
4	T&Ps and MMEs to be deployed by Contractor	Chapter-IV	1
5	T&Ps and MMEs to be deployed by BHEL on sharing basis	Chapter-V	1
6	Time Schedule	Chapter-VI	1
7	Terms of Payment	Chapter-VII	1
8	Taxes and other Duties	Chapter-VIII	3
9	Tender Drawings	Chapter-IX	1

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter - I: Project Information

1.0	Project Information
1.1	<u>INTRODUCTION</u> <p>This is a 2x350MW Gas Based Combined Cycle Power Plant (CCPP) at Pipavav Distt. Amreli (Gujarat). The entire work of this project have been awarded to BHEL on total turn-key basis (EPC Contract) comprising of Design, Engineering, Manufacturing, Supply, transportation, Unloading, Storage, erection, testing, Commissioning with Auxiliaries and ancillaries including civil & structural and land grading works and handing over the plant in phased manner .</p> <p>This project is at synchronization stage, one unit is already commissioned and other is also nearing the commissioning stage.</p> <p>The plant is located at a distance of 375 Km from Ahmadabad city of Gujarat state on the State Highway NH-34 running between Rajula and Jafrabad. Contractor is advised to visit the site and appraise himself about the conditions of the site and infrastructure available in the area for fulfilling their commitment under the contract.</p> <u>APPROACH TO SITE</u> Location: <p>In Amreli District of Gujarat State, Latitude 71° 16' N / Longitude 20° 54' E</p> <p>The site is a PIPAVAV Plant of GSPC in Amreli District of State of Gujarat.</p> Power Station Site: 3 Meter above MSL, Graded Level Elevation above mean sea level (MSL) Nearest Railway Station: Rajula Nearest Town: Rajula Town (16km) Nearest Airport: Diu (80 kms) / Ahmadabad (375kms by road) Nearest Seaport: Pipavav (35 kms) Access by Road: PIPAVAV is connected by road from State Highway NH 34 running between Rajula and Jafrabad. <ol style="list-style-type: none">Owner: GSPC PIPAVAV POWER COMPANY Ltd (GPPCL)Project Title: 2X351.43 MW PIPAVAV CCPPLocation: Village: Kovaya Near pipavav Taluka: Rajula, Distt: Amreli, Gujarat, IndiaNearest Railway Station: RajulaAmbient Air Temperature:<ol style="list-style-type: none">Highest ever temperature recorded (Dry Bulb): 43 deg.CLowest ever temperature recorded (Dry Bulb) : 10 deg.C

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter - I: Project Information

	<p>c. Maximum Daily Average (Dry Bulb) :33 deg C</p> <p>d. Average Mean temperature (Dry Bulb) : 33 deg C (For CCPP Performance)</p> <p>e. Average Mean temperature (Wet Bulb) : 28 deg C (For CCPP Performance)</p> <p>f. Average Mean temperature (Wet Bulb) : 28.5 deg C (For Cooling Tower Performance)</p> <p>g. Design Ambient for Electrical Equipment : 50 deg C</p> <p>6. Relative Humidity</p> <p>a. Maximum: 89%</p> <p>b. Minimum: 10%</p> <p>c. Average: 70%</p> <p>7. Rainfall</p> <p>a. Annual Average – 1050 mm in the period June to October. Maximum intensity of rainfall; 150 mm/hr continuously maximum rainfall in a day – 400mm.</p> <p>8. Wind Data : 16.5 km/hr</p> <p>9. Seismic Zone - Zone III as per IS: 1893-2005 (Part – IV)</p> <p>10. Ambient Air Quality - The site is located close to Kovaya village and is bordering Birla group Cement plant and colony .This area is classified under semi-urban area.</p>
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TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter - II: Scope of Works and Technical Specifications

2.0 Scope of Work

2.0.1 The work consists of:

All associated civil works related to repair of underground GRP pipeline for CW supply, recirculation and return line in plant area wherever damages have been occurred and needs repair/maintenance by exposing the pipeline, re-filling & concrete encasing as per the drawing and instruction of BHEL.

The work includes but not limited to:

- 1) Exposing the GRP pipeline by carefully excavation of trenches and removing the top soil mechanically/manually at the identified locations as per drawing and instruction of BHEL, stacking the good/usable earth for backfilling and disposal of surplus/unusable earth at identified locations as per directive of BHEL.
- 2) Excavation of filled up sand in pipe zone (on top, sides & bottom of pipeline below GL) mechanically/manually, stacking the good/usable earth for re-filling and disposal of surplus/unusable (contaminated) sand at identified locations as per directive of BHEL.

The above excavation of earth & sand is to be done with utmost care so as to avoid damage and misalignment of GRP pipes. Contractor has to provide temporary supports at the bottom of GRP pipes while removing the bottom soil/sand bed and excavation for concrete encasing and shoring/shuttering if required to avoid collapse of excavated pits without any extra cost.

- 3) Dewatering of underground seepage water, rain water and keep the area/trench dry & workable till completion of entire work. The rate for dewatering shall be in terms of per cubic meter of earth/sand excavation below ground water/ from top in case of already stagnant water (as per item no. 1C of BOQ) and shall not be as per pumping hours. Contractor has to keep the area dry till hydro test of GRP pipe line is done and back-filled. No separate payment shall be made for pumping/dewatering
- 4) Back filling of excavated sand/ newly supplied sand in pipe zone (bottom, sides, top of pipeline) very carefully in specified thickness, watering and compaction manually or mechanically (strictly as per work procedure attached with this tender) and under supervision of BHEL & M/s Graphite India Limited (Manufacturer & Supplier of GRP pipe). Compaction test of sand filling shall be done as per instruction of BHEL/GIL and necessary joint protocols to be signed by all concern for quality checks of compaction. Contractor should note that compaction of sand filling & earth filling at the sides & top of pipe is very vital to avoid ovality of GRP pipes and failure of coupling joints when pipes are subjected to superimpose load (earth filling on top)/moving load over the pipe.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter - II: Scope of Works and Technical Specifications

The item of earth filling/ sand filling is inclusive of its full compaction, watering & density test etc. as per guidelines, instructions and work procedure. The quoted rate of backfilling/ sand filling is inclusive of the above and no extra shall be paid on this account.

- 5) Dismantling/ breaking of reinforced concrete of ACW trench/ fire water trench/any other existing structures, paving etc. in unit I&II wherever required for maintenance of GRP pipeline and removal/disposal of debris at the identified are in/outside of the plant area.
- 6) Providing and laying of PCC and Reinforced Concrete of specified grade as per drawing, BOQ& instruction of BHEL for encasement of GRP line/ Thrust block/extension of existing thrust block, etc. wherever required including providing & fixing of formwork, reinforcement etc. Reinforcement steel (bars) shall be supplied by BHEL free of charge.
- 7) Providing & fixing neoprene rubber padding (10mm thick) at pipe exit point from concrete at all locations of thrust blocks extension or new encasement as per drawing.
- 8) Construction/ restoration of dismantled trenches, paving, flooring, pits, chambers etc. as per drawing and instruction of BHEL.
- 9) **Work during monsoon** – Contractor has to take proper precaution while working during monsoon period for GRP pipeline to protect exposed GRP pipeline against buoyancy. GRP Pipe once exposed should immediately back-filled with proper compaction and should not be left exposed for long time. Suitable bund shall be provided to restrict the entry of surface water in excavated trench during monsoon and adequate pumps to be installed for continuous dewatering.
- 10) **Round the clock working (work in shift)** – Time is the essence of this contract and contractor has to complete the job successfully within the contractual time schedule. For this it is necessary to work in shifts with proper supervision.
- 11) **Parallel working in Unit I & II in all the fronts** – Contractor has to ensure simultaneous working in both the units and in all the fronts to ensure timely completion of work. Accordingly contractor shall have to deploy adequate skilled/unskilled manpower, T&Ps, equipment, materials and other resources in all the fronts.
- 12) **Hiring consultancy services of GIL (Graphite India Limited) for supervision of all related Civil works who is supplier of GRP pipes to BHEL to ensure that rectification is done as per the methodology prescribed by them. Methodology documents attached with tender. The quoted rate of various**

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter - II: Scope of Works and Technical Specifications

items shall be inclusive of the consultancy services and no extra shall be paid separately. All site protocols shall be signed by GIL representative necessarily and shall be accompanied with RA Bills. RA Bills shall be processed only on submission of all quality related protocols of civil works for GRP line duly signed by GIL & BHEL representative.

Bidder should take special attention to point no. 9, 10, 11 & 12 while quoting for the job.

All the above jobs shall be as per BHEL/GIL (Graphite India Limited) Engineer's instructions, drawings, detailed specification and Work Procedure and periodical test reports shall be maintained duly signed by all concern. In case of any ovality observed in certain section of GRP pipeline beyond permissible tolerance after rectification, Contractor has to re-do the excavation & backfilling in that particular zone without any extra cost for satisfactory completion of work.

2.1 Responsibility of the Contractor

The contractor shall engage all the unskilled, skilled and especially skilled labour etc. and supervisory staff. Only trained and competent personnel with previous experience in the job shall be employed. However, BHEL reserves the right to decide on the suitability of the workers and other personnel who will be employed by the contractor. BHEL reserves the right to insist on removal of any employee of the contractor at any time, if they found him unsuitable. The contractor shall be bound to follow the instruction of BHEL.

All the materials etc. shall be supplied by the contractor as per the specification mentioned in the tender/Indian standard specification. The contractor is required to quote their rates inclusive of cost of all materials (other than BHEL supply), labour, scaffolding from outside of the buildings for access to labour & materials etc. BHEL reserves the right to inspect and reject any material not found satisfactory.

2.1.1 Contractor shall submit periodical reports in respect of following aspects of operation:

- 1) Consumption of construction power
- 2) Manpower reports
- 3) Daily and Monthly Progress reports
- 4) Field compaction/density test reports for earth/sand filling

BHEL at site will inform formats for these reports.

2.1.2

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 lay down by the customer for making gate

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter - II: Scope of Works and Technical Specifications

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

2.2 General

2.2.1

During execution of the job, it is very essential that proper and adequate inspection should be made constantly by the contractor to maintain quality of workmanship and to ensure that deviations from BHEL drawings not exceed the permissible limits, which shall be approved by BHEL. The contractor shall submit test reports of all materials being procured by them for the job and also offer for inspection by BHEL. All the testing charges shall be borne by the contractor. BHEL engineer shall carry out the inspection of quality of material being purchased/arranged, quality/composition of materials used during construction work and workmanship. Decision of BHEL engineer shall be binding on the contractor.

2.2.2

Contractor shall furnish the **manufacturers test certificate** for cement procured by them. Apart from this all the field test shall be arranged by contractor for cement, coarse & fine aggregates either at site or nearby Field Quality Lab. approved by BHEL if so desired by BHEL's engineer. All the expenses in these regards shall be borne by contractor.

Contractor shall procure cement from reputed manufacturer & approval for the same shall be obtained from BHEL well in advance before ordering for the materials.

2.2.3

The contractor shall visit the site and ascertain the nature and quantum of job, local conditions, entry and traffic restrictions, all obstructions in the area.

2.2.4

The contractor shall take adequate precautions to ensure complete safety and prevention of accidents at site. The safety precautions shall conform to IS codes wherever applicable.

2.2.5

The work though not specifically mentioned either in the drawings or in the tender specification but are needed to complete the work as per site requirement & instruction of Engineer are also in the scope of this contract & to be erected to the entire satisfaction, for which the payment shall be released as per the respective item rate of **Rate Schedule. If the item is not available in the rate schedule the rate shall be derived as per CPWD- DSR-2012 or MSR of BHEL rate schedule latest version with applicable escalation.**

2.2.6

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter - II: Scope of Works and Technical Specifications

The contractor shall provide and maintain at his own cost all T & P for carry out the work.

2.2.7

The tentative drawings, specifications & work procedure for the following works will form part of the tender documents. BHEL reserves the right to modify/alter the tender drawings, if necessary during the actual execution at site. Contractor has to execute the work as per the final accepted rate.

2.2.8

Standard specifications for various items of work for is as per the relevant IS-codes (latest edition) shall be applicable for this work. The work has to be executed as per standard specification and drawings to the satisfaction of BHEL. However, the Drawings/Sketches mentioned under **Chapter IX** are to be read along with specifications.

2.3

These drawings are indicative and strictly for tendering purpose, only meant to give an idea to tenderers about nature of rectification job, height/depth that which work is to be carried out. Contractor shall ensure/ascertain the stability, safety of the said work. Any modification/variation from the said drawings, if necessary as suggested by the contractor will have to be approved by BHEL in writing.

2.4

Good workmanship is an essential requirement for compliance with the rules in the code. The work shall be carried out under the direct supervision of a person holding a valid certificate of competency issued by the government concerned for the type of work involved.

2.5

Draw Construction Power & Water from Customer's given Point at one location inside the plant including all materials.

2.6 Field Quality Assurance:

The contractor shall be responsible for day-to-day quality checks of for field density test/ compaction test of earth/sand filling around GRP pipeline, cement mortar, concrete and other building materials. All quality records and log sheets shall be maintained as per the requirement of BHEL/BHEL'S customer and as per field quality plan approved by **BHEL/GPPCL**. For this, contractor shall either establish their own field quality lab or have tie-up with approved lab by BHEL in/outside of the plant if so required by BHEL.

2.7 Procurement of Materials by Successful Contractors and Testing:

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter - II: Scope of Works and Technical Specifications

- a) Material required for the entire jobcement, sand, aggregates and all other material required for the completion of entire scope have to be arranged by the contractor. BHEL reserves the right to reject any material not found satisfactory.
- b) Contractor shall produce manufacturer's test certificate for cement for every batch of manufacturing along with each consignment brought to the site. Cement shall be procured from fresh stock only. Apart from the above, it shall be the responsibility of contractor to get the testing of cement, or any other materials procured from outside laboratory approved by **BHEL/BHEL's customer** to ascertain the quality if insisted by BHEL/BHEL's customer.
- c) Rate quoted shall be inclusive of all such contingencies and no additional payment shall be made on this account. For this purpose, sample shall be collected at site in presence of BHEL/BHEL customer's representative. The variation in price of all the plant materials supplied by the contractor shall be subject to the relevant price variation clause.

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

SI.No.	Description	Scope / to be taken care by		Remarks
		BHEL	Bidder	
3.1	ESTABLISHMENT			
3.1.1	FOR CONSTRUCTION PURPOSE:			
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 equipment's, office / store / canteen consumables		Yes	
E	Canteen facilities for the bidder's staff, supervisors and engineers etc.		Yes	
F	Firefighting equipment's like buckets, extinguishers etc.		Yes	
G	Fencing of storage area, office, canteen etc. of the bidder		Yes	
3.1.2	FOR LIVING PURPOSES OF THE BIDDER			
A	Open space for labour colony (as per availability)		Yes	Contractor has to make his own arrangements for space, shelter and transportation of labors as per their requirement.
B	Labour Colony with internal roads, sanitation, complying with statutory requirements		Yes	

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

Sl.No.	Description	Scope / to be taken care by		Remarks
		BHEL	Bidder	
3.2.0	ELECTRICITY			
3.2.1	Electricity for construction purposes 3 Phase 415/440 V (To be specified whether chargeable or free)			
A	Single point source	Yes		Free. At a distance of 500m from site (distance is only estimated, It may vary up to any extent depending on site condition). In case of power failure due to maintenance or any reason, contractor shall have to arrange the same at his own expenses through DG set etc. to ensure progress of work.
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	Electricity for the office, stores, canteen etc. of the bidder (to be specified whether chargeable or free)			Free at an available distance. In case of non-availability of power due to any reason from customer point, contractor shall have to arrange the same at his own expenses through DG set.

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	
	PART I			
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	
3.2.3	Electricity for living accommodation of the bidder's staff, engineers, supervisors etc.		Yes	Contractor has to make his own arrangement.
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	WATER SUPPLY			
3.3.1	For construction purposes:(to be specified whether chargeable or free)			
A	Making the water available at single point	Yes		Free, At a distance of 500M from site.In Case Of non-availability of construction water due to Maintenance or any reason from customer point, contractor shall have to arrange construction water at his own expenses.
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	Scope / to be taken care by		Remarks
		BHEL	Bidder	
	PART I			
3.3.2	<u>Water supply for bidder's office, stores, canteen etc.</u>			
A	Making the water available at single point	Yes		Free, At a distance of 500M from site. In Case of non-availability of construction water due to Maintenance or any reason from customer point, contractor shall have to arrange construction water at his own expenses.
B	Further distribution as per the requirement of work including supply of materials and execution		Yes	
3.3.3	<u>Water supply for Living Purpose</u>			Contractor has to make his own arrangement.
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	LIGHTING			
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	

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

SI.No.	Description PART I	Scope / to be taken care by		Remarks
		BHEL	Bidder	
D	Lighting for the living purposes of the bidder at the colony / quarters		Yes	
3.5.0	COMMUNICATION FACILITIES FOR SITE OPERATIONS OF THE BIDDER			
A	Téléphone, 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	TRANSPORTATION			
A	For site personnel of the bidder		Yes	
B	For bidder's equipment's and consumables (T&P, Consumables etc.)		Yes	

SI.No.	Description PART II	Scope / to be taken care by		Remarks
		BHEL	Bidder	
	3.9.0 ERECTION FACILITIES			
3.9.1	Engineering works for construction:			NOT APPLICABLE
A	Providing the erection/constructions drawings for all the equipment's covered under this scope	Yes		For Details PI refer Chapter-IX-
B	Drawings for construction methods	Yes	Yes	In consultation with BHEL
C	As-built drawings – where ever deviations observed and executed and also based on the decisions taken at site- example – routing of small bore pipes		Yes	Changes are to be marked in drawing & handover to BHEL on completion of work.

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

SI.No.	Description PART II 3.9.0 ERECTION FACILITIES	Scope / to be taken care by		Remarks
		BHEL	Bidder	
D	Shipping lists etc. for reference and planning the activities			NOT APPLICABLE
E	Preparation of site erection schedules and other input requirements		Yes	In consultation with BHEL
F	Review of performance and revision of site erection schedules in order to achieve the end dates and other commitments	Yes	Yes	In consultation with BHEL
G	Weekly erection schedules based on SI No. e		Yes	In consultation with BHEL
H	Daily erection / work plan based on SI No. g		Yes	In consultation with BHEL
I	Periodic visit of the senior official of the bidder to site to review the progress so that works are completed as per schedule. It is suggested this review by the senior official of the bidder should be done once in every two months.		Yes	
J	Preparation of preassembly bay			NOT APPLICABLE
K	Laying of racks for gantry crane if provided by BHEL or brought by the contractor/bidder himself			NOT APPLICABLE
L	Arranging the materials required for preassembly			NOT APPLICABLE

TECHNICAL CONDITIONS OF CONTRACT (TCC)
Chapter – IV: T&Ps AND MME TO BE DEPLOYED BY CONTRACTOR

A: TOOL & PLANTS

DESCRIPTION
1) Concrete Mixture -2 Nos
2) Vibrators- 2 Nos
3) Leveling instrument with calibration certificate as per required
4) Theodolite with calibration certificate as per required
5) Shuttering materials as per requirement
6) Cube moulds required nos and testing arrangement
7) Slump testing cone as required
8) Pump with Motor required for curing
9) DG Set (of Minimum 63 KVA)-1No
10) Diesel/Petrol/Electric Pump set (5 HP)- 10 No
11) Electric Water Pump (1.5HP)-2 No
12) Welding Transformer-3 Nos
13) Gas cutting Set- 1 Nos
14) Water Tanker as per requiremnt
15) Tractor- Trailer- 2No
16)Tripper-2Nos
18)Chain Pulley Block (3T)- as per requirmnt
19) Grinding Machine-2Nos
20) Fire extinguishers & Fire Buckets-2Nos
21) Computer (window XP) with printing & CD writing facility -1 No
22) Communication facilities – landline, WAN, mobile, fax etc.- As per requirement
 NOTE The above list is only indicative and not exhaustive. Arrangement for any other T and P required for completion of the job shall be the responsibility of the contractor and shall be arranged by him.

TECHNICAL CONDITIONS OF CONTRACT (TCC)
Chapter – IV: T&Ps AND MME TO BE DEPLOYED BY CONTRACTOR

B: MEASURING AND MONITORING DEVICES (MMD):

AS PER REQUIREMENT TO BE FINALIZED AT SITE.

NOTE:

This above list is only indicative and neither exhaustive nor limiting. Quantities indicated above are only the minimum required. Contractor shall deploy all necessary T&P to meet the schedules & as prescribed by BHEL engineer and required for completion of work whether it is mentioned above or not.

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

BHEL WILL NOT PROVIDE ANY T & P's FOR THIS WORK

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter – VI: Time Schedule

6.1 TIME SCHEDULE & MOBILIZATION

6.1.1 INITIAL MOBILIZATION AND TENTATIVE SCHEDULE

Contractor shall reach site, make his site establishment and be ready to commence the work within two weeks from the date of fax Letter of Intent or as per directions of Construction Manager/ Project Manager of BHEL.

The contractor has to subsequently augment his resources in such a manner that the entire works are completed within the contract period of **5 (FIVE)** months in a manner required by BHEL to match with the project schedule.

THE OVERALL CONTRACT PERIOD SHALL BE 5(FIVE) MONTHS FOR BOTH THE UNITS.

6.1.2

In order to meet above schedule and other intermediate targets/activities as set by BHEL Engineer In charge at site, to meet customer requirements/project schedule, contractor shall arrange all necessary resources and work force in consultation with BHEL engineer at site to undertake works concurrently in all possible fronts for both the units as made available to contractor.

The contractor shall reach site and establish his site office and mobilize necessary resources in such a way that all the works are completed within time schedule as per contract.

DATE OF START OF WORK SHALL BE THE DATE ON WHICH FIRST CLEAR AREA IS HANDEDOVER BY BHEL FOR COMMENCEMENT OF WORK.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter-VII: Terms of Payment

7.00 TERMS OF PAYMENT

7.0.1

The contractor shall submit his monthly on account bills with all the details required by BHEL on specified date every month covering progress of work in all respects and areas from the 25th of previous calendar month to 24th of the current month.

7.0.2

General conditions of contract shall be referred to as regards mode of payment, and measurement of the work completed.

7.0.3

Payments to Contractors are made as per GCC Clause No.2.23

Release of payment in each running bill will be restricted to 95% of the value of work admitted.

The 5% retention amount shall be released as per GCC clause no. 2.22. The workmanship guarantee period for this contract shall be 12 months from the date of completion of entire work as certified by BHEL

7.0.4EXTRA WORK

As Per GCC Clause No.2.15

7.0.5 SUPPLEMENTARY ITEMS

As Per GCC Clause No.2.16.2

7.0.6QUANTITY VARIATION

As per GCC Clause No. 2.14 (Quantity Variation)2.14.1

7.0.7PRICE VARIATION COMPENSATION

GCC Clause No. 2.17 for PVC shall be applicable for this contract.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter-VIII: Taxes and Other Duties

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.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter-VIII: Taxes and Other Duties

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 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 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.

SPECIAL CONDITIONS OF CONTRACT (SCC) CHAPTER IX –DRAWINGS

FOLLOWING DRAWINGS ARE ENCLOSED WITH THE TENDER:-

- 1) PE-DG-292-165-M002-R4: CW/ACW PIPING LAYOUT BETWEEN A-ROW & PUMP HOUSE/COOLING TOWER
- 2) PE-DG-292-651-C001-R7: CW PIPE-LAYOUT & DETAILS OF THRUST BLOCKS AND MAN HOLES FOR CW PIPING, PUMP HOUSE, COOLING TOWER B/W PHB A ROW
- 3) PE-DG-292-603-C002-R7: LAYOUT AND DETAILS OF ROAD AND PAVING
- 4) PE-DG-292-67-C003-R1: LAYOUT & RC DETAILS OF MISC-OUTDOOR FIRE FIGHTING TRENCHES
- 5) PE-DG-292-MSK 09-R1: GRP PIPING LAYOUT (BETWEEN A- ROW & PUMP HOUSE/ COOLING TOWER
- 6) PE-VO-292-552-A205-R6: COMPOSITE PIPING LAYOUT OF HYDRANT & SPRAY SYSTEM
- 7) Work Procedure for rectification of GRP pipe line

NOTE: These tender drawings are hosted in our web site. Also these drawings shall be available in our office at Nagpur in Hard Copy. Bidders can collect these drawings while purchasing tender specification.