



# BHARAT HEAVY ELECTRICALS LIMITED

BAP – Ranipet, 632406

M M – PURCHASE Department (FGD)

## NIT

Enq No: 3810725E

Date: 01-12-2021

BHEL Ranipet Enq for.: Mist Eliminator for KTPS & YTPS

**Sub:** "Design, Manufacture, Inspection, Supply, Supervision towards Erection and commissioning, Trial run and Performance testing of absorber Mist Eliminator along with mandatory spares" for FGD package of BHEL Project SITE, TSGENCO KTPS-Kothagudem and YTPS- Yadadri.

**Scope of supply:** As subjected above in confirmation with Quality plan. The package consists of:

### Package Schedule 1 : KTPS kothagudem / TSGENCO (1 x 800 M W)

SI	Matl Code	DESCRIPTION	Qty Set	Dly Req	Quoted/ Not
1	RFW112330001	Supply of complete mist eliminator and accessories (2 Stage Chevron type) Absorber Area 9.9 m (L) x 25.9 m (W) at Site	1	24-06-2022	
2	RFW112340001	Supervision of E&C of Mist Eliminator (1 set= one visit of 20 working days including all charges)	1	Within 10 months from supply	
3	RFW112350001	Performance testing of Mist Eliminator at site	1	Within 5 months from Erection	
4	RFW112360001	Spare: Wash Nozzle (5% of each type and size)	1	24-09-2022	
5	RFW112360002	Spare: Modules (5% of each type and size)	1	24-09-2022	

### Package schedule 2: YTPS Yadadri / TSGENCO (5 x 800 M W)

SI	INDENT_NO / dt	DESCRIPTION	Qty Set	Dly Req	Quoted/ Not
6	RFW112910001	Supply of complete mist eliminator and accessories (2 Stage Chevron type) Absorber Area 9.9 m (L) x 25.9 m (W) at Site	1	24-02-2023	
			1	24-08-2023	
			1	24-02-2024	
			1	24-08-2024	
			1	24-02-2025	
7	RFW112920001	Supervision of E&C of Mist Eliminator (1 set= one visit of 20 working days including all charges)	5	Within 10 months from supply	
8	RFW112930001	Performance testing of Mist Eliminator at site	5	Within 5 months from Erection	
9	RFW1129400014	Spare: Wash Nozzle (10 % of each type and size for one absorber)	1	24-05-2025	
10	RFW112940002	Spare: Modules (10 % of each type and size, for one absorber)	1	24-05-2025	

**Destination:** Main elevator to supply at BHEL project site

Spares shall be supplied at Stores-BHEL, BAP-Ranipet



# BHARAT HEAVY ELECTRICALS LIMITED

BAP – Ranipet, 632406

M M – PURCHASE Department (FGD)

**Delivery required date:** As per above table or within 6 months (for 1<sup>st</sup> unit, and 6 months phase gap thereafter for subsequent units for yadadri) from the date of manufacturing clearance, whichever is later. Bidder to quote the best possible delivery from the date of manufacturing clearance. Abnormal quoted delivery, liable for rejection of offer.

## Pre-Qualification requirement (PQR):

SL	Technical Pre-Qualification Requirement (PQR)	Bidder's Reply with Supportive documents
1	<p>"Bidder should have previous experience of design, manufacture, supply, erection and commissioning / supervised erection &amp; commissioning of the Mist Eliminators for Wet Limestone based FGD system for at least one (1) no. 500/ MW or higher capacity pulverized coal fired power plant such that respective equipment(s) should have been in successful operation for a period not less than One (1) year prior to Part-I (Techno-commercial) bid opening date"</p> <p>The Bidder shall offer only proven design which meets the Proveness criteria indicated above.</p> <p><b>Necessary document evidences</b> (PO copy/ GAD or Datasheet for the reference plant/ Performance certificate from end user for the reference plant) for qualification shall be submitted along with the bid. If bidder doesn't meet the specified proveness criteria, their offer is liable for rejection.</p>	

Sl. No.	Financial Pre-Qualification Requirement (PQR)	Bidder's Reply with Supportive documents
1	The bidder has to submit financial accounts (audited, if applicable comprising of Audit report, Balance Sheet, Profit & Loss A/c Statement and Notes/Schedules pertaining to Turnover/ Sales/ Revenue), for last three years (or from the date of incorporation, whichever is less) as on tender due date to review the above criteria. In case the incorporation of vendor is less than 3 years, average annual financial turnover shall be calculated based on available information as below:-	
i	If the accounts are available for $\leq 1$ Financial Year, the Average Annual Turnover shall be calculated based on available information divided by 1 (One).	
ii	If the accounts are available for $>1$ but $\leq 2$ Financial Years, the Average Annual Turnover shall be calculated based on available information divided by 2 (Two).	
iii	If the accounts are available for $>2$ but $\leq 3$ Financial Years, the Average Annual Turnover shall be calculated based on available information divided by 3 (Three).	



# BHARAT HEAVY ELECTRICALS LIMITED

BAP – Ranipet, 632406

M M – PURCHASE Department (FGD)

2	Foreign bidders to submit a latest report from reputed third party business rating agency like Dun & Bradstreet, Credit reform etc. for review of above criteria.	
3	While calculating Annual Turnover / Sales, other operating income and other income shall not be considered.	
4	For evaluation of foreign bidder, exchange rate (TT selling rate of SBI) as on scheduled date of tender opening (Part-I bid in case of two part bid) shall be considered.	
5	Average annual financial turnover during the last Three Financial Years ending 31.03.2021 should not be less than 353 Lakhs.	
6	Net worth of the vendor should be positive. *	
7	The current ratio should be >1 as per latest audited balance sheet	
8	Vendor should be profit earning company / firm (Profit / Earnings before depreciation & amortization, Interest and Tax) at least once in the last 3 years.	

**Note :** For any Supplier the above said documents is Mandatory and without which submitted offer is liable for rejection.

\*\* Definition of Net Worth

\*\*\* .....As per section 2 (57) of The Companies Act, 2013, net worth means the aggregate value of the paid up share capital and all reserves carried out of the profit and security premium after deducting the aggregate value of the accumulated losses, deferred expenditure and miscellaneous expenditure not written off as per the audited balance sheet, but does not includes reserves created out of revaluation of assets, write back of depreciation and amalgamation.

## Technical requirement

(a). **Manufacturing: Document Submission**-Drawing, Data sheet and quality plan shall be submitted upon ordering for approval by BHEL. **Manufacturing clearance (against each unit)** will be provided upon approval of drawing with data sheet and QAP. Manufacturing shall be as per attached technical specification in the bid, Approved drawing, Quality plan and Data sheet. **Inspection:** as per Cl (b) below stated. **Dispatch Clearance:** Upon submission of inspection reports along with test certificates in original and Packing list dispatch clearance will be provided by BHEL.

(b). **Inspection:** Inspection (call to be raise by supplier at BHEL CQIR portal) before despatch at supplier's works (as per Quality terms and Quality plan) by BHEL/ authorised agency (TPI- Third Party Inspection) for indigenoussupplies at BHEL cost. Inspection includes for painting and packing also, as applicable. All the Test and inspection reports shall be sent to BHEL- Ranipet for review and dispatch clearance. Packing list and weighment details shall be sent for release of GMS by Engineering-BAP. Base on release of GMS, CoC No shall be issued by QC-BHEL. On receipt of CoC, and packing list, request letter from commercial-BAP to be submitted to QC-BHEL for issue of MDCC.

**Note:** Cost for Inspection by approved TPI, outside India shall be borne by bidder.

Chandan Kumar Bharti  
Senior Purchase Officer  
Signed by: CHANDAN KUMAR BHARTI

**BANK GUARANTEE FOR CONTRACT EXECUTION**

Bank Guarantee No:

Date:

**To**

Bharat Heavy Electricals Limited,  
Boiler Auxiliaries Plant,  
RANIPET -632 406,  
Tamil Nadu,  
INDIA

Dear Sirs,

In consideration of the **Bharat Heavy Electricals Limited** <sup>1</sup> (hereinafter referred to as the 'Employer' which expression shall unless repugnant to the context or meaning thereof, include its successors and permitted assigns) incorporated under the Companies Act, 1956 and having its registered office at "**BHEL House**", **SIRI Fort, New Delhi- 110049** through its Unit at **Boiler Auxiliaries Plant located at Ranipet-632406, Tamil Nadu, INDIA** having awarded to <sup>2</sup> having its registered office at \_\_\_\_\_ herein after referred to as the 'Contractor/Supplier', which expression shall unless repugnant to the context or meaning thereof, include its successors and permitted assigns), a contract Ref No. / **PO No** \_\_\_\_\_ dated <sup>3.</sup> Valued at Rs \_\_\_\_\_ <sup>4</sup> (Rupees (In words) \_\_\_\_\_).  
\_\_\_\_\_ <sup>5</sup> (hereinafter called the 'Contract') and the Contractor having agreed to provide a Contract Execution Guarantee equivalent to 2% (Two Percent) of the said value of the Contract to the Employer for the faithful performance of the Contract.

We \_\_\_\_\_ (hereinafter referred to as the Bank), having registered/Head Office at \_\_\_\_\_ and inter alia a branch at \_\_\_\_\_ being the Guarantor under this Guarantee, hereby, irrevocably and unconditionally undertake to forthwith and immediately pay to the Employer a maximum amount Rs \_\_\_\_\_ (**Rupees** \_\_\_\_\_) without any demur, immediately on a demand from the Employer. Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding **Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_)**.

We undertake to pay to the Employer any money so demanded notwithstanding any dispute or disputes raised by the Contractor/Supplier in any suit or proceeding pending before any Court or Tribunal relating thereto our liability under this present being absolute and unequivocal.

The payment so made by us under this Guarantee shall be a valid discharge of our liability for payment thereunder and the contractors/supplier shall have no claim against us for making such payment.

We the \_\_\_\_\_ bank further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the Contract Execution of the said Contract and that it shall continue to be enforceable till all the dues of the Employer under or by virtue of the said Contract have been fully paid and its claims satisfied or discharged.

We \_\_\_\_\_ BANK further agree with the Employer that the Employer shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said Contract or to extend time of Contract Execution by the said Contractor/Supplier from time to time or to postpone for any time or from time to time any of the powers exercisable by the Employer against the said Contractor/Supplier and to forbear or enforce any of the terms and conditions relating to the said Agreement and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said Contractor/Supplier or for any forbearance, act or omission on the part of the Employer or any indulgence by the Employer to the said Contractor/Supplier or by any such matter or thing whatsoever which under the law relating to sureties would but for this provision have effect of so relieving us.

The Bank also agrees that the Employer at its option shall be entitled to enforce this Guarantee against the Bank as a principal debtor, in the first instance without proceeding against the Contractor and notwithstanding any security or other guarantee that the Employer may have in relation to the Contractor's liabilities.

This Guarantee shall remain in force up to \_\_\_\_\_ 6 with a validity period of \_\_\_\_ months & claim period of 3 months and shall be extended from time to time for such period as may be desired by Employer.

This Guarantee shall not be determined or affected by liquidation or winding up, dissolution or change of constitution or insolvency of the Contractor/Supplier but shall in all respects and for all purposes be binding and operative until payment of all money payable to the Employer in terms thereof.

Unless a demand or claim under this guarantee is made on us in writing on or before the \_\_\_\_\_ 7 we shall be discharged from all liabilities under this guarantee thereafter.

We \_\_\_\_\_ BANK, lastly undertake not to revoke this guarantee during its currency except with the previous consent of the Employer in writing.

Notwithstanding anything to the contrary contained hereinabove:

- a) The liability of the Bank under this Guarantee shall not exceed Rs \_\_\_\_\_ (Rupees \_\_\_\_\_ Only) 8
- b) This Guarantee shall be valid up to \_\_\_\_\_ 9
- c) Unless the Bank is served a written claim or demand on or before \_\_\_\_\_ 10 all rights under this guarantee shall be forfeited and the Bank shall be relieved and discharged from all liabilities under this guarantee irrespective of whether or not the original bank guarantee is returned to the Bank.

We \_\_\_\_\_ Bank, have power to issue this Guarantee under law and the undersigned as a duly authorized person has full powers to sign this Guarantee on behalf of the Bank.

For and on behalf of  
(Name of the Bank)

Dtd :

Place of Issue:

FOR YOUR REFERENCE TO FILL THE DETAILS ACCORDINGLY:

1. NAME AND ADDRESS OF EMPLOYER i.e., Bharat Heavy Electricals Limited.
- 2 NAME AND ADDRESS OF VENDOR/CONTRACTOR/SUPPLIER
- 3.DETAILS ABOUT THE NOTICE OF AWARD/CONTRACT REFERENCE
- 4.BG AMOUNT IN FIGURES AND WORDS
- 5.PROJECT/SUPPLY DETAILS
- 6.VALIDITY DATE with a validity of 3 months claim period.
- 7.DATE OF EXPIRY OF CLAIM PERIOD
- 8.BG AMOUNT IN FIGURES AND WORDS
- 9.VALIDITY DATE
10. DATE OF EXPIRY OF CLAIM PERIOD

*Ple note: The Validity period wrt our conditions applicable for the Supply / Erection & condition.*



## Bankers, Auditors & Share Transfer Agent

Bankers	
Axis Bank	
Bank of Baroda	
Canara Bank	
Central Bank of India	
CITI Bank N.A	
Deutsche Bank AG	
Export-Import Bank of India	
HDFC Bank Limited	
IDBI Bank	
Indian Bank	
Indian Overseas Bank	
Indusind Bank	
Kotak Mahindra Bank	
Punjab National Bank	
RBL Bank Ltd.	
Standard Chartered Bank	
State Bank of India	
The Federal Bank Limited	
Union Bank of India	

### Registered Office

BHEL House, Siri Fort, New Delhi-110049 (India)

CIN: L74899DL1964GOI004281

Phone: 011-66337000, Fax: 011-66337428

[www.bhel.com](http://www.bhel.com)

[shareholderquery@bhel.in](mailto:shareholderquery@bhel.in)

**BANK GUARANTEE FOR PERFORMANCE SECURITY**

Bank Guarantee No:

Date:

**To**

Bharat Heavy Electricals Limited,  
Boiler Auxiliaries Plant,  
RANIPET -632 406,  
Tamil Nadu,  
INDIA

Dear Sirs,

In consideration of the **Bharat Heavy Electricals Limited** <sup>1</sup> (hereinafter referred to as the 'Employer' which expression shall unless repugnant to the context or meaning thereof, include its successors and permitted assigns) incorporated under the Companies Act, 1956 and having its registered office at "**BHEL House**", **SIRI Fort, New Delhi- 110049** through its Unit at **Boiler Auxiliaries Plant located at Ranipet-632406, Tamil Nadu, INDIA** having awarded to <sup>2</sup> having its registered office at \_\_\_\_\_ herein after referred to as the 'Contractor/Supplier', which expression shall unless repugnant to the context or meaning thereof, include its successors and permitted assigns), a contract Ref No. / **PO No** \_\_\_\_\_ dated <sup>3.</sup> Valued at Rs \_\_\_\_\_ <sup>4</sup> (Rupees (In words) \_\_\_\_\_). for \_\_\_\_\_ <sup>5</sup> (hereinafter called the 'Contract') and the Contractor having agreed to provide a Contract Performance Guarantee equivalent to 10% (Ten Percent) of the said value of the Contract to the Employer for the faithful performance of the Contract.

We \_\_\_\_\_ (hereinafter referred to as the Bank), having registered/Head Office at \_\_\_\_\_ and inter alia a branch at \_\_\_\_\_ being the Guarantor under this Guarantee, hereby, irrevocably and unconditionally undertake to forthwith and immediately pay to the Employer a maximum amount Rs \_\_\_\_\_ (**Rupees** \_\_\_\_\_) without any demur, immediately on a demand from the Employer. Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding **Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_)**.

We undertake to pay to the Employer any money so demanded notwithstanding any dispute or disputes raised by the Contractor/Supplier in any suit or proceeding pending before any Court or Tribunal relating thereto our liability under this present being absolute and unequivocal.

The payment so made by us under this Guarantee shall be a valid discharge of our liability for payment thereunder and the contractors/supplier shall have no claim against us for making such payment.

We the \_\_\_\_\_ bank further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said Contract and that it shall continue to be enforceable till all the dues of the Employer under or by virtue of the said Contract have been fully paid and its claims satisfied or discharged.

We \_\_\_\_\_ BANK further agree with the Employer that the Employer shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said Contract or to extend time of performance by the said Contractor/Supplier from time to time or to postpone for any time or from time to time any of the powers exercisable by the Employer against the said Contractor/Supplier and to forbear or enforce any of the terms and conditions relating to the said Agreement and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said Contractor/Supplier or for any forbearance, act or omission on the part of the Employer or any indulgence by the Employer to the said Contractor/Supplier or by any such matter or thing whatsoever which under the law relating to sureties would but for this provision have effect of so relieving us.

The Bank also agrees that the Employer at its option shall be entitled to enforce this Guarantee against the Bank as a principal debtor, in the first instance without proceeding against the Contractor and notwithstanding any security or other guarantee that the Employer may have in relation to the Contractor's liabilities.

This Guarantee shall remain in force up to \_\_\_\_\_ 6 with a validity period of \_\_\_\_ months & claim period of 3 months and shall be extended from time to time for such period as may be desired by Employer.

This Guarantee shall not be determined or affected by liquidation or winding up, dissolution or change of constitution or insolvency of the Contractor/Supplier but shall in all respects and for all purposes be binding and operative until payment of all money payable to the Employer in terms thereof.

Unless a demand or claim under this guarantee is made on us in writing on or before the \_\_\_\_\_ 7 we shall be discharged from all liabilities under this guarantee thereafter.

We \_\_\_\_\_ BANK, lastly undertake not to revoke this guarantee during its currency except with the previous consent of the Employer in writing.

Notwithstanding anything to the contrary contained hereinabove:

- a) The liability of the Bank under this Guarantee shall not exceed Rs \_\_\_\_\_ (Rupees \_\_\_\_\_ Only) 8
- b) This Guarantee shall be valid up to \_\_\_\_\_ 9
- c) Unless the Bank is served a written claim or demand on or before \_\_\_\_\_ 10 all rights under this guarantee shall be forfeited and the Bank shall be relieved and discharged from all liabilities under this guarantee irrespective of whether or not the original bank guarantee is returned to the Bank.

We \_\_\_\_\_ Bank, have power to issue this Guarantee under law and the undersigned as a duly authorized person has full powers to sign this Guarantee on behalf of the Bank.

For and on behalf of  
(Name of the Bank)

Dtd :

Place of Issue:

- 1.NAME AND ADDRESS OF EMPLOYER i.e., Bharat Heavy Electricals Limited.
- 2 NAME AND ADDRESS OF VENDOR/CONTRACTOR/SUPPLIER
- 3.DETAILS ABOUT THE NOTICE OF AWARD/CONTRACT REFERENCE
- 4.BG AMOUNT IN FIGURES AND WORDS
- 5.PROJECT/SUPPLY DETAILS
- 6.VALIDITY DATE with a validity of 3 months claim period.
- 7.DATE OF EXPIRY OF CLAIM PERIOD
- 8.BG AMOUNT IN FIGURES AND WORDS
- 9.VALIDITY DATE
10. DATE OF EXPIRY OF CLAIM PERIOD

*Ple note: The Validity period wrt our conditions applicable for the Supply / Erection & condition.*



**Version 25, 26.08.2021**

(Applicable for **Mist Eliminator** Tender only)

**ANNEXURE –B**  
**GENERAL TERMS & CONDITIONS**  
**(FOR GUIDANCE TO THE SUPPLIERS)**

**A] Submission of Offer**

**a) Invitation for bid**

Tenders are invited through electronic mode from eligible suppliers in case of open tenders and from suppliers to whom the enquiry is addressed in case of Limited / Single Tender.

The offers shall be posted into the system before the date and time specified in the tender.

The offer shall be sent on single part / two part / three part basis as specified in the main tender document.

Bids shall be submitted through BHEL's e-procurement portal developed by NIC (<https://eprocurebhel.co.in/>) only.

In case of any difficulty faced while registering on **BHEL's e-Procurement portal** developed by NIC, queries may be addressed to 0120-4001002, 0120-4001005 and 0120-6277787; email: [support-eproc@nic.in](mailto:support-eproc@nic.in) These details are also available on 'Contact Us' page of the portal.

To participate in a tender, you need to login to the portal. You must be an approved registered user. If you are not a registered user, you can register yourself by clicking upon the "Register" link. You need to have a valid login id and password to login to the portal. Enter your login id, password and click on Login button after Login, you need to select your digital signing and encryption certificates certificate.

**Typical documents that would be required as part of tender submission would be**

- a) **Complete technical Offer** with details, catalogues, as applicable.
- b) **Un-priced bid** (i.e. Bid without the Price) as per given format, if any.
- c) **Filled-in BHEL's Standard Terms & Conditions and other** as per Annexure(s) [ Annex C] enclosed with the Tender Document,
- d) **Deviation summary** submitted in two parts – giving the summary of technical deviations separately and the commercial deviations separately, if any and
- e) **Supporting documents** to substantiate equivalent material specifications / sections, where quoted for.
- f) Where asked for, **Client list** with their full address including detail of contact person with phone no., fax no. & e-mail ID (if any) to whom the same / similar items are supplied in the past two years. The date of supply may also be indicated, against each client.
- g) Suppliers can also upload their credentials by way of submission of Performance certificate/s issued by their customer/s detailing the quantity supplied and specification along with the un-priced PO copies and proof of supply along with the offer. Dun & Bradstreet (D&B) reports shall be submitted by all non-Indian bidders towards the financial credentials.



***Technical acceptance of offer by BHEL shall be based on the evaluation of offer and the submitted documents.***

h) ***Bidders who are not already registered with BHEL Ranipet*** are requested to submit the Supplier Registration Form (SRF) online (<http://supplier.bhel.in/>) for evaluating and registering as an approved vendor. The Supplier Development Cell (SDC) of BHEL, Ranipet would process the SRF for evaluation / registering the Supplier. Don't send hardcopies of SRF to BHEL-Ranipet, **only** online submission is accepted. This registration process is a separate / parallel activity and do not mix-up with submission offers.

***Note***

(i) The materials offered, shall conform to the specification and scope attached in the tender.

(ii) In case the offered materials are not conforming to the Enquiry material Specification, such offers would not be considered for evaluation and would be rejected.

Where equivalent specifications are offered, considering such offers will be at the sole discretion of BHEL. Wherever alternative standards / specifications are offered by Bidder, the Bidder shall provide sufficient documentary evidence to ensure equivalence to the designated standards / specifications, failing which the offer would be considered as not technically acceptable and hence shall stand rejected.

(iii) All taxes and duties payable as extra to the quoted price should be specifically stated in offers (as appearing in the online template).

Offer/s from within India shall be submitted along with the applicable HS Number and the applicable Goods & services Tax (GST) for each quoted item, failing which the purchaser will not be liable for payment of such taxes and duties. **BHEL Ranipet GST No: 33AAACB4146P2ZL.**

(iv) The un-priced bid shall be used to indicate relevant commercial terms such as scope of freight and insurance, applicability of duties and taxes etc. All Commercial terms are to be indicated clearly in the offer.

(vi) No changes shall be entertained once the bid is opened unless otherwise specifically agreed to in writing by BHEL.

(vii) Money values other than for those items appearing in the un-priced bid template shall not be indicated anywhere in the un-priced bid.

(viii) Time required for inspection (at Supplier's works), should be clearly given in terms of numbers of working days.

(x) **Offers sent by FAX / E-mail:** would not be entertained.

(xi) Bid should be free from correction, overwriting, using corrective fluid, etc. Any interlineation, cutting, erasure or overwriting shall be valid only if they are attested under full signature(s) of person(s) signing the bid else bid shall be liable for rejection.

(xii) Registration process for items required by BHEL is always open at <https://supplier.bhel.in>. Prospective suppliers (including MSEs & owned by SCs/STs) may visit this site and apply for registration in the respective Unit.

**Price Bid** in conformance with the specification and terms as given in the Un-Priced bid document.



**Caution on submission of price bids thru EPS:**

*The suppliers are severely cautioned to note that the price bid document accepts the price in figures only. It does not allow the supplier to write the value by words. Therefore all care shall be exercised by the supplier while filling in the figures. Once the price bid is opened no option is available for the supplier to retract the offer under any grounds. If a supplier, for any reason whatsoever approaches BHEL with a request for change in the price, it would be treated as going back on the offer submitted. In such cases, action would be initiated by BHEL for suspending further business dealings with such suppliers as per policy of BHEL which prevails at that point of time.*

**Foreign / Overseas suppliers are hereby informed that offers with differential currencies are not permitted for a given tender document.**

**Note**

- (i) The price break-up should be in line with technical specification / scope of the tender. (Cost of material, packing charges, forwarding charges, freight and insurance charges shall be shown appropriately, as applicable).
  - (ii) Unless otherwise specified, No Price Variation Clause will be entertained and No advance payment will be made by BHEL.
  - (iii) In case, there is a discrepancy in the term quoted in techno-commercial bid and price bid, the term as per the techno-commercial bid (Part I) shall hold good and the commercial term quoted in the Price Bid (Part II) shall not be considered.
  - (iv) In their own interest, all Tenderers are advised to double check their prices, applicable duties and taxes.
  - (v) The quotation should be valid at least for a period of 120 days from the tender opening date.
  - (vi) Indian bidders should submit the prices in Indian Rupees only.
  - (vii) Foreign bidders may submit their bid in foreign currency. The currency for quoting shall be selected from the drop-down menu provided in the financial bid.
  - (x) Indian Suppliers shall quote on FOR Destination basis only. Destination is BHEL, Ranipet Stores or BHEL Project Site as specified in the tender commercial terms. Foreign Suppliers shall quote on CFR Chennai Seaport- Delivery and Insurance will be in BHEL's scope. No other delivery terms shall be acceptable. Shipment shall be arranged by the Seller on *Liner in / Liner out basis*. As per Government of India guidelines, BHEL Ranipet being a Government of India Undertaking the Bill of Lading shall be made with the Shipper as "Government of India". This shall be specifically confirmed by the Bidder.
- Note: Wherever offers received from Indian and foreign bidders, price comparison shall be made "FOR destination basis" only, along with suitable loading as per the commercial terms and conditions.
- (xi) Where the cargo is containerized, Container washing charges, stuffing charges and / or any other such charges would be to the account of the supplier, where the containers are to be stuffed at the works of the supplier.

**B] Opening of Offers**

**a) Tenders can be submitted up to 1400 Hours on tender opening due date. Part I will be opened on the same day at 1430 Hours. Results of the tender opening will be available for viewing for upto 7 days from the date of opening.**

**a)b) Requests by Bidders for extension of due date will not be entertained by BHEL.**



b)c) Price Bid opening will be done through e-mode / Reverse Auction method (-English method) which will be decided after techno-commercial bid evaluation is completed. All tenderers would have to specifically give their acceptance for this in their bid/s.

**Note**

- (i) Bids including all enclosures and supporting documents like catalogues, pamphlets, etc., shall be provided in ENGLISH language only, failing which offer may be liable for rejection.
- (ii) In exceptional circumstances, at its option, BHEL may consider extending the due date/s for the tender openings for reasons such as (but not limited to) paucity of offers etc. However, sufficient notice would be given by BHEL for such extension.
- (iii) Deviations shall be summarized and provided in a “Deviation Statement”, listing the points and the deviation against each point.
- (iv) BHEL reserves the right to increase or decrease the tendered quantity and to order on more than one vendor at the lowest acceptable price to BHEL. In ordering on more than one source, the ratio of quantity split will be as specified in the tender terms.

If not explicitly specified, BHEL reserves the right to split the quantity of the enquiry as follows: 70% quantity being ordered on the original lowest bidder (L1) and balance 30% on the next higher bidder/s excluding H1, who accepts the L1 price. However, the final decision to split the order rests with BHEL only.

In the event that the other than L1 suppliers do not accept the L1 price, then the balance will be reverted to the original L1 and the original L1 shall be bound to accept the balance of the enquiry quantity kept reserved for order splitting. This decision would be given by BHEL within 60 days of the price bid opening.

Notwithstanding the quantum of split that may be indicated in the main body of the enquiry, bidders are advised to note that the splitting of the orders will be decided by BHEL after the evaluation of the techno-commercial and price bids.

- (v) Offers for part quantities on item level basis are not acceptable to BHEL. While tenderers can quote for some or all the tendered items, no supplier shall quote for partial quantity of any given enquiry item. Such partial offer would not be considered in the enquiry for that item. Suppliers are to note that the evaluation unless otherwise specified will be on item level and not for the tendered items as a whole.

**C] Evaluation of Offers**

**Note: The evaluation currency for this tender shall be INR.**

- a) The price bids including the impact price (if any) of the technically acceptable offers alone shall be opened.
- b) Offers with pre-conditions (like conditional discounts) for price are liable to be not considered / rejected. For evaluation such conditions would be removed and only the base offer would be considered for evaluation and comparison.
- d) In the event of any change in scope / quantity arising out of the discussions, offerers would be given a chance to submit their revised offer / Impact bids. The option for the revised offer / impact offer will be



triggered by BHEL. The Supplier then will have the facility to feed-in the revised price / impact price as per the provision given by BHEL. The impact price can be positive or negative (or nil). The impact price option shall contain only the price addition / deletion for such change in the scope / quantities, over and above the original scope and price quoted. The original price quoted would remain unchanged. The total price would then be computed by the arithmetic addition of the original price and the impact price. Where BHEL gives the option of submitting the revised offer, the impact would be computed as the arithmetic difference of the revised price and the original price.

- e) For evaluating the overseas offers, CFR Chennai Sea Port price quoted will be taken into account. The cost to BHEL will be arrived at by loading the applicable customs duty project wise, insurance charges, inland transportation charges to BHEL stores and LC charges etc.,
- f) Deleted. Intentionally this clause is left blank.
- g) BHEL reserves the right to reject without assigning any reasons / load any offer with factors other than already specified for such offers having deviations to BHEL Specifications, Standard Terms & Conditions at its discretion. The decision of BHEL in this regard shall be final.
- h) BHEL reserves the right to reject an offer due to unsatisfactory performance during tender finalisation / execution of a contract at any of BHEL projects / units in the past or if unsatisfactory performance report is received from the party/s referenced by the supplier at any time during tender finalisation.
- i) BHEL reserves the right to operate Purchase / Price preference to Government of India Undertakings, which shall be given as per the guidelines of Government of India given from time to time and / or relax the Terms and Conditions of the tender.
- j) For the purpose of comparing prices, tender prices shall be converted to Indian rupees and the conversion shall be made by using the TT Selling rate of State Bank of India (SBI) prevailing on the date of opening of Techno-Commercial / Unpriced bids. If the relevant day happens to be a bank holiday, then the forex rate as on the previous bank (SBI) working day shall be taken. This exchange rate will be followed till placement of order. Tenderers may please note that even if an impact price is taken as in (d) for purpose of price evaluation and arriving at the rank; the exchange rate will be taken as explained above.
- k) Unless otherwise specified, evaluation will be on individual line item basis only and ordering will be on respective L1 vendors.
- l) BHEL reserves the right to conduct negotiations on the “Price” and “Other Commercial Terms and Conditions” with the lowest ranked offerer at any time after the bid opening but before the release of the Purchase Order and If so required by BHEL, Supplier may have to share their costing sheet with BHEL.
- m) Bidders are required to confirm in writing in their techno-commercial document that other than themselves (the bidder) none of its group companies, concerns or affiliates etc., are participating in the tender either directly or indirectly or through any other agency under the same proprietor / common partner(s)/ common Directors. If during the evaluation of the bids it is found that the bidder has submitted the offer in violation of this condition then all the offers received from the group companies would stand rejected. If such relationship is found at a later date where the Purchase Order has been issued, then BHEL would cancel the Purchase Order and initiate suitable action/s under the contract/s including but not limited to invoking the Risk



Purchase clause of the order and other applicable legal provisions / guidelines of BHEL including guidelines on suspension of business dealings. (Please see clause L sub-clause c).

n) For this procurement, Public Procurement (Preference to Make in India), Order 2017 dated 15.06.2017, 28.05.2018, 29.05.2019 & 04.06.2020 and subsequent Orders issued by the respective Nodal Ministry shall be applicable even if issued after issue of this NIT but before finalization of contract/ PO/ WO against this NIT.

In the event of any Nodal Ministry prescribing higher or lower percentage of purchase preference and/ or local content in respect of this procurement, same shall be applicable.

For this procurement, the local content to categorize a supplier as a Class I local supplier / Class II local supplier / Non-Local supplier and purchase preference to Class I local supplier, is as defined in Public Procurement (Preference to Make in India), Order 2017 dated 04.06.2020 issued by DPIIT. In case of subsequent orders issued by the nodal ministry, changing the definition of local content for the items of the NIT, the same shall be applicable even if issued after issue of this NIT, but before opening of Part-II bids against this NIT.

**Preference to Make in India** including counter offering will be as per the Public Procurement (Preference to Make in India), Order 2017 available in the following links <https://dipp.gov.in/public-procurements>

[http://dipp.nic.in/sites/default/files/publicProcurement\\_MakeinIndia\\_15June2017.pdf](http://dipp.nic.in/sites/default/files/publicProcurement_MakeinIndia_15June2017.pdf)

[http://dipp.nic.in/sites/default/files/Revised-PPP-MII-Order-2017\\_28052018.pdf](http://dipp.nic.in/sites/default/files/Revised-PPP-MII-Order-2017_28052018.pdf)

[https://dipp.gov.in/sites/default/files/PPP-MII%20Order%20dt%2029th%20May%2019\\_0.pdf](https://dipp.gov.in/sites/default/files/PPP-MII%20Order%20dt%2029th%20May%2019_0.pdf)

<https://dipp.gov.in/sites/default/files/PPP%20MII%20Order%20dated%204th%20June%202020.pdf>

Kindly refer to Make in India format (MII form 1 &2), shall be submitted by all the Indian bidder and MII form 2 along shall be submitted to all non-Indian bidders

#### **D] Execution of the Order**

a) BHEL will have the option to pre-inspect the materials at Supplier's works by BHEL's own inspector or by third party agency appointed by BHEL or BHEL's end customer/s. The mere act of the pre-dispatch inspection (PDI) does not absolve the Supplier from giving the specifications as agreed upon in the Purchase Order. In the case of inspection being carried out by a third party inspector (TPI) as per the extant practice, the TPI would forward the Inspection Report (IR) along with Test Certificates and other related documents to the Quality Assurance (QA) Department of BHEL. The QA department after scrutinising the report/s submitted by the TPI would issue the Material Dispatch Clearance Certificate (MDCC). Suppliers are hereby informed that materials should be dispatched only after getting the MDCC, failing which the materials may be rejected on receipt at BHEL Stores.

b) In the case of overseas suppliers Inspection call for carrying out the inspection shall be given 30 days before the scheduled contract delivery date. The Inspection date/s given by the Supplier shall be on firm basis. For local Suppliers the Notice period of Inspection shall be 10 working days.

c) Deviations, if any pointed out by the visiting Inspection team of BHEL shall be corrected and the items as per specification shall be dispatched on or before the contract delivery date after getting the MDCC. d) The final inspection for acceptance will, however be carried out at BHEL's works at Ranipet.

**e) The contract delivery due date is the date of receipt at BHEL Stores for suppliers in India, applicable in the case of FOR Destination Contracts.**

**For ex-works contracts or FOR dispatching station indigenous contracts, the date of the Lorry way bill issued by the authorised transport carriers of BHEL / Railway Receipt / Courier Way bill / Airway bill**



~~or any such dispatch documents of carriage approved by BHEL would be considered as the Contract Delivery Date.~~

**In the case of CFR contracts with overseas suppliers, the B/L date shall be taken as the Contract Delivery Date**

**f)** Travel & other local stay cost for the Inspectors sent by BHEL will be to BHEL account, but other Inspection Charges, if any shall be to the account of the Seller only.

**g)** The supplier shall arrange for packing suitably in all respects for normal transport by sea / rail / road and Materials shall be suitably protected against effect of tropical salt laden atmosphere in the event of shipment being delayed at ports / store yards and as per BHEL TDC.

**h)** Foreign suppliers shall dispatch on CFR agreed Sea-Port basis, according to the contract conditions. Indian suppliers shall dispatch on free delivery (door-delivery) at BHEL stores basis only. Unloading the materials at BHEL Stores would be to the account of BHEL only.

**i)** In the event of any short supply, it shall be the responsibility of the supplier to deliver such short supplied/ missing items on Free-of-Cost basis at BHEL stores, including customs clearances at Indian Ports in the case of foreign suppliers.

**k) Terms of payment:**

k.1) For Indigenous Suppliers: Unless otherwise agreed to by BHEL, the standard payment terms of BHEL shall be: For non-MSE suppliers 100% payment made directly through EFT within 90 days from the date of receipt and acceptance of materials at BHEL Stores, Ranipet or 90 days from the date of acknowledgement of receipt of materials at destination specified. If any supplier asks for payment terms other than the above specified, then suitable loading on cost will be considered. **Loading of any deviation in the payment terms w.r.t tender terms will be “Base rate of State Bank of India (SBI) (as applicable on the date of bid opening: Techno-commercial bid opening in case of two part bids) + 6%, will be considered for loading for the periods of relaxation sought by bidders.**

k.2) For MSE vendors (under Micro & Small category alone) 100% payment will be made within 45 days from the date of receipt and acceptance of materials at BHEL Stores, Ranipet or 45 days from the date of acknowledgement of receipt of materials at destination specified. **Vendors to get themselves registered in Udyam registration Portal.**

**l) NOTE:**

Where the destination specified is other than BHEL Stores Ranipet, for claiming payment, Supplier has to submit proof of receipt of the materials at the destination by furnishing a copy of the acknowledged despatch document (LR/RR/Courier receipt etc.) .

If the Bidder is bidding for the first time and wants to be considered as an MSE then, the Bidder shall submit document evidencing that they are an MSE along with a certificate from a Chartered Accountant certifying the status of their Unit / Works clearly specifying the address of the works which is to be considered as MSE and



send the same to BHEL, Ranipet either before the tender opening date or upload it as a part of the tender document in the e-procurement portal. Where the document is submitted electronically a hard copy shall invariably be sent within a reasonable period (not exceeding 30 days) from the bid opening date for the purpose of BHEL's records. If the hard copy is not received within this specified time, then the supplier would be treated as a non-MSE. BHEL will not be responsible for any postal / courier / delivery delays.

For approved vendors the status as on the date of the bid opening as available with BHEL Ranipet's records shall be used for reckoning the status of the Bidder as an MSE or otherwise.

Offer/s received without these documents will be treated as non-MSE and order finalization will be done based on this premise. Documents submitted after Bid-opening will not be considered in this tender. This provision for MSE will apply subject to the condition that the participating MSE meets the tender requirements.

For approved suppliers, in case of any change in the MSE status, it shall be the responsibility of the Bidder to notify the change as a part of the Bid document. If at a later date it comes to the knowledge of BHEL, Ranipet that the change in the status has not been intimated by the Bidder and the order is obtained under the premise of an MSE then BHEL would cancel the pending order against this tender and take necessary steps for suspension of the business dealing with the Bidder as per the procurement policy of BHEL. Similarly if a supplier claims MSE status after the Part I bid opening, then the same would not be considered in the tender.

In case after the bid opening it is seen that no MSE has become L1, then depending on the nature of the item, if it is not possible to split the tendered items / quantities on account of reasons like customer contract requirements of supplying one make for a given project or technical reasons like the tendered item being a system etc. then BHEL would not counter offer the L1 prices even though there may be MSE bidders within the +15% band of L1.

Other concessions for MSEs / Reserved sectors (Also for women owned MSEs and MSEs owned by SC/STs)

In addition to the concessions specified above, MSE suppliers will be eligible for such other concessions as per the MSME Act 2006 and any other benefits / concessions that may be announced by the Government of India from time to time. However, such concessions as applicable at the time of tender opening alone will be applicable. Any concessions advised after tender opening will not be considered for the current tender.

Items that are reserved for MSE and for any other items for which reservations for Indian manufacturers are notified by the Govt. Of India, such concessions as prevailing on the date of tender opening shall apply as a part of this tender conditions. ii) Foreign Suppliers "100% thru' irrevocable & unconfirmed LC at sight within 3 weeks from the PO date through any one of our Bankers listed elsewhere in the tender conditions for 100% value (less Agency

Commission, if any) valid up to the PO delivery period and 15 days thereafter for negotiation. All bank charges in India to BHEL's account and all other charges outside India to Supplier's account. **BHEL would load the price of foreign suppliers in order to bring them on common platform as per Indigenous Suppliers on the account of differential payment terms to Indigenous Suppliers. Loading of payment terms will be "Base rate of State Bank of India (SBI) (as applicable on the date of bid opening: Techno-commercial bid opening in case of two part bids) + 6%, will be considered for loading for the periods of relaxation compared to indigenous suppliers i.e. 90 days.**



- m) Any incidence of tax like Income tax, Goods & Services Tax (GST) and Withholding any other similar tax / duties /levies imposed by the Government of India, or the State Government, where the BHEL Unit is located, deductible at Source, during the tenure of the Order shall be deducted by BHEL and necessary certification of the deduction (Tax deduction at Source) would be given. This is subject to the supplier fulfilling the necessary documentation as specified by the Government of India. (e.g. Tax Residency Certificate, PAN Number etc.)
- n) The Guarantee period shall start from the “Date of receipt and acceptance of the materials at BHEL Stores.”

#### **E] Liquidated Damages Clause:**

Since the tender is floated for total system of Mist Eliminator, LD shall be applicable for total order value. LD shall be levied at 0.5 % of the total order value per week of delay or part thereof subject to a maximum of 10% of the total order value or as specified in NIT. Levy of LD will be without prejudice to any other relief /compensation available to BHEL, Ranipet under any other condition of the contract/applicable legal provisions..

The contract delivery date for purpose of L.D is the date of receipt at BHEL Stores for suppliers in India for F.O.R. Destination Contract and the date of dispatch clearance given by BHEL for overseas suppliers.

Indigenous: For “FOR Delivery terms”, Date of receipt of material will be taken for LD calculation. Import: For CFR terms, BL date will be considered for LD calculation. Supplier shall deduct the applicable LD from the first payment when raising the claim for the same. It is taken by BHEL that Foreign Suppliers have confirmed their acceptance to BHEL for opening the LC for value which is the value of the order reduced by the applicable LD.

Delivery being the essence of BHEL's contract requirements, unless otherwise specified the LD would apply on the undelivered portion of the contracted items.

In the event that a Supplier does not accept the LD condition above, the offer would be loaded to the extent of the shortfall with respect to upper limit specified above.

Under GST regime, BHEL has to discharge GST liability on LD recovered from suppliers/contractors. Hence applicable GST shall also be recoverable from suppliers/contractors on LD amount. For this Debit note will be issued by BHEL indicating the respective supply invoice number.

#### **F) Miscellaneous**

##### **i) Role of Principals and Agents:**

BHEL will deal directly with indigenous manufacturers only.

BHEL strongly discourages the engagement of Agents in India by foreign principals, to deal with BHEL, in BHEL's tenders.

BHEL will not enter into any correspondence with an Indian Agent.

The Indian Agent will not be extended the privilege given to the principals, such as that of attending the tender openings, attending technical discussions, commercial discussions or price negotiations and such like.

In case, in spite of the above, a foreign principal insists on engaging an Indian Agent, It is made clear by BHEL that:

It is the sole responsibility of the foreign principal to ensure the Agent does not represent any other foreign principal in a given tender.



An undertaking to this effect shall be given by the foreign principal that his / her Agent does not represent any other foreign principal in the tender. This document shall form a part of the techno-commercial offer.

A Principal shall authorise only one Agent to quote against each BHEL's tender. In the event a Principal authorises more than one agent to quote against a BHEL's tender, then all such offers will be rejected by BHEL in that tender. Principals are also advised to include BHEL's tender Number / Reference in their authorisation issued to the Agent.

If at any stage of the tender, BHEL finds that an Indian Agent has represented more than one foreign principal, all such offers of and all the foreign principals would be disqualified summarily in the tender inquiry.

BHEL will only give an intimation of notice of the disqualification. No correspondence would be entertained by BHEL, on their decision. Such decision of BHEL shall be irrevocable, firm and final and shall be binding on the tenderer.

BHEL, due to business reasons would ban / would have banned Indian agents from dealing with BHEL.

Any foreign principal who engages such a banned agent, or an employee of the banned agency, or any other person connected with the banned agency, at any time during the tender proceedings, would be disqualified from the tender proceedings. The decision of BHEL in this regard shall be final and be binding on the OEM.

Hence in their own interests, prospective tenderers may check with BHEL, the status of their proposed agent vis-à-vis BHEL.

In view of the requirement of BHEL, it is strongly suggested that in their own interest, foreign principals may desist from engaging any Indian agent and deal with BHEL directly and it is stressed that any Main producer proposing to deal with BHEL by engaging and through an Indian Agent does so at their own risk.

BHEL shall in no way be responsible for any consequences that may arise to the foreign principal on account of the antecedents / actions of their Indian Agent.

**In the event of the foreign principal engaging an Indian Agent:**

**a) The Supplier shall furnish an authenticated copy of the Agency Agreement with his agent detailing the precise relationship between them and their mutual interest in the business along with techno commercial bid.**

**b)** The Supplier shall furnish original authorization letter for the Indian Agent. The letter shall contain name, contact person, complete postal address including phone, fax and e-mail ID. It shall also spell out the type of services to be rendered by Indian Agent.

**c)** Indian Agent & Agency commission: An Indian Agent can represent only one Foreign Manufacturer against a particular Tender. The CFR price quoted by the foreign bidder shall include the agency commission. However, the agency commission component payable to their Indian Agents shall be shown separately in the Offer, either as a lump-sum or as a percentage of the quoted price. This will be paid by BHEL in Indian Rupees, on satisfactory receipt -& acceptance of the materials. For calculation of Rupee equivalent of Agency Commission, exchange rate as prevailing on the date of Purchase Order will be taken and



d) For all discussions, technical clarification and negotiations etc. only the principal would be authorized for interaction with BHEL. The Agent shall not be a party to the discussions / negotiations and would not be normally allowed to participate.

**ii) Terms & Conditions of Letter of Credit (L/C) for overseas suppliers (indicated for acceptance).**

- a) Unconfirmed irrevocable Letter of Credit at Sight only will be opened by BHEL. Confirmation of L/C is not preferred by BHEL. Also L.C will be opened in Lots in line with the staggered delivery.
- b) All Bank charges out side India are to the Supplier's account and within India to BHEL's account.
- c) In case of L/C extension caused by delays attributable to the Supplier, the L/C extension / commitment charges are to be borne by the Supplier.

**iii) Other terms & conditions for letter of credit: - Documents for negotiation**

- a) Signed Commercial invoice in quadruplicate, for a value not exceeding the draft amount, quoting the import Licence No and certifying goods evidencing shipment of the merchandise are as per Applicant's Purchase Order. The amount of invoice after deducting Indian Agent's commission, if any, should not exceed the Credit amount. (The Indian agent's commission, if any, is payable in India in Indian rupees only.) b) Certificate of Country of Origin, from the country of manufacture, issued by the Chamber of Commerce.
- c) One set of Original and two sets of Non-negotiable copies of 'signed', 'unmarked', 'clean on board' Ocean Bill of Lading, showing Shipper as "Government of India" Account M/s. Bharat Heavy Electrical Ltd, Unit: BHEL, Ranipet as consignee (The opening bank should not be notified as consignee), marked freight payable / prepaid at destination.
- d) Packing list in 4 copies in English, indicating Size wise Number of bundles / pieces shipped and weight.
- e) Certified copy of the fax / e-mail sent by the beneficiary to the applicant giving the following particulars of shipment, as the insurance is to be arranged by the Applicant in India: (a) Purchase Order Number & date; (b) Bill of Lading Number & date (c) Name of vessel; (d) Port of Loading; (e) Number of bundles / pieces and weight; (f) Invoice Number, date and value (g) Purchase Order item number's despatched. The cable / fax is to be sent within 2 working days of shipment.
- f) Beneficiary's certificate showing the relevant airmail / courier reference no. and date that the following clauses have been complied with:
  - 1] Beneficiary to forward by Registered Airmail / Courier one complete set of original documents and one set of non-negotiable documents within 3 working days of obtaining shipping documents to Regional Manager (ROD), Bharat Heavy Electricals Ltd, 6th Floor, EVR Periyar Bldg. No 690 (Old 474), Anna Salai, Nandanam, Chennai-600035. India. (Phone: +91-24330931, 24330253; e-mail: pbpwar@bhel.in)
  - 2] Beneficiary to courier at his cost 3 copies of complete set of non-negotiable documents to the Officer who released the Purchase Order.
  - 3] Declaration by the Supplier certifying that the contents in each case are not less than those entered in the invoices / packing list and that the invoicing for the supplies effected is strictly in accordance with agreed rates as stipulated in the Purchase Order.



- 4] Declaration to the effect that all other documents as per purchase order has been couriered to the Purchase order releasing authority
- 5) The carrying steamer should be seaworthy, less than 25 years of age and approved by Lloyds / Classification Societies / General Insurance Corporation of India from time to time and
- 6) Copy of Dispatch Clearance / Instruction issued by BHEL.

**iv) Documents to be sent directly to the Purchaser prior to shipment**

- a) Manufacturer's Original Internal Inspection / Test certificate in triplicate.
- b) Manufacturer's Original Guarantee certificate as per Purchase Order. The material shall be guaranteed for a period of 12 months from the date of acceptance of the materials at BHEL stores or 18 months from the date of dispatch whichever is earlier. The acceptance would be evidenced by the Stores Receipt Voucher (SRV) which will be raised by BHEL.
- c) Inspection / Test Certificate issued by BHEL / Inspection agency specified in the Purchase Order. In the event that Inspection prior to dispatch is not carried out by the Engineers of BHEL, the Inspection certificate of the third party so authorized by BHEL and
- d) Any other documentation as specified in the Purchase Order.

**v) Conditions for transportation:**

- a) All shipping documents shall show the Purchase Order Number & Date, Import Licence Number & Date, and Letter of Credit Number & Date. b) Transhipment is to be avoided.
- c) Loading on deck is not permitted. The transport document must not contain a provision that goods may be carried on deck.
- d) A transport document which is produced or appearing to have been produced by reprographic, automated or computerized systems or as carbon copy will be accepted as an original document provided that it is marked as original and is ink-signed.
- e) The transport document must contain all the conditions of carriage on the original document.
- f) The transport document must not indicate the place of destination as being different from the port of discharge.
- g) The transport document must not contain the indication 'intended' or similar qualification in relation to the vessel or other means of transport or port of loading or port of discharge.
- h) The transport document must be issued by the carrier or his agent and not by any freight forwarder.
- i) Transport documents bearing reference by stamp or otherwise, to costs additional to the freight charges are not acceptable.
- j) The Bills of Exchange must be dated and presentation of documents for negotiation must not be later than 15 days after the date of shipment and in any case not later than the expiry date of the Credit.
- l) Indian suppliers shall dispatch the materials on freight prepaid and on door-delivery basis (FOR Destination – Destination: BHEL Stores) and

m) In the event there is a delay by the Supplier in negotiating / submitting the document, any demurrage / wharfage arising out of the same shall be to the account of the Supplier and shall be deducted from the final payment. Also, in such cases, the Supplier shall authorize the Steamer / Shipping agent / transporter to freely release the consignment to BHEL by providing a “Surrender Bill of Lading”. Over-seas Suppliers have to give a No-Objection Certificate to BHEL, authorizing BHEL to get the Delivery Order from the Steamer Agent without producing the Original Bill of Lading. This is required to ensure avoidance of incidence of demurrage at Chennai Sea-port that may arise in case of delayed presentation of documents by the Seller.

**G) Reverse auction (RA) / on-line bidding on internet:**

1. Decision to go for RA would be taken before floating of the tender. In case it is decided to go for RA, same shall be declared upfront in NIT by inserting the following clause:

“BHEL shall be resorting to Reverse Auction (RA) (Guidelines as available on [www.bhel.com](http://www.bhel.com)) for this tender. RA shall be conducted among all the techno-commercially qualified bidders. Price bids of all techno-commercially qualified bidders shall be opened and same shall be considered as initial bids of bidders in RA. In case any bidder(s) do(es) not participate in online Reverse Auction, their sealed envelope price bid along with applicable loading, if any, shall be considered for ranking.”

2. Those bidders who have given their acceptance to participate in Reverse Auction will have to necessarily submit ‘Process compliance form’ (to the designated service provider) as well as ‘Online sealed bid’ in the Reverse Auction. Non-submission of ‘Process compliance form’ or ‘Online sealed bid’ by the agreed bidder(s) will be considered as tampering of the tender process and will invite action by BHEL as per extant guidelines for “Suspension of Business Dealings with Suppliers/ Contractors (as available on [www.bhel.com](http://www.bhel.com)).”

3. The philosophy followed for reverse auction shall be English Reverse (No ties).

4. For the proposed reverse auction, technically and commercially acceptable bidders only shall be eligible to participate.

5. BHEL will engage the services of a service provider who will provide all necessary training and assistance before commencement of on line bidding on internet.

6. In case of reverse auction, BHEL will inform the bidders the details of Service Provider to enable them to contact & get trained.

7. Business rules like event date, time, bid decrement, extension etc. also will be communicated through service provider for compliance.

8. Bidders have to fax the Compliance form (Annexure IV) before start of Reverse auction. Without this, the bidder will not be eligible to participate in the event.

9. Reverse auction will be conducted on scheduled date & time.

**Note: Decision to go for RA or not will be on case to case basis and shall be in line with the NIT conditions .**

1. At the end of Reverse Auction event, the lowest bidder value will be known on auction portal.

2. The lowest bidder has to fax/e-mail the duly signed and filled-in prescribed format for price breakup including that of line items, to the Service provider within two working days of Auction without fail.



3. Bidders are required to read the “Terms and Conditions” section of the auctions site of Service provider, using the Login IDs and passwords given to them by the service provider before reverse auction event. Bidders should acquaint themselves of the “Business Rules of Reverse Auction”, which will be communicated before the Reverse Auction.
4. If the Bidder or any of his representatives are found to be involved in Price manipulation/ cartel formation of any kind, directly or indirectly by communicating with other bidders, action as per extant BHEL guidelines, shall be initiated by BHEL and the results of the RA scrapped/ aborted.
5. The Bidder shall not divulge either his Bids or any other exclusive details of BHEL to any other party.
6. The calculation sheet e.g. excel sheet (which will help to arrive at ‘Total Cost to BHEL’) will be communicated to respective bidders of RA by BHEL. In line with the NIT terms, BHEL will provide the calculation sheet (e.g., EXCEL sheet) which will help to arrive at “Total Cost to BHEL” like Packing & forwarding charges, Taxes and Duties, Freight charges, Insurance, Goods & Services Tax (GST) and loading factors (for non-compliance to BHEL standard Commercial terms & conditions) for each of the bidder to enable them to fill-in the price and keep it ready for keying in during the Auction.]
7. This calculation sheet will be finalized based on the evaluation criteria specified in the NIT.
8. Suppliers are required to submit their best price bid in a separate sealed cover along with techno commercial bid. After evaluation of Techno-Commercial Bids:
  - a) In case BHEL decides not to conduct RA, the envelope (sealed electronic price bid) sealed price bids of all techno-commercially qualified bidders, along with price impact, if any, would be opened and processed as per extant the internal Purchase/ Works Policy as applicable to BHEL.
  - b) In case BHEL decides to conduct RA, business rules of RA will be sent to service provider. (See Annexure for Model General Business Rules of RA.)
09. Generally the start price for the RA would be L1 of e-bid/ sealed envelope price bids.

*Note: Wherever more than one lowest online sealed bids are identical, the start price, would be that price arrived by reducing the lowest online sealed bid by maximum of one decrement.*
10. The start price & bid decrement will be decided by RA committee of BHEL and the same would be communicated to the service provider, to start the bidding process.
11. Only those bidders who have submitted the ‘Process compliance form’ duly signed and within the scheduled time would be eligible to participate further in RA process.
12. Reverse Auction will be conducted if two or more bidders are techno-commercially qualified. In case of two or three qualified bidders, there shall be no elimination of H1 bidder (whose quote is highest in sealed envelope price bid). In case of four qualified bidders, the H1 bidder shall be eliminated whereas in case of five qualified bidders, H1 & H2 bidders shall be eliminated. However, in case of six or more qualified bidders are available, RA would be conducted amongst first 50% of the bidders arranged in the order of prices from lowest to highest. Number of bidders eligible for participating in RA would be rounded off to next higher integer value if number of qualified bidders is odd (e.g. if 7 bids are qualified, then RA will be



conducted amongst lowest four bidders). However, there will be no elimination of qualified bidders who are MSE or qualifying under PPP-MII, Order 2017, irrespective of the number of bidders qualifying techno-commercially.

13. In case multiple H1 bidders, all H1 bidders (excluding MSEs and bidders qualifying under PPP- M11 Order 2017) shall be removed provided two bidders remain in fray, else no H1 removal.
14. If the lowest sealed envelope (eps) price bids is the starting price, then the lowest bidder in sealed envelope (eps) price bids shall be shown as current L1 automatically by the system. System would have the provision to indicate this bid as current L1 for further bidding.
15. If the start price is lower than the lowest sealed envelope (eps) price bids, on acceptance of such start price by any bidder, this bid would be indicated as current L1 for further bidding.
16. In case of no further bidding, RA will be deemed to have been successful with current L1 bidder.
17. All bidders who had given their bids would be able to see their rank and current L1 price on the screen. Once the RA is done, the ranking status would be based on the last quoted price irrespective of quote received in RA or sealed envelope (eps) price bid.
18. RA shall be treated as failed in the following scenarios:
  - a) In cases where the start price is one decrement (maximum) lower than the lowest of the online sealed envelope price bid and no bidder accepts the start price.
  - b) In cases where the number of online sealed bids are less than two.

Wherever, the evaluation is done for individual line items, RA shall be treated as failed only for those line item(s) for which any of the above a) or b) satisfies.

19. In cases of failure of RA, retendering shall be resorted to without conducting RA in the subsequent tender
20. Whenever the evaluation is done on total cost basis, after RA, prices of individual line items shall be reduced on pro-rata basis.
21. In case of splitting requirement, H1 bidder(s) who were removed from participation in RA may also be considered for counter offer if the pre-stated (NIT) number of suppliers do not accept the counter offer. However the principle of splitting to N-1 bidder shall be maintained in line with extant Purchase Policy / Work Policy
22. In case BHEL decides not to go for Reverse Auction for the tender enquiry, the Price bids and price impacts, if any, already submitted and available with BHEL would be opened as per BHEL's standard practice.
23. In case of enquiry through e-Procurement, the sealed electronic price bid (e-bid) would be treated as sealed envelope price bid.

**Note: In order to bring more transparency and to address any queries of Bidders on Reverse Auction, an abridged version of BHEL's "Common Guidelines for conducting Reverse Auction (RA)" has been hosted in BHEL's web site [www.bhel.com](http://www.bhel.com) under the links "Supplier Registration Page" and "Tender Notification". All Bidders are requested to visit the link and familiarize themselves with BHEL's RA**



**procedures and guidelines before submission of their bid/s. Submission of Bid shall mean that the Bidder has read and accepted BHEL's RA procedures and the bid is in agreement with the same.**

## **H] Force Majeure**

### **In the event of Force Majeure:**

- i. Notwithstanding the provisions contained in other clauses, the supplier shall not be liable for imposition of any such sanction so long the delay and/or failure of the supplier in fulfilling its obligations under the contract is the result of an event of Force Majeure. For purposes of this clause, Force Majeure means an event beyond the control of the supplier and not involving the supplier's fault or negligence and which is not foreseeable and not brought about at the instance of the party claiming to be affected by such event and which has caused the non –performance or delay in performance. Such events may include, but are not restricted to, wars or revolutions, hostility, acts of public enemy, civil commotion, sabotage, fires, floods, explosions, epidemics, quarantine restrictions, strikes excluding by its employees, lockouts excluding by its management, freight embargoes and Acts of GOD.
- ii. If a Force Majeure situation arises, the supplier shall promptly notify the Purchaser/Consignee in writing of such conditions and the cause thereof within twenty-one days of occurrence of such event. Unless otherwise directed by the Purchaser/Consignee in writing, the supplier shall continue to perform its obligations under the contract as far as reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.
- iii. If the performance in whole or in part or any obligation under this contract is prevented or delayed by any reason of Force Majeure for a period exceeding sixty days, either party may at its option terminate the contract without any financial repercussion on either side.
- iv. In case due to a Force Majeure event the Purchaser/Consignee is unable to fulfil its contractual commitment and responsibility, the Purchaser/Consignee will notify the supplier accordingly and subsequent actions taken on similar lines described in above sub-paragraphs.

## **I] Cancellation of Order and Risk Purchase Clause :**

- a. In the event of any successful Tenderer's failure to fulfil any of the tender / Contract obligations including supply of whole or any part of the ordered items as per Contract / Agreement, BHEL has the right to terminate the contract and purchase from elsewhere, at the risk and cost of the defaulted supplier, either the whole of the goods or any part which the supplier has failed to deliver or dispatch within the time stipulated in the contract or if the same were not available, the best and nearest available substitute thereof. BHEL reserves the right to initiate the alternate purchase action at the cost and risk of the erring supplier by issue of a simple notice of intention for the alternate purchase action duly sent by any electronic means and / or by a letter. The cancellation of the order would not be a pre-condition for initiation of the alternate purchase action. This remedy would be in addition to the invoking of the CEBG on grounds of failure of the Supplier in executing the Contract and any other legal remedies. The supplier shall be liable for the additional expenditure/difference in Cost, if any, including consequential losses which BHEL may sustain by reason of risk purchase in addition to the applicable LD as per the Purchase order/contract.
- b. The decision of BHEL with regard to the additional expenditure / difference in cost and consequential losses incurred by BHEL shall be final and binding on the supplier.
- c. The amount recoverable under risk purchase shall be recovered from the defaulted supplier in all or any of the following manners:
  - i. from dues available in the form of Bills payable to defaulted supplier, SD, BGs against the same contract.
  - ii. from the dues payable to defaulted supplier against other contracts in the same Region/Unit /any other region/unit



iii. In-case recoveries are not possible with any of the above available options, Legal action shall be initiated for recovery against defaulted supplier.

**J] Contract Execution Bank Guarantee:**

To demonstrate the fidelity of the successful bidder, in executing the Contract, on receipt of the Letter of Intent / Purchase Order, the Supplier shall arrange to provide a contract execution bank guarantee (CEBG). The format of the CEBG is a part of this enquiry. The format may be downloaded and necessary stamping may be obtained from the Banker towards submission of the CEBG. The indigenous suppliers have to provide the CEBG from any one of the Nationalized Banks, listed in the annexure to these terms. Overseas suppliers can submit the CEBG from any of the reputed International / National Bankers. However the CEBG is to be confirmed by any of the Bankers listed by us. In the event of failure by the Supplier to execute the contract either fully or partially, BHEL would encash the entire CEBG. The CEBG shall be valid for the period covering the agreed delivery date of the order with a further claim period of 3 months on the last specified delivery date. In the event of the failure of delivery BHEL would proceed with encashing the CEBG without reference to the Supplier. In the event of BHEL granting extension of the delivery dates, then the CEBG validity shall also be got extended by the Supplier to the extent of the extended delivery times together with the claim period as specified elsewhere. **The CEBG shall be for a value of 2% of the Purchase order.**

**Suppliers who are all already registered with BHEL and having a vendor performance rating of A or A+ grade would be exempted from submission of CEBG.**

**Performance Bank Guarantee**

Where ever so required, the Supplier shall arrange to provide a Performance bank guarantee (PBG). The indigenous suppliers have to provide the PBG from any one of the Nationalized Banks, listed in the tender terms. Overseas suppliers can submit the PBG from any of the reputed International / National Bankers. However the PBG shall be confirmed by any of the Bankers listed by us. The PBG shall guarantee the performance of the equipment / materials / items supplied and shall cover the guarantee period. The PBG shall have a claim period of 3 months in addition to the guarantee period. In the event of failure of the supplies made within the guarantee period, BHEL would encash the entire PBG. **The PBG shall be for a value of 10% of the Purchase order.**

**The supplier/s have to get the PBG format (pre-printed) from BHEL and get the same stamped by the Banker. Change of PBG terms either by the supplier's Banker or by the supplier, after servicing of the order is not acceptable. Similarly PBG prepared by the supplier (typed by them) will also not be acceptable to BHEL. The pre-printed form issued by BHEL shall be used for making the PBG.**

**K] Post-order submission of documents for approval**

In the event of the release of Letter of Intent (LoI) / Purchase order/s (PO) against this tender, Bidders have to submit the applicable documents as called for in the tender / LoI / PO/s, such as drawings, data sheets, design calculations etc. These documents for approval have to be submitted within the agreed timelines between BHEL and Bidder. Normally the time period for submission for approval is 15 days from the date of receipt of the LoI / PO by the supplier. The actual time period within which the documents have to be submitted for approval would be specified in the LoI / PO.

Such documents would be subjected to evaluation and approval by BHEL and / or by BHEL's customer / Consultant / Customer's Consultant. Bidders have to give their specific acceptance for this.



After approval of such documents and after getting clearance from BHEL, only the items ordered can be taken up for manufacture.

Any changes required by BHEL / Customer etc. in the documents submitted for approval shall be incorporated by the Bidder and no extra cost would be payable by BHEL for such changes.

In the event that the Bidder does not carry out the required corrections, then the LoI / PO would be liable for cancellation by BHEL and BHEL would resort to alternate purchase action at the risk and cost of the Bidder under the Risk Purchase Condition of the Purchase Order.

*Note: After receiving the LoI / PO, supplier shall also forward the acknowledgement / acceptance of the LoI / PO by signing and returning the second copy of the LoI / PO as the token of acceptance.*

#### **L] Others**

a) In case of any contradiction in the terms and conditions given here and elsewhere in the other documents of the tender, it shall be the responsibility of the tenderer to get it clarified from BHEL. The officer authorized to provide such clarifications is the tender issuing officer.

b) Alterations to the conditions of the Tender can be done only by the authorized officer, at any time before the date and time of tender opening and would be duly communicated through a corrigendum. c)

#### **Suspension of Business dealings with Suppliers:**

(i) Before submitting offer, prospective bidders are advised to visit our web-site [www.bhel.com](http://www.bhel.com) / supplier registration to familiarize themselves with BHEL's policy and procedures of Suspension of Business Dealings with Suppliers.

Submission of offer shall be deemed to be evidence of the Bidder to have read and accepted the above said policy.

#### **ii) Treatment of Banned / Under-performing Vendors:**

Any supplier who has been put on "Hold" or "Banned" from having business dealings with BHEL, Ranipet or any other unit of BHEL shall not submit their offer against this tender. If any such offers are received they would be summarily rejected and sent back. During the processing of tender, if any unit of BHEL puts a supplier on "Ban" then further processing of the offer will not be taken up and in case an order is placed, BHEL, Ranipet may resort at their discretion to cancel the PO either fully or partially.

If any of the supplier who is supplying similar material to BHEL, Ranipet has a Vendor Performance Rating (VPR) score of 'C' or below, then offer given by such parties will not be considered for ordering in this tender. If any of the Bidders have unexecuted order/s with BHEL and if in such orders, the deliveries have been delayed beyond a reasonable period (say 30 days of agreed delivery period), the offer of such Bidders will also be liable for rejection.

Offers of such of those bidders against whom action for suspension of business dealings has been initiated by BHEL, Ranipet or any other Units/Division of BHEL will also not be considered in this tender.

#### **d) Fraud Prevention Policy:**

The Bidder along with its associate/ collaborators/ sub-contractors/ sub-vendors/ consultants/ service providers shall strictly adhere to BHEL Fraud Prevention Policy displayed on BHEL website <http://www.bhel.com> and shall immediately bring to the notice of BHEL Management about any fraud or suspected fraud as soon as it comes to their notice.



e) **Applicability of Integrity Pact:-**

IP is a tool to ensure that activities and transactions between the Company and its Bidders/ Contractors are handled in a fair, transparent and corruption free manner. A panel of Independent External Monitors (IEMs) on the present panel have been appointed by BHEL with the approval of CVC to oversee implementation of IP in BHEL.

Sl.No	IEM	Email
1.	Shri Arun Chandra Verma, IPS (Retd.)	acverma1@gmail.com
2.	Shri Virendra Bahadur Singh, IPS (Retd.)	vbsinghips@gmail.com

The IP as enclosed with the tender is to be submitted (duly signed by authorized signatory) along with techno-commercial bid(Part-I, in case of two/three part bid). Only those bidders who have entered into such an IP with BHEL would be competent to participate in the bidding. In other words, entering into this Pact would be a preliminary qualification.

Please refer Section-8 of IP for Role and Responsibilities of IEMs. In case of any complaint arising out of the tendering process, the matter may be referred to the IEM(s).All correspondence with the IEMs shall be done through email only.

Note:

*No routine correspondence shall be addressed to the IEM (phone/ post/ email) regarding the clarifications, time extensions or any other administrative queries, etc on the tender issued. All such clarification/ issues shall be addressed directly to the tender issuing (procurement) department's officials whose contact details are provided below:*

*For all clarifications/ issues related to the tender, please contact:*

Name: (1) ..... (2) .....

Dep't: ..... Address: .....

.....

.....

Phone:(Landline/Mobile) (1) ..... (2) .....

Email: .....

Fax: .....

Integrity Pact are applicable for all the BHEL enquiries whose estimated value is equal to or more than Rupees 02 Crores.

Copy of Integrity Pact with applicable nominated IEM is attached along with the tender documents for ready reference of Suppliers.

f) If any Supplier attempts to bribe, or pay commission, gift or any advantage or bring in undue influence either by himself or on his behalf any one including a stranger to the tender, in addition to instituting legal proceedings



as per the extant laws prevailing, will disqualify the supplier from this tender and all future tenders of BHEL. Decision of the Purchaser would be final in this matter.

g) The laws governing this transaction shall be the laws in India.

h) Wherever not specified, Inco terms 2010 shall be used to interpret the Commercial terms and conditions and

i) In the event of an order, Supplier shall agree to settlement of disputes or differences, if any, by way of arbitration, in accordance with the “Rule of Arbitration” of the Indian Council of Arbitration.

*The language in the tender documents downloaded by the Bidders shall at no point of time be changed, altered or modified in any manner by the Tenderer. If such changes are made by any tenderer, it shall be considered as tampering with BHEL's terms and the offer shall be summarily rejected, whenever it is noticed by BHEL. Such Bidders would be disqualified from the Bidding Process and their offers would be forfeited / Bank Guarantees invoked. They would also not be allowed to participate in future tenders of BHEL.*

**M. Conditions for rejection of offers:**

**Following is the list of situations which would lead to rejection of offer/s.**

**This list is not exhaustive but only indicative.**

BHEL reserve the right to reject one or all offers without assigning any reason. The decision of BHEL will be final in this regard.

1. *If the offer fails to meet the technical requirements/specifications of the tendered item/s.*
2. *If the offer does not meet the commercial terms & conditions, such as but not limited to delivery period specified in the tender, Delivery terms, payment terms, Liquidated damages, Risk Purchase, cancellation clause etc., including the load factors specified in the tender.*
3. *If the bidder fails to respond to clarification sought, within a reasonable period. In case of doubts / lack of clarity on the technical and commercial offer of the bidder, BHEL will seek clarifications. Bidders are required to respond completely to such BHEL's queries within 3 working days unless otherwise agreed to in writing by BHEL for period beyond 3 days. If supplier fails to respond within 3 working days or maximum 2 working days on a reminder thereon, the offer of such bidders will be automatically dis-qualified in the tender without further recourse to informing the bidder.*
4. *If any of the conditions listed below are applicable to the bidder, the offer is liable to be rejected:*

If any

- Debt recovery / Winding up Proceedings are initiated against the Company in Courts / Debt Recovery Tribunals (DRTs),
- Proceedings are there against the Company in National Company Law Tribunal (NCLT) with respect to Insolvency and Bankruptcy Code (IBC) or otherwise,
- Any proceedings are there against the Company under the “Securitization and Reconstruction of Financial Assets and Enforcement of Security Interest (SARFAESI) Act,
- Any restructuring proceedings are underway for the Company under Corporate Debt Restructuring (CDR), Strategic Debt Restructuring (SDR) or otherwise,
- Divestment / demerger proceedings are underway for the Company under the Companies Act.
- If action under guidelines of suspension of business dealings (Ref AA/MM/SB/01 Rev 02 dt 22.07.2016) and its latest revisions has been initiated against the company/bidder.



5. *Failure to sign & accept the Integrity Pact (where applicable). Bidders are hereby informed that the contents of the Integrity Pact are firm and fixed and cannot be changed.*

The above list is not exhaustive but is indicative only.

**N. Special Note:**

BHEL is a Government of India Undertaking. Its procurement practices are governed by the (Internal) Purchase Policy issued by the management of the company and as per Annexure B applicable at the time of finalising the order against this tender.

**O. JURISDICTION AND GOVERNING LAWS:**

The Contract shall be governed by and be construed as per provisions of the laws of India and amendments thereon if any.. Subject to Clause hereinabove regarding ARBITRATION, the principal civil court exercising ordinary civil jurisdiction over the area where the seat of arbitration is located i.e. Ranipet, which shall have exclusive jurisdiction over any DISPUTE to the exclusion of any other court.

**P. RESOLUTION OF DISPUTES:**

The Parties agree that if at any time (whether before, during or after the arbitral or judicial proceedings), any Disputes (which term shall mean and include any dispute, difference, question or disagreement arising in connection with construction, meaning, operation, effect, interpretation or breach of the contract/tender which the Parties are unable to settle mutually), arise inter-se the Parties, the same may, be referred by either party to Conciliation to be conducted through Independent Experts Committee to be appointed by competent authority of BHEL from the BHEL Panel of Conciliators.

The proceedings of Conciliation shall broadly be governed by Part-III of the Arbitration and Conciliation Act 1996 or any statutory modification thereof.

Notes:

1. No serving or a retired employee of BHEL/Administrative Ministry of BHEL shall be included in the BHEL Panel of Conciliators.
2. Any other person(s) can be appointed as Conciliator(s) who is/are mutually agreeable to both the parties from outside the BHEL Panel of Conciliators.

**The proceedings of Conciliation shall broadly be governed by Part-III of the Arbitration and Conciliation Act 1996 or any statutory modification thereof and as provided in Annexure to this GCC.**

The Annexure together with it's appendices will be treated as if the same is part and parcel hereof and shall be as effectual as if set out herein in these GCC.

Except as provided elsewhere in this Contract, in case amicable settlement is not reached between the parties, in respect of any dispute or difference; arising out of the formation, breach, termination, validity or execution of the Contract; or, the respective rights and liabilities of the Parties; or, in relation to interpretation of any provision of the Contract ; or , in any manner touching upon the Contract, then, either Party may , by a notice in writing to other Party refer such dispute or difference to sole arbitration of an arbitrator appointed as per the Arbitration and Conciliation Act, 1996 (India) or statutory modification or re-enactment thereof and the rules made thereunder and for the time being in force.

The Arbitrator shall pass a reasoned award and the award of the Arbitrator shall be final and binding upon the parties.

Subject as aforesaid, the provision of Arbitration & Conciliation Act 1996 (India) or statutory modification or reenactment thereof and the rules made thereunder and for the time being in force shall apply to the arbitration proceeding under this clause.



The seat of arbitration shall be Ranipet, Tamil Nadu, India.

The cost of arbitration shall be borne as per the award of the Arbitrator.

Subject to arbitration in terms of clause above, the Courts at Ranipet, Tamil Nadu, India shall have exclusive Jurisdiction over any matter arising out of or in connection with this Contract.

Notwithstanding the existence or any dispute or difference and/or reference for the arbitration, the vendor shall proceed with and continue without hindrance the performance of its obligation under this Contract with due diligence and expedition in a professional manner except where the Contract has been terminated by either Party in terms of this Contract.

**In Case of Contract with Public Sector Enterprise (PSE) or a Government Department, the following shall be applicable:**

In the event of any dispute or difference relating to the interpretation and application of the provisions of commercial contract(s) between Central Public Sector Enterprises (CPSEs)/Port Trusts inter se and also between CPSEs and Government Departments/Organizations (Excluding disputes concerning Railways, Income Tax, Customs & Excise Departments, such dispute or difference shall be taken up by either party for resolution through AMRCD as mentioned in DPE OM No. 4(1)/2013 –DPE (GM)/FTS-1835 dated 22-05-2018.

**Q. NO INTEREST PAYABLE TO CONTRACTOR:**

Notwithstanding anything to the contrary contained in any other document comprising in the Contract, no interest shall be payable by BHEL to Contractor on any moneys or balances including but not limited to the Security Deposit, EMD, Retention Money, RA Bills or the Final Bill, or any amount withheld and/or appropriated by BHEL etc., which becomes or as the case may be, is adjudged to be due from BHEL to Contractor whether under the Contract or otherwise.

-O-

## ANNEXURE

### Model General Business Rules for Reverse Auction

This has reference to tender no {tender number....date...}. BHEL shall finalise the Rates for the supply of {item name} through Reverse Auction mode. BHEL has made arrangement with M/s. {Service provider}, who shall be BHEL's authorized service provider for the same. Bidders should go through the instructions given below and submit acceptance of the same.

The technical & commercial terms are as per (a) BHEL Tender Enq. No. {...} dated {...}, (b) Bidders' technical & commercial bid (in case of two part bid) and (c) subsequent correspondences between BHEL and the bidders, if any.

#### 1. Procedure of Reverse Auctioning

- i. Online Reverse Auction: The 'opening price' i.e. start price for RA and 'bid decrement' will be decided by BHEL.
- ii. If BHEL decides the lowest online sealed envelope price bid as the starting price, then the lowest bidder in online sealed envelope price bid shall be shown as current L1 automatically by the system and no acceptance of that price is required. System shall have the provision to indicate this bid as current L1. iv. Bidders by offering a minimum bid decrement or the multiples thereof can displace a standing lowest bid and become "L1" and this continues as an iterative process.
- iii. After the completion of the online reverse auction, the Closing Price (CP) shall be available for further processing.

#### 2. Schedule for Reverse Auction: The Reverse Auction is tentatively scheduled on {date}:

And the duration of Reverse Auction will be {...} minutes. All bidders to submit their bids during this period.

-

#### - Online Reverse Auction:-

- {Start Time:
- Close Time:}

#### 3. Auction extension time:

If a bidder places a bid in the last {...} minutes of closing of the Reverse Auction and if that bid gets accepted, then the auction's duration shall get extended automatically for another {...} minutes, for the entire auction (i.e. for all the items in the auction), from the time that bid comes in. Please note that the auto extension will take place only if a bid comes in those last {...} minutes and if that bid gets accepted as the lowest bid. If the bid does not get accepted as the lowest bid, the auto-extension will not take place even if that bid might have come in the last {...} minutes. In case, there is no bid in the last {...} minutes of closing of Reverse Auction, the auction shall get closed automatically without any extension. However, bidders are advised not to wait till the last minute or last few seconds to enter their bid during the auto-extension period to avoid complications related with internet connectivity, network problems, system crash down, power failure, etc.

The above process will continue till completion of Reverse Auction.

Complaints/ Grievances, if any, regarding denial of service or any related issue should be given in writing thru e-mail/ fax to M/s. {Service provider} with a copy to BHEL within 15 minutes prior to initial closing time of Online Reverse Auction.

#### 4. Bid price: The Bidder has to quote the {...} Price inclusive of Packing & Forwarding charges, all the routine & type tests as per tender scope, GST, Freight (bidder to provide original Freight



paid receipt), insurance charges, etc. including loading (if indicated by BHEL due to deviations in technical/commercial terms) for the Items specified. Details are as shown in Excel Sheet for calculation of total cost to BHEL (To be specified by Unit as per NIT conditions).

**5. Bidding currency and unit of measurement:**

Bidding will be conducted in *Indian Rupees per Unit* of the material as per the specifications {...}

In case of foreign currency bids, exchange rate (TT selling rate of State Bank of India) as on scheduled date of tender opening (Part-I bid) shall be considered for conversion in Indian Rupees. If the relevant day happens to be a Bank holiday, then the forex rate as on the previous bank (SBI) working day shall be taken.

**6. Validity of bids:** Price shall be valid for {... days} from the date of reverse auction. These shall not be subjected to any change whatsoever.

**7. Lowest bid of a bidder:** In case the bidder submits more than one bid, the lowest bid at the end of Online Reverse Auction will be considered as the bidder's final offer to execute the work.

**8.** Bidders shall be assigned a **Unique User Name & Password** by M/s. {Service provider}. Bidders are advised to change the Password and edit the information in the Registration Page after the receipt of initial Password from M/s. {Service provider} to ensure confidentiality. All bids made from the Login ID given to the bidders will be deemed to have been made by the bidders/ bidders 'company'.

**9.** Post auction procedure: BHEL will proceed with the Lowest Bid in the Reverse Auction for further processing.

**10.** Any commercial/ technical loading shall be intimated to bidders prior to RA. The excel sheet provided in this regard shall cover all these aspects. Commercial/ technical loading if any, shall be added by the respective bidder in its price during online sealed bid & Online Reverse Auction. Modalities of loading & de-loading shall be separately intimated to the bidders. The responsibility for correctness of total cost to BHEL shall lie with the bidders.

**11.** Computerized reverse auction shall be conducted by BHEL (through M/s. {Service Provider}), on pre specified date, while the bidders shall be quoting from their own offices/ place of their choice. Internet connectivity shall have to be ensured by bidders themselves.

During the RA process if a bidder is not able to bid and requests for extension of time by FAX/ email/ phone then time extension of additional 15 minutes will be given by the service provider provided such requests come before 5 minutes of auction closing time. However, only one such request per bidder can be entertained. Despite this extension if bidder fails to upload his prices due to extreme case of failure of Internet connectivity, (due to any reason whatsoever may be) it is the bidders' responsibility/ decision to send fax communication immediately to M/s. {Service provider}, furnishing the price the bidder wants to bid online with a request to the service provider to upload the faxed price online so that the service provider will upload that price online on behalf of the Bidder. It shall be noted clearly that the concerned bidder communicating this price to service provider has to solely ensure that the fax message is received by the service provider in a readable/ legible form and also the Bidder should simultaneously check up with service provider about the clear receipt of the price faxed. It shall also be clearly understood that the bidder shall be at liberty to send such fax communications of prices to be uploaded by the service provider only within the closure of Bid time and under no circumstance it shall be allowed beyond the closure of Bid time /reverse auction. It shall also be noted that the service provider should be given a reasonable required time by the bidders, to upload such prices online and if such required time is not available at the disposal of the Service provider at the time of receipt of the fax message from the bidders, the service provider will not be uploading the prices and either BHEL or the service provider are not responsible for this unforeseen circumstances. In order to ward-off such contingent situation bidders are requested to make all the necessary arrangements/ alternatives whatever required so that they are



able to circumvent such situation and still be able to participate in the reverse auction successfully. Failure of power or loss of connectivity at the premises of bidders during the Reverse auction cannot be the cause for not participating in the reverse auction. On account of this, the time for the auction cannot be extended and neither BHEL nor M/s. {Service provider} is responsible for such eventualities.

- 12. Proxy bids:** Proxy bidding feature is a pro-bidder feature to safeguard the bidder's interest of any internet failure or to avoid last minute rush. The proxy feature allows bidders to place an automated bid in the system directly in an auction and bid without having to enter a new amount each time a competing bidder submits a new offer. The bid amount that a bidder enters is the minimum that the bidder is willing to offer. Here the software bids on behalf of the bidder. This obviates the need for the bidder participating in the bidding process until the proxy bid amount is decrementally reached by other bidders. When proxy bid amount is reached, the bidder (who has submitted the proxy bid) has an option to start participating in the bidding process.

The proxy amount is the minimum amount that the bidder is willing to offer. During the course of bidding, the bidder cannot delete or change the amount of a proxy bid. Bids are submitted in decrements (decreasing bid amounts). The application automates proxy bidding by processing proxy bids automatically, according to the decrement that the auction originator originally established when creating the auction, submitting offers to the next bid decrement each time a competing bidder bids, regardless of the fact whether the competing bids are submitted as proxy or standard bids. However, it may please be noted that if a manual bid and proxy bid are submitted at the same instant manual bid will be recognized as the L1 at that instant. In case of more than one proxy bid, the system shall bid till it crosses the threshold value of 'each lowest proxy bid' and thereafter allow the competition to decide the final L1 price. Proxy bids are fed into the system directly by the respective bidders. As such this information is privy only to the respective bidder(s).

- 13.** Bidders are advised to get fully trained and clear all their doubts such as refreshing of screen, quantity being auctioned, tender value being auctioned etc. from M/s. {Service provider}.

- 14.** M/s. {Service provider}, shall arrange to demonstrate/ train the bidder or bidder's nominated person(s), without any cost to bidders. M/s. {Service provider}, shall also explain the bidders, all the business rules related to the Reverse Auction. Bidders are required to submit their acceptance to the terms/ conditions/modalities before participating in the Reverse Auction in the process compliance form as enclosed. Without this, the bidder will not be eligible to participate in the event.

- 15.** Successful bidder shall be required to submit the final prices (L1) in prescribed format (Annexure-VI) for price breakup including that of line items, if required, quoted during the Online Reverse Auction, duly signed and stamped as token of acceptance without any new condition (other than those already agreed to before start of auction), after the completion of auction to M/s. {Service provider} besides BHEL within two working days of Auction without fail.

- 16.** Any variation between the final bid value and that in the confirmatory signed price breakup

Document will be considered as tampering the tender process and will invite action by BHEL as per extant guidelines for suspension of business dealings (as available on [www.bhel.com](http://www.bhel.com)).

- 17.** Bidders' bid will be taken as an offer to execute the work/ supplies of the item as per enquiry

No. {...} dt. {...}. Bids once made by the bidder, cannot be cancelled/ withdrawn and bidder shall be bound to execute the work as mentioned above at bidder's final bid price. Should bidder back out and not execute the contract as per the rates quoted, BHEL shall take action as per extant guidelines for suspension of business dealings (as available on [www.bhel.com](http://www.bhel.com)).

- 18.** Bidders shall be able to view the following on their screen along with the necessary fields during Online Reverse Auction:



- a. Leading (Running Lowest) Bid in the Auction (only total price of package).
  - b. Bid Placed by the bidder.
  - c. Start Price.
  - d. Decrement value.
  - e. Rank of their own bid during bidding as well as at the close of auction
- 19.** BHEL's decision on award of contract shall be final and binding on all the Bidders.
- 20.** BHEL reserves the right to extend, reschedule or cancel the Reverse Auction process at any time, before ordering, without assigning any reason, with intimation to bidders.
- 21.** BHEL shall not have any liability to bidders for any interruption or delay in access to the site irrespective of the cause. In such cases, the decision of BHEL shall be binding on the bidders.
- 22.** Other terms and conditions shall be as per bidder's techno-commercial offers and other correspondences, if any, till date.
- 23.** If there is any clash between this business document and the FAQ available, if any, in the website of M/s. *{Service provider}*, the terms & conditions given in this business document will supersede the information contained in the FAQs. Any changes made by BHEL/ service provider (due to unforeseen contingencies) after the first posting shall be deemed to have been accepted if the bidder continues to access the portal after that time..
- 24.** Bidder shall not divulge either his Bids or any other exclusive details of BHEL to any other party. If the Bidder or any of his representatives are found to be involved in Price manipulation/ cartel formation of any kind, directly or indirectly by communicating with other bidders, action as per extant BHEL guidelines for suspension of business dealings (as available on [www.bhel.com](http://www.bhel.com)), shall be initiated by BHEL.



**RA price confirmation and breakup**  
(To be submitted by L1 bidder after completion of RA)

To

- M/s. Service provider

- Postal address

CC: M/s BHEL

BOILER AUXILIARIES PLANT  
INDIRA GANDHI INDUSTRIAL COMPLEX  
RANIPET – 632406  
TAMILNADU  
INDIA.

Sub: Final price quoted during Reverse Auction and price breakup

Dear Sir,

We confirm that we have quoted.

**Rs.{ \_\_\_\_\_ in value & in words \_\_\_\_\_ } for item(s) covered under tender enquiry No. {...} dt.{...}**

Total price of the items covered under above cited enquiries is inclusive of {Packing & forwarding, GST, freight and insurance charges up to {.....}  
District, {.....} State and Type Test Charges etc., [exclusive of Goods & Services tax (GST)],  
other as  
per NIT}

as our final landed prices as quoted during the Reverse Auction conducted today {date} which will be valid for a period of { \_\_\_\_ in nos. & in words \_\_\_\_ } days.

The price break-up including that of line items is as given below.

Total

=====

- Rs.in value & in words

=====

Thanking you and looking forward to the valuable order from BHEL.

Yours sincerely, For

\_\_\_\_\_  
Name:

Company:

Date: Seal:



**Make in India form-II**

**\*\* (To be submitted In the company letter head by all supplier) \*\***

**Subject: Public Procurement (Insertion of Rule 144 xi in the General Financial Rules 2017)**

**References:**

<https://doe.gov.in/sites/default/files/OM%20dated%2023.07.2020.pdf>

<https://doe.gov.in/sites/default/files/Clarification%20to%20order%20public%20Procurement%20NO%201%20dated%2023%20July%202020.pdf>

<https://doe.gov.in/sites/default/files/Exclusion%20from%20restrictions%20under%20Rule%20144%20xi%20of%20the%20General%20Financial%20Rules%202017.pdf>

**From.**

M/s \_\_\_\_\_

Address: \_\_\_\_\_

I/we are bidder from \_\_\_\_\_ (country). We does not belong to any of the below category mentioned.

1. Any of entity/office/workshop of your organisation/incorporation, established in a country sharing land border with India, If yes, provide the full address of all such locations.
2. Any of subsidiary of your organisation/incorporation, established in a country sharing land border with India, If yes, provide the full address of all such locations.
3. Any of entity/office/workshop of your organisation/incorporation, controlled in a country sharing land border with India, If yes, provide the full address of all such locations.
4. Any of entity whose beneficial owner is situated in a country sharing land border with India, If yes, provide the full name, address of all such locations.
5. Any Indian Agent available, If so, Provide details of address and contacts.
6. Any employee/directors who is/are citizen of country sharing land border with India, If yes, provide the full name, employee code and address of all such locations.
7. Any of consortium/joint venture of your organisation/incorporation, established in a country sharing land border with India, If yes, provide the full address of all such locations.



#### Meaning of beneficial owner

- 1) In case of a company or limited liability partnership, beneficial owner is the natural person, who, whether acting alone or together, or through one or more judicial person, has a controlling ownership interest or who exercises control through other means.

#### Explanation

- a) Controlling ownership interest means ownership of or entitlement to more than twenty-five percent of shares or capital or profits of the company.
- b) “control” shall include the right to appoint majority of the directors or to control the management rights or shareholder’s agreement or voting agreement.
- 2) In case of a partnership firm the beneficial owner is the natural person (s) who whether acting alone or together or through one or more judicial person, has ownership of the entitlement to more than fifteen percent of capital or profits of the partnership.
- 3) In case of an unincorporated association or body of individuals, the beneficial owner is the natural person(s), who, whether acting alone or together or through one or more judicial person, has ownership of the entitlement to more than fifteen percent of the property or capital or [profits of such association or body of individual.
- 4) Where no natural person is identified under (1) or (2) or (3) above, the beneficial owner is the relevant natural person who holds the position of senior managing official.
- 5) In case of a trust, the identification of beneficial owner (s) shall include identification of the author of the trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person exercising ultimate effective control over the trust and any other natural person exercising the ultimate effective control over the trust through a chain of control of ownership.
- 6) An agent is a person employed to do any act for another, or to represent another in dealing with third person.

We have read the clause regarding restriction on procurement from a bidder of a country which shares a land border with India, we hereby declare that we do not belong to any such country and are eligible to be considered.

In case, any of information is found to be false, even after bid acceptance, immediate termination may happen and action will be taken as per law.

Format is being filled without altering any of the clause mentioned in the given format

\*\*

Dated: \_\_\_\_\_

Authorised Sign and stamp\_\_\_\_\_



**Make in India form-I\*\* (To be submitted In the company letter head by Indian supplier only)**

**\*\***

## **Declaration of Local Content by Local supplier**

**Subject:** Public Procurement (Preference to Make In India)

### **References:**

Preference to Make in India including counter offering will be as per the Public Procurement (Preference to Make in India), Order 2017 available in the following links <https://dipp.gov.in/public-procurements>

[http://dipp.nic.in/sites/default/files/publicProcurement\\_MakeinIndia\\_15June2017.pdf](http://dipp.nic.in/sites/default/files/publicProcurement_MakeinIndia_15June2017.pdf)

[http://dipp.nic.in/sites/default/files/Revised-PPP-MII-Order-2017\\_28052018.pdf](http://dipp.nic.in/sites/default/files/Revised-PPP-MII-Order-2017_28052018.pdf)

[https://dipp.gov.in/sites/default/files/PPP-MII%20Order%20dt%2029th%20May%2019\\_0.pdf](https://dipp.gov.in/sites/default/files/PPP-MII%20Order%20dt%2029th%20May%2019_0.pdf)

<https://dipp.gov.in/sites/default/files/PPP%20MII%20Order%20dated%204th%20June%202020.pdf>

We hereby declare with reference to above subject and references that

M/s ----- (Tick whichever is applicable as below)

"Class-I local supplier" meeting the requirement of minimum local content equal to 50% (fifty percent) or more defined in the above government notification for the goods and services

(or)

"Class-II local Supplier" meeting the requirement of local content 20% to less than 50% (fifty percent) defined in the above government notification for the goods and services

(or)

Non Local supplier (If not belonging to Class-I & Class-II)

Please mention the details against the following:

Enquiry no:----- dated. -----

Type of Supplier (Class-I/Class-II) .....

Product:-----

Project:.....

Details of location at which local value addition will be made is as follows:

We also understand that the false declarations will be in breach of the code of Integrity under rule 175(1)(i)(h) of the General financial rules for which a bidder or its successors can be debarred for up to two years as per Rule 151(iii) of the General Financial Rules along with such other actions as may be permissible under law.

Authorized Signature M/s-----

(Signature and seal)

Place:.....

Date:.....

Sl	Terms and condition	To quote	Bidder response
1	<b>Delivery Terms and Location:</b>	As below	
1a	Terms of Delivery for Indigenous Vendors : Indigenous Vendors can quote on F.O.R (Freight on Road), Destination basis. FOR - Destination means " FOR - BHEL site" as per NIT and Item list <b><u>delivery schedule</u></b> . Packing & Forwarding, Freight & Insurance are in Supplier's scope i.e. included in the quoted prices. If Extra, indicate in %. Unloading at BHEL Site would be to the account of BHEL only. Material delivery date at site date will be considered for LD calculation purpose.If any deviation is taken, loading will be done suitably. Comparison will be done on FOR Destination basis	Please indicate clearly in Item List	
1b	Terms of Delivery for Foreign Vendors : Foreign Vendors can quote on CFR Chennai SEAPORT basis (Cost, Packing, Forwarding & Freight etc., are in Supplier's scope i.e. included in the quoted prices). <b><u>delivery at chennai port, one month prior to delivery schedule at site</u></b> . Further loading will be done for overseas insurance, customs duty, inland freight and insurance as per BHEL norms. If any deviation is taken, loading will be done suitably. Comparison will be done on FOR Destination basis. Consignment shall be despatched through container with detention period of 14 Days - free period. Bill of Lading date will be considered for LD calculation. Kindly provide the Approximate number of vehicle (Size 12.5 mtr long x 2.5 mtr breadth x 2.5 mtr height and capacity 22 MT) required to load total consignment lot wise.	Please indicate clearly in Item List	
1c	For foreign bidder from land/border sharing countries with India: DPIIT (Department for Promotion of Industry and Internal Trade), Govt of India approval is must to submit along with the bid, failing which, offer will be rejected. Bidder having Manufacturing plant or OEM/collaborators/ technical support offices in the countries sharing land/border with INDIA, falls under this category. For details, kindly refer form 2 of Make in India.	Pls furnish	

Sl	Terms and condition	To quote	Bidder response
2	<b>Delivery Period:</b> To mention clearly the exact delivery period as it attracts contractual penalty on delays. Delivery is the essence of the contract. The contractual delivery period will be reckoned from the date of Manufacturing clearance, which shall be binding on the contract. To be indicated in days from date of receipt of manufacturing clearance for each item. Before opening the Price Bid, based on the commercial bids received, if required, BHEL shall fix a reasonable delivery period, which would be generally the modal value of the deliveries quoted by the tenderers in the Bid. SUPPLY IS TO BE MADE either as per Delivery schedule (Tentative only) or within 6 months from the date of manufacturing clearance, and AFTER READINESS OF SITE ONLY, whichever is later. <b>Abnormal delayed delivery quote is liable for rejection.</b> HENCE PLS QUOTE THE MINIMUM days REQUIRED FOR SUPPLY from the date of drawing approval and manufacturing clearance.	Please indicate clearly in Item List	
3	<b>Payment terms</b> - Bidder shall opt for any of the payment terms as given below. Any deviation may lead to rejection of the offer. Indigenous vendors claiming LC payment / advance will be liable for rejection. Invoice shall be processed upon receipt of error-free GST complianced invoice along with the necessary documents. Payment shall be made after processing of invoice.	below stated	
3a	<b>Terms of payment for Indigenous Suppliers : Alternate - I :</b> 90% payment will be made directly thru' EFT within 45 days for MSE Vendors and 90 days for Non-MSE vendors from the date of receipt and acceptance of materials at BHEL Site with submission of PBG. Balance 10% and 100% of supervision of Erection and Commissioning charges will be paid within 45 days for MSE /90days for non-MSE on completion of Erection and Commissioning, based on site certification. If the site is not ready for 2 years from the date of supply, then this 10% payment for the supply portion to be released with the equivalent value of BG, valid for another 2 years or till completion of E&C, whichever is earlier. However, 100% of supervision of E&C is to be made only after completion of E&C, based on site certification. 100% payment for the mandatory spares will be made in 45 days for MSE vendors and 90 days for Non-MSE Vendors from the date of receipt and acceptance of materials. No loading will be considered for this option. <b>Deviation may leads to rejection of offer</b>	Y/N	

SI	Terms and condition	To quote	Bidder response
3b	<p><b>Terms of payment for Indigenous Suppliers :Alternate II :</b> * 10% progress/stage/milestone payment against approval of Drawings in Cat -2 and submission of Advance Bank Guarantee (ABG) for equal amount valid till the receipt and acceptance of materials at site and submission of 2% CEBG. This payment to be released within 90 days (45 days in case of MSE) of submission of claim.</p> <p>* 80% payment against receipt and acceptance of materials within 90 (45 days in case of MSE) days from the date of receipt and acceptance of materials at site and submission of Performance Bank Guarantee (PBG) for 10%.</p> <p>* 10% of supply + 100% of supervision of E&amp;C, wherever applicable, to be made within 90days (45days for MSE) after completion of Erection &amp; commissioning of this item. If the site is not ready for 2 years from the date of supply, then this 10% payment for the supply portion to be released with the equivalent value of BG, valid for another 2 years or till completion of E&amp;C, whichever is earlier. However 100% of supervision of E&amp;C is to be made only after completion of E&amp;C.</p> <p>*100% payment for the mandatory spares will be made in 45 days for MSE vendors and 90 days for Non-MSE Vendors from the date of receipt and acceptance of materials.</p> <p>Suitable loading shall be applicable as per cl 3e</p>	Y/N	
3c	<p><b>Terms of Payment for Foreign Suppliers : Alternate I :</b> “90% thru’ irrevocable &amp; unconfirmed LC payable in 90 days from the date of despatch, through any one of our Bankers listed elsewhere in the tender conditions for 100% value (less Agency Commission, if any) valid up to the PO delivery period and 15 days thereafter for negotiation with submission of PBG. LC shall be established 2 to 3 months prior to shipment. BL date shall be considered for calculation of LD.</p> <p>*Balance 10% and 100% of Supervision for Erection and Commissioning will be made based on proforma, through irrevocable &amp; unconfirmed LC payable in 45 days after completion of Erection and Commissioning based on site acknowledgement. If the site is not ready for 2 years from the date of supply, then this 10% payment for the supply portion to be released with the equivalent value of BG, valid for another 2 years or till completion of E&amp;C, whichever is earlier. However 100% of supervision of E&amp;C is to be made only after completion of E&amp;C, based on site acknowledgement.</p> <p>*100% payment for the mandatory spares will be made in 90 days from the date of shipment. LC will be established 2 months prior to shipment.</p> <p>No loading will be considered for this option.</p>	Y/N	

SI	Terms and condition	To quote	Bidder response
3d	<p><b>Terms of Payment for Foreign Suppliers : Alternate II :</b> * 10% progress/stage/milestone payment against approval of Drawings in Cat - 2 and submission of Advance Bank Guarantee (ABG) for equal amount valid till the receipt and acceptance of materials at site and submission of 2% CEBG. This payment to be released in 90 days of submission of claim through irrevocable &amp; unconfirmed LC.</p> <p>* 80% through irrevocable &amp; unconfirmed LC against delivery of materials in 90 days from the date of dispatch / shipment through any one of our Bankers listed elsewhere in the tender conditions (less Agency Commission, if any) valid upto the PO delivery period and 15 days thereafter for negotiation &amp; submission of Invoice and Performance Bank Guarantee (PBG). LC shall be established 2 to 3 months prior to shipment. BL date shall be considered for calculation of LD.</p> <p>* 10% of supply + 100% of supervision of E&amp;C, wherever applicable, to be made in 90days through irrevocable &amp; unconfirmed LC, after completion of Erection &amp; commissioning of this item. If the site is not ready for 2 years from the date of supply, then this 10% payment for the supply portion to be released with the equivalent value of BG, valid for another 2 years or till completion of E&amp;C, whichever is earlier.</p> <p>However, 100% of supervision of E&amp;C is to be made only after completion of E&amp;C.</p> <p>*100% payment for the mandatory spares will be made in 90 days from the date of shipment. LC will be established 2 months prior to shipment.</p> <p>Suitable loading may be applicable as per cl 3e</p>	Y/N	
3e	<p>Loading: Those who have opted payment terms alternate I - Loading shall not be applicable.</p> <p>All bank charges in India to BHEL's account and all other charges outside India to Supplier's account</p> <p>Loading terms for payment terms alternate-II: Those who are opting for payment terms alternate II - Loading shall be applicable (ie., "MCLR of State Bank of India (SBI), prevailing on the date of price bid + 6% for minimum 1 year on 10% of quoted value. 10 %payment made prior to supply, assuming one year advance (9 months for supply+3 months for payment period).</p>	Pls Confirm	
3f	Any other payment terms (except 3a, 3b, 3c, and 3d) or deviation in above payment terms, leads to rejection of offer.	Pls Confirm	
4	<p>Whenever there is an Indian Agent to represent a Supplier, it is mandatory to give the details of services to be rendered by Indian Agent and / or the details of agreement between Supplier and Agent. Supplier to indicate the Agency Commission payable. Indian Agency Commission will be paid only in Indian Rupees, calculated at the rate of exchange prevailing on the date of price bid opening. This is payable on satisfactory completion of the contract. Agency agreement copy shall be submitted along with TECHNICAL BID without fail. Note: In order to maintain sanctity of the tender system, it is mandatory that one Agent cannot represent two Suppliers or quote on their behalf in a particular tender enquiry. If any Agent represents more than one Suppliers all such offers will be rejected.</p>	Pls Confirm	

Sl	Terms and condition	To quote	Bidder response
5	Contract Execution Bank Guarantee (CEBG):The Supplier shall submit a BG for 2% of the contract value valid for the 3 month in excess of agreed delivery period. Attached CEBG Format is to be signed and submitted along with bid as a token of acceptance. In the event of ordering, CEBG shall be submitted within 30 days from the date of order. Please note that no deviation is allowed.	Pls Furnish	
6	"PERFORMANCE BANK GUARANTEE (10% OF ORDER VALUE): The performance guarantee for 10% of Order value is to be submitted, in the event of ordering, valid for 18 months from the date of E&C or 24 month from the date of supply completion, whichever is earlier."- Pls confirm. If not agreed, offer is liable for rejection.	Pls Furnish	
7	OFFER Validity: Supplier to mention clearly the validity date of the offer. Minimum 90 days from the date of Technical Bid (Part-I) opening or 60 days from the price bid opening/Reverse Auction date (whichever occurs later). The specific acceptance for this offer validity is must. -Pls confirm.	Pls confirm	
8	<b>For Foreign Offers: (provide the details)</b>	Y/N	
8a	(i) Manufacturers' Name and address:	Pls furnish	
8b	(ii) Country of Origin:	Pls furnish	
8c	(iii) Mills Letter of Authority	Pls furnish	
8d	(iv) Agency Agreement	Pls furnish	
8e	(v) Approximate weight and cubage of the consignment.	Pls furnish	
8f	(vi) DNB report shall be submitted along with the technical offer	Pls furnish	
9	<b>Price bid opening through Sealed bid / Reverse Auction:</b> EPS price bid will only be opened for techno-commercially qualified bidder. RA shall be conducted online through Internet on projectwise package cost. The sealed price bids alongwith the impact price bids (if allowed by BHEL), arising out of techno commercial discussions already available with BHEL only will be opened.	Pls confirm	
10	<b>Test Certificate:</b> To be submitted as per approved MQP alongwith Chemical and Mechanical properties and dimensions as per Standards and our Technical Delivery Conditions-Pls confirm	Pls confirm	

Sl	Terms and condition	To quote	Bidder response
11	Taxes and duties : GST in % (for Indigenous supplier): "Please indicate the exact percentage of GST/SGST/UTGST/IGST (whichever is applicable) is quoted as per the existing tariff on the date of the offer and all benefits as per existing laws have been considered. It is the responsibility of the seller to issue the Tax Invoice strictly as per the format prescribed under the relevant applicable GST law (CGST Act/SGST Act/UTGST Act/IGST Act). GST invoice is required for availing Input Tax Credit.	Bidder to provide detail	
11a	GSTIN of the supplier/ works - attach the GST registration copy – Vendor to provide detail	Y/N	
11b	HSN CODE(s) of the items offered.- Vendor to provide detail	Pls furnish	
11c	PAN No - Attach the Copy of PAN card- Vendor to provide detail	Pls furnish	
12	<b>Guarantee/warrantee Certificate:</b> Guarantee/warrantee Certificate shall be given to meet the performance as per clause 12.0 and 13.0 of Tender technical specification. In case of failure of the equipment to meet the guarantee, NTPC/BHEL reserves the right to reject the equipment. However, Site incharge/BHEL reserves the right to use the equipment until new equipment supplied by bidder meets the guaranteed requirement.	Pls confirm	
13	"Inspection before despatch: Inspection before despatch (including stage-wise inspection) at supplier's works by BHEL/authorised agency at BHEL cost." In case of foreign supplies, vendor shall engage and appoint any internationally reputed third party inspection agencies at their cost and send the inspection report for BHEL/customer's review and clearance / acceptance. List of inspection agencies are provided in Annexure - Q	Pls confirm	
14	Deduction of Income Tax: (i) TDS shall be deducted, as applicable, for the supervision of Erection & Commissioning Charges.(ii) TDS return shall be filed and TDS certificates shall be issued by BHEL	Pls confirm	
15	"Liquidated Damages (LD) : The applicable LD shall be at the rate of 0.5% per week to maximum of 10% for the entire total order value for each set. Delivery being the essence of BHEL's contract requirements, in the event that a Supplier does not accept the above LD condition, the offer would be loaded to the extent of the shortfall with respect to upper limit specified above. " - Pls confirm. Deviation, if any, shall be brought.	Pls confirm	

Sl	Terms and condition	To quote	Bidder response
16	Risk Purchase Clause (as per clause-I of Annexure-B) (Supplier Confirmation Required) - Pls accept the terms. Otherwise, liable for rejection	Pls confirm	
17	"Firm Price: Prices shall be kept firm and unchanged till completion of supplies." - Offers with firm/constant price only will be considered.	Pls confirm	
18	Supplier Registration Form (for new bidders/vendors)- Online submission is to be done and soft copy of the same as per annex F to be uploaded along with Technical Bid by new vendors.	Reqd for new vendors	
19	MSE / Non MSE Status with proof to be submitted (UDYAM AADHAR). Udyog portal registration certificate with date of filing and registration shall be submitted along the offer Otherwise, it will be treated as Non MSE"	Pls furnish	
20	For this procurement, public procurement (preference to make in India-MII), order 2017 dt 15.06.2017, 28.05.2018, 29-05-2019 & 04-06-2020 and subsequent order issued by the restrictive nodal ministry shall be applicable even if issued after issue of this NIT but before finalization of Contract / PO / WO against this NIT. In the event of any nodal ministry prescribing higher or lower percentage of purchase preference and / or local content in respect of this procurement, same shall be applicable-MII condition is Not Applicable for Non-Indian bidder	Pls confirm	
21	Minimum Local (Indian) content declaration in %. Please furnish the local content declaration format and details of location where this value addition has been done. Make sure to attach the filled in signed and stamped format (Make in India Form i and II) on bidder letter head.-Not Applicable for Non-Indian bidder	Pls confirm as applicable	
22	Margin of purchase preference to make in India shall be 20%-Not Applicable for Non-Indian bidder	Global Tender	
23	Acceptance to our General Terms & Conditions (Annexure B)	Pls furnish	
24	Acceptance for submission of signed MQP as per sample format enclosed, in the event of ordering, MQP to be submitted.	Pls furnish	
25	Annexure F - to be filled in by all New Indian vendors and to be uploaded	Pls furnish	
26	Annexure G (Frame work Confidentiality agreement) - to be filled in by all New Foreign vendors and to be uploaded	Pls furnish	

SI	Terms and condition	To quote	Bidder response
27	Pointwise conformation/acceptance or comments to our technical specification is must and Each page shall be signed with date BY THE BIDDER and affixed official seal/stamp.-Pls confirm	Pls furnish	
28	Acceptance for submission of signed Integrity Pact as per sample format enclosed. Signed copy to be submitted as a token of acceptance.	Pls furnish	
29	Acceptance of BHEL Conciliation scheme as per attached format.	Pls furnish	
30	Submission of signed copy of technical specification	Pls furnish	
31	Submission of signed copy of Data sheet for both project	Pls furnish	
32	Submission of signed copy of QAP of both projects	Pls furnish	
33	Submission of signed copy of NIT	Pls furnish	
34	Submission of signed copy of Annex C	Pls furnish	
35a	Contact details (Name, Designation, Mobile No, and e-mail id) of bidders for technical queries – Provide details	Pls furnish	
35b	Contact details (Name, Designation, Mobile No, and e-mail id) of bidders for commercial queries – Provide details	Pls furnish	
36	"False declaration will be in breach of the code of integrity under Rule 175 (i)(h) of the General Finance Rule for which a bidder or its successors can be debarred for up to two years as per Rule 151(iii) of the General Finance Rules along with such other actions as may be permissible under Law"-Pls confirm	Pls furnish	
37	It is mandatory to incorporate the following details in the Bill of Lading for Foreign Suppliers: GST Identification No (GSTIN) of importer and Official email id of importer (to be used for correspondence by shipping lines and Customs), Import & export Code (IEC) of importer, (BHEL, Ranipet IEC No: 0588138690/38)	Pls furnish	
38	GeM seller Id (Kinly register and obtain the same. Offer from Non registered bidder on GeM will not be evaluated). Non Indian bidders are exempted from GeM registration.	Pls furnish	
39	Currency Quoted (INR/EURO/USD) - Any other currency is liable for rejection	Pls furnish	
40	City/Country of dispatch (If country of dispatch/Quote is sharing land/border with India, kindly ensure to submit DPIIT approval, as per CI 1c, if bidder is from the land border sharing country with INDIA.	Pls furnish	
41	Submission of O&M Manual-As per technical specification	Pls furnish	

## Annexure - F

### (Applicable to all New vendors)

(Vendors registered with BHEL, Ranipet and having vendor code need not submit this document.)

Sl.No	Parameters	Supplier Comments with necessary supporting documents
1	Name and Address of the Company	
2	Contact Details of Company: Contact person / Designation / Mobile No / Email ID / Fax No / Phone No etc.,	
3	Is the company already registered with any of the BHEL units? If so details may please be given.	
4	Nature of Business and line of products with respective HSN	
5	Production Capacity per Annum with detailed Manufacturing / Testing Facilities. If required supporting documents shall be uploaded	
6	<b>Report from third party business rating agencies like Dun &amp; Brandstreet (D&amp;B), Credit Reform etc. For any new supplier this document is mandatory and without which submitted offer is liable for rejection.</b>	
7	Experience list / Performance Certificate for Offered / Similar products : Requested to attach list of present customers with name and address with contact details like email, phone and contact person etc., for offered / similar type and size of item and equipment with whom you have continuous business since last three years.	
8	Framework Confidentiality Agreement cum Undertaking to be submitted along with offer.	
9	If Foreign Company/Principal/Mill/Manufacturers refuses to deal directly with BHEL (to be put on record) and insists on availing the services of an Indian Agent, deed of agency agreement between the Foreign Company / Principal / Mill / Manufacturers and Indian agent should necessarily be submitted. If not submitted offer is liable for rejection.	
10	In cases, other than Indian Agents, valid authorisation certificates are to be submitted. If not submitted, offer is liable for rejection.	
11	For a document in language other than English, a self-attested English translated document to be attached	
12	Dealer / Trader / Distributor / Stockist / Channel Partners / Holding Company / Non-Manufacturer needs to submit an Authorization Certificate, clearly indicating the validity period as well as rights granted by respective Foreign Company / Principal / Mill / Manufacturers to them. i.e. to negotiate / quote / supply / after sales service etc.	
13	Quality - Requested to enclose copy of certificate for Quality Management System (QMS) obtained and Table of Contents of quality manual.	
14	If not certified for ISO 9001, requested to enclose copy of Company owned Quality Management System or written down procedure	
15	Banker's Certificate- Requested to enclose banker's certificate certifying credit worthiness.	
16	Copy of Audited Annual Accounts for Last 4 Years- Supporting Documents to be uploaded	

\*(To be submitted In the company letter head by supplier)

## **Form - 1**

**Subject:** Public Procurement (Preference to Make In india)

**References:**

- 1.P-45021/2/2017-B.E-II dated. 15<sup>th</sup> June-2017,
- 2.P-45021/2/2017-PP(BE-II) dated. 28<sup>th</sup> May-2018 ,
- 3.P-45021/2/2017-PP(BE-II) dated. 29<sup>th</sup> May-2019.
- 4.P-45021/2/2017-PP(BE-II) dated. 4<sup>th</sup> June-2020

We hereby declare with reference to above subject and references that M/s --  
----- (Tick whichever is applicable as below)

"Class-I local supplier" meeting the requirement of minimum local content equal to 50%(fifty percent) or more defined in the above government notification for the goods and services (or)

"Class-II local Supplier" meeting the requirement of local content 20% to less than 50%(fifty percent) defined in the above government notification for the goods and services

Please mention the details against the following:

Enquiry no:----- dated. -----

Type of Supplier (Class-I/Class-II) .....

Product:-----

Project:.....

Details of location at which local value addition will be made is as follows:

\_\_\_\_\_

We also understand that the false declarations will be in breach of the code of Integrity under rule 175(1)(i)(h) of the General financial rules for which a bidder or its successors can be debarred for up to two years as per Rule 151(iii) of the General Financial Rules along with such other actions as may be permissible under law.

Authorized Signature M/s \_\_\_\_\_

(Signature and seal)

Place:.....

Date:.....

From.

M/s \_\_\_\_\_

Address: \_\_\_\_\_

## **Form – 2**

I/we are bidder from \_\_\_\_\_ (Address with country). We do not belong to any of the below category mentioned.

1. Any of entity/office/workshop of your organisation/incorporation, established in a country sharing land border with India, If yes, provide the full address of all such locations.
2. Any of subsidiary of your organisation/incorporation, established in a country sharing land border with India, If yes, provide the full address of all such locations.
3. Any of entity/office/workshop of your organisation/incorporation, controlled in a country sharing land border with India, If yes, provide the full address of all such locations.
4. Any of entity whose beneficial owner is situated in a country sharing land border with India, If yes, provide the full name, address of all such locations.
5. Any Indian Agent available, If so, Provide details of address and contacts.
6. Any employee/directors who is/are citizen of country sharing land border with India, If yes, provide the full name, employee code and address of all such locations.
7. Any of consortium/joint venture of your organisation/incorporation, established in a country sharing land border with India, If yes, provide the full address of all such locations.

### **Meaning of beneficial owner**

- 1) In case of a company or limited liability partnership, beneficial owner is the natural person, who, whether acting alone or together, or through one or more judicial person, has a controlling ownership interest or who exercises control through other means.

### **Explanation**

- a) Controlling ownership interest means ownership of or entitlement to more than twenty-five percent of shares or capital or profits of the company.
- b) “control” shall include the right to appoint majority of the directors or to control the management rights or shareholder’s agreement or voting agreement.
- 2) In case or a partnership firm the beneficial owner is the natural person (s) who whether acting alone or together or through one or more judicial person, has ownership of the entitlement to more than fifteen percent of capital or profits of the partnership.
- 3) In case of an unincorporated association or body of individuals, the beneficial owner is the natural person(s), who, whether acting alone or together or through one or more judicial person, has ownership of the entitlement to more than fifteen percent of the property or capital or [profits of such association or body of individual.
- 4) Where no natural person is identified under (1) or (2) or (3) above, the beneficial owner is the relevant natural person who holds the position of senior managing official.
- 5) In case of a trust, the identification of beneficial owner (s) shall include identification of the author of the trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person exercising ultimate effective control over the trust and any other

**\*(To be submitted In the company letter head by supplier)**

natural person exercising the ultimate effective control over the trust through a chain of control of ownership.

- 6) An agent is a person employed to do any act for another, or to represent another in dealing with third person.


We have read the clause regarding restriction on procurement from a bidder of a country which shares a land border with India, we hereby declare that we do not belongs to any such country and are eligible to be considered.

In case, any of information is found to be false, even after bid acceptance, immediate termination may happen and action will be taken as per law.

Format is being filled without altering any of the clause mentioned in the given format\*\*

Dated: \_\_\_\_\_

Authorised Sign and stamp\_\_\_\_\_

	<b>Annexure-II</b> <b>GUIDELINES TO INDIAN SUPPLIERS</b> <b>FOR FILLING-UP</b> <b>SUPPLIER REGISTRATION FORM</b>	Document No.	AA:MM:SR:01
		Revision No.	01amdt.01
		Page No.	I of II


- Registration Form may be obtained from BHEL website [www.bhel.com](http://www.bhel.com).
- Any clarification with respect to procedure for registration may be obtained from the Supplier Development Cell of respective BHEL unit.
- The Supplier Registration Form has four parts:

Part A	Organisational Information	Form no. SRF(I)01 – page 1 to 10
Part B	Quality System	Form no. SRF(I)01 - page 11 to 12
Part C	Technical Competence	Form no. SRF(I)01 page 13 (if sent by BHEL)
Part D	Score Sheet (to be filled by BHEL)	Form no. SRF(I)01 page 14 to 17

The set of formats to be filled by different category of suppliers is as follows:

Sl.No	Supplier Category	Formats
1.	Indian Suppliers ( manufacturers )	- Organisational Information - Quality System - Technical Competence
2.	Indian Stockist/ Trader/ Distributor/ Dealer/ Authorised Agent/ Channel partner/ Indian Sales office or Subsidiary of registered foreign principal	- Organisational Information SRF(I)01- Part A (page 1 to 10 except Sl. No. 5.1, 5.2, 6.6, 6.7, 7 & 8)

- All columns are to be filled up properly in the space provided for. Wherever it is not applicable, please mention “Not Applicable”. The form is to be signed by the authorised signatory.
- A separate sheet may be attached if the space provided is insufficient or additional information is to be given. Please put proper identification tag on the separately attached sheet.
- Any information / clarification required by BHEL during evaluation must be given expeditiously.
- Please ensure that all required enclosures are attached with the filled up Supplier Registration Form and list of enclosures is given as required.
- Incomplete forms will be rejected.
- Please note that if you are registered and participate in Tender process and qualify to get order from BHEL, your performance based on Quality of your product, delivery performance and service rendered will be evaluated inline with Chapter VI.
- Please fill up the check- list given below and send along with the Supplier Registration Forms to BHEL.

	<b>Annexure-II</b> <b>Check List for Indian Supplier</b> <b>Registration Form</b>	Document No.	AA:MM:SR:01
		Revision No.	01amdt.01
		Page No.	II of II

Sl.No.	Check-Point	Yes/No
1.	Information against all points under “Organizational Information” (Part-A) has been given.	
2.	All enclosures and supporting documents have been enclosed.	
3.	Summary list of enclosures has been furnished as per S.N.10 of Organisational Information form no. SRF (I) 01 & S.N 12 of Quality system form no. SRF (I) 01.	
4.	Are you an ISO 9001 accredited supplier?	
5.	If yes, have you enclosed "Table of Contents” of your Quality Manual and copy of ISO 9001 accreditation certificate?	
6.	Have you filled up Quality System format given in Part B?	
7.	Technical requirements, specifications, drawings, standards have been received from BHEL before filling up Technical Competence, Part C.	
8.	All the parts of the form & enclosures have been signed by Authorised Signatory.	
9.	Have you attached EFT details. (Certified by the bank)	

Date :

Signature & seal

(Authorised Signatory)

Note: This check list is to be attached with the filled up Supplier Registration Form.

**BHARAT HEAVY ELECTRICALS LIMITED  
SUPPLIER REGISTRATION FORM**

**FORM NO. SRF(I) 01 (INDIAN SUPPLIER)**

**ANNEXURE-II**  
Page 1 of 17 amdt.01

**PART- A : ORGANISATIONAL SOUNDNESS**

ALL COLUMNS SHOULD BE PROPERLY FILLED IN THE SPACE PROVIDED FOR, WHEREVER IT IS NOT APPLICABLE, PLEASE WRITE "NOT APPLICABLE". INCOMPLETE OR INCORRECT FORMS MAY NOT BE CONSIDERED. **PLEASE ATTACH SEPARATE SHEET, IF SPACE AVAILABLE IS INADEQUATE. INFORMATION WITH \* MARKS IS SCOREABLE.**

**ALL THE PAGES OF THE FORM ARE TO BE SIGNED ALONGWITH SEAL BY THE AUTHORISED SIGNATORY**

<b>ORGANISATIONAL INFORMATION</b>			
<b>NAME AND CORRESPONDENCE ADDRESS OF THE SUPPLIER SEEKING REGISTRATION :-</b>			
<b>1.0 PRODUCTS / SYSTEMS / SERVICES FOR WHICH REGISTRATION IS APPLIED FOR :</b>			
SL. NO.	DESCRIPTION	SIZE & RANGE	MFG. STD/ IS / DIN /BS ETC.
<div style="display: flex; justify-content: space-between;"><div style="width: 45%;">SUPPLIER'S AUTHORISED SIGNATORY</div><div style="width: 45%;">BHEL CERTIFIED ASSESSOR</div></div>			

**BHARAT HEAVY ELECTRICALS LIMITED  
SUPPLIER REGISTRATION FORM**

**FORM NO. SRF(I) 01 (INDIAN SUPPLIER)**

**ANNEXURE-II**

Page 2 of 17

**ORGANISATIONAL INFORMATION**

**2.0 GENERAL INFORMATION :**

2.1 NAME OF THE WORKS/DIVISION :

ADDRESS :

E - Mail :

TELEPHONE : Landline

Mobile

FAX :

2.2 NAME OF CHIEF EXECUTIVE /  
PROPRIETOR / PARTNER & ADDRESS :

2.3 DETAILS OF AUTHORISED SIGNATORY FOR SEEKING CLARIFICATION :

NAME :

DESIGNATION :

E - Mail :

TELEPHONE : Landline

Mobile

FAX :

SUPPLIER'S AUTHORISED SIGNATORY

BHEL CERTIFIED ASSESSOR

**BHARAT HEAVY ELECTRICALS LIMITED  
SUPPLIER REGISTRATION FORM**

**FORM NO. SRF(I) 01 (INDIAN SUPPLIER)**

**ANNEXURE-II**  
Page 3 of 17 amdt.01

**ORGANISATIONAL INFORMATION**

**3.0 OWNERSHIP INFORMATION : DOCUMENTS TO BE FURNISHED**

3.1 GOVT. OF INDIA UNDERTAKING:

OR

STATE GOVT. UNDERTAKING :

OR

LIMITED COMPANY, :

MEMORANDUM AND  
ARTICLES OF ASSOCIATION

OR

PRIVATE COMPANY :

MEMORANDUM AND  
ARTICLES OF ASSOCIATION

OR

CO-OPERATIVE SOCIETY, :

SOCIETY RULES AND  
BYE LAWS

OR

PARTNERSHIP FIRM, :

PARTNERSHIP DEED

OR

PROPRIETORSHIP, :

PROFESSION TAX REGN.  
AND MUNICIPAL REGN.

ANY OTHER (SPECIFY) :

3.2 NATURE OF BUSINESS :

(MANUFACTURING UNIT/  
ENGG CONSULTANT/ EPC CONTRACTOR)

(AGENTS/ DISTRIBUTORS/STOCKISTS/DEALERS/  
TRADERS/ INDIAN SUBSIDIARY/ CHANNEL PARTNER – attach authorization  
certificate of principal)

3.3 YEAR OF ESTABLISHMENT :

\* 3.4 YEAR OF COMMENCEMENT OF BUSINESS :

SUPPLIER'S AUTHORISED SIGNATORY

BHEL CERTIFIED ASSESSOR

**BHARAT HEAVY ELECTRICALS LIMITED  
SUPPLIER REGISTRATION FORM**

**FORM NO. SRF(I) 01 (INDIAN SUPPLIER)**

**ANNEXURE-II**

Page 4 of 17

**ORGANISATIONAL INFORMATION**

**4.0 REGISTRATION PARTICULARS**

( FURNISH DETAILS AND ENCLOSE COPY OF CERTIFICATE FOR THE FOLLOWING)

4.1 PERMANENT ACCOUNT NO :  
4.2 CENTRAL SALES TAX REGN NUMBER :  
4.3 STATE SALES TAX / TIN NUMBER :  
4.4 EXCISE DUTY REGN NUMBER :  
4.5 EXCISE CONTROL CODE NUMBER :  
4.6 SERVICE TAX REGN NUMBER :  
4.7 CATEGORY AS PER MSMED ACT : MICRO/ SMALL/ MEDIUM  
REGN NO. :  
VALID UPTO :  
(Attach Certificate)

**5.0 TOTAL ORGANISATIONAL STRENGTH : (ATTACH ORGANISATION CHART)**

	GRADUATE	DIPLOMA	SKILLED	NON-SKILLED
ENGINEERING :				
MANUFACTURING :				
QUALITY :				
COMMERCIAL / SERVICE AFTER SALES :				
OTHERS :				
TOTAL :				
* 5.1 POWER BACKUP : (GIVE DETAILS)	YES/ NO			

\* 5.2 DOES THE COMPANY SELL ITS PRODUCT DIRECTLY : YES/ NO

SUPPLIER'S AUTHORISED SIGNATORY

BHEL CERTIFIED ASSESSOR

**BHARAT HEAVY ELECTRICALS LIMITED  
SUPPLIER REGISTRATION FORM**

**FORM NO. SRF(I) 01 (INDIAN SUPPLIER)**

**ANNEXURE-II**

Page 5 of 17

**ORGANISATIONAL INFORMATION**

**6.0 OTHER PARTICULARS :**

( FURNISH DETAILS AND ENCLOSE DOCUMENTARY EVIDENCE/ COPY OF CERTIFICATE FOR THE FOLLOWING)

\* 6.1 IF THE COMPANY IS ALREADY REGISTERED WITH ANY OF BHEL UNITS, GIVE :

6.1.1. BHEL UNIT'S NAME :

6.1.2. SUPPLIER REGN. CODE NO. :

6.1.3. ITEMS FOR WHICH REGISTERED & THEIR SPECIFICATION  
( ENCLOSE PROOF OF SUCCESSFUL EXECUTION OF  
ONE OR MORE PURCHASE ORDERS ) :

\* 6.2 IS THE COMPANY APPROVED BY  
ASME / NTPC / NPC / EIL / DGS&D / RAILWAYS /  
IBR / LLOYDS ETC FOR INTENDED  
MATERIAL CATEGORY? : YES / NO  
(ENCLOSE DOCUMENTARY EVIDENCE)

\* 6.3 IS THE COMPANY ISO 9001 APPROVED? : YES / NO  
(ENCLOSE CERTIFICATE & TOC OF QUALITY SYSTEM) :

\* 6.4 IS THE COMPANY AN ISO 14000 APPROVED? : YES / NO  
(ENCLOSE CERTIFICATE) :

\* 6.5 IS THE COMPANY OHSAS - 18000 APPROVED?: YES / NO  
(ENCLOSE CERTIFICATE)

\* 6.6 TECHNICAL COLLABORATOR :  
(FOREIGN OR INDIGENOUS)  
(ENCLOSE DOCUMENTARY EVIDENCE)

\* 6.7 R&D SET UP

6.8 DIRECTORS / PARTNERS, IF RELATED TO ANY  
BHEL EMPLOYEE.  
NAME :  
STAFF NO. :  
DESIGNATION :  
Unit & DEPARTMENT :  
RELATIONSHIP :

SUPPLIER'S AUTHORISED SIGNATORY

BHEL CERTIFIED ASSESSOR

**BHARAT HEAVY ELECTRICALS LIMITED  
SUPPLIER REGISTRATION FORM**

**FORM NO. SRF(I) 01 (INDIAN SUPPLIER)**

**ANNEXURE-II**

Page 6 of 17

**ORGANISATIONAL INFORMATION**

6.9 IF ANY EX-BHEL PERSONNEL IS EMPLOYED BY THE COMPANY, MENTION HIS / HER DETAILS OF LAST POSTING.

NAME :  
STAFF NO. :  
DESIGNATION :  
UNIT & DEPARTMENT :  
DATE OF LEAVING SERVICE :

6.10 COMPANY'S WEEKLY HOLIDAYS :

WORKS                      OFFICE

6.11 EXPERIENCE LIST:

(ATTACH LIST OF PRESENT CUSTOMERS WITH NAME & ADDRESS FOR OFFERED / SIMILAR TYPE & SIZE OF ITEM / EQUIPMENT FOR WHICH REGISTRATION HAS BEEN SOUGHT AND WITH WHOM YOU HAVE CONTINUOUS BUSINESS SINCE LAST THREE YEARS . ALSO ATTACH PERFORMANCE CERTIFICATES ISSUED BY ANY TWO CLIENTS FOR SUCCESSFUL EXECUTION OF THE CONTRACTS FOR LAST TWO YEARS- FOR PEM)

\*6.12 DETAILS OF PENDING LEGAL ISSUES ON CONTRACTUAL ASPECTS WITH CUSTOMER , IF ANY

6.13 The following information of Bank Account of the Company, duly endorsed by the Bank (required for Electronic Fund Transfer –EFT/RTGS) is to be submitted

1. Name of the Company
2. Name of Bank
3. Name of Bank Branch
4. City/Place
5. Account Number
6. Account type
7. IFSC code of the Bank Branch
8. MICR Code of the Bank Branch
9. Details of other Bankers (for reference purpose only)

NOTE :

(i) Suppliers who have already submitted the above information are requested to submit a copy of the same.

SUPPLIER'S AUTHORISED SIGNATORY

BHEL CERTIFIED ASSESSOR

**BHARAT HEAVY ELECTRICALS LIMITED  
SUPPLIER REGISTRATION FORM**

**FORM NO. SRF(I) 01 (INDIAN SUPPLIER)**

**ANNEXURE-II**

Page 7 of 17

**ORGANISATIONAL INFORMATION**

**7.0 MANUFACTURING FACILITIES:**

**\*7.1 LIST OF MANUFACTURING FACILITIES/EQUIPMENTS (INCLUDING MATERIAL HANDLING FACILITY)**

SL. NO	DESCRIPTION OF MACHINE/EQUIPMENT	QUANTITY	MAKE & YEAR OF INSTALLATION	REMARKS

IN CASE OF SPACE LIMITATION, PLEASE ENCLOSE ANNEXURE / CATALOGUE WITH TAG

**\* 7.2 IF IN-HOUSE MFG FACILITIES NOT AVAILABLE, INFORM SOURCE OF MFG. DETAILS ALONGWITH THEIR FACILITIES & EXPERIENCE**

SL. NO	PROCESS OUTSOURCED	NAME OF THE COMPANY	DESCRIPTION OF MACHINE / EQUIPMENT	REMARKS

IN CASE OF SPACE LIMITATION ENCLOSE ANNEXURE / CATALOGUE WITH TAG

**\* 7.3 RATIO OF OUTSOURCED COST TO TOTAL PRODUCTION VALUE:**

SUPPLIER'S AUTHORISED SIGNATORY

BHEL CERTIFIED ASSESSOR

**BHARAT HEAVY ELECTRICALS LIMITED  
SUPPLIER REGISTRATION FORM**

**FORM NO. SRF(I) 01 (INDIAN SUPPLIER)**

**ANNEXURE-II**

Page 8 of 17

**ORGANISATIONAL INFORMATION**

**8.0 INSPECTION & TESTING FACILITIES:**

**\* 8.1 LIST OF INSPECTION & TESTING FACILITIES / EQUIPMENT**

SL. NO	DESCRIPTION OF FACILITY/ EQUIPMENT & CAPACITY	NOS.	MAKE & YEAR OF MANUFACTURING	LAST DATE OF CALIBERATION
IN CASE OF SPACE LIMITATION ENCLOSE ANNEXURE / CATALOGUE WITH TAG				

**\* 8.2 IF IN-HOUSE TESTING FACILITIES NOT AVAILABLE, INDICATE SOURCE OF TESTING ALONGWITH THEIR FACILITIES & EXPERIENCE**

SL. NO	TEST	SOURCE OF TESTING	DESCRIPTION OF FACILITY/ EQUIPMENT & CAPACITY	APPROVAL OF EQUIPMENT/ PROCESS/PERSONNEL QUALIFICATION
IN CASE OF SPACE LIMITATION ENCLOSE ANNEXURE / CATALOGUE WITH TAG				

**Note:**

**In case of outsourcing of major testing such as NDT, Electrical & Mechanical Testing, no marks will be awarded. However, material composition testing by chemical method from recognized laboratory shall not attract negative marking**

SUPPLIER'S AUTHORISED SIGNATORY

BHEL CERTIFIED ASSESSOR

# BHARAT HEAVY ELECTRICALS LIMITED

## SUPPLIER REGISTRATION FORM

**FORM NO. SRF(I) 01 (INDIAN SUPPLIER)**

**ANNEXURE-II**

Page 9 of 17

ORGANISATIONAL INFORMATION					
FINANCIAL INFORMATION FOR THE PREVIOUS FOUR YEARS					
9.0	Parameter	Year 1	Year 2	Year 3	Year 4
		(Years in ascending order, Money value in Rs. Lakhs )			
* 9.1	NET WORTH (Share Capital +Reserves)				
	Growth over previous year (%)	-----			
9.2	LONG TERM DEBT / LOAN				
* 9.3	DEBT EQUITY RATIO Long term Debt (4.2) Net worth (4.1)				
9.4	INVESTMENT IN: Land & Building				
	Plant & Machinery				
	Other Fixed Assets				
9.5*	NET CURRENT ASSETS a) Cash on hand				
1	b) Account receivable				
	c) Inventories				
	Total				
	CURRENT LIABILITY a) Sundry creditors				
2	b) Interest accrued but not due				
	c) Other liabilities				
	Total				
3	* QUICK RATIO CA - INVENT. {9.5(1)-9.5(1)c} Current liability {9.5 (2)}				
* 9.6	SALES				
	Growth over previous year (%)	-----			
* 9.7	PROFIT BEFORE TAX				
	Growth over previous year (%)	-----			
* 9.8	Whether the supplier has been referred to BIFR / NCLT / any other Govt agency ( If YES , enclose details)				YES / NO
* 9.9	Whether the supplier is a potential sick company.( If YES , enclose details)				YES / NO
<p>NOTE: 1. Copies of annual accounts (Balance Sheet) for the last four years (or from date of incorporation which ever is less) along with audit report are to be submitted. The above details shall be highlighted in the Balance Sheet.</p> <p>2. Status of Tax assessments done under various laws (Income Tax, VAT/Sales Tax, Excise &amp; Service Tax, Custom) and details of disputes pending, if any, with these authorities to be submitted.</p>					
SUPPLIER'S AUTHORISED SIGNATORY			BHEL CERTIFIED ASSESSOR		

# BHARAT HEAVY ELECTRICALS LIMITED SUPPLIER REGISTRATION FORM

FORM NO. SRF(I) 01 (INDIAN SUPPLIER)

ANNEXURE-II

Page 10 of 17

## ORGANISATIONAL INFORMATION

### 10. LIST OF ENCLOSURES (Tags to be put on enclosures) :

- |        |   |            |
|--------|---|------------|
| (i)    | MEMORANDUM AND ARTICLES OF ASSOCIATION / SOCIETY RULES AND BYE LAWS / PARTNERSHIP DEED/ PROFESSION TAX REGN & MUNICIPAL REGN. | : YES / NO |
| (ii)   | Copy of certificate of following:-  |            |
|        | • PERMANENT ACCOUNT NO  | : YES / NO |
|        | • CENTRAL SALES TAX REGN NUMBER   | : YES / NO |
|        | • STATE SALES TAX / TIN NUMBER  | : YES / NO |
|        | • EXCISE DUTY REGN NUMBER   | : YES / NO |
|        | • EXCISE CONTROL CODE NUMBER  | : YES / NO |
|        | • SERVICE TAX REGN NUMBER   | : YES / NO |
|        | • REGN NUMBER OF CATEGORY AS PER MSMED ACT  | : YES / NO |
| (iii)  | ORGANISATION CHART  | : YES / NO |
| (iv)   | If registered with any other BHEL Unit,   |            |
|        | • LETTER OF REGISTRATION WITH BHEL UNIT   | : YES / NO |
|        | • PROOF OF SUCCESSFUL EXECUTION OF ONE OR MORE PURCHASE ORDERS  | : YES / NO |
| (v)    | Letter of approval from ASME / NTPC / NPC / EIL / DGS&D / RAILWAYS /IBR / LLOYDS ETC  | : YES / NO |
| (vi)   | Accreditation certificate for   |            |
|        | • ISO: 9001   | : YES / NO |
|        | • TOC of Quality System Manual  | : YES / NO |
|        | • ISO : 14000   | : YES / NO |
|        | • OHSAS , ISO 18000   | : YES / NO |
| (vii)  | Letter regarding technical collaboration  | : YES / NO |
| (viii) | Experience List / Performance certificate   | : YES / NO |
| (ix)   | Balance Sheet for the last four years along with audit Report   | : YES / NO |
| (x)    | Principal's authorization in case of dealers/ agents  | : YES / NO |
| (xi)   | EFT Bank's certificate  | : YES / NO |

I /WE GIVE THE UNDERTAKING THAT BHEL DRAWINGS & SPECIFICATIONs SHALL NOT BE USED IN ANY WAY DETRIMENTAL TO THE INTEREST OF BHEL AND/ OR FOR SUPPLY OF ANY MATERIAL, PRODUCT OR SERVICES DIRECTLY OR INDIRECTLY TO ANY OTHER CUSTOMER.

Maximum Marks = 50

Negative Marks = -13

Minimum Qualifying marks = 30

SUPPLIER'S AUTHORISED SIGNATORY

BHEL CERTIFIED ASSESSOR

# BHARAT HEAVY ELECTRICALS LIMITED

## SUPPLIER REGISTRATION FORM

**FORM NO. SRF(I) 01 (INDIAN SUPPLIER)**

**ANNEXURE-II**

Page 11 of 17

**FORM NO. SRF(I) 01**

**Part B (QUALITY SYSTEM):**

Sl. No	PARAMETERS	SYSTEM IN EFFECT (Tick if exists & provide evidences if ticked in written procedure)		RECORDS (Tick if available & submit evidences)	REMARKS
		Written Procedure	Practice		
1*	Incoming Material Control System				Furnish a copy of system and organization.
2*	In process control				Furnish at least one work instruction & record of process control parameter
3*	Manufacturing / Testing Procedure Qualification				Procedure Qualification specification may be submitted
4*	Personnel qualification for 3 above.				Record of Personnel qualification (PQR) to be submitted
5*	Calibration system				Submit list of instrument & their calibration status
6*	System of Identification & Traceability of materials, tools, jigs, fixtures & processed components, etc.				Copy of procedure to be submitted
7*	System of Storage, Preservation , Painting & packing				Copy of procedure to be submitted
8*	System of NCR disposition & corrective preventive action				Two copies of NCR & CAPA
9*	Customer complaints handling system				Submit list of customer complaints & status for the last three years
10*	Safety measures				Submit copy of safety system & Record of accidents for last three years
11	Any other quality initiative				

SUPPLIER'S AUTHORISED SIGNATORY

BHEL CERTIFIED ASSESSOR

**BHARAT HEAVY ELECTRICALS LIMITED  
SUPPLIER REGISTRATION FORM**

**FORM NO. SRF(I) 01 (INDIAN SUPPLIER)**

**ANNEXURE-II**

Page 12 of 17

**FORM NO. SRF(I) 01**

**Part B (QUALITY SYSTEM):**

**12. LIST OF ENCLOSURES**

- (i) Copy of system of control incoming materials and organization chart
- (ii) Copy of at least one process control work instruction
- (iii) Record of process control parameter
- (iv) Copy of at least one Procedure Qualification specification
- (v) Record of Personnel qualification (PQR)
- (vi) List of instrument & their calibration status
- (vii) Copy of procedure for Identification & Traceability of materials, tools, jigs, fixtures & processed components, etc.
- (viii) Copy of procedure for Storage/ preservation/ painting & packing
- (ix) Copies of two NCRs and their CAPA.
- (x) List of customer complaints & status for the last three years
- (xi) Copy of safety system
- (xii) Record of accidents for last three years

Maximum Marks = 25

Minimum Qualifying marks = 15

SUPPLIER'S AUTHORISED SIGNATORY

BHEL CERTIFIED ASSESSOR

# BHARAT HEAVY ELECTRICALS LIMITED SUPPLIER REGISTRATION FORM

FORM NO. SRF(I) 01 (INDIAN SUPPLIER)

ANNEXURE-II

Page 13 of 17 amdt.01

## FORM NO. SRF(I)01

### Part C : TECHNICAL COMPETENCE

Technical competence shall be evaluated in two parts viz. common competence and product/ material category specific competence.

#### (i) COMMON TECHNICAL COMPETENCE (Max Marks: 10)

TECHNICAL COMPETENCE ( where <b>design specification</b> is given by BHEL )	MARKING RANGE	SUPPLIER RESPONSE (ALONG WITH SUPPORTING DOCUMENTS)	MARKS BY BHEL
1. Supplier understands the product specification.	(0-3)		
2. Supplier understands the inspection requirements.	(0-2)		
3. Supplier has process capability to achieve the product specification/dimensional requirement.	(0-3)		
4. Supplier has experienced manpower to carry out the job.	(0-2)		
<b>TOTAL MARKS OUT OF POSSIBLE (10) = ---</b>			

**OR**

TECHNICAL COMPETENCE ( where <b>performance specification</b> is given by BHEL )	MARKING RANGE	PROCEDURE		SYSTEM IN EFFECT		RECORDS	
		SUPPLIER RESPONSE (ALONG WITH SUPPORTING DOCUMENTS)	MARKS BY BHEL	SUPPLIER RESPONSE (ALONG WITH SUPPORTING DOCUMENTS)	MARKS BY BHEL	SUPPLIER RESPONSE (ALONG WITH SUPPORTING DOCUMENTS)	MARKS BY BHEL
1. Design capability	(0-3)						
2. Adequacy of quality assurance plan	(0-2)						
3. Process capability for components	(0-3)						
4. Adequate of testing	(0-2)						
<b>TOTAL MARKS OUT OF POSSIBLE (10)</b>							
<b>Average of Total (Total/3) = -----</b>							

#### (ii) PRODUCT/ MATERIAL CATEGORY SPECIFIC TECHNICAL COMPETENCE

(Max Marks: 15)

Unit MISCC to structure the parameters to be considered for the technical competence depending on material category. The score of individual parameter selected is to be decided by MISCC. MISCC shall identify the requirement of enclosures to be furnished by supplier  
Product:

Sl. No	Material category	Tech Parameter	Supplier's response	Remarks

To be filled up only on receipt of technical requirements/ specification, drawings, standards from BHEL and to be sent to BHEL for further scrutiny. Enclose documentary evidence where ever required.

#### LIST OF ENCLOSURES:

Maximum Marks = 25

Minimum Qualifying marks = 15

SUPPLIER'S AUTHORISED SIGNATORY

BHEL CERTIFIED ASSESSOR

# BHARAT HEAVY ELECTRICALS LIMITED SUPPLIER REGISTRATION FORM

**FORM NO. SRF(I) 01 (INDIAN SUPPLIER)**

**ANNEXURE-II**

Page 14 of 17 amdt.01

## **Part D : SCORE SHEET**

### **1. ORGANISATIONAL SOUNDNESS (for Manufacturers):**

S.N.	PARAMETER	CRITERIA	Maxm. Marks	Marks Awarded
1.	Whether all <b>relevant information</b> like ownership, PAN no., sales tax no., excise duty no., etc. submitted	Yes: 2 No: 0	2	
2.	3.4 YEAR OF COMMENCEMENT OF BUSINESS	More than 5 years : 2 1-5 years : 1 Less than 1 year : 0	2	
3.	5.1 POWER BACKUP	Yes : 1 No : 0	1	
4.	5.2 DOES THE COMPANY SELL ITS PRODUCT DIRECTLY	Yes : 1 No : 0	1	
5.	6.1 REGISTERED WITH ANY OF BHEL UNITS	Yes (same item) : 2 Yes (another item) : 1 No : 0	2	
6.	6.2 APPROVAL BY ASME/ NTPC/ NPC/ EIL/ DGS&D/ RAILWAYS/ IBR/ LLOYDS ETC	Yes : 2 No : 0	2	
7.	6.3 ISO 9001 ACCREDITATION	Yes : 3 No : 0	3	
8.	6.4 ISO 14000 ACCREDITATION	Yes : 1 No : 0	1	
9.	6.5 OHSAS - 18000 ACCREDITATION	Yes : 1 No : 0	1	
10.	6.6 TECHNICAL COLLABORATOR : (FOREIGN OR INDIGENOUS)	Yes : 1 No : 0	1	
11.	6.7 R & D SET UP	Yes : 1 No : 0	1	
12.	6.12 PENDING LEGAL ISSUES ON TECHNO – COMMERCIAL ASPECTS WITH CUSTOMER	Yes : -5 No : 0	0	
13.	7.1 & 7.2 MANUFACTURING FACILITIES INCLUDING OUTSOURCING	Adequate : 3 Substantial : 2 Inadequate : 0	3	
14.	7.3 RATIO OF OUTSOURCED COST TO TOTAL PRODUCTION VALUE	Less than 10% : 2 10 to 30 % : 1 More than 30% : 0	2	
15.	8.1 INSPECTION & TESTING FACILITIES	Adequate : 2 Substantial : 1 Inadequate : 0	2	
16.	8.2 OUTSOURCING OF MAJOR TESTING FACILITY (Refer Note)	Yes : 0 No : 1	1	
	<b>TOTAL</b>		<b>25</b>	

### **1. ORGANISATIONAL SOUNDNESS (for Indian Stockist/ Trader/ Distributor/ Dealer/ Authorised Agent/ Channel partner/ Indian Sales office or Subsidiary of registered foreign principal):**

S.N.	PARAMETER	CRITERIA	Maxm. Marks	Marks Awarded
1.	Whether all <b>relevant information</b> like ownership, PAN no., sales tax no., etc. submitted ( <b>clause 6.0 of chapter V to be referred in this regard</b> )	Yes: 7 No: 0	7	
2.	3.4 YEAR OF COMMENCEMENT OF BUSINESS	More than 3 years : 2 1-3 years : 1 Less than 1 year : 0	2	
3.	6.1 REGISTERED WITH ANY OF BHEL UNITS	Yes (same item) : 2 Yes (another item) : 1 No : 0	2	
4.	6.2 APPROVAL BY ASME/ NTPC/ NPC/ EIL/ DGS&D/ RAILWAYS/ IBR/ LLOYDS ETC	Yes : 2 No : 0	2	
5.	6.3 ISO 9001 ACCREDITATION	Yes : 2 No : 0	2	
6.	6.12 PENDING LEGAL ISSUES ON TECHNO – COMMERCIAL ASPECTS WITH CUSTOMER	Yes : -5 No : 0	0	

**BHEL CERTIFIED ASSESSOR**

# BHARAT HEAVY ELECTRICALS LIMITED SUPPLIER REGISTRATION FORM

**FORM NO. SRF(I) 01 (INDIAN SUPPLIER)**

**ANNEXURE-II**  
Page 15 of 17 amdt.01

## **Part D: SCORE SHEET**

### **2. FINANCIAL INFORMATION (for Manufacturers):**

S.N.	PARAMETER	CRITERIA	Maximum Marks	Marks Awarded
1.	9.1 Growth of Net Worth over previous year (%) Average of three years to be worked out	More than 20 % : 5 10 – 20 % : 4 5 – 10 % : 3 > 0 & < 5 % : 2 0 or below : 0	5	
2.	9.3 DEBT EQUITY RATIO <u>Long term Debt (9.2)</u> <u>Net worth (9.1)</u>	1 : 1 : 5 1.1 upto 1.5 : 1 : 4 1.6 upto 2.0 : 1 : 3 2.0 & above : 1 : 2	5	
3.	9.5 QUICK RATIO <u>CA - INVENTORIES {9.5(1)-9.5(1)c}</u> Current liability {9.5 (2)}	1 : 1 : 5 1 : 1 upto 1.5 : 4 1 : 1.5 upto 1.75 : 3 1 : 1.75 upto 2.5 : 2 1 : > 2.5 : 0	5	
4.	9.6 Growth in Sales over previous year (%) Average of three years to be worked out	More than 35% : 5 20 -35 % : 4 10 – 20 % : 3 5 – 10 % : 2 > 0 & < 5 % : 1 0 or negative : 0	5	
5.	9.7 PROFIT BEFORE TAX  Growth over previous year (%)	More than 20 % : 5 10 – 20 % : 4 5 – 10 % : 3 > 0 & < 5 % : 2 0 or below : 0	5	
6.	9.8 Whether the supplier has been referred to BIFR / NCLT/ any other similar Govt agency	Yes: -5 No : 0	0	
7.	9.9 Whether the supplier is a potentially sick company	Yes: -3 No : 0	0	
<b>TOTAL</b>			<b>25</b>	

Note: If the supplier is new in business and does not have past data, then the evaluation will be done on the basis of information provided by him and will be decided by MISCC.

### **2. FINANCIAL INFORMATION (for Indian Stockist/ Trader/ Distributor/ Dealer/ Authorised Agent/ Channel partner/ Indian Sales office or Subsidiary of registered foreign principal):**

S.N.	PARAMETER	CRITERIA	Maximum Marks	Marks Awarded
1.	9.6 Growth in Sales over previous year (%) Average of three years to be worked out	More than 35% : 5 20 -35 % : 4 5 - 20 % : 3 >0 - 5 % : 2 0 or negative : 0	5	
2.	9.7 PROFIT BEFORE TAX  Growth over previous year (%)	More than 20 % : 5 5 – 20 % : 4 >0 – 5 % : 3 0 or below : 0	5	

**BHEL CERTIFIED ASSESSOR**

# BHARAT HEAVY ELECTRICALS LIMITED

## SUPPLIER REGISTRATION FORM

FORM NO. SRF(I) 01 (INDIAN SUPPLIER)

ANNEXURE-II

Page 16 of 17

### Part D : SCORE SHEET

#### 3. QUALITY SYSTEM :

S.N.	PARAMETER	CRITERIA	Maxm. Marks	Marks Awarded
1.	Incoming Material control System	System availability : Yes: 1 No : 0	1	
		Availability of Organisation chart Yes: 1 No : 0	1	
2.	Process control	Work instruction available: Yes: 1 No : 0	1	
		Record of process Control : Available : 2 Partial record : 1 Not available: 0	2	
3.	Manufacturing / Testing Procedure Qualification	Procedure Qualification Specification : Adequate : 3 In adequate: 1 Not available : 0	3	
4.	Personnel qualification	Record of PQR: Adequate : 3 In adequate: 1 Not available : 0	3	
5.	Calibration system	Adequate : 3 In adequate: 1 Not available : 0	3	
6.	System of Identification & Traceability of materials, tools, jigs, fixtures & processed components, etc.	Procedure available : Adequate : 2 In adequate: 1 Not available : 0	2	
7.	System of Storage/ preservation/ painting & packing	Procedure available : Adequate : 2 In adequate: 1 Not available : 0	2	
8.	System of NCR disposition & corrective preventive action	Two copies of NCR & CAPA Available :2 Not available : 0	2	
9.	Customer complaints handling system	System available : Yes: 1 No : 0	1	
		Complaints registered & resolved : 2 Complaints registered & partially resolved : 1 Complaints not registered or not resolved : 0	2	
10.	Safety measures	System available : Yes: 1 No : 0	1	
		Record available : Yes: 1 No : 0	1	
	<b>TOTAL</b>		<b>25</b>	

BHEL CERTIFIED ASSESSOR

# BHARAT HEAVY ELECTRICALS LIMITED SUPPLIER REGISTRATION FORM

**FORM NO. SRF(I) 01 (INDIAN SUPPLIER)**

**ANNEXURE-II**

Page 17 of 17 amdt.01

## **Part D : SCORE SHEET**

### **4. TECHNICAL COMPETENCE**

Column no. 1 to 4 to be filled by MISCC before sending to supplier. Column no. 5 to be filled by BHEL certified Assessor after evaluation of supplier response.

Sl. No (1)	Parameter (2)	Scoring criteria (3)	Maximum Marks (4)	Marks obtained (5)
	<b>TOTAL</b>		<b>25</b>	

#### **SUMMARY:**

Sl. No	Criteria	Maxm Marks	Qualifying marks *	Marks obtained	Recommendation for registration
1.	Organisational Soundness	50	30		<b>Recommended :</b>  Permanent code /Development code/ Trial code
	Financial Information				
2.	Quality System	25	15		
3.	Technical Competence	25	15		
	<b>TOTAL</b>	<b>100</b>	<b>60</b>		<b>Not recommended</b>

**\*Minimum Qualifying Score in Each category shall be 60%.**

#### **REGISTRATION CRITERIA:**

Sl. No	Score	Recommendation
1.	More than 90	Supplier is to be registered and given Permanent code, Normally no visit is called for.
2.	>75 <=90	Supplier may be visited if recommended by MISCC or to be registered and given permanent code.
3.	>=60 <=75	Supplier may carry out suggested improvements if advised by MISCC Supplier's visit is mandatory. Trial/ Development code may be given.
4.	Less than 60	Not to be registered

Signatures: MISCC and Supplier Evaluation Team (in case of visit)

1)

2)

3)

4)

5)

6)

BHEL CERTIFIED ASSESSOR

(To be executed on Non-Judicial Stamp Paper for an appropriate value.

To be stamped as an agreement)

(For Suppliers on Unit's/Division's PMD)

**Framework Confidentiality Agreement cum Undertaking**

This Agreement made on this the \_\_\_\_\_ day of (month) \_\_\_\_\_ 20\_\_ (“Effective Date”) by and between

M/s BHARAT HEAVY ELECTRICALS LIMITED, having registered office at “BHEL House”, Siri Fort, New Delhi – 110049 (India), acting through its \_\_\_\_\_ Unit (hereinafter may be referred to as “BHEL” or “the Company”).

And

M/s \_\_\_\_\_ (address) \_\_\_\_\_ represented by authorized representative Sri \_\_\_\_\_ (herein after referred to as the “Supplier”).

The Supplier and the Company may, unless the context otherwise requires, hereinafter be collectively referred to as “Parties” or singly as the “Party”.

**RECITALS**

Whereas, BHEL is engaged in the design, engineering, manufacturing, construction, testing, commissioning and servicing of a wide range of products, systems and services for the core sectors of the economy, viz. Power, Transmission, Industry, Transportation, Renewable energy, Oil & Gas and Defence and providing associated services to varied customers in relation to which BHEL/its affiliates own valuable information of a secret and confidential nature.

Whereas the Company may, in connection with Contract(s) (as defined hereunder) placed or to be placed upon the Supplier, or otherwise, from time to time, make available, Technical Information as is defined hereunder.

And Whereas BHEL is willing to provide such Technical Information to the Supplier from time to time and the Supplier understands and acknowledges that such Technical Information is valuable for the Company and as such is willing to protect confidentiality of such information, subject to the terms and conditions set out hereunder.

Now therefore, in view of the foregoing premises and in consideration of the mutual covenants and agreements hereinafter set forth, the Parties agree as under:

**1. Definitions:**

Unless the context so requires, in this Agreement, the following terms will bear the meaning ascribed to the said term in this clause.

- A. **“Contract”** means the Contract entered into with a Supplier and includes a Purchase Order, or a Work Order for procurement of any goods or for provision of any services.
- B. **“Effective Date”** means the date of this Agreement as mentioned in the preamble of this Agreement.

- C. **“Supplier”** includes a Contractor or a Vendor of the Company whether for supplying of goods or for providing any services under a Contract or both.
  - D. **“Technical Information”** includes Drawings, and/or Product Standards and/or Specifications and/or Corporate / Plant Specifications and/or Technological Process Sheets and/or Technical Data Sheets and/or Jigs & Fixtures and/or Pattern & Dies and/or Special Gauges and/or Tools etc. belonging to or wherein the Company has acquired from a third party a right of user and includes any improvement thereto from time to time whether carried out by the Company or by the Supplier.
  - E. **“Intended Purpose”** means the purpose for which the Technical Information is provided to the Supplier under or in connection with a Contract.
  - F. **“Improvement”** includes any modification made to, or adaptation of, the Technical Information which enhances or is calculated to enhance the performance (whether in terms of effectiveness or in terms of efficiency or both) of the product and/or the service to be provided by the Supplier under a Contract.
2. This Agreement shall come into force/deemed to have come into force, as the case may be, on the Effective Date; or, on the first date when the Technical Information or any part thereof is provided by BHEL to the Supplier; whichever is earlier.
3. **Agreement deemed to be incorporated in each Contract:** Unless and to the extent otherwise stipulated in the Contract, the conditions of this Agreement are deemed to be incorporated in all Contracts which may be entered into between the Company and the Supplier. Further, unless otherwise stipulated, the obligations under this Agreement are and will be independent of the obligations under the Contracts and such obligations of the Supplier hereunder will remain of full effect and validity notwithstanding that the period of validity of the Contracts has expired by efflux of time stipulated therein; or, the contract has been discharged by performance or breach; or, the termination of the Contracts for any reason whatsoever.
4. **Ownership:**
- 4.1 The Company may, from time to time, make available to the Supplier, Technical Information on a non-exclusive basis by way of loan.
- 4.2 The Supplier acknowledges and agrees that all Technical Information and copies thereof that are or may be provided by the Company to the Supplier, are and shall remain the property of BHEL or that of the concerned entity from whom BHEL has obtained the Technical Information and such Technical Information are and shall constitute trade secrets of the BHEL. Nothing in this Agreement or in any disclosures made hereunder by or on behalf of the Company shall be construed as granting upon the Supplier any patent, copyright or design or any other intellectual property rights of whatsoever description that subsists or may hereinafter exist in the Technical Information. Furthermore, nothing in this Agreement or in any disclosures made hereunder by or on behalf of the Company shall be construed as granting upon the Supplier any license or rights of use of such patent, copyright or design or any other intellectual property rights

of whatsoever description which may now or hereafter exist in the Technical Information except for use of the Technical Information strictly in accordance with this Agreement and the Contract and/or as directed in writing by the Company, solely for the Intended Purpose under the Contract.

4.3 Neither Party is obligated by or under this Agreement to purchase from or provide to the other Party any service or product and that any such purchase/sale of any product and/or service by one Party to the other Party will be governed by the Contract if any, that may be entered into by and between the Company and the Supplier.

4.4 The Supplier is/has been made well aware and acknowledges that the Technical Information being/which may be shared with it by the Company has been either generated by the Company by incurring huge investment and cost or obtained from foreign collaborators under Technical Collaboration Agreement (TCA) with stringent confidentiality conditions.

4.5 The Supplier agrees and undertakes to adhere to confidentiality requirements as applicable to BHEL under a TCA and also ensure that the confidentiality requirements are adhered to by all its concerned employees or sub-contractors/suppliers (where permitted to be engaged by BHEL). Any damages, losses, expenses of any description whatsoever, arising out of or in connection with a breach of the confidentiality requirements under a TCA owing to any act or omission on the part of the Supplier or its employees or subcontractors/suppliers that is claimed by a foreign collaborator from the Company shall be wholly borne by the Supplier and it shall keep BHEL fully indemnified in this behalf. The demand by the Company shall be conclusive upon the Supplier who shall thereupon forthwith pay to the Company without demur, dispute or delay the amount as demanded without demanding any further proof thereof.

4.6 The Supplier agrees and undertakes that unless so decided and advised by the Company in writing all rights/title to any Improvement to the Technical Information shall vest in the Company. The Supplier undertakes and agrees to inform forthwith to the Company of any such Improvement made to the Technical Information and transfer all drawings/documents or other materials connected with such Improvement to the Company and also agrees to fully cooperate with the Company for protecting the Company's interests in such Improvement in the Technical Information including but not limited to obtaining necessary protection for the intellectual property rights in such improvement, if so desired by the Company. If a question arises whether a modification amounts to Improvement to the Technical Information, the same shall be decided by the Company and such decision shall be final and binding upon the Supplier.

## **5. Use and Non-Disclosure:**

5.1 Unless otherwise stipulated by the Company, all Technical Information made available to the Supplier, by the Company shall be treated as Confidential irrespective of whether the same is marked or otherwise denoted to be Confidential or not.

5.2 The Supplier undertakes and agrees that the Technical Information in its possession shall be held in strict confidence and will be used strictly in accordance with this

Agreement and solely for the Intended Purpose under the Contract. Use of the Technical Information for any other purpose other than Intended Purpose is prohibited.

- 5.3 In particular, the Supplier shall not use Technical Information or any Improvement in its possession for the manufacture or procurement of the Product(s) or components or parts thereof or use the Technical Information or any portion thereof or any modification or adaptation thereof in any form to provide any product and/or service to any third party, without the prior written consent of the Company.
- 5.4 The Supplier shall not disclose any of such Technical Information to any third party without the prior written consent of the Company. The Supplier agrees that without prior written consent of the Company, the Supplier shall not disclose to a third party about the existence of this Agreement, or of the fact that it is/was in possession of or has experience in the use of any Technical Information nor shall the Supplier share in any manner whatsoever, with a third party, the name or details of any Contract(s) awarded by the Company to it or performed by the Supplier or the scope of work thereof or share any document or correspondence by and between the Company and the Supplier in or in connection with this Agreement or such Contract(s). Notwithstanding what is stated elsewhere, the overall responsibility of any breach of the confidentiality provisions under this Agreement shall rest with the Supplier.
- 5.5 The Supplier undertakes and agrees not to make copies or extracts of and not to disclose to others any or all of the Technical Information in its possession, except as follows:
- (a) The Supplier may disclose the Technical Information to such of its officers and employees strictly to the extent as is necessary for such officer or employee for the Intended Purpose, provided that the Confidential Information (or copies thereof) disclosed shall be marked clearly as the confidential and proprietary information of Company and that such officers and employees shall similarly be bound by undertakings of confidence, restricted use and non-disclosure in respect of the Technical Information. The Supplier shall be responsible for any breach of such confidentiality provisions by such officers and employees.
  - (b) With the prior written consent of Company, the Supplier may disclose for the Intended Purpose such Technical Information as is provided for in such consent to such of its professional advisers: consultants, insurers and subcontractors who shall be similarly bound by undertakings of confidence, restricted use and non-disclosure in respect of such Technical Information.
  - (c) The Supplier shall not be prevented to make any disclosure required by (i) order of a court of competent jurisdiction or (ii) any competent regulatory authority or agency where such disclosure is required by law, provided that where the Supplier intends to make such disclosure, it shall first consult Company and take all reasonable steps requested by it to minimize the extent of the Technical Information disclosed and to make such disclosure in confidence and also shall cooperate with the Company in seeking any protective order or any other remedy from proper authority in this matter.

**6. Exceptions:**

The obligations of the Supplier pursuant to the provisions of this agreement shall not apply to any Confidential Information that:

- a) was/is known to, or in the possession of the Supplier prior to disclosure thereof by the Company;
- b) is or becomes publicly known, otherwise than as a result of a breach of this agreement by the Supplier.
- c) is developed independently of the Disclosing Party by the Supplier in circumstances that do not amount to a breach of the provisions of this Agreement or the Contract;
- d) is received from a third party in circumstances that do not result in a breach of the provisions of this Agreement.

7. The obligation of maintaining confidentiality of the Technical Information on each occasion, shall subsist for the entire duration during which the Technical Information / equipment is in possession of the Supplier and shall thereafter subsist for a further period of ----- years from the date when the complete Technical Information has been returned to the Company and if Technical Information has been returned in portions on different dates then, the period of --- - years will be reckoned from the date when the last portion of the Technical Information has been returned. Notwithstanding the expiry of the confidentiality obligation, the obligation of the Supplier under clause 5.4 shall continue to subsist for a further period of ----- years.

**8. Warranties & Undertakings:**

a) The Supplier undertakes to ensure the due observance of the undertakings of confidence, restricted use and non-disclosure by its persons to whom it discloses or releases copies or extracts of the Technical Information.

b) The Supplier shall keep the Technical Information or improvement made therein properly segregated and not mix up the same with any other material/documents belonging to him/it or to any other third party.

c) The Supplier further undertakes that he/it shall not hypothecate or give on lease or otherwise alienate or do away with any of the Technical Information and/or equipment of the Company, made available to him/it, and undertakes that he/it shall hold the same as a trustee, in capacity of custodian thereof and use/utilise the same solely for the purpose of executing the Contract awarded by the Company.

d) The Supplier further undertakes that he/it shall return all the equipment and/or Technical Information as far as practicable in the same condition in which the same was made available to him/it by the Company together with any Improvement thereon and the documents connected with such Improvement, to the Company forthwith upon completion of the scope of work or Contract for which such Technical Information was provided by the Company to it or as directed by the Company together with a confirmation by way of an affidavit or in such manner as directed by the Company that it has not retained any equipment and/or Technical Information/Improvement thereof. In case any such equipment and/or Technical Information or Improvement thereof shall remain in his possession or is not capable of being returned, the retention and use of such Technical Information or Improvement thereto shall continue to be governed by this Agreement.

e) The Supplier undertakes to indemnify the Company for all the direct, indirect and/or consequential losses, damages, expenses whatsoever including any consequential loss of business, profits suffered by the Company owing to breach by the Supplier of its obligations under this Agreement and/or the confidentiality requirements, if any, contained in the Contract and that the Supplier hereby agrees that the decision of the Company in all such or any such matter/s shall be final and binding on the Supplier. On mere written demand of the Company, the Supplier shall forthwith and without demur or delay pay to the Company any such sum as determined by the Company as the amount of loss or damage or expense which has been suffered by the Company. The Supplier agrees that the Company shall be entitled to withhold and appropriate any amount payable to the Supplier under any Contract then existing between the Company and the Supplier, in case the Supplier fails to make payment, in terms of the written demand, within 7 days thereof. Without prejudice to the foregoing actions, in respect to any breach of this Agreement, the Company shall be entitled to take any other action against the Supplier as per applicable laws, the Contract, Company's applicable policies, guidelines rules, procedures, etc.

9. Without prejudice to any other mode of recovery as may be available to the Company for recovery of the amount determined as due as per Clause 9(f) hereinabove, the Company shall have a right to withhold, recover and appropriate the amount due towards such losses, damages, expenses, from any amount due to the Supplier in respect of any other Contract (s) placed on him/it by any department/office/Unit/Division of the said Company.

**SIGNATURE**

**WITNESSES**

1

Name  
Address:

2.

Name:  
Address:

**ANNEXURE TO MODEL CONCILIATION CLAUSE FOR CONDUCT OF  
CONCILIATION UNDER THE BHEL CONCILIATION SCHEME, 2018**

**BRIEF PROCEDURE FOR CONDUCT OF CONCILIATION PROCEEDINGS**

1. The proceedings of Conciliation shall broadly be governed by Part-III of the Arbitration and Conciliation Act 1996 or any statutory modification thereof and as provided herein:
2. The party desirous of resorting to Conciliation shall send an invitation/notice in writing to the other party to conciliate specifying all points of Disputes with details of the amount claimed. The party concerned shall not raise any new issue thereafter. Parties shall also not claim any interest on claims/counter-claims from the date of notice invoking Conciliation till the conclusion of the Conciliation proceedings.
3. The party receiving the invitation/notice for Conciliation shall within 30 days of receipt of the notice of Conciliation intimate its consent for Conciliation along with its counter-claims, if any.
4. The Conciliation in a matter involving claim or counter-claim (whichever is higher) up to Rs 5 crores shall be carried out by sole Conciliator nominated by BHEL while in a matter involving claim or counter-claim (whichever is higher) of more than Rs 5 crores Conciliation shall be carried out by 3 Conciliators nominated by BHEL.
5. The Parties shall be represented by only their duly authorized in-house executives/officers and neither Party shall be represented by a Lawyer.
6. The first meeting of the IEC shall be convened by the IEC by sending appropriate communication/notice to both the parties as soon as possible but not later than 30 days from the date of his/their appointment. The hearings in the Conciliation proceeding shall ordinarily be concluded within two (2) months and, in exceptional cases where parties have expressed willingness to settle the matter or there exists possibility of settlement in the matter, the proceedings may be extended by the IEC by a maximum of further 2 months with the consent of the Parties subject to cogent reasons being recorded in writing.
7. The IEC shall thereafter formulate recommendations for settlement of the Disputes supported by reasons at the earliest but in any case within

15 days from the date of conclusion of the last hearing. The recommendations so formulated along with the reasons shall be furnished by the IEC to both the Parties at the earliest but in any case within 1 month from the date of conclusion of the last hearing.

8. Response/modifications/suggestions of the Parties on the recommendations of the IEC are to be submitted to the IEC within time limit stipulated by the IEC but not more than 15 days from the date of receipt of the recommendations from the IEC.
9. In the event, upon consideration, further review of the recommendations is considered necessary, whether by BHEL or by the other Party, then, the matter can be remitted back to the IEC with request to reconsider the same in light of the issues projected by either/both the Parties and to submit its recommendations thereon within the following 15 days from the date of remitting of the case by either of the Parties.
10. Upon the recommendations by the Parties, with or without modifications, as considered necessary, the IEC shall be called upon to draw up the Draft Settlement Agreement in terms of the recommendations.
11. When a consensus can be arrived at between the parties only in regard to any one or some of the issues referred for Conciliation the draft Settlement Agreement shall be accordingly formulated in regard to the said Issue(s), and the said Settlement Agreement, if signed, by the parties, shall be valid only for the said issues. As regards the balance issues not settled, the parties may seek to resolve them further as per terms and conditions provided in the contract.
12. In case no settlement can be reached between the parties, the IEC shall by a written declaration, pronounce that the Conciliation between the parties has failed and is accordingly terminated.
13. Unless the Conciliation proceedings are terminated in terms of para 22 (b), (c) & (d) herein below, the IEC shall forward his/its recommendations as to possible terms of settlement within one (1) month from the date of last hearing. The date of first hearing of Conciliation shall be the starting date for calculating the period of 2 months.

14. In case of 3 members IEC, 2 members of IEC present will constitute a valid quorum for IEC and meeting can take place to proceed in the matter after seeking consent from the member who is not available. If necessary, videoconferencing may be arranged for facilitating participation of the members. However, the IEC recommendations will be signed by all members. Where there is more than one (1) Conciliator, as a general rule they shall act jointly. In the event of differences between the Members of IEC, the decision/recommendations of the majority of the Members of IEC shall prevail and be construed as the recommendation of the IEC.
15. The Draft Settlement Agreement prepared by the IEC in terms of the consensus arrived at during the Conciliation proceedings between the Parties shall be given by the IEC to both the parties for putting up for approval of their respective Competent Authority.
16. Before submitting the draft settlement agreement to BHEL's Competent Authority viz. the Board Level Committee on Alternative Dispute Resolution (BLCADR) for approval, concurrence of the other party's Competent Authority to the draft settlement agreement shall be obtained by the other party and informed to BHEL within 15 days of receipt of the final draft settlement agreement by it. Upon approval by the Competent Authority, the Settlement Agreement would thereafter be signed by the authorized representatives of both the Parties and authenticated by the members of the IEC.
17. In case the Draft Settlement Agreement is rejected by the Competent Authority of BHEL or the other Party, the Conciliation proceedings would stand terminated.
18. A Settlement Agreement shall contain a statement to the effect that each of the person(s) signing thereto (i) is fully authorized by the respective Party(ies) he/she represents, (ii) has fully understood the contents of the same and (iii) is signing on the same out of complete freewill and consent, without any pressure, undue influence.
19. The Settlement Agreement shall thereafter have the same legal status and effect as an arbitration award on agreed terms on the substance of the dispute rendered by an arbitral tribunal passed under section 30 of the Arbitration and Conciliation Act, 1996.
20. Acceptance of the Draft Settlement Agreement/recommendations of the Conciliator and/or signing of the Settlement Agreement by BHEL shall

however, be subject to withdrawal/closure of any arbitral and/or judicial proceedings initiated by the concerned Party in regard to such settled issues.

21. Unless otherwise provided for in the agreement, contract or the Memorandum of Understanding, as the case may be, in the event of likelihood of prolonged absence of the Conciliator or any member of IEC, for any reason/incapacity, the Competent Authority/Head of Unit/Division/Region/Business Group of BHEL may substitute the Conciliator or such member at any stage of the proceedings. Upon appointment of the substitute Conciliator(s), such reconstituted IEC may, with the consent of the Parties, proceed with further Conciliation into the matter either de-novo or from the stage already reached by the previous IEC before the substitution.

22. The proceedings of Conciliation under this Scheme may be terminated as follows:

- a. On the date of signing of the Settlement agreement by the Parties; or,
- b. By a written declaration of the IEC, after consultation with the parties, to the effect that further efforts at conciliation are no longer justified, on the date of the declaration; or,
- c. By a written declaration of the Parties addressed to the IEC to the effect that the Conciliation proceedings are terminated, on the date of the declaration; or,
- d. By a written declaration of a Party to the other Party and the IEC, if appointed, to the effect that the Conciliation proceedings are terminated, on the date of the declaration.
- e. On rejection of the Draft Settlement Agreement by the Competent Authority of BHEL or the other Party.

23. The Conciliator(s) shall be entitled to following fees and facilities:

Sl No	Particulars	Amount
1	Sitting fees	Each Member shall be paid a Lump Sum fee of Rs 75,000/- for the whole case payable in terms of paragraph No. 27 herein below.
2	Towards drafting of settlement agreement	In cases involving claim and/or counter-claim of up to Rs 5crores. Rs 50,000/- (Sole Conciliator)

Sl No	Particulars	Amount
		<p>In cases involving claim and/or counter-claim of exceeding Rs 5 crores but less than Rs 10 crores. Rs 75,000 (per Conciliator)</p> <p>In cases involving claim and/or counter-claim of more than Rs 10 crores. Rs 1,00,000/- (per Conciliator)</p> <p>Note: The aforesaid fees for the drafting of the Settlement Agreement shall be paid on Signing of the Settlement Agreement after approval of the Competent Authority or Rejection of the proposed Settlement Agreement by the Competent Authority of BHEL.</p>
3	Secretarial expenses	<p>Rs 10,000/- (one time) for the whole case for Conciliation by a Sole Member IEC.</p> <p>Where Conciliation is by multi member Conciliators –Rs 30,000/- (one time)- to be paid to the IEC</p>
4	<p>Travel and transportation and stay at outstation</p> <p>i) Retired Senior Officials of other Public Sector Undertakings (pay scale wise equivalent to or more than E-8 level of BHEL)</p>	As per entitlement of the equivalent officer (pay scale wise) in BHEL.
	Others	As per the extant entitlement of whole time Functional Directors in BHEL.

Sl No	Particulars	Amount
		Ordinarily, the IEC Member(s) would be entitled to travel by air Economy Class.
5	Venue for meeting	Unless otherwise agreed in the agreement, contract or the Memorandum of Understanding, as the case may be, the venue/seat of proceedings shall be the location of the concerned Unit / Division / Region / Business Group of BHEL. Without prejudice to the seat/venue of the Conciliation being at the location of concerned BHEL Unit / Division / Region / Business Group, the IEC after consulting the Parties may decide to hold the proceedings at any other place/venue to facilitate the proceedings. Unless, Parties agree to conduct Conciliation at BHEL premises, the venue is to be arranged by either Party alternately.

24. The parties will bear their own costs including cost of presenting their cases/evidence/witness(es)/expert(s) on their behalf. The parties agree to rely upon documentary evidence in support of their claims and not to bring any oral evidence in IEC proceedings.
25. If any witness(es) or expert(s) is/are, with the consent of the parties, called upon to appear at the instance of the IEC in connection with the matter, then, the costs towards such witness(es)/expert(s) shall be determined by the IEC with the consent of the Parties and the cost so determined shall be borne equally by the Parties.
26. The other expenditures/costs in connection with the Conciliation proceedings as well as the IEC's fees and expenses shall be shared by the Parties equally.
27. Out of the lump sum fees of Rs 75,000/- for Sitting Fees, 50% shall be payable after the first meeting of the IEC and the remaining 50% of the Sitting Fees shall be payable only after termination of the conciliation proceedings in terms of para 22 hereinabove.

28. The travelling, transportation and stay at outstation shall be arranged by concerned Unit as per entitlements as per Serial No. 3 of the Table at para 23 above, and in case such arrangements are not made by the BHEL Unit, the same shall be reimbursed to the IEC on actuals limited to their entitlement as per Serial No. 4 of the Table at Para 23 above against supporting documents. The IEC Member(s) shall submit necessary invoice for claiming the fees/reimbursements.
29. The Parties shall keep confidential all matters relating to the conciliation proceedings. Confidentiality shall extend also to the settlement agreement, except where its disclosure is necessary for purposes of its implementation and enforcement or as required by or under a law or as per directions of a Court/Governmental authority/regulatory body, as the case may be.
30. The Parties shall not rely upon or introduce as evidence in any further arbitral or judicial proceedings, whether or not such proceedings relate to the Disputes that is the subject of the Conciliation proceedings:
- a. Views expressed or suggestions made by the other party in respect of a possible settlement of the Disputes;
  - b. admissions made by the other party in the course of the Conciliator proceedings;
  - c. proposals made by the Conciliator;
  - d. The fact that the other Party had indicated his willingness to accept a proposal for settlement made by the Conciliator.
31. The Parties shall not present the Conciliator(s) as witness in any Alternative Dispute Resolution or Judicial proceedings in respect of a Disputes that is/was the subject of that particular Conciliation proceeding.
32. None of the Conciliators shall act as an arbitrator or as a representative or counsel of a Party in any arbitral or judicial proceeding in respect of a Disputes that is/was the subject of that particular Conciliation proceeding.
33. The Parties shall not initiate, during the Conciliation proceedings, any arbitral or judicial proceedings in respect of a Disputes that is the subject matter of the Conciliation proceedings except that a Party may initiate arbitral or judicial proceedings where, in his opinion, such proceedings are necessary for preserving his rights including for preventing expiry of period of limitation. Unless terminated as per the provisions of this Scheme, the Conciliation proceedings shall continue

notwithstanding the commencement of the arbitral or judicial proceedings and the arbitral or judicial proceedings shall be primarily for the purpose of preserving rights including preventing expiry of period of limitation.

34. The official language of Conciliation proceedings under this Scheme shall be English unless the Parties agree to some other language.

**INTEGRITY PACT****Between**

Bharat Heavy Electricals Ltd. (BHEL), a company registered under the Companies Act 1956 and having its registered office at "BHEL House", Siri Fort, New Delhi - 110049 (India) hereinafter referred to as "The Principal", which expression unless repugnant to the context or meaning hereof shall include its successors or assigns of the ONE PART

**and**

\_\_\_\_\_, (description of the party along with address), hereinafter referred to as "The Bidder/ Contractor" which expression unless repugnant to the context or meaning hereof shall include its successors or assigns of the OTHER PART

**Preamble**

The Principal intends to award, under laid-down organizational procedures, contract/s for \_\_\_\_\_

\_\_\_\_\_. The Principal values full compliance with all relevant laws of the land, rules and regulations, and the principles of economic use of resources, and of fairness and transparency in its relations with its Bidder(s)/ Contractor(s).

In order to achieve these goals, the Principal will appoint Independent External Monitor(s), who will monitor the tender process and the execution of the contract for compliance with the principles mentioned above.

**Section 1- Commitments of the Principal**

1.1 The Principal commits itself to take all measures necessary to prevent corruption and to observe the following principles:-

1.1.1 No employee of the Principal, personally or through family members, will in connection with the tender for, or the execution of a contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.

1.1.2 The Principal will, during the tender process treat all Bidder(s) with equity and reason. The Principal will in particular, before and during the tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential/ additional information through which the Bidder(s) could obtain an advantage in relation to the tender process or the contract execution.

1.1.3 The Principal will exclude from the process all known prejudiced persons.

1.2 If the Principal obtains information on the conduct of any of its employees which is a penal offence under the Indian Penal Code 1860 and Prevention of Corruption Act 1988 or any other statutory penal enactment, or if there be a substantive suspicion in this regard, the Principal will inform its Vigilance Office and in addition can initiate disciplinary actions:

## **Section 2 - Commitments of the Bidder(s)/ Contractor(s)**

- 2.1 The Bidder(s)/ Contractor(s) commit himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the tender process and during the contract execution.
- 2.1.1 The Bidder(s)/ Contractor(s) will not, directly or through any other person or firm, offer, promise or give to the Principal or to any of the Principal's employees involved in the tender process or the execution of the contract or to any third person any material, immaterial or any other benefit which he/ she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the tender process or during the execution of the contract.
- 2.1.2 The Bidder(s)/ Contractor(s) will not enter with other Bidder(s) into any illegal or undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.
- 2.1.3 The Bidder(s)/ Contractor(s) will not commit any penal offence under the relevant Indian Penal Code (IPC) and Prevention of Corruption Act; further the Bidder(s)/ Contractor(s) will not use improperly, for purposes of competition or personal gain, or pass on to others, any information or document provided by the Principal as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.
- 2.1.4 Foreign Bidder(s)/ Contractor(s) shall disclose the name and address of agents and representatives in India and Indian Bidder(s)/ Contractor(s) to disclose their foreign principals or associates. The Bidder(s)/ Contractor(s) will, when presenting his bid, disclose any and all payments he has made, and is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract.
- 2.2 The Bidder(s)/ Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.
- 2.3 The Bidder(s)/ Contractor(s) shall not approach the Courts while representing the matters to IEMs and will await their decision in the matter.

## **Section 3 - Disqualification from tender process and exclusion from future contracts**

If the Bidder(s)/ Contractor(s), before award or during execution has committed a transgression through a violation of Section 2 above, or acts in any other manner such as to put his reliability or credibility in question, the Principal is entitled to disqualify the Bidder(s)/ Contractor(s) from the tender process or take action as per the separate "Guidelines on Banning of Business dealings with Suppliers/ Contractors", framed by the Principal.

## **Section 4 - Compensation for Damages**

- 4.1 If the Principal has disqualified the Bidder from the tender process prior to the award according to Section 3, the Principal is entitled to demand and recover the damages equivalent Earnest Money Deposit/ Bid Security.
- 4.2 If the Principal has terminated the contract according to Section 3, or if the Principal is entitled to terminate the contract according to section 3, the Principal shall be entitled to

demand and recover from the Contractor liquidated damages equivalent to 5% of the contract value or the amount equivalent to Security Deposit/ Performance Bank Guarantee, whichever is higher.

### **Section 5 - Previous Transgression**

- 5.1 The Bidder declares that no previous transgressions occurred in the last 3 years with any other company in any country conforming to the anti-corruption approach or with any other Public Sector Enterprise in India that could justify his exclusion from the tender process.
- 5.2 If the Bidder makes incorrect statement on this subject, he can be disqualified from the tender process or the contract, if already awarded, can be terminated for such reason.

### **Section 6 - Equal treatment of all Bidders/ Contractors / Sub-contractors**

- 6.1 The Principal will enter into agreements with identical conditions as this one with all Bidders and Contractors. In case of sub-contracting, the Principal contractor shall be responsible for the adoption of IP by his sub-contractors and shall continue to remain responsible for any default by his sub-contractors.
- 6.2 The Principal will disqualify from the tender process all bidders who do not sign this pact or violate its provisions.

### **Section 7 - Criminal Charges against violating Bidders/ Contractors /Subcontractors**

If the Principal obtains knowledge of conduct of a Bidder, Contractor or Subcontractor, or of an employee or a representative or an associate of a Bidder, Contractor or Subcontractor which constitutes corruption, or if the Principal has substantive suspicion in this regard, the Principal will inform the Vigilance Office.

### **Section 8 - Independent External Monitor(s)**

- 8.1 The Principal appoints competent and credible Independent External Monitor for this Pact. The task of the Monitor is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement.
- 8.2 The Monitor is not subject to instructions by the representatives of the parties and performs his functions neutrally and independently. He reports to the CMD, BHEL.
- 8.3 The Bidder(s)/ Contractor(s) accepts that the Monitor has the right to access without restriction to all contract documentation of the Principal including that provided by the Bidder(s)/ Contractor(s). The Bidder(s)/ Contractor(s) will grant the monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his contract documentation. The same is applicable to Sub-contractor(s). The Monitor is under contractual obligation to treat the information and documents of the Bidder(s)/ Contractor(s) / Sub-contractor(s) with confidentiality in line with Non- disclosure agreement.
- 8.4 The Principal will provide to the Monitor sufficient information about all meetings among the parties related to the contract provided such meetings could have an impact on the contractual relations between the Principal and the Contractor. The parties offer to the Monitor the option to participate in such meetings.

- 8.5 The role of IEMs is advisory, would not be legally binding and it is restricted to resolving issues raised by an intending bidder regarding any aspect of the tender which allegedly restricts competition or bias towards some bidders. At the same time, it must be understood that IEMs are not consultants to the Management. Their role is independent in nature and the advice once tendered would not be subject to review at the request of the organization.
- 8.6 For ensuring the desired transparency and objectivity in dealing with the complaints arising out of any tendering process, the matter should be examined by the full panel of IEMs jointly as far as possible, who would look into the records, conduct an investigation, and submit their joint recommendations to the Management.
- 8.7 The IEMs would examine all complaints received by them and give their recommendations/ views to CMD, BHEL, at the earliest. They may also send their report directly to the CVO and the Commission, in case of suspicion of serious irregularities requiring legal/ administrative action. IEMs will tender their advice on the complaints within 10 days as far as possible.
- 8.8 The CMD, BHEL shall decide the compensation to be paid to the Monitor and its terms and conditions.
- 8.9 IEM should examine the process integrity, they are not expected to concern themselves with fixing of responsibility of officers. Complaints alleging mala fide on the part of any officer of the organization should be looked into by the CVO of the concerned organisation.
- 8.10 If the Monitor has reported to the CMD, BHEL, a substantiated suspicion of an offence under relevant Indian Penal Code/ Prevention of Corruption Act, and the CMD, BHEL has not, within reasonable time, taken visible action to proceed against such offence or reported it to the Vigilance Office, the Monitor may also transmit this information directly to the Central Vigilance Commissioner, Government of India.
- 8.11 The number of Independent External Monitor(s) shall be decided by the CMD, BHEL.
- 8.12 The word 'Monitor' would include both singular and plural.

## **Section 9 - Pact Duration**

- 9.1 This Pact shall be operative from the date IP is signed by both the parties till the final completion of contract for successful bidder and for all other bidders 6 months after the contract has been awarded. Issues like warranty / guarantee etc. should be outside the purview of IEMs.
- 9.2 If any claim is made/ lodged during currency of IP, the same shall be binding and continue to be valid despite the lapse of this pact as specified above, unless it is discharged/ determined by the CMD, BHEL.

## **Section 10 - Other Provisions**

- 10.1 This agreement is subject to Indian Laws and jurisdiction shall be registered office of the Principal, i.e. New Delhi.

- 10.2 Changes and supplements as well as termination notices need to be made in writing. Side agreements have not been made.
- 10.3 If the Contractor is a partnership or a consortium, this agreement must be signed by all partners or consortium members.
- 10.4 Should one or several provisions of this agreement turn out to be invalid, the remainder of this agreement remains valid. In this case, the parties will strive to come to an agreement to their original intentions.
- 10.5 Only those bidders / contractors who have entered into this agreement with the Principal would be competent to participate in the bidding. In other words, entering into this agreement would be a preliminary qualification.

-----  
For & On behalf of the Principal

(Office Seal)

Place-----

Date-----

Witness:\_\_\_\_\_

(Name & Address) \_\_\_\_\_

\_\_\_\_\_

-----  
For & On behalf of the Bidder/

Contractor

(Office Seal)

Witness:\_\_\_\_\_

(Name & Address) \_\_\_\_\_

\_\_\_\_\_

**Bharat Heavy Electricals Limited**  
**Ranipet-632406, India.**  
**Quality Assurance (Mech)**


KOTHA: FGD: MISTELM: 240  
Dt. 21-08-2021

Indent No: RFW11233 - RFW11236. Dt: 14.08.2021	Project : KOTHAGUDEM (1X800 MW)
Item: Mist Eliminator	PGMA : FW215, FW997 (For Mandatory Spares)
Tech Spec: FGD:ME:R02, Dt: 14.08.2021 and FGD:ME:KTPS:001, Rev:01 Dt: 06.08.2021	


Following are Quality recommendation

1. All the items shall be inspected at Manufacturer works as per Customer approved QP/Approved Drawing/Approved datasheet and Technical Specification.
2. Physical Inspection shall be done by Customer and BHEL/BHEL AIA at Manufacturer works.
3. Commercial shall be contacted for applicable source being Non NTPC Project.
4. Arrange Vendor acceptance for BHEL SQP (MIST ELIMINATOR: 742/00, DT: 27.04.2020).
5. Above QP is indicative only. Inspection stage and quantum of check may vary based on Customer review of MQP.
6. Successful vendor to submit MQP in this format for BHEL review and onward submission to Customer for their review and approval after award of PO.
7. Packing of items shall be as per BHEL Engg Approved Packing Drawing/Packing Specifications.
8. BHEL Authorized representatives shall have the right to witness the necessary inspection and testing of goods mentioned in the PO. The supplier shall inform BHEL in advance about the readiness of the goods for inspection and testing. Inspection / Inspection waiver / approval by BHEL does not absolve Supplier's responsibility for conformity of the specification as per the terms of PO. Material Test Certificates shall be submitted to BHEL.
9. Annexure 'Q' shall be part of enquiry File and shall be filled by Supplier with their duly sign and seal.
10. Supplier should be manufacturer not a trader/Agent. *(If the OEM/Principal engaging the services of an agent to participate on their behalf, vendor will be acceptable with respect to Quality requirement provided acceptance on Point No 2, 3, 7 and 10 shall be accepted to supplier)*
11. **General Inspection Notes:**
  - a. Latest version of standards & Specification shall be applied.
  - b. Materials shall be procured in compliance to Functional Technical specification.
  - c. Gauges and measuring instruments with valid calibration only shall be used.
  - d. Inspection / Inspection waiver / approval by BHEL does not absolve Supplier's responsibility for conformity of the specification as per the terms of PO.
  - e. BHEL /BHEL Authorized representatives shall have the right to witness the necessary inspection and testing of goods mentioned in the PO.
  - f. In case of Vendor Drawing & Datasheet, it needs approval by BHEL Engineering.
  - g. This QP shall be read along with relevant PO, BHEL Specification / Approved Drawing/ Datasheet.




This is for your information and further necessary action at your end please.


  
Prepared by.  
Rakesh Kr Madhu (Dy.Mgr/QA)

  
Reviewed & Approved by.  
K Renjith(Mgr/QA)

 <b>MANUFACTURER'S NAME &amp; ADDRESS</b> BHEL/ BHEL APPROVED SOURCE		<b>STANDARD QUALITY PLAN</b>										PROJECT: AS PER PO.			
		ITEM: MIST ELIMINATOR		QP. NO.: MIST ELIMINATOR :742											
		WASHING SYSTEM		Rev No.:00											
		SUB SYSTEM: MIST ELIMINATOR		Date: 27.04.2020 Page 1 of 2											
SL NO	COMPONENT & OPERATION	CHARACTERISTICS	CLASS OF CHECK	TYPE OF CHECK	QUANTUM OF CHECK	REFERENCE DOCUMENTS	ACCEPTANCE NORMS	FORMAT OF RECORD	Agency			REMARKS			
1	2	3	4	5	M	B/C	7	8	9	D	10	C	11		

<b>1.0 RAW MATERIAL</b>													
1.1	Inspection of incoming Material	Major	Verification of MTC	100%	100%	Manufacturer's Test Certificates	Test certificates.	✓	P	V	-		
1.2	Inspection of semi-finished goods(plates, profiles, pipes, nozzles etc.)	Major	Visual & Dimension	Each Heat	Each Heat	Approved Drawing / P.O.	Test certificates.	✓	P	V	-		
<b>2.0 IN PROCESS INSPECTION</b>													
2.2	Inspection of parts and profiles after cutting ( profile, plates etc. )	Critical	Visual & Dimension	Random	Random	Approved Drawing / P.O.	Inspection Report	✓	P	V	-		
<b>3.0 FINAL INSPECTION AND DOCUMENTATION</b>													
3.1	Final Dimensional Inspection of all items	Major	Visual & Dimension	Single module of each type	Single module of each type	Approved Drawing / P.O.	Inspection Report	✓	P	W	-		

M – Manufacturer / Subcontractor, B - BHEL /BHEL Authorized Inspection Agency, C - Customer, P - perform, V - Verification of reports W - Witness, TC - Test certificate "D" – Record, identified with tick (✓) shall be essentially included by Supplier in QA documentation.	<b>Prepared by</b>  Sanjib Pandit (AE/QA)	<b>Reviewed by</b>  Rakesh Kumar Madhu (Dy Manager / QA)	<b>Approved by</b>  K C Gandhiparimalam (DGM/QA)
---	--	---	---

MANUFACTURER'S NAME & ADDRESS				STANDARD QUALITY PLAN				PROJECT: AS PER PO.			
 Ranipet BHEL / BHEL APPROVED SOURCE				ITEM: MIST ELIMINATOR Rev No.: 00 Date: 27.04.2020 Page 2 of 2				QP. NO.: MIST ELIMINATOR :742 Rev No.: 00 Date: 27.04.2020 Page 2 of 2			
				SUB SYSTEM: MIST ELIMINATOR							
				SL NO	COMPONENT & OPERATION	CHARACTERISTICS	CLASS OF CHECK	TYPE OF CHECK	QUANTUM OF CHECK	REFERENCE DOCUMENTS	ACCEPTANCE NORMS
1	2	3	4	5	6	7	8	9	10	11	


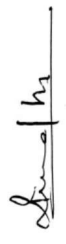

4.1	Review of Final Documentation	Inspection Reports & test certificates, Quality	Major	Visual & Verification	100%	100%	Drawing / P.O.	QC Dossier	✓	P	V	-
-----	-------------------------------	---	-------	-----------------------	------	------	----------------	------------	---	---	---	---

Note: \* 100% by manufacturer / supplier.

- Latest version of standards & Specification shall be applied.
- Materials shall be procured in compliance to Functional Technical Specification.
- Gauges and measuring instruments with valid calibration only shall be used.
- Inspection / Inspection waiver / approval by BHEL does not absolve Supplier's responsibility for conformity of the specification as per the terms of PO.
- BHEL /BHEL Authorized representatives shall have the right to witness the necessary inspection and testing of goods mentioned in the PO.
- In case of Vendor Drawing & Datasheet, it needs approval by BHEL Engineering.
- This QP shall be read along with relevant PO, BHEL Specification/Drawing/Approved Datasheet.

### Record of revision

Rev no	Date	Description
00	27.04.2020	Original Issue – First submission

M – Manufacturer / Subcontractor, B - BHEL /BHEL Authorized Inspection Agency, C - Customer, P - perform, V - Verification of reports W - Witness, TC - Test certificate "D" – Record, identified with tick (✓) shall be essentially included by Supplier in QA documentation.	Prepared by  Sanjib Pandit (AE/QA)	Reviewed by  Rakesh Kumar Madhu (Dy Manager / QA)	Approved by  K C Gandhiparimalam (DGM/QA)
---	---	--	--

Annexure Q		
	Indent No:	Enquiry no:
Sl.No	BHEL / Customer Requirements	##Specific confirmations by the manufacture(Acceptable/Not acceptable)
	<b>Quality Plan Requirement: (If SQP is not given &amp; Vendor QP applicable)</b>	
	(i) MQP (Manuafcutering Quality Plan) shall be submitted in attached format for BHEL/Customer review & approval. Our SQP/Typical MQP/ MQP Format is attached for guidance & use.	
	(ii) MQP shall invariably cover w.r.t Inward inspection including on Raw materail Procurement, In process and Final inspection in elaborated way/details.	
	(iii) Bidder shall also to give specific confirmation that on need basis, their competent officials shall visit to BHEL/customer for finalization of Quality plan including test procedure/methodology during preaward / post award approval / detailed engineering in the event of an order.	
	(iv) No deviation on BHEL/Customer approved MQP/ SQP (In case BHEL SQP is provided) is acceptable.	
1	(v) Bidder shall agree to submit all cross referred documents other than codes/standrads to BHEL/Customer/Consultant.	
	<b>Important Notes shall be included in MQP :</b> (a) Latest revision of Standard s & Specification shall apply. Only International Standards are applicable. (b) Materials shall be procured in compliance to Functional Technical Specification. (c) Inspection shall be in compliance with Approved Quality Control Procedure for the Product. (d) NDT shall be carried out by Qualified Personnel with compliance to Approved NDT Procedures and Acceptance Norms, as per ASME Section V. (e) Gauges and measuring Instruments, with valid calibration only shall be used. (f) Cleaning and Painting of products shall be carried out as per Approved Painting Schedule. (g) Finished Products shall be packed to comply with Approved Packing Schedule. (h) Welding shall be carried out by Qualified Personnel with compliance to Approved NDT Procedures and Acceptance Norms, as per ASME Section V.	
2	<b>Domastic / Inland Inspection</b> will be carried out by BHEL/BHEL apointed Third Party Inspection Agency (TPIA) / Customer/Customer Apointed Inspection Agency/Consulatnat. This is applicable for all Stage inspection and Final Inspection identified as "W" - Witness or "CHP" - Customer Hold Point as per customer approved Quality Plan/ Technical specification / Approved Drawing/ Approved Data sheet / Scheme / PID / PFD / SLD (Process Instrumentaion Diagram / Process Flow Diagram / Single Line Diagram) etc (As applicable).	
3	<b>Inspection Agency for Foreign Bidders and also for Indian Bidder but importing from Forgign Sources:</b> (1) Any one of the flowing Third Party Inspection Agency (TPIA) shall be appointed by the bidder and same shall be furnished by the bidder in techno commercial bid itself. (2) The details of TPIA with contact details like Name of the official, Phone no, Email id shall also to be submitted during pre/post award. However cost for such inspection agency shall be borne by the bidder only. Inspection charges for such inspection agency shall be indicated separately so that if BHEL/Customer is undertaking the inspection by on their own , then these charges non claimable by the bidder. <b>List of TPIA</b> 1.M/s Bureau Veritas 2.M/s TUV-Nord 3.M/s TUV-SUD 4.M/s TUV Rheinland 5.M/s Lloyds Register 6.M/s SGS 7.M/s Germanischer Lloyds 8.M/s QUEST 9.M/s Certification Engineers International 10.M/s Intertek 11.M/s IR Class Systems and Solutions 12.M/s DNV 13. M/s Fichtner 14. M/s ABS Inspection Services	

Sl.No	BHEL / Customer Requirements	##Specific confirmations by the manufacture(Acceptable/Not acceptable)
4	<b>Stage Inspection during manufacturing Process :</b> Stage Inspection during manufacturing shall be carried out as per approved quality plan and all necessary documents shall be provided for review,verification and clearanace for further processing. This inspection call shall be given well in advance (atleast 2 weeks before for Indeginious and 45 days forforeign) to TPI/Bidder's own inspection agency to avoid delay in the manufacturing processes.	
5	<b>Inspection before despatch for domestic supplier :</b> Inspection before despatch at supplier's works shall be carried out by Bidder appointed Inspection agency(As in SI no.3.) Inspection shall be done as per approved Quality plan/ Technical specification/ Approved Drawing/ Approved Data sheet .	
6	Inspection at Forign Source/Supplier: (a) As in sl no: 3. shall be ensured without fail (b) No materail / items shall be despatched without getting the written communication from BHEL / Customer inspection carried out by Bidder apointed Third Party Inspection Agency (As per SI no.3) / Customer/Customer Apointed Inspection Agency/Consulatnat. This is applicable for all Stage inspection and Final Inspection identified as "W" - Witness or "CHP" - Customer Hold Point as per customer approved Quality Plan/ Technical specification / Approved Drawing/ Approved Data sheet / Scheme / PID / PFD / SLD (Process Instrumentaion Diagram / Process Flow Diagram / Single Line Diagram) etc (As applicable). Inspection before despatch for Foreign supplier : Inspection before despatch at supplier's works shall be carried out by bidder appointed inspection agencies having international presence at vendors and or vendor's sub vendor works. Inspection shall be done as per approved Quality plan/ Technical specification/ Approved Drawing/ Approved Data sheet by TPIA mentioned in SI no: 03 at supplier's cost.	
7	<b>Painting</b> shall be done strictly as per BHEL/Customer approved painting schedule / scheme only. Paint Thickness / Paint shade shall be ensured as per BHEL / Customer approved painting schedule / specification / data sheet etc. No deviation is acceptable unless otherwise accepted by BHEL/Customer in writing. Any conflict if any among BHEL / Customer approved painting schedule / Spec / data sheet etc shall be brought to the notice to BHEL well in adavnce before proceeding including the BOI being procured for assy / skid like motors etc	
8	Specific conformation for document package in the event of an order (2 Hard copies & soft copy in PDF file) is to be given containing the following with proper linkages (i) Index Sheet (ii) MQP/RQP/Endorsement Sheet (As applicable) (iii) TCs identified by BHEL/ Customer for record for "CHP" / "W" and Verification portion ("V") as given in approved QP. (iv) Final inspection report + TC including Chemical + Mechnaical + HT + NDT etc (v) Third party Inspection report + TC (vi) Customer CHP/ MDCC (vii) Type test / Performance Test reports conducted (viii) Type test / Performance Test approval/ clearance obtained from BHEL/Customer (ix) BOM with As Build Drgs with actual make / rating used with BHEL/customer approved drawings.	
9	<b>Packing / Seaworthy Packing</b> shall be as per BHEL Packing schedule / approved drg / sketch. This shall be ensured to take care tarnsit / handling / transhipment in Road / Sea / Air. Photographs are to be submitted for BHEL review before despatching the material as per contract conditions.	
10	<b>Outsourcing of test facilities:</b> Bidder shall ensure all the testing facilities in house. However If any of the test facilities are not available with successful bidder, then bidder shall ensure the same at NABL accreadted third party lab / Govt / Govt Lab for major testing such as NDT, Electrical & Mechanical testing.	
11	<b>Important Note:</b> No deviation on the above requirement 01 to 10 is acceptable w.r.t Quality Requirement and those offers not meeting these specific customer requirement is liable for rejection and hence the bidder shall submit all the required documentary evidences in the offer itself.	
12	## Necessorily to be filled up by the bidder at the time of offer itself otherwise the offer may not be considered w.r.t Quality Requirement being customer specific requirement.	
13	If the OEM/Principal engaging the services of an agent to participate on their behalf, Then mention OEM /vendor Name & address as well as agent details with their sign and seal.	
VENDOR SIGN AND STAMP:		Vendor Name & Address:

**Bharat Heavy Electricals Limited**  
**Ranipet-632406, India.**  
**Quality Assurance (Mech)**


YADAD: FGD: MISTELM: 240  
Dt. 21-08-2021

Indent No: RFW11291 - RFW11294. Dt: 16.08.2021	Project : YADADARI (5X800 MW)
Item: Mist Eliminator	PGMA : FW215, FW997 (For Mandatory Spares)
Tech Spec: FGD:ME:R02, Dt: 14.08.2021 and FGD:ME:YTPS:001, Rev:01 Dt: 06.08.2021	


Following are Quality recommendation

1. All the items shall be inspected at Manufacturer works as per Customer approved QP/Approved Drawing/Approved datasheet and Technical Specification.
2. Physical Inspection shall be done by Customer and BHEL/BHEL AIA at Manufacturer works.
3. Commercial shall be contacted for applicable source being Non NTPC Project.
4. Arrange Vendor acceptance for BHEL SQP (MIST ELIMINATOR: 742/00, DT: 27.04.2020).
5. Above QP is indicative only. Inspection stage and quantum of check may vary based on Customer review of MQP.
6. Successful vendor to submit MQP in this format for BHEL review and onward submission to Customer for their review and approval after award of PO.
7. Packing of items shall be as per BHEL Engg Approved Packing Drawing/Packing Specifications.
8. BHEL Authorized representatives shall have the right to witness the necessary inspection and testing of goods mentioned in the PO. The supplier shall inform BHEL in advance about the readiness of the goods for inspection and testing. Inspection / Inspection waiver / approval by BHEL does not absolve Supplier's responsibility for conformity of the specification as per the terms of PO. Material Test Certificates shall be submitted to BHEL.
9. Annexure 'Q' shall be part of enquiry File and shall be filled by Supplier with their duly sign and seal.
10. Supplier should be manufacturer not a trader/Agent. *(If the OEM/Principal engaging the services of an agent to participate on their behalf, vendor will be acceptable with respect to Quality requirement provided acceptance on Point No 1, 2, 4, 8 and 11 shall be accepted to supplier)*
11. **General Inspection Notes:**
  - a. Latest version of standards & Specification shall be applied.
  - b. Materials shall be procured in compliance to Functional Technical specification.
  - c. Gauges and measuring instruments with valid calibration only shall be used.
  - d. Inspection / Inspection waiver / approval by BHEL does not absolve Supplier's responsibility for conformity of the specification as per the terms of PO.
  - e. BHEL /BHEL Authorized representatives shall have the right to witness the necessary inspection and testing of goods mentioned in the PO.
  - f. In case of Vendor Drawing & Datasheet, it needs approval by BHEL Engineering.
  - g. This QP shall be read along with relevant PO, BHEL Specification / Approved Drawing/ Datasheet.


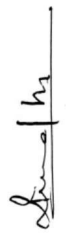

This is for your information and further necessary action at your end please.


  
Prepared by.  
Rakesh Kr Madhu (Dy.Mgr/QA)

  
Reviewed & Approved by.  
K Renjith(Mgr/QA)

 <b>Ranipet</b> MANUFACTURER'S NAME & ADDRESS BHEL/ BHEL APPROVED SOURCE		<b>STANDARD QUALITY PLAN</b>										PROJECT: AS PER PO.			
		ITEM: MIST ELIMINATOR		QP. NO.: MIST ELIMINATOR :742											
		WASHING SYSTEM		Rev No.:00											
		SUB SYSTEM: MIST ELIMINATOR		Date: 27.04.2020 Page 1 of 2											
SL NO	COMPONENT & OPERATION	CHARACTERISTICS	CLASS OF CHECK	TYPE OF CHECK	QUANTUM OF CHECK	REFERENCE DOCUMENTS	ACCEPTANCE NORMS	FORMAT OF RECORD	Agency			REMARKS			
1	2	3	4	5	M	B/C	7	8	9	D	M	B	C	11	

<b>1.0 RAW MATERIAL</b>													
1.1	Inspection of incoming Material	Major	Verification of MTC	100%	100%	Manufacturer's Test Certificates	Test certificates.	✓	P	V	-		
1.2	Inspection of semi-finished goods(plates, profiles, pipes, nozzles etc.)	Major	Visual & Dimension	Each Heat	Each Heat	Approved Drawing / P.O.	Test certificates.	✓	P	V	-		
<b>2.0 IN PROCESS INSPECTION</b>													
2.2	Inspection of parts and profiles after cutting ( profile, plates etc. )	Critical	Visual & Dimension	Random	Random	Approved Drawing / P.O.	Inspection Report	✓	P	V	-		
<b>3.0 FINAL INSPECTION AND DOCUMENTATION</b>													
3.1	Final Dimensional Inspection of all items	Major	Visual & Dimension	Single module of each type	Single module of each type	Approved Drawing / P.O.	Inspection Report	✓	P	W	-		

M – Manufacturer / Subcontractor, B - BHEL /BHEL Authorized Inspection Agency, C - Customer, P - perform, V - Verification of reports W - Witness, TC - Test certificate "D" – Record, identified with tick (✓) shall be essentially included by Supplier in QA documentation.	<b>Prepared by</b>  Sanjib Pandit (AE/QA)	<b>Reviewed by</b>  Rakesh Kumar Madhu (Dy Manager / QA)	<b>Approved by</b>  K C Gandhiparimalam (DGM/QA)
---	--	---	---

MANUFACTURER'S NAME & ADDRESS				STANDARD QUALITY PLAN				PROJECT: AS PER PO.			
 Ranipet BHEL / BHEL APPROVED SOURCE				ITEM: MIST ELIMINATOR Rev No.: 00 Date: 27.04.2020 Page 2 of 2				QP. NO.: MIST ELIMINATOR :742 Rev No.: 00 Date: 27.04.2020 Page 2 of 2			
				SUB SYSTEM: MIST ELIMINATOR							
				SL NO	COMPONENT & OPERATION	CHARACTERISTICS	CLASS OF CHECK	TYPE OF CHECK	QUANTUM OF CHECK	REFERENCE DOCUMENTS	ACCEPTANCE NORMS
1	2	3	4	5	6	7	8	9	10	11	




4.1	Review of Final Documentation	Inspection Reports & test certificates, Quality	Major	Visual & Verification	100%	100%	Drawing / P.O.	QC Dossier	✓	P	V	-
-----	-------------------------------	---	-------	-----------------------	------	------	----------------	------------	---	---	---	---

Note: \* 100% by manufacturer / supplier.

- Latest version of standards & Specification shall be applied.
- Materials shall be procured in compliance to Functional Technical Specification.
- Gauges and measuring instruments with valid calibration only shall be used.
- Inspection / Inspection waiver / approval by BHEL does not absolve Supplier's responsibility for conformity of the specification as per the terms of PO.
- BHEL /BHEL Authorized representatives shall have the right to witness the necessary inspection and testing of goods mentioned in the PO.
- In case of Vendor Drawing & Datasheet, it needs approval by BHEL Engineering.
- This QP shall be read along with relevant PO, BHEL Specification/Drawing/Approved Datasheet.


### Record of revision

Rev no	Date	Description
00	27.04.2020	Original Issue – First submission

M – Manufacturer / Subcontractor, B - BHEL /BHEL Authorized Inspection Agency, C - Customer, P - perform, V - Verification of reports W - Witness, TC - Test certificate "D" – Record, identified with tick (✓) shall be essentially included by Supplier in QA documentation.	Prepared by  Sanjib Pandit (AE/QA)	Reviewed by  Rakesh Kumar Madhu (Dy Manager / QA)	Approved by  K C Gandhiparimalam (DGM/QA)
---	---	--	--


Annexure Q		
	Indent No:	Enquiry no:
Sl.No	BHEL / Customer Requirements	##Specific confirmations by the manufacture(Acceptable/Not acceptable)
	<b>Quality Plan Requirement: (If SQP is not given &amp; Vendor QP applicable)</b>	
	(i) MQP (Manuafcutering Quality Plan) shall be submitted in attached format for BHEL/Customer review & approval. Our SQP/Typical MQP/ MQP Format is attached for guidance & use.	
	(ii) MQP shall invariably cover w.r.t Inward inspection including on Raw materail Procurement, In process and Final inspection in elaborated way/details.	
	(iii) Bidder shall also to give specific confirmation that on need basis, their competent officials shall visit to BHEL/customer for finalization of Quality plan including test procedure/methodology during preaward / post award approval / detailed engineering in the event of an order.	
	(iv) No deviation on BHEL/Customer approved MQP/ SQP (In case BHEL SQP is provided) is acceptable.	
1	(v) Bidder shall agree to submit all cross referred documents other than codes/standrads to BHEL/Customer/Consultant.	
	<b>Important Notes shall be included in MQP :</b> (a) Latest revision of Standard s & Specification shall apply. Only International Standards are applicable. (b) Materials shall be procured in compliance to Functional Technical Specification. (c) Inspection shall be in compliance with Approved Quality Control Procedure for the Product. (d) NDT shall be carried out by Qualified Personnel with compliance to Approved NDT Procedures and Acceptance Norms, as per ASME Section V. (e) Gauges and measuring Instruments, with valid calibration only shall be used. (f) Cleaning and Painting of products shall be carried out as per Approved Painting Schedule. (g) Finished Products shall be packed to comply with Approved Packing Schedule. (h) Welding shall be carried out by Qualified Personnel with compliance to Approved NDT Procedures and Acceptance Norms, as per ASME Section V.	
2	<b>Domastic / Inland Inspection</b> will be carried out by BHEL/BHEL apointed Third Party Inspection Agency (TPIA) / Customer/Customer Apointed Inspection Agency/Consulatnat. This is applicable for all Stage inspection and Final Inspection identified as "W" - Witness or "CHP" - Customer Hold Point as per customer approved Quality Plan/ Technical specification / Approved Drawing/ Approved Data sheet / Scheme / PID / PFD / SLD (Process Instrumentaion Diagram / Process Flow Diagram / Single Line Diagram) etc (As applicable).	
3	<b>Inspection Agency for Foreign Bidders and also for Indian Bidder but importing from Forgign Sources:</b> (1) Any one of the flowing Third Party Inspection Agency (TPIA) shall be appointed by the bidder and same shall be furnished by the bidder in techno commercial bid itself. (2) The details of TPIA with contact details like Name of the official, Phone no, Email id shall also to be submitted during pre/post award. However cost for such inspection agency shall be borne by the bidder only. Inspection charges for such inspection agency shall be indicated separately so that if BHEL/Customer is undertaking the inspection by on their own , then these charges non claimable by the bidder. <b>List of TPIA</b> 1.M/s Bureau Veritas 2.M/s TUV-Nord 3.M/s TUV-SUD 4.M/s TUV Rheinland 5.M/s Lloyds Register 6.M/s SGS 7.M/s Germanischer Lloyds 8.M/s QUEST 9.M/s Certification Engineers International 10.M/s Intertek 11.M/s IR Class Systems and Solutions 12.M/s DNV 13. M/s Fichtner 14. M/s ABS Inspection Services	

Sl.No	BHEL / Customer Requirements	##Specific confirmations by the manufacture(Acceptable/Not acceptable)
4	<b>Stage Inspection during manufacturing Process :</b> Stage Inspection during manufacturing shall be carried out as per approved quality plan and all necessary documents shall be provided for review,verification and clearanace for further processing. This inspection call shall be given well in advance (atleast 2 weeks before for Indeginious and 45 days forforeign) to TPI/Bidder's own inspection agency to avoid delay in the manufacturing processes.	
5	<b>Inspection before despatch for domestic supplier :</b> Inspection before despatch at supplier's works shall be carried out by Bidder appointed Inspection agency(As in SI no.3.) Inspection shall be done as per approved Quality plan/ Technical specification/ Approved Drawing/ Approved Data sheet .	
6	Inspection at Forign Source/Supplier: (a) As in sl no: 3. shall be ensured without fail (b) No materail / items shall be despatched without getting the written communication from BHEL / Customer inspection carried out by Bidder apointed Third Party Inspection Agency (As per SI no.3) / Customer/Customer Apointed Inspection Agency/Consulatnat. This is applicable for all Stage inspection and Final Inspection identified as "W" - Witness or "CHP" - Customer Hold Point as per customer approved Quality Plan/ Technical specification / Approved Drawing/ Approved Data sheet / Scheme / PID / PFD / SLD (Process Instrumentaion Diagram / Process Flow Diagram / Single Line Diagram) etc (As applicable). Inspection before despatch for Foreign supplier : Inspection before despatch at supplier's works shall be carried out by bidder appointed inspection agencies having international presence at vendors and or vendor's sub vendor works. Inspection shall be done as per approved Quality plan/ Technical specification/ Approved Drawing/ Approved Data sheet by TPIA mentioned in SI no: 03 at supplier's cost.	
7	<b>Painting</b> shall be done strictly as per BHEL/Customer approved painting schedule / scheme only. Paint Thickness / Paint shade shall be ensured as per BHEL / Customer approved painting schedule / specification / data sheet etc. No deviation is acceptable unless otherwise accepted by BHEL/Customer in writing. Any conflict if any among BHEL / Customer approved painting schedule / Spec / data sheet etc shall be brought to the notice to BHEL well in adavnce before proceeding including the BOI being procured for assy / skid like motors etc	
8	Specific conformation for document package in the event of an order (2 Hard copies & soft copy in PDF file) is to be given containing the following with proper linkages (i) Index Sheet (ii) MQP/RQP/Endorsement Sheet (As applicable) (iii) TCs identified by BHEL/ Customer for record for "CHP" / "W" and Verification portion ("V") as given in approved QP. (iv) Final inspection report + TC including Chemical + Mechnaical + HT + NDT etc (v) Third party Inspection report + TC (vi) Customer CHP/ MDCC (vii) Type test / Performance Test reports conducted (viii) Type test / Performance Test approval/ clearance obtained from BHEL/Customer (ix) BOM with As Build Drgs with actual make / rating used with BHEL/customer approved drawings.	
9	<b>Packing / Seaworthy Packing</b> shall be as per BHEL Packing schedule / approved drg / sketch. This shall be ensured to take care tarnsit / handling / transhipment in Road / Sea / Air. Photographs are to be submitted for BHEL review before despatching the material as per contract conditions.	
10	<b>Outsourcing of test facilities:</b> Bidder shall ensure all the testing facilities in house. However If any of the test facilities are not available with successful bidder, then bidder shall ensure the same at NABL accreadted third party lab / Govt / Govt Lab for major testing such as NDT, Electrical & Mechanical testing.	
11	<b>Important Note:</b> No deviation on the above requirement 01 to 10 is acceptable w.r.t Quality Requirement and those offers not meeting these specific customer requirement is liable for rejection and hence the bidder shall submit all the required documentary evidences in the offer itself.	
12	## Necessorily to be filled up by the bidder at the time of offer itself otherwise the offer may not be considered w.r.t Quality Requirement being customer specific requirement.	
13	If the OEM/Principal engaging the services of an agent to participate on their behalf, Then mention OEM /vendor Name & address as well as agent details with their sign and seal.	
VENDOR SIGN AND STAMP:		Vendor Name & Address:

	PROJECT	TSGENCO KOTHAGUDEM 1X800 M W			
	FGD	WET LIMESTONE BASED FGD SYSTEM			
	PARAMETERS	MIST ELIMINATOR SELECTION DATA			
Ref:	FGD:ME:KTPS:001	Revision	01	Date	06.08.2021

Sl. No	Description	Requirement	
1.	Type	Two stage Chevron type	
2.	Quantity		
i.	Quantity of Mist Eliminator	1 set (1 set means Complete Mist Eliminators, Washing systems and accessories).	
3.	MOC		
i.	Panel , Wash Nozzle & Wash Pipe	Polypropylene (PP)	
ii.	Wash Pipe Supports	Polypropylene/ C276 / Alloy 59	
iii.	Fasteners	<p>All Fasteners inside Absorber shall be made of C276 Material.</p> <p>For Pipe Clamping to the Pipe Supports: C276 U Clamp, C276 Bolts, C276 Nuts, C276 Washers to be provided.</p> <p>For other areas in Mist Eliminator - PP/PVDF</p> <p>Fasteners Outside Absorber - Galvanised fasteners</p>	
iv.	Enclosure Plate	PP or C276 material	
v.	Protection Plates	Fibre Backed Polypropylene Sheets	
4.	Parameters		
i.	Gas flow	Vertical	
ii.	Casing Dimension	Length : 9900 mm	Width : 25900 mm
iii.	Design Pressure of Mist Eliminator Panel	660 mmH <sub>2</sub> O (G)	
iv.	Max Allowable Pressure drop across Mist Eliminator element	<p>12 mmH<sub>2</sub>O (G) at Design point</p> <p>10 mmH<sub>2</sub>O (G) at Guarantee point</p>	
v.	Design Temperature	<p>70 Deg C (Continuous)</p> <p>80 – 90 Deg C ( 30 minutes)</p> <p>90 – 110 Deg C (5 min)</p>	
5.	Gas condition at M E Inlet	Guarantee Point	Design Point
i.	Gas Flow Rate (Nm <sup>3</sup> /s-wet)	734.05	837.19
ii.	Gas Flow Rate (m <sup>3</sup> /s-wet)	867.40	996.24
iii.	Gas Temperature (Deg C)	49.6	51.9
iv.	Density (kg/m <sup>3</sup> )	1.10038	1.08249

	Rev 00		Rev 01		Rev 02	
	Sign	Date	Sign	Date	Sign	Date
Prepared : Kabilash	sd	24.06.21	sd	06.08.21		
Reviewer: PR	sd	24.06.21	sd	06.08.21		
Approver: PNR	sd	24.06.21	sd	06.08.21		


	PROJECT	TSGENCO KOTHAGUDEM 1X800 M W			
	FGD	WET LIMESTONE BASED FGD SYSTEM			
	PARAMETERS	MIST ELIMINATOR SELECTION DATA			
Ref:	FGD:M E:KTPS:001	Revision	01	Date	06.08.2021

Sl. No	Description	Requirement	
v.	Operating Pressure at Mist Eliminator inlet (mm H <sub>2</sub> O (G)	98	130
vi.	Gas Flow Distribution	+ or - 20%	
6.	<b>Gas Composition at M E Inlet</b>		
i.	SO <sub>2</sub> (Vol%-wet)	0.0026	0.0023
ii.	H <sub>2</sub> O (Vol%-wet)	11.72	13.11
iii.	O <sub>2</sub> (Vol%-wet)	4.54	4.49
iv.	CO <sub>2</sub> (Vol%-wet)	13.16	12.35
v.	N <sub>2</sub> (Vol%-wet)	70.58	70.05
vi.	HCl (ppm-Dry)	<2	<2
7.	HF (ppm-Dry)	<1	<1
i.	Dust (mg/Nm <sup>3</sup> -wet)	<50	<50
8.	<b>Entrained Mist Condition:</b>		
i.	Mist Concentration at Inlet –at Guarantee & Design Point	200 g/Nm <sup>3</sup> -dry	
ii.	Mist Concentration at Outlet –at Guarantee & Design Point	≤50 mg/Nm <sup>3</sup> -dry	
9.	<b>Mist Composition</b>		
i.	Solid	30 wt. %	
ii.	Cl <sup>-</sup>	20,000 ppm	
iii.	Mg <sup>2+</sup>	8535.18 ppm	
iv.	Ca <sup>2+</sup>	400.60 ppm	
v.	Na <sup>+</sup>	268.29 ppm	
vi.	SO <sub>4</sub> <sup>2-</sup>	27,179.31 ppm	

### 1.1 WASHING ARRANGEMENT

I.	<b>Washing water condition</b>	
a.	Flow rate - Average	31.92 m <sup>3</sup> /hr * 1)
b.	Flow rate at M/E Inlet – Instantaneous Allowable Max	120 m <sup>3</sup> /hr
c.	Flow rate at M/E Inlet – Instantaneous Min	100 m <sup>3</sup> /hr
d.	Feed Pressure (at inlet flange of M E Wash header)	0.2 MPa (Max)

	Rev 00		Rev 01		Rev 02	
	Sign	Date	Sign	Date	Sign	Date
Prepared : Kabilash	sd	24.06.21	sd	06.08.21		
Reviewer: PR	sd	24.06.21	sd	06.08.21		
Approver: PNR	sd	24.06.21	sd	06.08.21		


	PROJECT	TSGENCO KOTHAGUDEM 1X800 M W			
	FGD	WET LIMESTONE BASED FGD SYSTEM			
	PARAMETERS	MIST ELIMINATOR SELECTION DATA			
Ref:	FGD:MEKTPS:001	Revision	01	Date	06.08.2021

e.	Spray Nozzle –Top washing (recommended)	90 °, Full Cone
f.	Spray Nozzle –Bottom washing (recommended)	120 °, Full Cone
g.	Spray pipe level from ME Panel	< 700 mm

Note: Mist Eliminator vendor to guarantee operation of Mist eliminator without fouling or plugging continually for the period of 20,000 hours without any FGD shut down.

II.	Washing Method						
		First Stage		Second Stage			
		Front Surface	Back Surface	Front Surface	Back Surface		
a.	Total Washing Area m <sup>2</sup>	9.9 x 25.9	9.9 x 25.9	9.9 x 25.9	9.9 x 25.9		
b.	Washing Water Source	Refer Clause 1.2					
c.	Washing Water Average Flow rate m <sup>3</sup> /h	*	*	*	*		
d.	Instantaneous Max Water Flow rate m <sup>3</sup> /h	*	*	*	*		
e.	Duration of One washing for One Divided Section Sec	*	*	*	*		
f.	Time of One washing Cycle (min)	*	*	*	*		
	* Washing method shall be confirmed by the vendor. ** Only for Maintenance * 1) shall be finalized by vendor						

	Rev 00		Rev 01		Rev 02	
	Sign	Date	Sign	Date	Sign	Date
Prepared : Kabilash	sd	24.06.21	sd	06.08.21		
Reviewer: PR	sd	24.06.21	sd	06.08.21		
Approver: PNR	sd	24.06.21	sd	06.08.21		


	PROJECT	TSGENCO KOTHAGUDEM 1X800 M W			
	FGD	WET LIMESTONE BASED FGD SYSTEM			
	PARAMETERS	MIST ELIMINATOR SELECTION DATA			
Ref:	FGD:M E:KTPS:001	Revision	01	Date	06.08.2021

## 1.2 WATER ANALYSIS

Process water characteristic envisaged for Mist Eliminator washing is given below.

Sl. No	Constituents	as	mg per litre
1.	Calcium	CaCO <sub>3</sub>	141.5
2.	Magnesium	CaCO <sub>3</sub>	45.0
3.	Sodium & Potassium	CaCO <sub>3</sub>	25.0
4.	Bi-Carbonates	CaCO <sub>3</sub>	117.5
5.	Chloride	CaCO <sub>3</sub>	27
6.	Sulphate	CaCO <sub>3</sub>	67
7.	Carbonate	CaCO <sub>3</sub>	0
8.	Silica	SiO <sub>2</sub>	10
9.	Iron	Fe	0.5
10.	pH value	-	7.8
11.	Turbidity	NTU	<15
12.	TDS		<500

	Rev 00		Rev 01		Rev 02	
	Sign	Date	Sign	Date	Sign	Date
Prepared : Kabilash	sd	24.06.21	sd	06.08.21		
Reviewer: PR	sd	24.06.21	sd	06.08.21		
Approver: PNR	sd	24.06.21	sd	06.08.21		

	PROJECT	TSGENCO KOTHAGUDEM 1X800 M W			
	FGD	WET LIMESTONE BASED FGD SYSTEM			
	PARAMETERS	MIST ELIMINATOR SELECTION DATA			
Ref:	FGD:MEKTPS:001	Revision	01	Date	06.08.2021

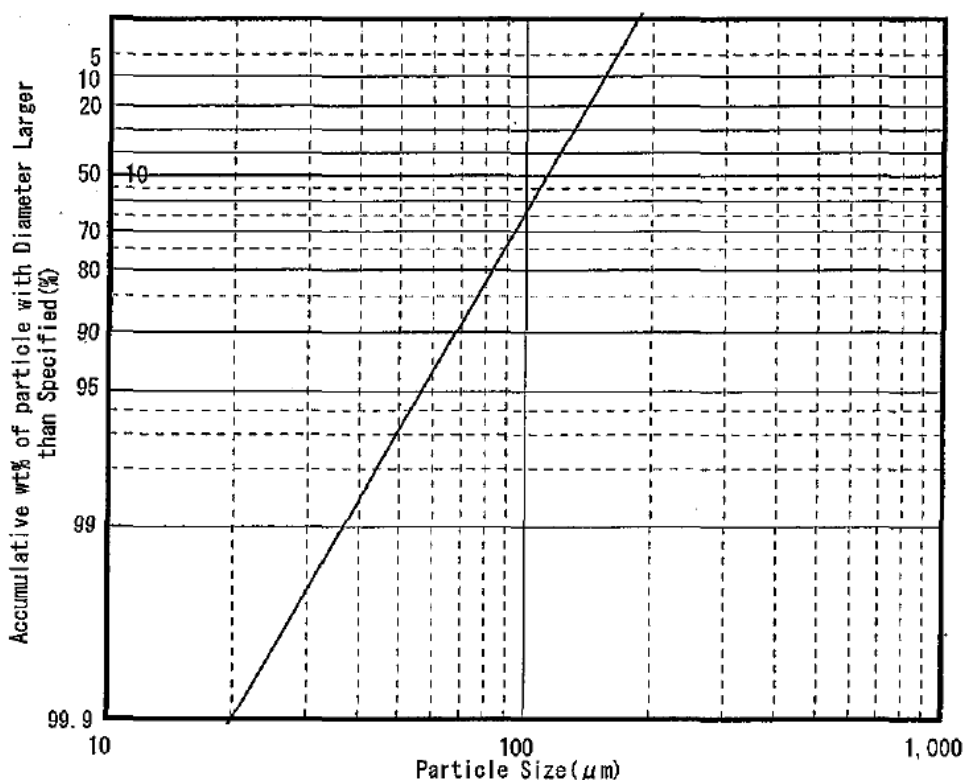
### 1.3 MIST ELIMINATOR ARRANGEMENT AND MIST PARTICLE SIZE DISTRIBUTION:

- Bidder shall note that there are two column tie beams located inside the absorber and separated by 8040 mm. Beams are located on either side of centre line at a distance of 4020 mm from the centre line (Bidder shall refer to Note 01 in the typical drawing enclosed). These two tie beams have to be used as Mist Eliminator support beams.
- Overall wash arrangement shall be as per the drawing (typical) enclosed.

#### Note:

Bidder to decide the spray washing arrangement considering the water flow rate mentioned above.

Fig.2 Mist Particle Size Distribution(EXPECTED VALUE)



	Rev 00		Rev 01		Rev 02	
	Sign	Date	Sign	Date	Sign	Date
Prepared : Kabilash	sd	24.06.21	sd	06.08.21		
Reviewer: PR	sd	24.06.21	sd	06.08.21		
Approver: PNR	sd	24.06.21	sd	06.08.21		



Project

TSGENCO KOTHAGUDEM 1X800 MW

FGD

WET LIMESTONE BASED FGD SYSTEM

PARAMETERS

MIST ELIMINATOR SELECTION DATA

REF

FGD:ME:KTPS:001

Revision

01

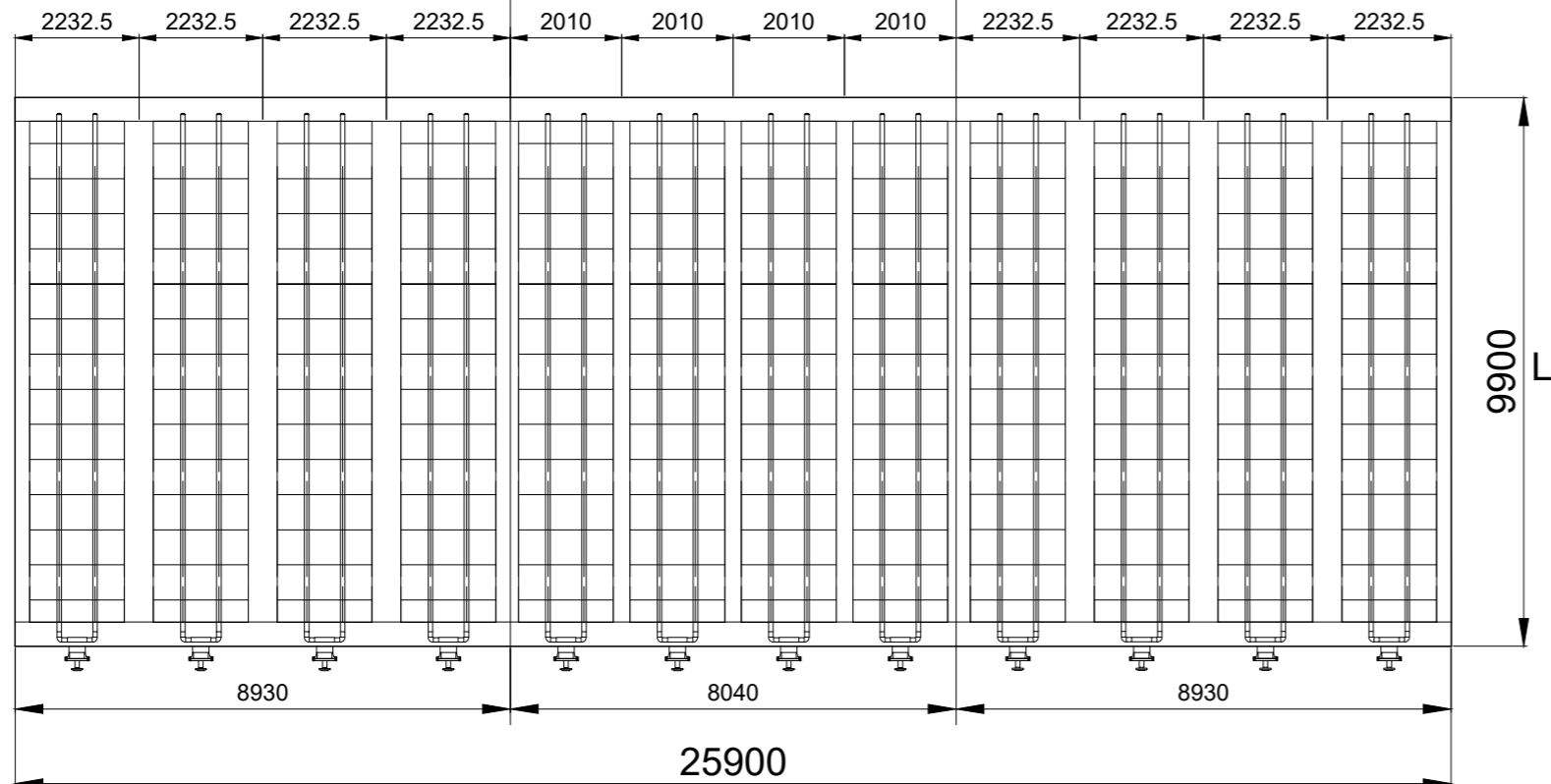
Date

06.08.2021

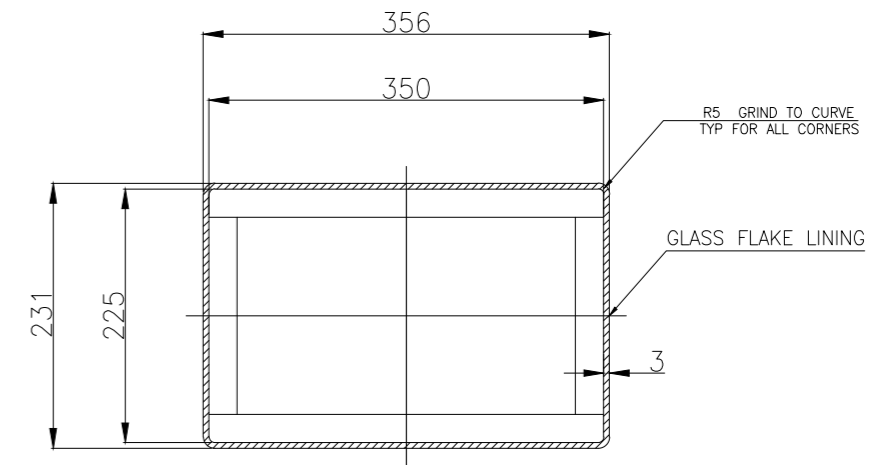
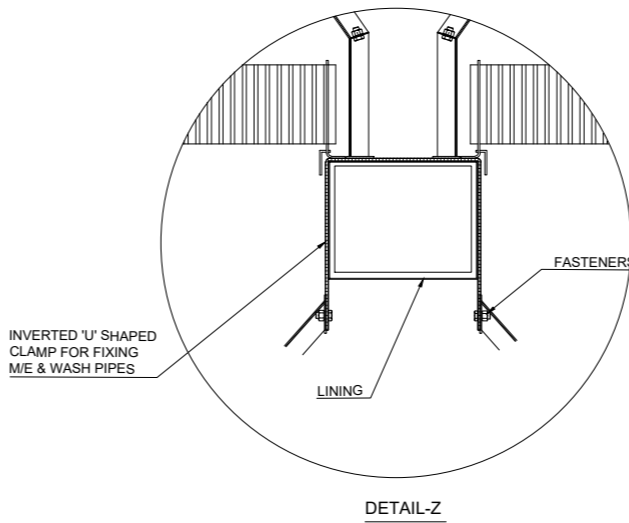
2-FW-215-08822

All dimensions are in millimeters

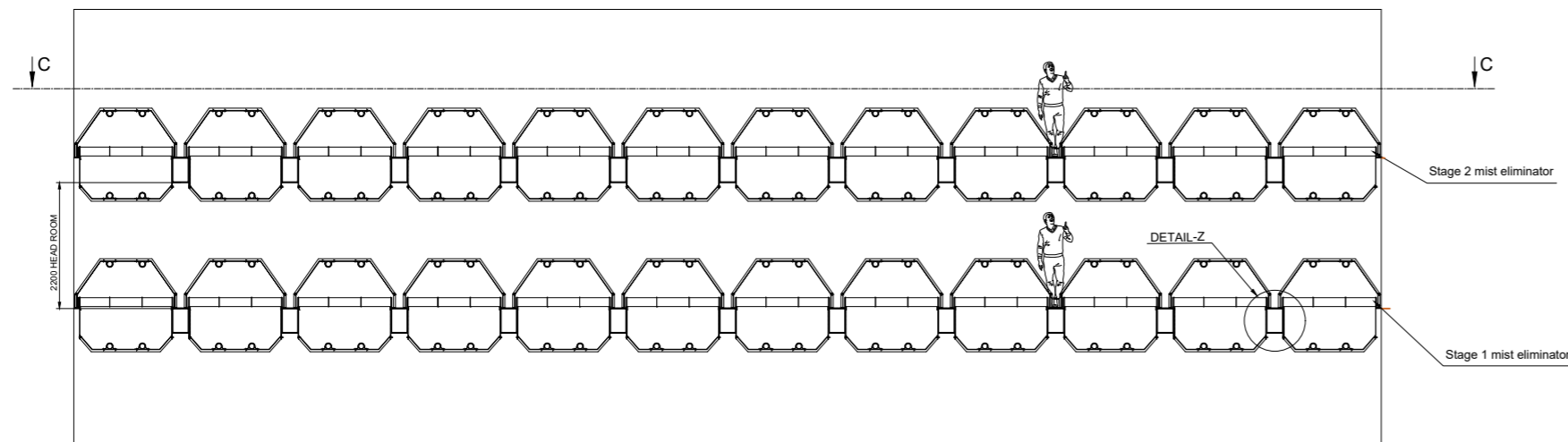
NOTE 01



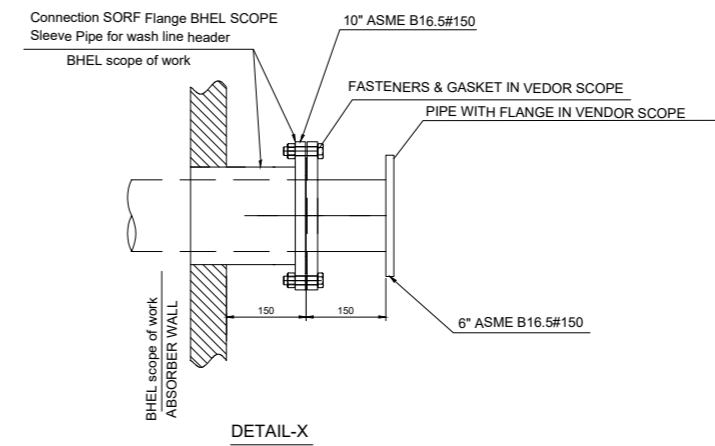
SECTION "C-C"



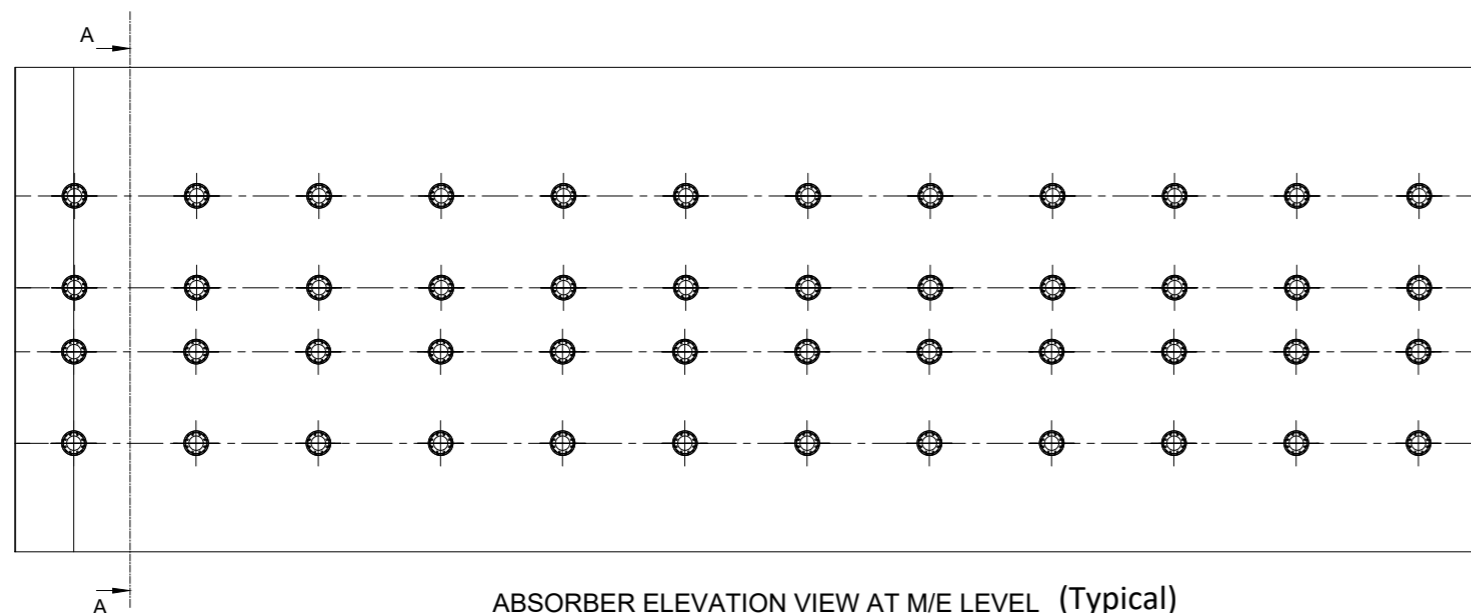
ME SUPPORT BEAMS  
(Typical)



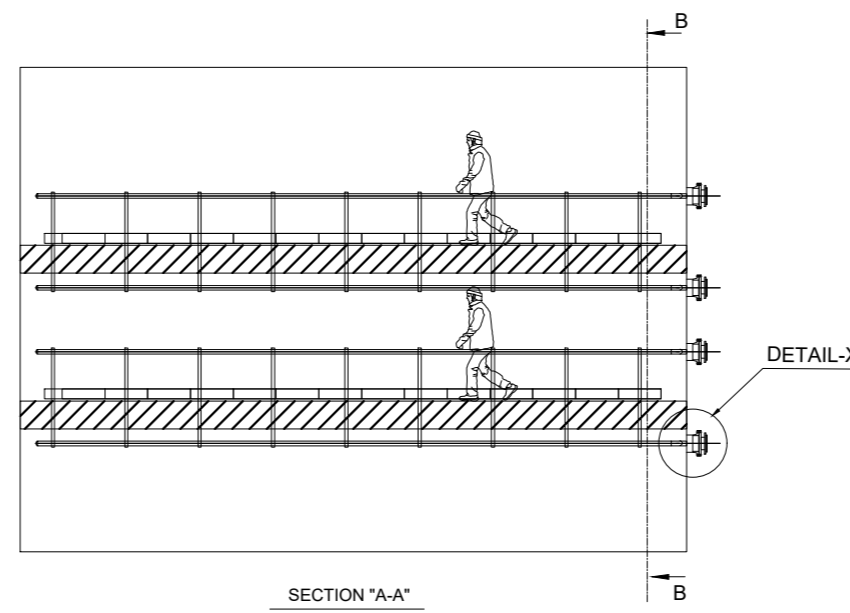
SECTION "B-B" (Typical)



DETAIL-X



ABSORBER ELEVATION VIEW AT M/E LEVEL (Typical)



SECTION "A-A"

THE FOLLOWING ITEMS ARE IN VENDOR SCOPE:

- a) MIST ELIMINATOR MODULE WITH END STOPPER PLATE FOR ALL THE STAGES
- b) FLUSHING PIPES WITH SPRAY NOZZLES AND FLANGE FOR THE FRONT AND BACK WASH FOR ALL THE STAGES
- c) HORIZONTAL MEMBER FOR PIPE SUPPORT WITH MOUNTING CLAMP FOR PIPE
- d) VERTICAL MEMBER (LEG SUPPORT- L ANGLE) FROM THE MAIN BEAM TO HORIZONTAL PIPE SUPPORT
- e) INVERTED U-CLAMP (HANGER TYPE) FOR MOUNTING BOTTOM WASH PIPE SUPPORT
- f) PAD PLATE AT THE END OF THE LEG SUPPORT
- g) ALL FASTENERS (MADE OF C-276) FOR SUPPORT MEMBERS/LOAD BEARING MEMBER INSIDE ABSORBER
- h) FASTENERS/GASKETS FOR THE FLANGES OUTSIDE ABSORBER AS PER THE DRAWING
- i) ANY ENCLOSURE PLATE, IF REQUIRED, SHALL BE PROVIDED

BHEL WILL PROVIDE ONLY THE MAIN SUPPORT BEAM AND OUTER RING SUPPORT FOR THE MIST ELIMINATOR. ALL SUPPORTS FOR PIPE SHALL BE TAKEN FROM THE MAIN SUPPORT BEAM / OUTER RING.

PIPE SUPPORTS SHALL NOT BE TAKEN FROM ABSORBER CASING.

DRAWING IS SHOWN WITH FLAT TYPE MIST ELIMINATOR. VENDOR MAY EVEN OFFER ROOF TYPE MIST ELIMINATOR.


NOZZLE LOCATION ON 'W' SIDE ONLY.

NOTE 01:

- A) THERE ARE TWO COLUMN TIE BEAMS (PART OF ABSORBER STRUCTURE), ONE ON EITHER SIDE OF THE CENTRE LINE AT A DISTANCE OF 4020 MM FROM THE CENTRE LINE. THESE BEAMS HAVE TO BE USED AS ME SUPPORT BEAMS AND ITS POSITION CANNOT BE CHANGED.
- B) ME SUPPORT BEAM ARE IN BHEL SCOPE AND DETAILS ARE GIVEN. ONLY THE DEPTH OF THE SUPPORT BEAM WILL BE VARIED AS PER THE LOADING DETAILS. VENDOR'S ME DESIGN SHALL BE ABLE ACHIEVE THE WALKWAY REQUIREMENT OF 300 MM WIDE CONSIDERING THE BEAM DETAILS GIVEN IN THE DRAWING. THE WIDTH OF THE M/E BEAM CANNOT BE MODIFIED AND ANY ADDITIONAL SUPPORT REQUIRED TO ACHIEVE WALKWAY OF 300 MM HAS TO BE PROVIDED BY VENDOR.
- C) BHEL'S SCOPE IS M/E SUPPORT BEAM AND THE OUTER RING SUPPORT. THE MAXIMUM WIDTH OF THE SUPPORT RING SHALL BE 300 MM. ANY OTHER ITEMS LIKE ENCLOSURE PLATES/BLANKING PLATES, IF REQUIRED, SHALL BE IN THE SCOPE OF M/E VENDOR.


PROJECT:		TSGENCO KTPS 1X800 MW, TSGENCO YADADRI YTPS 5X800 MW			
BHEL		BHARAT HEAVY ELECTRICALS LTD.			
UNIT:		BOILER AUXILIARIES PLANT.			
PROJECT:		YADADRI			
DEPT.		SR	SR	SR	NO.
CODE		9789	9789	9789	9789
GRADE OF		UNCLD	UNCLD	UNCLD	UNCLD
SCALE		N.T.S	N.T.S	N.T.S	N.T.S
WEIGHT (KG)		-	-	-	-
REF. TO ASSY/OLD DRG.		-	-	-	-
TITLE		TYPICAL ARRANGEMENT OF M/E (2 STAGE)			
CARD CODE		U 01	DRAWING NO. 2-FW-215-08822		
REV		01	REV		

Size A2

	PROJECT	TSGENCO YADADRI 5X800 MW			
	FGD	WET LIMESTONE BASED FGD SYSTEM			
	PARAMETERS	MIST ELIMINATOR SELECTION DATA			
Ref:	FGD:ME:YTPS:001	Revision	01	Date	06.08.21

Sl. No	Description	Requirement	
1.	Type	Two stage chevron type	
2.	Quantity		
i.	Quantity of Mist Eliminator for 5 Units	5 set (1 set means Complete Mist Eliminators, Washing systems and accessories).	
3.	MOC		
i.	Panel , Wash Nozzle & Wash Pipe	Polypropylene (PP)	
ii.	Wash Pipe Supports	Polypropylene/ C276 / Alloy 59	
iii.	Fasteners	<p>All Fasteners inside Absorber shall be made of C276 Material.</p> <p>For Pipe Clamping to the Pipe Supports: C276 U Clamp, C276 Bolts, C276 Nuts, C276 Washers to be provided.</p> <p>For other areas in Mist Eliminator - PP/PVDF</p> <p>Fasteners Outside Absorber - Galvanised fasteners</p>	
iv.	Enclosure Plate	PP or C276 material	
v.	Protection Plates	Fibre Backed Polypropylene Sheets	
4.	Parameters		
i.	Gas flow	Vertical	
ii.	Casing Dimension	Length : 9900 mm	Width : 25900 mm
iii.	Design Pressure of Mist Eliminator Panel	660 mmH <sub>2</sub> O (G)	
iv.	Max Allowable Pressure drop across Mist Eliminator element	12 mmH <sub>2</sub> O (G) at Design point 10 mmH <sub>2</sub> O (G) at Guarantee point	
v.	Design Temperature	<div>REV 01</div> <ul style="list-style-type: none"> <li>70 Deg C (Continuous)</li> <li>80 – 90 Deg C ( 30 minutes)</li> <li>90 – 110 Deg C (5 min)</li> </ul>	
5.	Gas condition at ME Inlet	Guarantee Point	Design Point
i.	Gas Flow Rate (Nm <sup>3</sup> /s-wet)	729.05	828.65
ii.	Gas Flow Rate (m <sup>3</sup> /s-wet)	860.48	985.19
iii.	Gas Temperature (Deg C)	49.2	51.6
iv.	Density (kg/m <sup>3</sup> )	1.10270	1.08456

	Rev 00		Rev 01		Rev 02	
	Sign	Date	Sign	Date	Sign	Date
Prepared : Kabilash	sd	23.07.21		06.08.21		
Reviewer: PR	sd	23.07.21		06.08.21		
Approver: PNR	sd	23.07.21		06.08.21		


	PROJECT	TSGENCO YADADRI 5X800 MW			
	FGD	WET LIMESTONE BASED FGD SYSTEM			
	PARAMETERS	MIST ELIMINATOR SELECTION DATA			
Ref:	FGD:M E:YTPS:001	Revision	01	Date	06.08.21

Sl. No	Description	Requirement	
v.	Operating Pressure at Mist Eliminator inlet (mm H <sub>2</sub> O (G)	98	130
vi.	Gas Flow Distribution	+ or - 20%	
6.	<b>Gas Composition at M E Inlet</b>		
i.	SO <sub>2</sub> (Vol%-wet)	0.0026	0.0023
ii.	H <sub>2</sub> O (Vol%-wet)	11.750	12.90
iii.	O <sub>2</sub> (Vol%-wet)	4.54	4.50
iv.	CO <sub>2</sub> (Vol%-wet)	13.19	12.37
v.	N <sub>2</sub> (Vol%-wet)	70.75	70.21
vi.	HCl (ppm-Dry)	<2	<2
7.	HF (ppm-Dry)	<1	<1
i.	Dust (mg/Nm <sup>3</sup> -wet)	<50	<50
8.	<b>Entrained Mist Condition:</b>		
i.	Mist Concentration at Inlet –at Guarantee & Design Point	200 g/Nm <sup>3</sup> -dry	
ii.	Mist Concentration at Outlet –at Guarantee & Design Point	≤50 mg/Nm <sup>3</sup> -dry	
9.	<b>Mist Composition</b>		
i.	Solid	30 wt.%	
ii.	Cl <sup>-</sup>	20,000 ppm	
iii.	Mg <sup>2+</sup>	8506.17ppm	
iv.	Ca <sup>2+</sup>	404.14 ppm	
v.	Na <sup>+</sup>	635.99 ppm	
vi.	SO <sub>4</sub> <sup>2-</sup>	27,130.35 ppm	

### 1.1 WASHING ARRANGEMENT

I.	<b>Washing water condition</b>	
a.	Flow rate - Average	32.06 m <sup>3</sup> /hr *1)
b.	Flow rate at M/E Inlet – Instantaneous Allowable Max	120 m <sup>3</sup> /hr
c.	Flow rate at M/E Inlet – Instantaneous Min	100 m <sup>3</sup> /hr
d.	Feed Pressure (at inlet flange of ME Wash header)	0.2 MPa (Max)

	Rev 00		Rev 01		Rev 02	
	Sign	Date	Sign	Date	Sign	Date
Prepared : Kabilash	sd	23.07.21		06.08.21		
Reviewer: PR	sd	23.07.21		06.08.21		
Approver: PNR	sd	23.07.21		06.08.21		


	PROJECT	TSGENCO YADADRI 5X800 M W			
	FGD	WET LIMESTONE BASED FGD SYSTEM			
	PARAMETERS	MIST ELIMINATOR SELECTION DATA			
Ref:	FGD:ME:YTPS:001	Revision	01	Date	06.08.21

e.	Spray Nozzle –Top washing (recommended)	90 °, Full Cone
f.	Spray Nozzle –Bottom washing (recommended)	120 °, Full Cone
g.	Spray pipe level from ME Panel	< 700 mm

Note: Mist Eliminator vendor to guarantee operation of Mist eliminator without fouling or plugging continually for the period of 20,000 hours without any FGD shut down.

II.	Washing Method	First Stage		Second Stage	
		Front Surface	Back Surface	Front Surface	Back Surface
a.	Total Washing Area m <sup>2</sup>	9.9 x 25.9	9.9 x 25.9	9.9 x 25.9	9.9 x 25.9
b.	Washing Water Source	Refer Clause 1.2			
c.	Washing Water Average Flow rate m <sup>3</sup> /h	*	*	*	*
d.	Instantaneous Max Water Flow rate m <sup>3</sup> /h	*	*	*	*
e.	Duration of One washing for One Divided Section Sec	*	*	*	*
f.	Time of One washing Cycle (min)	*	*	*	*
	*Washing method shall be confirmed by the vendor. ** Only for Maintenance *1) shall be finalized by vendor				

	Rev 00		Rev 01		Rev 02	
	Sign	Date	Sign	Date	Sign	Date
Prepared : Kabilash	sd	23.07.21		06.08.21		
Reviewer: PR	sd	23.07.21		06.08.21		
Approver: PNR	sd	23.07.21		06.08.21		

	PROJECT	TSGENCO YADADRI 5X800 MW			
	FGD	WET LIMESTONE BASED FGD SYSTEM			
	PARAMETERS	MIST ELIMINATOR SELECTION DATA			
Ref:	FGD:ME:YTPS:001	Revision	01	Date	06.08.21

## 1.2 WATER ANALYSIS

Process water characteristic envisaged for Mist Eliminator washing is given below.


Sr. No.	Parameter	Unit	Clarified Water Analysis
1.	Calcium as CaCO <sub>3</sub>	ppm	121.9
2.	Magnesium as CaCO <sub>3</sub>	Ppm	74.1
3.	Sodium as CaCO <sub>3</sub>	Ppm	184.4
4.	Potassium as CaCO <sub>3</sub>	Ppm	1.1
5.	Iron in Soln	ppm	Nil
6.	Total Cations as CaCO <sub>3</sub>	ppm	381.5
7.	Bicarbonate as CaCO <sub>3</sub>	Ppm	134.8
8.	Sulphate as CaCO <sub>3</sub>	Ppm	80.9
9.	Chloride as CaCO <sub>3</sub>	Ppm	161.0
10.	Nitrate as CaCO <sub>3</sub>	Ppm	3.5
11.	Total Anions as CaCO <sub>3</sub>	Ppm	381.5
12.	Reactive Silica as SiO <sub>2</sub>	Ppm	14.1
13.	Colloidal Silica as SiO <sub>2</sub>	Ppm	Nil
14.	Total Silica as SiO <sub>2</sub>	Ppm	14.1
15.	Nitrites	Ppm	Nil
16.	Total Hardness as CaCO <sub>3</sub>	Ppm	196
17.	Total Suspended Solids		15
18.	pH Value at 25 °C	-	7.0- 8.2
19.	Turbidity	NTU	15
20.	Fluoride	ppm	1.3

The following chemical dosage have been considered on the Raw water analysis for Pretreatment Plant & above clarified water analysis has been arrived.

Chlorine dosing : 5 ppm  
Lime dosing : 20 ppm

Alum dosing : 50 ppm  
Poly electrolyte (PE) : 1ppm

	Rev 00		Rev 01		Rev 02	
	Sign	Date	Sign	Date	Sign	Date
Prepared : Kabilash	sd	23.07.21		06.08.21		
Reviewer: PR	sd	23.07.21		06.08.21		
Approver: PNR	sd	23.07.21		06.08.21		

	PROJECT	TSGENCO YADADRI 5X800 MW			
	FGD	WET LIMESTONE BASED FGD SYSTEM			
	PARAMETERS	MIST ELIMINATOR SELECTION DATA			
Ref:	FGD:ME:YTPS:001	Revision	01	Date	06.08.21

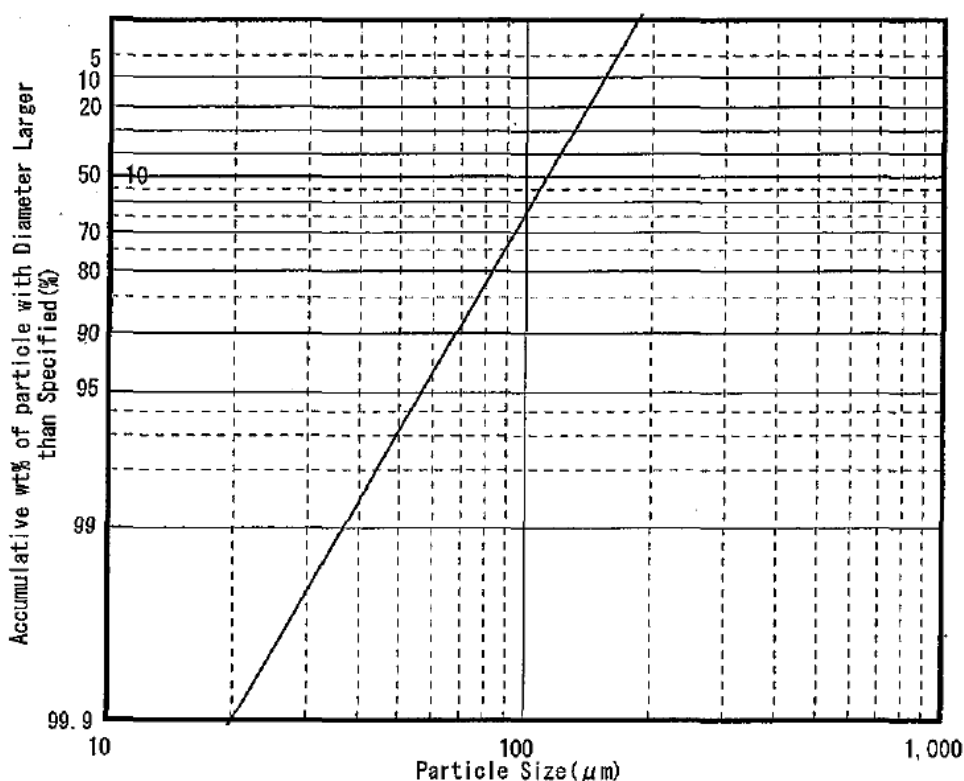
### 1.3 MIST ELIMINATOR ARRANGEMENT AND MIST PARTICLE SIZE DISTRIBUTION:

- Bidder shall note that there are two column tie beams located inside the absorber and separated by 8040 mm. Beams are located on either side of centre line at a distance of 4020 mm from the centre line (Bidder shall refer to Note 01 in the typical drawing enclosed). These two tie beams have to be used as Mist Eliminator support beams.
- Overall wash arrangement shall be as per the drawing (typical) enclosed.

#### Note:

Bidder to decide the spray washing arrangement considering the water flow rate mentioned above.

Fig.2 Mist Particle Size Distribution(EXPECTED VALUE)



	Rev 00		Rev 01		Rev 02	
	Sign	Date	Sign	Date	Sign	Date
Prepared : Kabilash	sd	23.07.21		06.08.21		
Reviewer: PR	sd	23.07.21		06.08.21		
Approver: PNR	sd	23.07.21		06.08.21		



Project

TSGENCO YADADRI 5X800 MW

FGD

WET LIMESTONE BASED FGD SYSTEM

PARAMETERS

MIST ELIMINATOR SELECTION DATA

REF

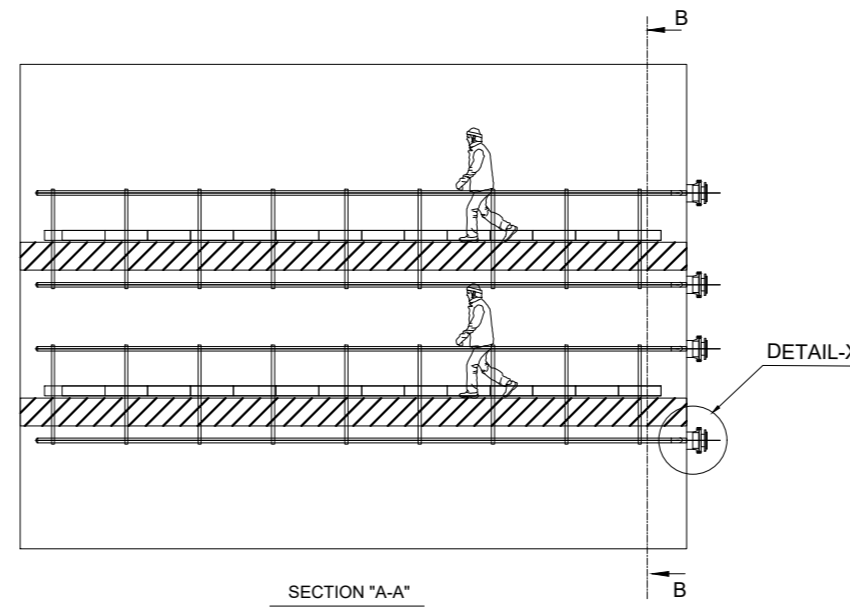
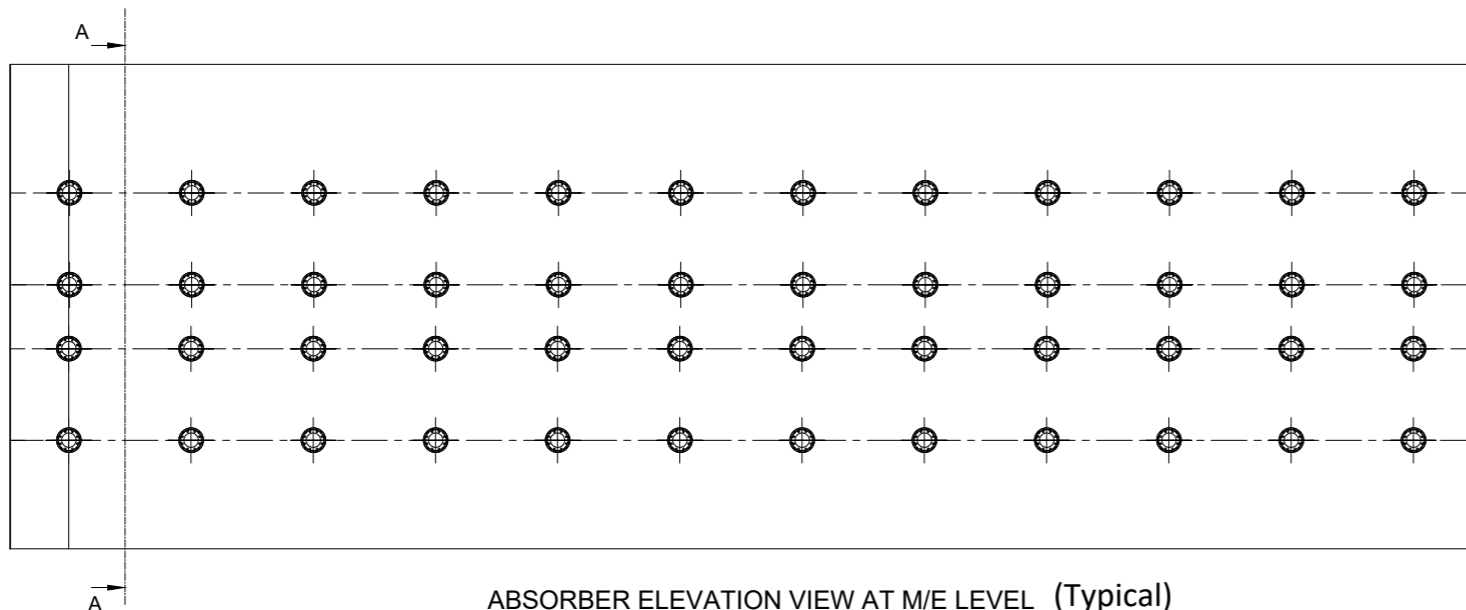
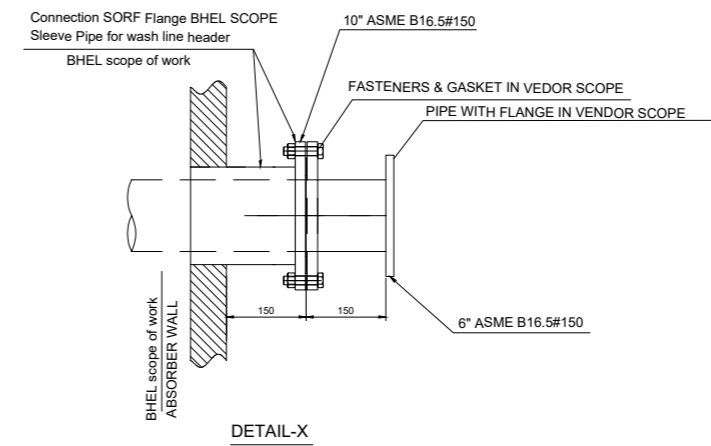
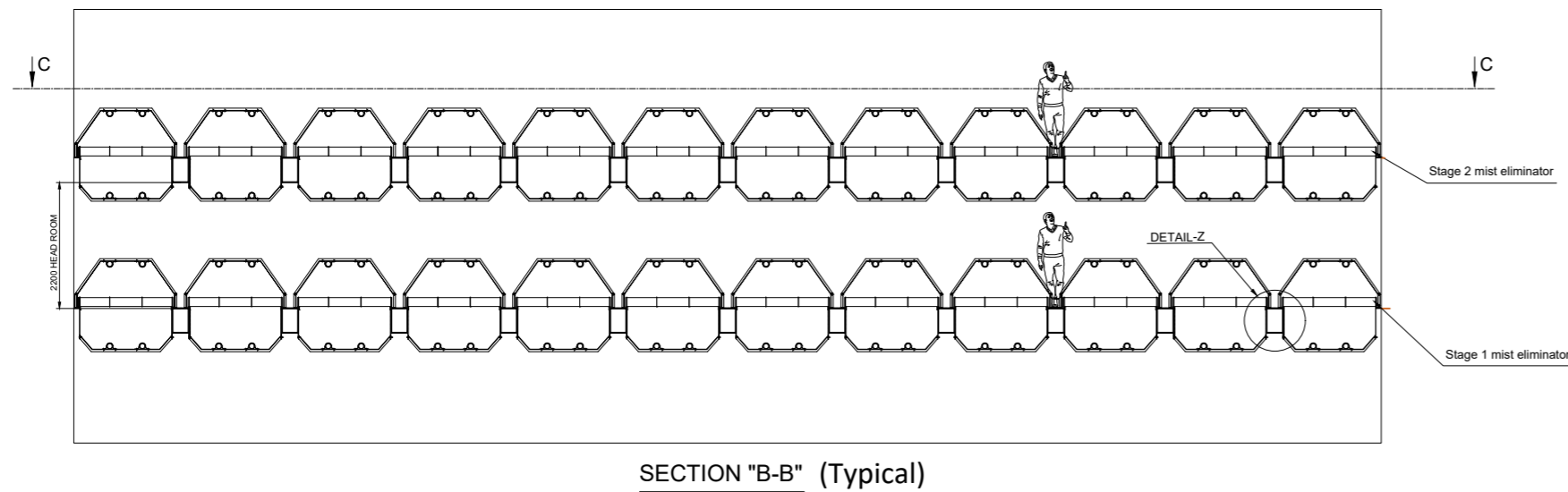
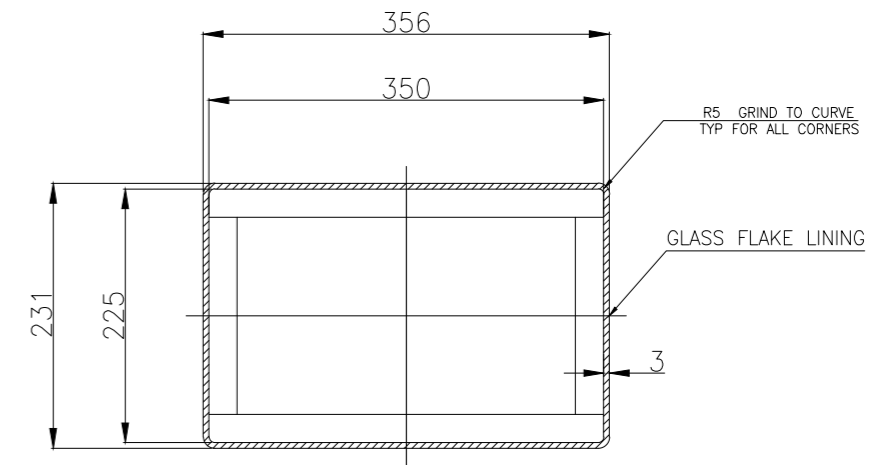
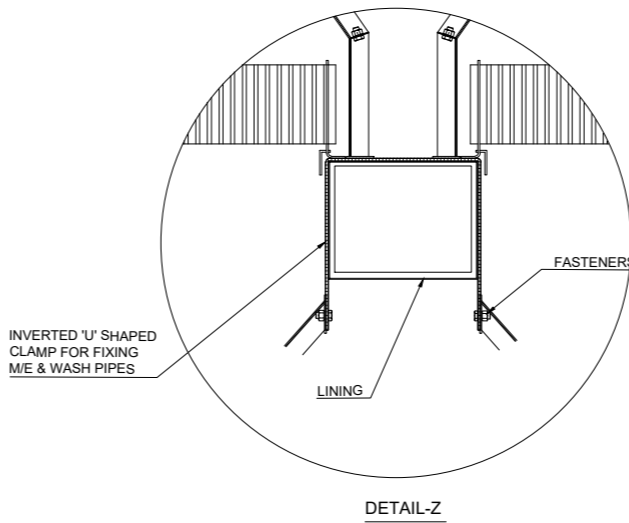
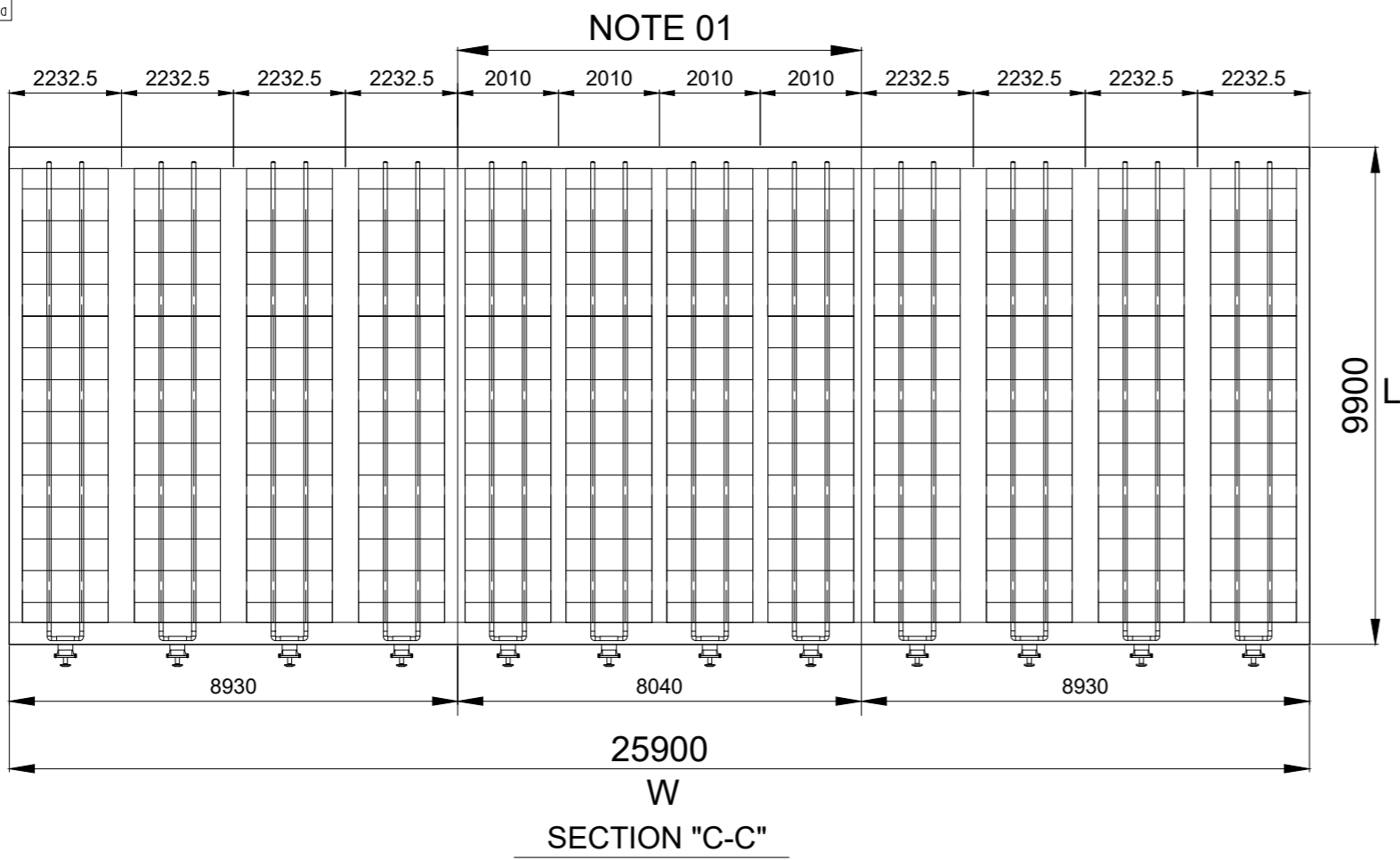
FGD:ME:YTPS:001

Revision

01

Date

06.08.2021



THE FOLLOWING ITEMS ARE IN VENDOR SCOPE:

- a) MIST ELIMINATOR MODULE WITH END STOPPER PLATE FOR ALL THE STAGES
- b) FLUSHING PIPES WITH SPRAY NOZZLES AND FLANGE FOR THE FRONT AND BACK WASH FOR ALL THE STAGES
- c) HORIZONTAL MEMBER FOR PIPE SUPPORT WITH MOUNTING CLAMP FOR PIPE
- d) VERTICAL MEMBER (LEG SUPPORT- L ANGLE) FROM THE MAIN BEAM TO HORIZONTAL PIPE SUPPORT
- e) INVERTED U-CLAMP (HANGER TYPE) FOR MOUNTING BOTTOM WASH PIPE SUPPORT
- f) PAD PLATE AT THE END OF THE LEG SUPPORT
- g) ALL FASTENERS (MADE OF C-276) FOR SUPPORT MEMBERS/LOAD BEARING MEMBER INSIDE ABSORBER
- h) FASTENERS/GASKETS FOR THE FLANGES OUTSIDE ABSORBER AS PER THE DRAWING
- i) ANY ENCLOSURE PLATE, IF REQUIRED, SHALL BE PROVIDED

BHEL WILL PROVIDE ONLY THE MAIN SUPPORT BEAM AND OUTER RING SUPPORT FOR THE MIST ELIMINATOR. ALL SUPPORTS FOR PIPE SHALL BE TAKEN FROM THE MAIN SUPPORT BEAM / OUTER RING.

PIPE SUPPORTS SHALL NOT BE TAKEN FROM ABSORBER CASING.


DRAWING IS SHOWN WITH FLAT TYPE MIST ELIMINATOR. VENDOR MAY EVEN OFFER ROOF TYPE MIST ELIMINATOR.

NOZZLE LOCATION ON 'W' SIDE ONLY.

NOTE 01:

- A) THERE ARE TWO COLUMN TIE BEAMS (PART OF ABSORBER STRUCTURE), ONE ON EITHER SIDE OF THE CENTRE LINE AT A DISTANCE OF 4020 MM FROM THE CENTRE LINE. THESE BEAMS HAVE TO BE USED AS ME SUPPORT BEAMS AND ITS POSITION CANNOT BE CHANGED.
- B) ME SUPPORT BEAM ARE IN BHEL SCOPE AND DETAILS ARE GIVEN. ONLY THE DEPTH OF THE SUPPORT BEAM WILL BE VARIED AS PER THE LOADING DETAILS. VENDOR'S ME DESIGN SHALL BE ABLE TO ACHIEVE THE WALKWAY REQUIREMENT OF 300 MM WIDE CONSIDERING THE BEAM DETAILS GIVEN IN THE DRAWING. THE WIDTH OF THE ME BEAM CANNOT BE MODIFIED AND ANY ADDITIONAL SUPPORT REQUIRED TO ACHIEVE WALKWAY OF 300 MM HAS TO BE PROVIDED BY VENDOR.
- C) BHEL'S SCOPE IS M/E SUPPORT BEAM AND THE OUTER RING SUPPORT. THE MAXIMUM WIDTH OF THE SUPPORT RING SHALL BE 300 MM. ANY OTHER ITEMS LIKE ENCLOSURE PLATES/BLANKING PLATES, IF REQUIRED, SHALL BE IN THE SCOPE OF M/E VENDOR.

PROJECT:		TSGENCO KTPS 1X800 MW,		TSGENCO YADADRI YTPS 5X800 MW	
BHEL		BHARAT HEAVY ELECTRICALS LTD.		UNIT: BOILER AUXILIARIES PLANT.	
DEPT. NO.		GRADE OF		SCALE	
CODE 9789		UNCLD.M		N.T.S	
TITLE		WEIGHT (KG)		REF. TO ASSY/OLD DRG.	
TYPICAL ARRANGEMENT OF M/E		CARD		DRAWING NO.	
(2 STAGE)		CODE U 01		2-FW-215-08822	
				REV	
				00	

	BHARAT HEAVY ELECTRICALS LIMITED (A GOVT OF INDIA UNDERTAKING)	Flue Gas Desulphurization Group-FGD, Boiler Auxiliary Plant (BAP), Ranipet
---	---	---

### TECHNICAL SPECIFICATION FOR MIST ELIMINATORS

**SPECIFICATION NO** : FGD:ME:R02  
**BUYER (EPC)** : BHEL, BAP Ranipet  
**APPLICATION** : WET LIMESTONE FGD

02	14-08-2021	Generally Revised	<i>Jyotish Kumar Patel</i> Jyotish Kumar Patel	<i>S. Shanmuga Sundaram</i> Shanmuga Sundaram S	<i>V. Kesavan</i> V. Kesavan
01	01-12-2020	Clause 12, Annexure-III revised	-sd- Jyotish Kumar Patel	-sd- Shanmuga Sundaram S	-sd- V. Kesavan
00	15-06-2020	Fresh issue	-sd- Jyotish Kumar Patel	-sd- Shanmuga Sundaram S	-sd- V. Kesavan
REV	Date	Description	Prepared	Checked	Approved

This document is meant for the exclusive purpose of bidding against this specification and shall not be transferred, reproduced or otherwise used for purposes other than that for which it is specifically issued.



## TECHNICAL SPECIFICATION OF MIST ELIMINATORS

FGD:M E:R02

### CONTENTS

1	APPLICABLE CODES & REGULATIONS
2	INTENT OF SPECIFICATION
3	PROVENNESS CRITERIA
4	SCOPE OF SUPPLY
5	GENERAL REQUIREMENTS
6	PACKING & FORWARDING
7	SUPERVISION OF ERECTION, TESTING & COMMISSIONING
8	DROPLET MEASUREMENT AT SITE
9	EXCLUSION
10	INSPECTION AND TESTING
11	SPARES, TOOLS & TACKLES
12	PERFORMANCE GUARANTEE
13	WARRANTY
14	TRAINING
15	CONFLICT
16	DOCUMENTATION
17	ANNEXURES
18	GA DRAWING OF THE MIST ELIMINATOR



## TECHNICAL SPECIFICATION OF MIST ELIMINATORS

FGD:M E:R02

### DOCUMENTS TO BE SUBMITTED ALONG WITH THE BID

S. No.	Description	No of copies With proposal
1.	Documents for meeting the Qualification Requirement	1
2.	Reference plant list ( as per Annexure-I)	1
3.	Compliance to Specification – Duly signed and stamped by the bidder	1
4.	Data Sheet for Mist Eliminator(as per Annexure-II)	1
5.	General arrangement and the cross-sectional drawing of the Mist Eliminator & its accessories.	1
6.	Schedule of Guarantee (as per Annexure-III)	1
7.	Deviation list (as per Annexure-IV)	
8.	Performance characteristic curves of Mist Eliminator	1
9.	Washing System data calculation sheet and Washing sequence	1
10.	Utility List & Required Pump Capacity	1
11.	Mandatory spares list.	1
12.	Start-up, Erection and commissioning spares list.	1
13.	Recommended Spares List for 3 Year's Normal Operation	1
14.	Proforma Packing List	1
15.	Approximate weight of each skid	1
16.	Support beam details and loading data	1
17.	Sub-Vendor List	1
18.	Scope of Supply	1
19.	Quality Plan	1
20.	List of Special Tools	1
21.	Delivery Schedule	1
22.	Droplet Measurement procedure	1
23.	WPS & PQR arrangement	1
24.	Man-holes, Viewing Ports, Sampling ports & Wash Pipe flange location & details	1
25.	Catalogue	1
26.	Terminal Point details	1
27.	Bill of Materials along with material and codes	1



## TECHNICAL SPECIFICATION OF MIST ELIMINATORS

FGD:M E:R02

### DOCUMENTS TO BE SUBMITTED AFTER AWARD OF CONTRACT:

S. No.	Description	No of copies After award of contract	Delivery Time
1.	General arrangement and the cross-sectional drawing of the Mist Eliminator & its accessories.	1	2 weeks after contract
2.	Isometric (3D) Drawing of the Mist Eliminator & its accessories	1	1 month after award
3.	Data Sheet for Mist Eliminator	1	2 weeks after contract
4.	Performance characteristic curves of Mist Eliminator	1	2 weeks after contract
5.	Washing system data calculation sheet , Washing sequence.	1	2 weeks after contract
6.	Utility List & Required Pump Capacity	1	2 weeks after contract
7.	Support beam drawing & loading data	2	2 weeks after contract
8.	Strength & performance Calculation	1	2 weeks after contract
9.	Mandatory spares list.	1	2 weeks after contract
10.	Erection and commissioning spares list.	1	2 weeks after contract
11.	Recommended Spares List for 3 Year's Normal Operation	1	2 weeks after contract
12.	Special tools list	1	2 months after contract
13.	Inspection and Test Procedure	1	1 month after contract
14.	Installation and assembly procedure	1	4 months after contract
15.	Inspection and Test Procedure	1	1 month after contract
16.	Quality Plan	4	1 month after contract
17.	Inspection & Test record	1	In 2 weeks after test
18.	Inspection Certificate	1	In 2 weeks after test
19.	Material Test Certificates	2	In 2 weeks after test
20.	Sub vendors List	1	2 weeks after contract
21.	Manufacturing Schedule	1	2 weeks after contract
22.	Progress report	1	Every month
23.	Proforma Packing List	1	2 months prior to shipping



## TECHNICAL SPECIFICATION OF MIST ELIMINATORS

### FGD:M E:R02

S. No.	Description	No of copies After award of contract	Delivery Time
24.	Approximate weight of each skid	1	2 months after contract
25.	Material Test Certificates	2	In 2 weeks after test
26.	Pre Commissioning Check List	2	4 months after contract
27.	Droplet Measurement procedure	2	1 month after contract
28.	WPS& PQR	2	2 weeks after contract
29.	Catalogue	2	2 weeks after contract
30.	Operation and Maintenance Manual Cleaning and repair procedure	• 10 hardcopies and 5 electronic copies in English	4 months after contract



## TECHNICAL SPECIFICATION OF MIST ELIMINATORS

FGD:M E:R02

### 1.0 APPLICABLE CODES & REGULATIONS

The design and materials shall conform to the requirements of applicable codes and regulations of the latest edition. The design, manufacture, installation and testing of the Mist Eliminator shall follow the latest applicable Indian/International (AISI / ASME/ EN/ Japanese) Standards.

### 2.0 INTENT OF SPECIFICATION

This specification covers the minimum requirements for the complete design, material, manufacturing, shop inspection, testing at the manufacturer's works, supervision of erection & commissioning and performance testing of Mist Eliminators along with accessories which is to be furnished in the Flue Gas Desulphurization plant of Coal fired Power Plants. The following points may be noted.

- a. Bidder shall assume full unit responsibility for the entire equipment assembly and make all possible efforts to comply strictly with the requirements of this specification and other specifications/ attachments to inquiry/order.
- b. In case, deviations are considered essential by the Bidder (after exhausting all possible efforts), the same shall be separately listed in the Bidder's proposal under separate section, titled as "List of Deviations/Exceptions to the Enquiry Document (**Annexure-IV**)". In case of NIL deviation, bidder has to specify "NIL Deviation" in Annexure-IV.
- c. Any deviation, not listed under the above section, even if reflected in any other portion of the proposal, shall not be considered applicable.
- d. No deviation or exception shall be permitted without the written approval of the purchaser.
- e. Compliance to this specification shall not relieve the Bidder of the responsibility of furnishing equipment and accessories/ auxiliaries of proper design, materials and workmanship to meet the specified start up and operating conditions.
- f. In case, the Bidder considers requirement of additional instrumentation, controls, safety devices and any other accessories/ auxiliaries essential for safe and satisfactory operation of the equipment, the same shall be recommended along with reasons in a separate section and include the same in scope of supply.
- g. All accessories, items of work, though not indicated but required to make the system complete for its safe, efficient, reliable and trouble free operation and maintenance shall also be in supplier's scope unless specifically excluded.



## TECHNICAL SPECIFICATION OF MIST ELIMINATORS

FGD:M E:R02

### 3.0 PROVENNESS CRITERIA:

“Bidder should have previous experience of design, manufacture, supply, erection and commissioning / supervised erection & commissioning of the Mist Eliminators for Wet Limestone based FGD system for at least one (1) no. 500/ MW or higher capacity pulverized coal fired power plant such that respective equipment(s) should have been in successful operation for a period not less than One (1) year prior to Part-I (Techno-commercial) bid opening date”

The Bidder shall offer only proven design which meets the Provenness criteria indicated above. Necessary document evidences (PO copy/ GAD or Datasheet for the reference plant/Performance certificate from end user for the reference plant) for qualification shall be submitted along with the bid. If bidder doesn't meet the specified provenness criteria, their offer is liable for rejection.

### 4.0 SCOPE OF SUPPLY

Scope for the bidders shall include Design, Supply, Testing and Supervision of Erection & Commissioning.

**Design:** Includes basic engineering, detail engineering, preparation and submission of engineering drawings/calculations/datasheets/quality assurance documents/field quality plans, storage instructions commissioning procedures, operation & maintenance manuals, performance guarantee test procedures and assisting BHEL in obtaining time bound approval from END CUSTOMER.

The following items shall be Bidder's scope of design

- Performance Calculation
- Basic Design
- Detail Fabrication Drawings
- Support Beam Drawing and Loading data for Absorber Design
- Strength Calculation
- Documents for Fabrication, Inspection, Installation, Shipment and Erection & Maintenance works at site.

**Supply:** Includes manufacturing/fabrication, shop floor testing, stage inspections, final inspections, painting & packing.

**Supervision of Erection & commissioning:** Includes supervision of erection& Commissioning at site.

**Performance testing:** Includes outlet Mist Concentration measurement at site as per VDI Norm

Supplier's scope shall cover complete Mist Eliminator unit including sub-systems, start-up spares and special tools (typically) as given below. The scope of supply for Mist Eliminators shall include but not limited to the following:



## TECHNICAL SPECIFICATION OF MIST ELIMINATORS

FGD:M E:R02

Sl. No	Scope
1.	Mist Eliminator complete with
	i. Mist Eliminator modules/panels with end stopper plate for all the stages.
	ii. Flushing pipes with spray nozzles and flange for the front and back wash for all the stages.
	iii. Horizontal member for pipe support with mounting clamps for pipe.
	iv. Vertical member (Leg support- L angle) from the main beam to horizontal pipe support
	v. Inverted U-Clamp (Hanger type) for mounting bottom wash pipe support.
	vi. Pad Plate at the end of the leg support
	vii. All fasteners required for pipe support members , Mist Eliminator panels, etc.
	viii. Fasteners (made of Galvanised steel ) and gaskets for the flanges outside absorber as per the drawing
	ix. Any blanking plate, if required, shall be provided by bidder.
	x. Fibre Backed Polypropylene plates have to be provided if the Support Beams are Rubber Lined/ Glass Flake Lined. Bidder shall refer to the Mist Eliminator Selection Criteria document enclosed with the Enquiry Specification for the details.
	xi. 3% of Hardware and gaskets supplied shall be provided as erection spares. Any other erection/ commissioning spares deemed necessary by the vendor shall be supplied
	xii. Startup Spares as applicable
	xiii. Special tools & tackles as applicable
	xiv. Mandatory spares as per requirement
	xv. Painting and Rust Prevention during shipment and construction
	xvi. Export packing and Inland Transportation
	xvii. Supervision of Erection & commissioning at site
	xviii. Residual droplet content measurement at site using VDI Norm 3679.
	xix. Installation, operation and maintenance manuals
	xx. Any other items required for completeness of the equipment except the items covered in the exclusions.

Bidder shall refer to the drawing enclosed with this specification enquiry. Buyer will provide the details of the structures inside/ outside absorber after placement of order and Mist Eliminator system shall be designed suitably considering the structures.



## TECHNICAL SPECIFICATION OF MIST ELIMINATORS

FGD:M E:R02

4.1	DESIGN AND CONSTRUCTION FEATURES
1.	To separate the entrained droplets, mist eliminators are installed above the absorber spraying zone. Mist Eliminators offered shall be designed, installed, tested and operated so that high availability and high droplet removal efficiency is guaranteed.
2.	The residual droplet content shall be measured according to applicable clauses in VDI Norm 3679.
3.	<b>Material grade</b> for Mist Eliminator chosen by the bidder shall be field proven in previous installation for the corrosive and erosive condition prevailing inside FGD absorber. The No of stages of ME shall be as per Annexure" Selection parameter for Mist Eliminator".
4.	Provision shall be made for continuous washing of both ends all the stages except the back wash of the last stage. Wash water arrangement shall also be provided at the back end of the last stage of Mist Eliminators and it is meant for maintenance or during shutdown condition(i.e. back wash of the last stage is designed for intermittent washing).
5.	The Mist Eliminator washing system shall be designed for cyclic washing of different sections. Pneumatically operated valves required for cyclic washing will be provided by the buyer. Platforms for accessing the automatic valves for the spray system will be provided by BHEL.
6.	Entrained Slurry shall be collected by Mist Eliminators downstream of the slurry spray system to avoid carryover of slurry to the Stack.
7.	The ME system shall be equipped with washing and drain provisions, where drains are directed into the absorber. Washing provisions shall include external and internal piping systems with replaceable nozzles, complete with all piping.
8.	The Material of construction for the Mist Eliminator Wash Pipe header shall be as per "Annexure- Selection parameters for Mist Eliminator". The material chosen by the bidder shall be proven and Mist Eliminator vendor shall have experience for the same
9.	Ease of replace-ability and placement of the mist eliminator on maintenance platforms is an important requirement.
10	The ME shall be designed to allow for efficient cleaning in process.
11	Test ports will be provided by the buyer in the downstream of the mist eliminator to enable performance testing. Test ports location shall be recommended by the Mist Eliminator vendor and shall be as per ASME PTC-40.



## TECHNICAL SPECIFICATION OF MIST ELIMINATORS

### FGD:M E:R02

12	The mist eliminator system shall be capable of withstanding high velocity spray water jets typically employed during manual cleanings. The ME shall be constructed in individual cells. The design shall safely avoid ME vibration and/or humming. The individual cells shall be sized so that no more than two maintenance personnel are needed to handle them manually when they are fully scaled or plugged, and the cells shall be capable of passing through the access doors for the mist elimination section.
13	Easy access for placement and replacement of the mist eliminator shall be incorporated in the design of the mist eliminator arrangement and the absorber vessel. Vendor shall provide recommendations for the same.
14	Walkways will be provided by the Buyer. However, Size and location of Manholes which are required for installation and replacement of each segment of the Mist Eliminator shall be recommended by the Mist Eliminator vendor.
15	The headroom shall have a height of more than 2200 mm.
16	The mist eliminator support beams shall be designed to act as maintenance walkways approximately 300 mm wide and shall allow for a minimum 500 Kg/m <sup>2</sup> load. The support beam/walkways shall provide personnel access to all mist eliminator modules, wash headers and wash nozzles. The support beam will be provided by the buyer. However, bidder shall ensure the design of ME system in such a way that there is place to walk on the beam.
17	Adequate number of viewing ports with flushing devices connected to automatically operating washing system will be provided by the buyer at following locations: (i) Upstream of 1st stage (ii) Between 1st and 2nd stage (iii) Downstream of 2nd stage. (iv) Downstream of 3rd stage ( in case of Three stage ME) Regular flushing will be done in a defined time sequence. Viewing ports locations shall be recommended by the ME vendor.
18	Internal supports for mist eliminator sections, etc. shall be designed to withstand the flooded weight of the supported section.
19	All internal piping support members for mist eliminator and flushing system shall be provided as per Annexure" Selection parameter for Mist Eliminator".
20	The material used for washing nozzles shall be field proven in previous installations.
21	All fasteners provided for the ME and wash pipe supports shall be as per Annexure" Selection parameter for Mist Eliminator".
22	The Mist eliminators and its supporting structure shall be designed to carry sufficient load during maintenance.
23	The formation of agglomeration, deposition & caking shall be avoided. For mist eliminators the bidder shall submit a cleaning procedure including the required safety measures as part of the inspection concept.
24	Detailed washing procedure for the mist eliminator shall be submitted such as <ul style="list-style-type: none"><li>• Minimum washing water pressure (M Pa)</li><li>• Minimum Flow rate (m<sup>3</sup>/hr)</li></ul>



## TECHNICAL SPECIFICATION OF MIST ELIMINATORS

### FGD:M E:R02

	<ul style="list-style-type: none"> <li>• Washing time schedule and sequence</li> <li>• Nozzle type</li> <li>• No of spray nozzles</li> <li>• Size of header pipes</li> <li>• Valve list</li> </ul>
25	<p>Mist Eliminator Panel's support shall be designed in consideration of dirty condition of the Mist Eliminator. Design Load of the Mist Eliminator shall be as follows,</p> <p>Mist Eliminator's weight including eliminated liquid weight plus max. allowable pressure drop of the mist eliminator.</p>
26	<p>The thickness of the Mist Eliminator shall be as per vendor's proven practice. Vendor shall specify the thickness in their offer.</p>
27	<p>The spacers to link each panel for restricting the gap between the panels shall be supplied.</p>
28	<p>Blade surface shall be capable of supporting 225 kg of concentrated load, as might be experienced during inspection, while fully plugged with solids.</p> <p>Provide anchors, Fasteners, spacers and supports shall be provided by bidder to securely hold Mist Eliminator and prevent shifting during operation</p>
29	<p>The beam and the outer ring for supporting the Mist Eliminator will be provided by the buyer. All other supports for Wash Pipes shall be taken from the main beam or outer ring supports.</p> <p>Pipe support shall not be taken from Absorber Casing and such arrangements involving support from the casing will not be accepted.</p> <p>There shall not be any welding of the Pipe Supports to the Absorber Casing or Support beams</p>



### 5.0 GENERAL REQUIREMENTS:

S.No	Description
1.	Descriptions in the drawings, in the documents, and in the displays shall be in English
2.	The equipment shall be designed to withstand the corrosive and moist environment in which these are proposed to operate.
3.	Suitable drain connections shall be provided.
4.	The equipment shall be suitable for stable continuous operation.



## TECHNICAL SPECIFICATION OF MIST ELIMINATORS

FGD:M E:R02

S.No	Description
5.	Limit of connection: The buyer (BHEL) has an intention to minimize interface for utilities as much as possible. The bidder shall consider this requirement in the planning stage of layout for the equipment. The bidder shall provide the header piping for utilities and branch piping to each nozzle. Terminal points for all utilities shall be located at Absorber wall edge at Mist Eliminator elevation. The bidder shall specify all terminal points with tie-in number in the P&ID and submit it in the proposal to confirm the scope of supply.
6.	Service life: Entire equipment except wearing parts shall be designed and fabricated for a minimum service life of 30 years of operation or 200,000 full load operating hours whichever is longer.
7.	Corrosion allowance: Corrosion allowance for entire equipment shall be in accordance with latest applicable international standard.
8.	Unless otherwise specified , flanges shall be in accordance with ANSI B16.5 Class 150
9.	Name plate: Nameplate shall be provided indicating the item number and service name. Name plates shall be of 304 Stainless steel plate and placed at a readily visible location. Nameplate of main equipment shall have enough information, which will be confirmed during engineering phase.
10.	Unless otherwise specified, all equipment items where the weight exceeds 15 kg shall be provided with suitable lifting lugs, ears or ring bolts or tapped holes for lifting rings. Minimum shock factor for lifting lugs shall be minimum 2.0. The position of lifting lugs and reference dimension shall be shown on GA and/or outline drawings. NDT shall be conducted for lifting lugs. When any spreader bars are required for lifting and laydown, the bidder shall provide spreader bar with equipment.
11.	Equipment shall be fabricated as much as practical to minimize erection at the site.
12.	Washing headers support and its clamping arrangement along with fasteners shall be provided by the bidder.
13.	If the Mist eliminator is in the resonance condition or any vibration problems occur, the bidder shall solve the problems in a timely manner.
14.	Bidder shall provide the mating flanges with the necessary gaskets.
15.	All the surfaces of the carbon steel (if any) should be rust prevented before shipment for the period of at least 12 months for storage and construction.
16.	The list of all Bought out items with makes and country of origin to be mentioned along with offer to be submitted.
17.	Quality Plan to be submitted along with the offer.
18.	During entire period of the project, the bidders shall strictly follow and adhere to the guidelines for effective Health & Safety Management. Supply of safety gears/PPE for bidder's/bidder's sub vendor personnel deputed at site for Supervision of E&C, etc. shall



## TECHNICAL SPECIFICATION OF MIST ELIMINATORS

**FGD:M E:R02**

S.No	Description
	be in bidder's scope.
19.	Cost towards the participation in discussions/meetings, providing technical assistance during technical discussions/meetings with customer for approval of drawing/documents etc. TA/ DA, boarding and lodging to attend these meetings shall be borne by the bidder and shall be inclusive in supply portion.
20.	Material of construction for all equipment/components shall be subject to BHEL/END CUSTOMER/END CUSTOMER's consultant approval during detail engineering. Accordingly bidder shall consider MOC for all equipment/component as per best engineering practice, global standard and global references.
21.	Bidder to provide sub vendor list and Bidder shall strictly adhere to BHEL/END CUSTOMER approved vendor list.
22.	<p>The modalities of inspection (Stage, Final, In-process) shall be finalized during detail engineering after submission of quality assurance plan (QAP). It shall be reviewed by the END CUSTOMER/END CUSTOMER's consultant and BHEL. Bidder shall follow the procedures of inspection as per the approved QAP. Bidder has to submit the following documents along with inspection call and if any other documents required as per approved QAP.</p> <ul style="list-style-type: none"> <li>- Raw material inspection certificate</li> <li>- Internal test reports</li> <li>- Statutory certificates as required.</li> <li>- All inspection &amp; testing shall be carried out based on the following documents: <ul style="list-style-type: none"> <li>a. Relevant Standards</li> <li>b. Specifications</li> <li>c. Approved drawings</li> <li>d. Data Sheets</li> <li>e. Calibration certificate for all the measuring instruments</li> <li>f. Bidder should also coordinate in getting the MDCC's (Material Dispatch clearance certificate) and all types of IC's (Inspection Certificates) from the customer/customer's consultant along with BHEL.</li> </ul> </li> </ul>
23.	Any shim plates for erection of equipment / item at site shall be in the scope of bidder.
24.	During detail engineering, bidder to strictly adhere to BHEL/END CUSTOMER/END CUSTOMER's consultant drawing formats, document numbering, quality plan & FQP formats
25.	The identification and numbering of equipment, systems, items, etc. of supply, as well as of all documents and drawings shall be in accordance with the VGB guideline RDS-PP



## TECHNICAL SPECIFICATION OF MIST ELIMINATORS

FGD:M E:R02

S.No	Description
	(Reference Designation System for Power Plants - KKSsystem).
26.	Complete detail engineering drawings, calculations, selection of components etc. shall be reviewed & subject to approval of BHEL/END CUSTOMER/END CUSTOMER's consultant during detail engineering
27.	Bidder shall furnish necessary inputs & drawings of all equipment in editable Auto CAD/ MS-Word / Excel format.
28.	During detail engineering, successful bidder shall ensure flow of drawings/ documents as per schedule. Any comments from BHEL/END CUSTOMER/END CUSTOMER's consultant should be addressed timely by the bidder.
29.	Bidder to note that list above is not exhaustive and any work /items required for completing the smooth operation and ensuring satisfactory running of the machines till final hand over to the end user shall also be in the scope of the bidder.
30.	<p>Bidder shall submit the signed and stamped copy of all the pages which constitutes this technical enquiry specification signed by authorized signatory and clearly mentioning each clause under following two categories to avoid any ambiguity in scope understanding &amp; the scope division along with technical offer.</p> <p>a. "Accepted without deviation and considered in scope of work"</p> <p>b. "Not considered in scope of work".</p>
<b>6.0</b>	<b>PACKING AND FORWARDING</b>
1.	<p>Proper packing to be ensured.</p> <p><b>Indigenous Supply:</b> The equipment shall be wrapped in polythene bags &amp; packed in a strong rigid wooden crate. Rain water should not enter into the equipment during storage in the outer yard of power plant.</p> <p><b>Imported Supply:</b> All imported supply (supplies from outside India) should be packed as per Sea worthy packing specification no. <b>PE-TS-888-100-A001</b>. All imported items should have Sea worthy packing. Liberal packing materials and struts shall be provided to arrest rolling and to protect from transit damages</p>
2.	Cardboard containers shall be enclosed in a solid wooden container
3.	Equipment and process materials shall be packed and semi-knocked down, to the extent possible, to facilitate handling and storage and to protect bearings and other machine surfaces from oxidation. Each container, box, crate or bundle shall be reinforced with steel strapping in such a manner that breaking of one strap will not cause complete failure of packaging. The packing shall be of best standard to withstand rough handling and to provide suitable protection from tropical weather while in transit and while awaiting erection at the site.



## TECHNICAL SPECIFICATION OF MIST ELIMINATORS

FGD:M E:R02

S.No	Description
4.	Equipment and materials in wooden cases or crates shall be properly cushioned to withstand the abuse of handling, transportation and storage. Packing shall include preservatives suitable to tropical conditions. All machine surfaces and bearings shall be coated with oxidation preventive compounds. All parts subject to damage when in contact with water shall be coated with suitable grease and wrapped in heavy asphalt or tar impregnated paper.
5.	Crates and packing material used for shipping will become the property of owner.(END CUSTOMER)
6.	Packing (tare) shall be part of the equipment cost and shall not be subject to return. The packing should ensure integrity and cohesiveness of each delivery batch of equipment during transportation. In case of equipment assemblies and unit's delivery in the packing of glass, plastics or paper the specification of packing with the material and weight characteristics are to be indicated.
7.	Each package should have the following inscriptions and signs stenciled with an indelible ink legibly and clearly: <ul style="list-style-type: none"><li>a. Destination</li><li>b. Package Number</li><li>c. Gross and Net Weight</li><li>d. Dimensions</li><li>e. Lifting places</li><li>f. Handling marks and the following delivery marking</li></ul>
8.	Each package or shipping units shall be clearly marked or stenciled on at least two sides as follows.  <b>BHEL SITE OFFICE,</b>  <b>"ADDRESS OF THE PROJECT SITE AS PER ENQUIRY/ PO "</b>  <b>INDIA</b>  In addition, each package or shipping unit shall have the symbol painted in red on at least two sides of the package, covering one fourth of the area of the side.
9.	Each part of the equipment which is to be shipped as a separate piece or smaller parts packed within the same case shall be legibly marked to show the unit of which it is part, and match marked to show its relative position in the unit, to facilitate assembly in the field. Unit marks and match marks shall be made with steel stamps and with paint.
10.	Each case shall contain a packing list showing the detailed contents of the package. When any technical documents are supplied together with the shipment of materials no single package shall contain more than one set of such documents. Shipping papers shall clearly indicate in which packages the technical documents are contained.



## TECHNICAL SPECIFICATION OF MIST ELIMINATORS

FGD:M E:R02

S.No	Description
11.	The case number shall be written in the form of a fraction, the numerator of which is the serial number of the case and the denominator the total number of case in which a complete unit of equipment is packed.
12.	Wherever necessary besides usual inscriptions the cases shall bear special indication such as "Top", "Do not turn over", "Care", "Keep Dry" etc. as well as indication of the center of gravity (with red vertical lines) and places for attaching slings (with chain marks)
13.	Marking for Safe handling: To ensure safe handling, packing case shall be marked to show the following: <ul style="list-style-type: none"> <li>a. Upright position</li> <li>b. Sling position and center of Gravity position</li> <li>c. Storage category</li> <li>d. Fragile components ( to be marked properly with a clear warning for safe handling)</li> </ul>
14.	Each crate or package is to contain a packing list in a waterproof envelope. All items are to be clearly marked for easy identification against the packing List. All cases, packages etc. are to be clearly marked on the outside to indicate the total weight where the weight is bearing and the correct position of the slings are to bear an identification mark relating them to the appropriate shipping documents. All stencil marks on the outside of cases are either to be made in waterproof material or protected by shellac or varnish to prevent obliteration in transit.
15.	<b>The packing slip shall contain the following information: -</b> Customer name, Name of the equipment, Purchase Order number with Date, Address of the delivery site, Name and Address of the Sender, Serial Number of Mist Eliminator & accessories, BHEL item Code, Gross Weight and Net weight of Supplied items.
16.	Prior to transport from manufacturer's work to destination, components of the unit shall be completely cleaned to remove any foreign particles. Flange faces and other machined surfaces shall be protected by an easily removable rust preventive coating followed by suitable wrapping.
17.	All necessary painting, corrosion protection & preservation measures shall be taken as specified in painting schedule. Supplier shall consider the coastal environment zone which is defined as "very severe" during final finishing/ shipping.
18.	Successful bidder shall furnish the detail packing / shipment box details with information like packing box size, type of packing, weight of each consignment, sequence no. of dispatch, no. of consignment for each deliverable item against each billing break up units/ billable blocks. Without these details the BBU shall not be approved during detail engineering.  Also, complete billing break-up with above mentioned details shall be submitted within



## TECHNICAL SPECIFICATION OF MIST ELIMINATORS

**FGD:ME:R02**

S.No	Description
	10days of LOI.
19.	All items/equipment shall be dispatched in properly packed condition (i.e. no item shall be dispatched in loose condition such that it becomes difficult to store/identify its location at site at a later stage).
20.	Cases which cannot be marked as above shall have metal tags with the necessary markings on them. The metal tags shall be securely attached to the packages with strong steel binding wire. Each piece, Skid, Case or package shipped separately shall be labelled or tagged properly.
<b>7.0</b>	<b>SUPERVISION OF ERECTION AND COMMISSIONING</b>
	<b>ERECTION</b>
1.	The erection of Mist Eliminator and washing system will be done by buyer as per Erection Manual and check List provided by the bidder. However, the bidder shall make one visit per Mist Eliminator System/Absorber for the supervision of erection and commissioning.
2.	There will be one visit for each Mist Eliminator system or Absorber. Total No of Visit shall be as per Enquiry/PO. The bidder will be informed well in advance for the visit. No of working days required for supervision shall be as per enquiry/PO. In case additional days of supervision are required, the rate may be considered on Pro-rate basis of the quoted price.
3.	TA/DA, Travel expenses, boarding and lodging shall be borne by the bidder and shall be inclusive in supervision portion.
<b>8.0</b>	<b>DROPLET MEASUREMENT/ PERFORMANCE TESTING AT SITE</b>
1.	Bidder has to measure residual droplet at Mist eliminator outlet as per approved procedure for all the Mist Eliminators at site. The bidder will be informed well in advance for conducting the performance test (droplet measurement).
2.	Bidder has to complete the test for all the units as per enquiry/PO. TA/DA, travel expense, boarding and lodging, cost for bringing the testing kit to site shall be borne by the bidder and shall be included in the performance testing charges.
<b>9.0</b>	<b>EXCLUSION</b>
	<p>The following work associated with the Mist Eliminator will be by BHEL:</p> <ol style="list-style-type: none"> <li>Mist Eliminator Wash Pumps</li> <li>Piping from ME Wash pumps to Absorber wall at Mist eliminator elevation.</li> <li>Pneumatic operated valves</li> <li>Support beams and outer ring inside the casing to support the ME</li> </ol>

R02



## TECHNICAL SPECIFICATION OF MIST ELIMINATORS

**FGD:M E:R02**

S.No	Description
	e. Absorber casing and Nozzles.
<b>10.0</b>	<b>INSPECTION AND TESTING</b>
	The General inspection requirements to be considered are as below:
1.	Bidder shall furnish written copies of shop production, fabrication and quality test procedures and drawings for review by BHEL/END CUSTOMER prior to manufacture. Inspection of above mentioned tests by BHEL representative at bidder's works is envisaged.
2.	The Bidder shall furnish performance test procedure along with measurement standard. The procedure will be reviewed and approved by the BHEL/END CUSTOMER.
3.	Final inspection and release by the BHEL/END CUSTOMER is a mandatory requirement unless specially waived.
4.	Acceptance tolerance of actual versus guaranteed performance for Droplet removal efficiency and Pressure drop shall be as per applicable standard.
5.	Mist Eliminator shall not be released for shipment, until shop tests data have been approved by Owner.
6.	Bidder should furnish performance guarantee as per applicable standard guarantee for the design, manufacture, material and safe operation of the equipments.
7.	BHEL/END CUSTOMER shall witness the test at Bidder's works and a notice of minimum three (3) weeks shall be given for attending the inspection.
8.	Bidder to arrange all calibrated gauges, Instruments during inspection.
9.	Bidder to arrange Instruments and all accessories for the measurement at site as per applicable clauses VDI Norm 3679.
10.	The performance test & droplet measurement may be carried out at site for Guarantee conditions and shall be converted to the design condition.
<b>11.0</b>	<b>SPARES, TOOLS &amp; TACKLES</b>
<b>11.1</b>	<b>START UP &amp; COMMISSIONING SPARES</b>
	<p>Start-up &amp; Commissioning Spares shall be part of the main supply of the Mist Eliminator &amp; sub system. Start-up &amp; commissioning spares are those spares which may be required during the start- up and commissioning of the equipment/system.</p> <p>The following startup/erection &amp; commissioning spares shall be supplied by bidder along with main supply free of cost: All hardware's and gasket – 3%</p> <p>In addition to the above, any other spares required for Start-up and commissioning</p>



## TECHNICAL SPECIFICATION OF MIST ELIMINATORS

**FGD:M E:R02**

S.No	Description
	deemed necessary by the bidder shall be supplied. The spares must be available at site before the equipments are energized.
<b>11.2</b>	<b>RECOMMENDED SPARES</b>
	Bidders shall also furnish the Recommended spares list along with the offer required for 3 years of normal operation of the plant and should be independent of the list of the mandatory spares. Prices of recommended spares will not be used for evaluation of the bids. The price of these spares will remain valid up to 6 months after placement of Notification of Award for the main equipment.
<b>11.3</b>	<b>MANDATORY SPARES:</b>
	<p>Bidder to quote for the mandatory spares as per enquiry/ PO.</p> <p>Bidder shall quote for the "Mandatory spares", and it will be considered for L1 evaluation. Mandatory spare items shall be handed over separately and shall not be mixed with the supply of the main equipment parts. Spares shall not be dispatched before dispatch of corresponding main equipments. The mandatory spares shall be clearly identifiable and suitable tagging shall be made by the bidder.</p> <p>All spares supplied under this contract shall be strictly inter-changeable with the parts for which they are intended for replacements. All the mandatory spares shall be manufactured as per same specification and quality plan of the main supply.</p> <p>Mandatory spares will be in percentage of main supply. However while quoting, vendor to indicate quantity in numbers against percentage for each type. If derived quantity of mandatory spares is in fraction, then next higher side whole number has to be considered. In the event of ordering, PO will be released on rate per number basis, for the above firm quantity only.</p> <p>However, the price of Mandatory spare prices shall be kept valid for minimum 2 years from the date of dispatch of the of mandatory spares, to enable BHEL to place order further orders, if any, in case of additional requirement. The quantity of additional order may be less than or equal to the mandatory spares quantity indicated in the tender.</p>
<b>11.4</b>	<b>SPECIAL TOOLS &amp; TACKLES:</b>
	Any special tools & tackles required for the entire equipment to disassemble, assemble or maintain the units, they shall be included in the quotation and furnished as part of the initial supply. List of special tools & tackles shall be decided by bidder as per his proven practice. When special tools are provided, they shall be packaged in separate, boxes with lugs and marked as "Special Tools for (tag / item number)." Each tool shall be stamped or tagged to indicate its intended usage. Levers and eye bolts for the removal of parts to be serviced shall be submitted with special tools.
<b>12.0</b>	<b>PERFORMANCE GUARANTEE</b>
	<p>All performance tests for Mist Eliminators shall be carried out in accordance with any latest international codes/standards.</p> <p>1) The mist eliminator outlet droplet content shall be guaranteed as follows at</p>



## TECHNICAL SPECIFICATION OF MIST ELIMINATORS

FGD:M E:R02

S.No	Description
	<p>absorber outlet measured over a period of 24 hrs continuous operation.</p> <p>a) <math>\leq 20 \text{ mg/Nm}^3</math> ( in case of 3 stage Mist Eliminator)</p> <p>b) <math>\leq 50 \text{ mg/Nm}^3</math> ( in case of 2 stage Mist Eliminator)</p> <p>2) Mist outlet-droplet content shall be measured as per applicable clauses in VDI Norm 3679 and the Contractor shall carry out the tests as per the test procedure approved by the Employer.</p> <p>3) Bidder shall furnish Performance guarantee for the design, manufacture, material, safe and trouble-free operation of the Mist Eliminator and its accessories</p> <p>4) Maximum Pressure drop across M/E at Design Point condition (as per "Selection parameter for Mist Eliminator") is to be guaranteed. It shall be measured at Guarantee point conditions in site and shall be converted to the design condition.</p> <p>5) The Bidder shall ensure a design of the equipment to achieve an average target availability of 98% for 120 days and average target availability of 95% for 1 year</p> <p>6) In the event that the performance test is unsuccessful in meeting performance guarantees, bidder shall take necessary remedial action at his cost and the performance test shall be repeated.</p> <p>7) Mist Eliminator vendor has to guarantee the operation of Mist eliminator without fouling or plugging continually for a period of 20,000 hours without any FGD shut down.</p>
<b>13.0</b>	<b>WARRANTY:</b>
1.	The Bidder shall warrant that the equipments/items shall be free from defects in the design, engineering, materials and workmanship of the Plant and Equipment supplied and of the work executed. The Warranty period shall be 24 months from the date of supply or 18 months from the date of commissioning, whichever first occurs. If during the Defect Liability Period any defect should be found in the design, engineering, materials and workmanship of the Plant and Equipment supplied or of the work executed by the Bidder, the Bidder shall promptly, in consultation and agreement with BHEL regarding appropriate remedying of the defects, and at its cost, repair, replace or otherwise make good (as the Bidder shall, at its discretion, determine) such defect as well as any damage to the Facilities caused by such defect.
2.	In case of failure of the equipment to meet the guarantee, END CUSTOMER/BHEL reserves the right to reject the equipment. However, END CUSTOMER/BHEL reserves the right to use the equipment until new equipment supplied by bidder meets the guaranteed requirement .
<b>14.0</b>	<b>TRAINING</b>
	Successful bidder shall provide comprehensive training for END CUSTOMER/BHEL Engineering, O&M, Erection & Commissioning staffs at site covering all aspects of the

R02



## TECHNICAL SPECIFICATION OF MIST ELIMINATORS

FGD:ME:R02

S.No	Description
	ME system - Operation & Maintenance, Troubleshooting, cleaning procedure etc.
<b>15.0</b>	<b>CONFLICT</b>
	Bidder's equipment shall be designed for and shall meet the service, performance and minimum level of quality requirements specified. Bidder shall be solely responsible for advising End customer in writing of any conflicts between the specifications and Bidder's design, including performance and levels of quality. Bidder agrees that its obligations, liabilities and warranties shall not be diminished or extinguished due to its meeting the requirements of the Specification.
<b>16.0</b>	<b>DOCUMENTATION</b>
	<b>DOCUMENTS TO BE SUBMITTED AFTER AWARD OF CONTRACT</b>
	<p>List of Drawings or documents to be submitted after award of contract is enlisted. Drawings that are reviewed by the END CUSTOMER/ BHEL will be returned to bidder with a transmittal letter with any comments and / or questions marked on the drawings or noted in the letter. All comments and questions must be resolved before a resubmission of drawings / documents. If the design has not developed enough to resolve some of the comments or questions, bidder shall place a "hold" on those items or areas of design. END CUSTOMER/ BHEL reserves the right to return drawings unprocessed to bidder if there exists any evidence that bidder has not acknowledged all comments and questions.</p> <p>All necessary GA drawings, sections, sub-assembly drawings, specifications of main and sub components and necessary set of operation &amp; maintenance manual as asked by END CUSTOMER must be furnished by bidder in soft and hard copy forms. For all documents softcopy format shall be searchable pdf, however in addition all drawings, diagrams like P&amp;IDS shall be supplied in ACAD or other editable format and all lists in Excel format. Further break up of technical documents will be discussed during finalization of the purchase contract.</p> <p>Unless agreed otherwise, <b>Ten (10) hard copies and five (05) sets</b> of electronic copies of all documents are to be submitted in the English language. Electronic Copies shall be submitted in primary original data format (e.g. DOC, XLS, DWG) as well as in a printable non-proprietary document format (e.g. PDF). Especially P&amp;IDs shall be submitted as DWG files and PDF files. Bidder to ensure submission of hard copies as per END CUSTOMER requirement for all engineering drg/doc and for all subsequent revisions along with a soft copy through email to concerned project team.</p> <p>However all the engineering related information shall be furnished in soft form to BHEL.</p>



## TECHNICAL SPECIFICATION OF MIST ELIMINATORS

FGD:ME:R02

### 17.0 ANNEXURES

#### ANNEXURE – I

a) **REFERENCE LIST** as per format shown below. (at least One (1) reference plant details)

S. No.	Project Name , Customer & Plant capacity	Coal fired Yes/ No	Wet Limestone Based FGD Yes/ No	Model	Flue gas flow Nm <sup>3</sup> /hr	Size	Outlet Mist Concentration mg/ Nm <sup>3</sup>	Year of Commg	Qty

NOTE: Performance certificate (End user feedback) or Unpriced PO or contract copy is required for 1 No Reference plant meeting the qualification requirement

SIGNATURE OF BIDDER -----

NAME -----

DESIGNATION -----



## TECHNICAL SPECIFICATION OF MIST ELIMINATORS

FGD:M E:R02

### ANNEXURE – II- TECHNICAL DATA SHEET

Enquiry No: \_\_\_\_\_

Project: \_\_\_\_\_

Sl. No	Description	Data
<b>1.0</b>	<b>GENERAL</b>	
	a. Buyer	: BHEL-Ranipet
	b. Project	:
	c. End Customer	:
	d. Location	:
	e. Service	: Continuous
	f. Installation	: In-door
	g. Total number of Mist Eliminators and Accessories ( No of sets)	: -Bidder to Provide-
<b>2.0</b>	<b>MANUFACTURER DETAILS</b>	
	a. Model	: -Bidder to Provide-
	b. Type	: -Bidder to Provide-
	c. No of stages	: -Bidder to Provide-
	d. Vane type for Coarse & Fine separators	: -Bidder to Provide-
	e. Pitch details for Coarse & Fine separators	: -Bidder to Provide-
	f. Weight data	: -Bidder to Provide-
	g. Flushing system details	: -Bidder to Provide-
	(i) Nozzle Details:	1 <sup>st</sup> stage    2 <sup>nd</sup> stage    3 <sup>rd</sup> stage (if applicable)
	Type of Nozzle	
	Spray angle	
	Size	
	Thread	
	Flow rate	
	Nominal size	
	(ii) No of nozzles for upstream wash	
	(iii) No of nozzles for downstream wash	
<b>3.0</b>	<b>OPERATING CONDITION</b>	: “Refer Selection parameters for Mist Eliminator”
<b>4.0</b>	<b>PERFORMANCE DATA</b>	
	a. Face Velocity                      m/s	: Bidder to Provide
	b. Pressure Drop                      hPa(G)	: Bidder to Provide
	c. Limit Drop Size                      Micron	: Bidder to Provide
	d. Temperature resistance of ME System                      Deg C	: “Shall be as per Selection parameters for Mist Eliminator”



## TECHNICAL SPECIFICATION OF MIST ELIMINATORS

### FGD:ME:R02

	e. Performance curves (i) Pressure Drop Vs Gas Velocity (ii) Outlet Mist Load vs Gas Velocity (iii) Limit Drop Size vs Gas Velocity (iv) Collection Efficiency vs Drop Size	:	Bidder to Provide
	f. Washing sequence & Valve List	:	Bidder shall submit the washing sequence with detailed write up
	g. Utility list & required Pump Capacity	:	Bidder to Provide
<b>5.0</b>	<b>MATERIALS</b>		
	a. ME Panel	:	Bidder to Provide
	b. Washing Pipe	:	Bidder to Provide
	c. Wash Pipe Supports	:	Bidder to Provide
	d. Washing Nozzles	:	Bidder to Provide
	e. Hardwares	:	Bidder to Provide

## 7.0 WASHING ARRANGEMENT

<b>7.1</b>	<b>Washing water condition</b>	
a.	Flow rate - Average	Bidder to provide
b.	Flow rate – Instantaneous Allowable Max	“Shall be as per Mist Eliminator Selection Parameters for the project”
c.	Feed Pressure (at inlet flange of ME Wash header)	“As per tender specification”
d.	Spray pipe level from ME Panel	< 700 mm

<b>7.2</b>	<b>Washing Method</b>						
		First Stage		Second Stage		Third stage (if applicable)	
		Front Surface	Back Surface	Front Surface	Back Surface	Front Surface	Back Surface
a.	Total Washing Area m <sup>2</sup>						
b.	No of divided sections						
c.	Washing Water Source						
d.	Washing Water Average Flow rate m <sup>3</sup> /h	*	*	*	*	*	*
e.	Instantaneous Max Water Flow rate m <sup>3</sup> /h	*	*	*	*	*	*



## TECHNICAL SPECIFICATION OF MIST ELIMINATORS

FGD:M E:R02

f.	Duration of One washing for One Divided Section Sec	*	*	*	*	*	*
g.	Time of One washing Cycle (min)	*	*	*	*	*	*
h.	* Bidder to fill the value						
i.	Note: Last/Final stage back surface washing - only for Maintenance						

SIGNATURE OF BIDDER -----

NAME -----

DESIGNATION -----



## TECHNICAL SPECIFICATION OF MIST ELIMINATORS

FGD:M E:R02

### ANNEXURE III- SCHEDULE OF GUARANTEES

Enquiry No: \_\_\_\_\_

Project: \_\_\_\_\_

S. No	Description	Data
1.	Mist eliminator outlet droplet content mg/Nm <sup>3</sup> at absorber outlet measured over a period of 24 hrs continuous operation. ( in case of three stage ME)*	: ≤ 20 mg/Nm <sup>3</sup>
	Mist eliminator outlet droplet content at absorber outlet measured over a period of 24 hrs continuous operation. ( in case of two stage ME)*	≤ 50 mg/Nm <sup>3</sup>
2.	Total Pressure drop across M/E at mmwc(G) design point condition (in case of three stage ME) *	:
	Total Pressure drop across M/E at mmwc(G) design point condition (in case of two stage ME)*	
3.	Equipment Availability (%) Equipment Availability for 120 days % Equipment Availability for 1 year %	: Bidder to Provide : Bidder to Provide
4.	No of Hours of Operation Without Fouling or Plugging which will require FGD Shut Down	: > 20,000 hours

\* Strike off whichever is not applicable

SIGNATURE OF BIDDER -----

NAME -----

DESIGNATION -----

R02



## TECHNICAL SPECIFICATION OF MIST ELIMINATORS

FGD:M E:R02

### ANNEXURE – IV- LIST OF DEVIATIONS/ EXCEPTIONS TO THE ENQUIRY DOCUMENT

Enquiry No: \_\_\_\_\_

Project: \_\_\_\_\_

Sl No	Clause No	Page No	Description of Deviation

Note: Enlarge the table to incorporate items. In case of NIL deviation, bidder has to specify "NIL Deviation".

SIGNATURE OF BIDDER \_\_\_\_\_

NAME \_\_\_\_\_

DESIGNATION \_\_\_\_\_