



SO 9001:2000
&14001:2004
MAHARATNA
COMPANY

**MATERIAL MANAGEMENT(PURCHASE)
CENTRAL FOUNDRY FORGE PLANT,BHEL
RANIPUR, HARIDWAR (INDIA) – 249403**

Phone No.+91-1334-281277,284684 FAX No. 225892

e-mail: ranjank@bhelhwr.co.in,kraj@bhelhwr.co.in,manoj26@bhelhwr.co.in

OPEN TENDER ENQUIRY

M/S.....

.....

Sub: Tender Enquiry No. 3002P/940/4/0069P1

Dear Sir,

We are pleased to invite your offer in TWO PARTS strictly as per enclosed terms and conditions and '**Instruction to Bidders**' in sealed covers for the under mentioned equipment / systems.

Tender No.	Description of Equipment	Qty. (No.)	Tender Opening date and time	EMD (Earnest Money Deposit)
3002P/940/4/0069P1	Chromite Sand Separator	01	07.07.2014 at 2:00 PM (IST)	Rs. 2, 00,000.00 (Rs. Two lakhs only) or equivalent foreign currency.

1. Tender can be downloaded from web site www.bhelhwr.co.in / www.bhel.com without any tender fee.
2. Tender opening date and time is indicated as above. Tenders in two part in line with '**Instruction to Bidders**' is required to be submitted on or before due date. On due date, tender can be submitted up to 1.45 PM and will be opened at 2.00 P.M. on same date in the Tender Room of Material Management Department, CFFP/BHEL, Haridwar.
3. BHEL will not be responsible for any type of postal delay .Please note that late offers shall not be accepted.
4. Intending vendors must remit the requisite EMD of Rs 2,00,000/- (rupees two lakhs) in the form of **Cash (as permissible under Income Tax Act) / Pay Order / Demand draft / e-payment (in case of foreign bidders)** only (Cheque / Bank Guarantee are not acceptable) while submitting the tender documents as detailed in "Instruction to Bidders".

5. Part-1 bids shall be opened of those vendors **ONLY WHO HAVE SUBMITTED EMD drawn in favor of CFFP / BHEL Hardwar, IN ANOTHER ENVELOPE SUPERSCRIBED WITH BOLD LETTERS "EMD "**) on the due date in the presence of authorized representatives of the bidders who may like to be present . The authorized representative should bring authority letter from their principals for attending the bid opening.
6. All Govt. of India / Central & State PSUs / State Govt. entities / Micro and Small Enterprises are exempted from submission of EMD.
- 7.1 EMD by the Tenderer will be forfeited if, the successful bidder/vendor refuses to honour the Order after award of the same on him and/or withdraws his bid and /or unilaterally changes the offer and/or any of its terms & conditions within the validity period.
- 7.2 EMD given by all unsuccessful Tenderers shall be refunded on acceptance of award / LOI/PO by successful Tenderer. The EMD of successful bidder shall be returned after submission of Contract Execution Bank Guarantee (CEBG).
- 7.3 EMD shall not carry any interest.
- 8 Other terms and conditions tender will be as per following attached tender documents:
 - Tender enquiry.
 - Annexure C of '**Instruction to Bidders**'.
 - Annexure I of commercial terms.
 - Annexure II of BG Format.
 - Annexure III of Consortium Bank List & Annexure D of e-payment format.
 - Annexure IV, A & B Terms & Conditions regarding Indian agent of foreign suppliers.
 - Annexure V of Pre Qualification Criteria (PQC).
 - Technical Specification No. FT/SP/61 Rev 00
 - Annexure E of Price Bid Format.

NOTE: The vendor should submit their best price at this stage itself and they will not be allowed to revise the price. Any revision / discount given by vendor subsequently will be ignored.

[Any clarification on technical specifications can be obtained from BHEL before tender opening. Vendors are welcome to have pre-bid meeting with BHEL engineers for better understanding of our requirements.](#)

KINDLY READ "INSTRUCTIONS TO BIDDERS" **THOUROUGHLY**. QUOTATION NOT IN ACCORDANCE WITH INSTRUCTIONS ARE LIABLE TO BE DISQUALIFIED AND IGNORED

Thanking You,

Yours Faithfully,
For & ON BEHALF OF CFFP/ BHEL, HARIDWAR

Raj Kishore
Manager (Purchase)



निविदा सूचना
TENDER ENQUIRY

AA-17001

भारत हेवी इलैक्ट्रिकल्स लिमिटेड

Bharat Heavy Electricals Ltd

सेन्ट्रल फाउन्ड्री फॉर्ज प्लांट- हरिद्वार - २४६४०३ (भारत)

Central Foundry Forge Plant, Haridwar-249403 (INDIA)

Phone : (0091) 01334- 281639,281385,285336

Fax : 01334 225892 / 226458

TIN NO. 05001763485

C.S.T NO. HR-5018287 Dt. 16-03-1995

निविदा सूचना सं. ENQUIRY NO.*	3002 PI/940/4/0069P1	दिनांक Date	04-06-2014
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कृपया निम्नलिखित के लिए निविदा दें। PLEASE QUOTE FOR THE FOLLOWING :

M/S. ::

DUEDATE

07-07-2014

::

:

Vendor Code

09285

INDIA

SL	MATERIAL CODE ITEM DESCRIPTION	QUANTITY	UNIT	LOTNO	LOT DELIVERY QTY SCHEDULE
1	FF4220314016 CHROMITE SAND SEPARATOR CAPACITY 5 MT/HR SPEC: FT/SP/61 REV 00 REV: ??	1	NO		

** IMPORTANT: This enquiry is 2 part tender. Techno-Commercial bid (Part-1) & Price Bids (Part-2) should be submitted in separate envelopes. These two envelopes should be submitted in a common sealed envelope. Techno-Commercial Bid shall contain detailed Technical Specification, Drawings Technical documents, Catalogues, taxes & duties, payment terms, delivery period, Validity of offer, Replica of Price Bid (Copy of price bid without price part) etc. The confirmation to the special terms & conditions must be submitted alongwith Techno-Commercial bid.

Standard Instructions:

TEST CERTIFICATE REQUIRED.
GUARANTEE CERTIFICATE REQUIRED.
BASIC RATES, TAXES DUTIES SEPERATELY
CENVATABLE DUPLICATE COPY OF INVOICE.
ERECTION/COMM REQ AT SITE.

Special Instructions:

01. ATTACHMENT-

- ANNEXURE C OF GENERAL TERMS AND CONDITION.
- ANNEXURE- I OF COMMERCIAL TERMS.
- ANNEXURE II OF BG FORMAT.
- ANNEXURE III OF CONSORTIUM BANK LIST & ANNEXURE D OF E PAYMENT FORMAT.
- ANNEXURE IV, A & B OF 'TERMS & CONDITION REGARDING INDIAN AGENT OF FOREIGN SUPPLIERS.
- ANNEXURE V OF PRE QUALIFICATION CRITERIA (PQC).
- TECHNICAL SPECIFICATION NO. FT/SP/61 REV 00.
- ANNEXURE E OF PRICE BID FORMAT.

General Instructions:

1. Please submit authorization letter (format enclosed) for facilitating e-payment/electronic transfer of funds
2. 100% payment within 30 days after receipt & acceptance of material at CFEP BHEL, Hardwar through e-payment.

Page No

1



निविदा सूचना
TENDER ENQUIRY

भारत हेवी इलेक्ट्रिकल्स लिमिटेड

Bharat Heavy Electricals Ltd

सेन्ट्रल फाउन्ड्री फॉर्ज प्लांट- हरिद्वार - २४६४०३ (भारत)

Central Foundry Forge Plant, Haridwar-249403 (INDIA)

Phone : (0091) 01334- 281639,231385,285336

Fax : 01334 225892 / 226458

TIN NO. 05001763485
CST NO. HR-5018287 Dt. 16-03-1995

निविदा सूचना सं. ENQUIRY NO.*	3002 P/ 940/4/0069P1	दिनांक Date	04-06-2014
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कृपया निम्नलिखित के लिए निविदा दें। PLEASE QUOTE FOR THE FOLLOWING :

MATERIAL CODE QUANTITY UNIT LOTNO
ITEM DESCRIPTION

3. CFFP/BHEL RESERVES THE RIGHT TO PRE-INSPECT THE MATERIAL AT VENDOR'S WORKS / GODOWN/ PREMISES BEFORE DESPATCH.

4. ORIGINAL MANUFACTURER'S TEST CERTIFICATE IS REQUIRED ALONG WITH DESPATCH DOCUMENTS. IN CASE SUPPLIES ARE FROM TRADERS, IT SHALL BE THE RESPONSIBILITY OF THE TRADER TO PROVIDE ORIGINAL MANUFACTURER'S TEST CERTIFICATE WITH LINKAGE TO TRADER'S INVOICE STATING BATCH NO.

5. CFFP/BHEL Reserves the right to procure from more than one vendor.

6. Please quote prices in figures & words both. In case the prices quoted in words and figures are different, the values indicated in words will be considered for evaluation & establishing L1 status.

* The offers of the bidders who are on the banned list as also the offers of the bidders, who engage the services of the banned firms, shall be rejected. The list of banned firms is available on web site www.bhel.com

MANOJ KUMAR YADAVA
SR. ENGINEER (PUR.)

Instruction to bidders

Clause 1.0:

The tenders shall be submitted in three parts (part I Techno -Commercial Bid, part II price Bid & part III supplier registration form as described below on or before the due date.

- **The Quotation should be from the Principal / Original Manufacturer, failing which the quotation is likely to be ignored.**
- Any corrections / amendments shall be properly & fully authenticated with signature.

The bidders (originals manufacturers) will have to submit ink-signed offer / bid in original directly to BHEL. In case the bid is submitted by fax / email, the bidders shall simultaneously ensure submission of ink-signed original bid to BHEL also in the manner prescribed in this tender. **Unsigned bids shall be ignored.**

However, the suppliers or their authorized person may be allowed to attend the tender opening, if duly authorized by their principals, through a specific letter for a particular enquiry for specific price bid opening on that particular day. General authorization letter is not acceptable.

Clause 1.1: PART-I (TECHNO-COMMERCIAL BID) shall comprise of following documents:

- a) Complete Technical offer
- b) Catalogue of the Equipment, Complete reference of the past supply of equipment for the same or similar specification giving details of customer with Name of the contact person, Fax no, phone no, E-mail if available.
- c) Acceptance of commercial terms by vendor as per **Annexure I**.
- d) Deviation with reference to specification to be laid down on separate sheet.

Cost of deviation is to be submitted along with the price bid essentially, in case vendor withdraws the deviation clauses the same will be considered for final evaluation,

- e. Copy of price Bid (**without prices**) as per **annexure 'E'**, this should be replica of part II bid without price.
- f. The rating of the company quoting for this tender from a third party (independent agency) preferably by M/S Dun and Bradstreet should be submitted. (DUN NUMBER). **Compliance of this clause is mandatory in case of foreign supplier, Indigenous suppliers to submit the copy of balance sheets for last three years.**
- g. Any additional documents (please specify).

Clause 1.2: PART-II (PRICE BID)

The price Bid (with price) to be submitted with part I, for the complete scope strictly as specified in the price Format attached as **Annexure- E**.

Prices are to be indicated in both figures and words. In case of any discrepancy of value the prices quoted in words shall be considered for evaluation and establishing L1 status in line with clause no 4.

If price bid is not submitted along with the technical bid, the offer will be rejected out rightly.

Clause 1.2.1

- a) Foreign Suppliers: The prices are to be quoted on FOB (sea) basis. Vendor has to mention port of delivery in offer. Freight and insurance charges up to CFFP BHEL Haridwar (India) will be arranged by CFFP BHEL.

b) Indigenous suppliers: Vendors to quote rates on FOR destination (BHEL / CFFP Haridwar) basis. Freight and transit insurance will be borne by vendor. Vendor can dispatch good through any Indian Bank Association approved transporters having their branch at Haridwar / destination. For the convenience name and address of transporters approved by IBA and BHEL are posted at website www.bhelhwr.co.in. If any bidder still quotes on other than FOR destination basis, then their offer will be loaded by maximum freight, packing & forwarding charges quoted by any other vendor from the same or nearby station, against the enquiry / freight rate available with BHEL. Further, non-availability of BHEL approved transporter will not be accepted for rescheduling of delivery or waiver of penalties.

c) Applicable sales Tax, Excise duty, service tax, educational cess and any other statutory levy should be indicated separately and clearly in the quotation.

d) The comparison between foreign and indigenous bids shall be done based on the **Total Landed price** basis (FOR Destination).

e) Delivery: In case, delivery not possible to meet as per tender, earliest possible delivery may please be quoted.

Clause 1.3:

Part-III - Supplier Registration/ evaluation form (SRF)

The SRF duly filled up will be assessed for manufacturing capability, quality systems being followed, organizational soundness and financial worthiness

Vendor evaluation form can be downloaded from www.bhel.com / www.bhelhwr.co.in.

For New Vendors, the SRF is to be submitted essentially, failing which the offer will not be considered further.

For Vendor registered with T code, VRF is to be submitted essentially along with the offer, failing which the offer will not be considered further.

Clause 2.1:

PART-I containing techno-commercial part and part-III containing vendor Registration/ evaluation form will be opened on the date and time specified in the covering letter, in the presence of those **vendors**, who wish to attend **the tender opening**. Offer should be complete in all respect (i.e. Part-I, Part-II, Part-III and Part-IV)

Clause 2.2: First part IV containing EMD will be opened, in case same is found in order then only part I and part III (containing SRF) will be opened.

Clause 2.2.1:

The part-II price Bid along with supplementary priced bid (if necessary) will be opened at a later date of only those bidders whose techno-commercial bid is found acceptable.

BHEL reserves the right to evaluate vendors process capability / quality systems etc by visiting vendor works (if required)

Clause 3.1:

The following shall be superscribed on the envelopes:

1. PART-I
 1. TENDER NO. AND ITEMS DESCRIPTION.
 2. DUE DATE FOR OPENING.
 3. "TECHNO-COMMERCIAL BID PART-I"

2. PART-II

1. TENDER NO. AND ITEMS DESCRIPTION.
2. DUE DATE FOR OPENING OF PART-I.
3. "PRICE BID PART-II".

3. PART-III

1. TENDER NO. AND ITEMS DESCRIPTION.
2. DUE DATE FOR OPENING.
3. Supplier registration form duly filled.

4. PART-IV

EMD: Details of Drafts attached (Amount, No, Bank, Branch, Issue date)

Clause 3.2:

The part-I, part-II, part-III **and part-IV** shall be individually sealed and super scribed as indicated above and shall be enclosed further in the envelop duly sealed and super scribed as:

"TENDER FOR (ITEM NAME) AGAINST TENDER NO.----- DUE ON -----
CONTAINING PART-I, PART-II, PART-III & PART IV OF THIS OFFER." Vendor's full name and address should be clearly mentioned on the envelope

Clause 3.3:

Envelopes not marked as above are liable to be ignored and may not be opened.

Clause No 4 : If any discrepancy in Words & Figures found in quoted price bid, following is to be followed.

- a- If, in the price structure quoted for the required goods/services/works, there is discrepancy between the unit price and the total price (which is obtained by multiplying the unit price by the quantity), the unit price shall prevail and the total price corrected accordingly.
- b- If there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected; and
- c- If there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject of (a) and (b) above.

Clause No 5: Conditions for opening of Price:-

- a- BHEL reserves the right to go for Reverse Auction (RA) instead of opening the sealed envelope price bid, submitted by the bidder. This will be decided after techno-commercial evaluation. All bidders to give their acceptance for participation in RA. Non-acceptance to participate in RA may result in non-consideration of their bids, in case BHEL decides to go for RA.
- b- In case BHEL decides to go for Reverse Auction, Only those bidders who have given their acceptance to participate in RA will be allowed to participate in the Reverse Auction. Those bidders who have given their acceptance to participate in Reverse Auction will have to necessarily submit „online sealed bid“ in the Reverse Auction. Non-submission of „online sealed bid“ by the bidder will be considered as tampering of the tender process and will invite action by BHEL as per extant guidelines in vogue.

- c- In case BHEL decides to go for Reverse Auction, the H1 bidder (whose quote is highest in online sealed bid) may not be allowed to participate in further RA process.

Clause No. 6: As per directives of CENTRAL VIGILANCE COMMISSION, GOVERNMENT OF INDIA, One agent cannot represent two or more suppliers or quote on their behalf in a particular tender. If so found at any stage, BHEL Hardwar is likely to cancel Enquiries / POs to such suppliers. Further such Indian Agents are likely to be de-listed from BHEL.

Thanking You,

Yours faithfully,
For & on behalf of CFFP BHEL, Hardwar.

Raj Kishore
Manager (Purchase)

COMMERCIAL TERMS	Vendor Acceptance / Comments
<p>1. Payment terms: Indigenous Supplier: 80% payment of Supply value shall be made within 45 days from the date of receipt of material at CFFP / BHEL. Balance 20% of Supply value will be paid after commissioning of equipment and on receipt of Performance Bank Guarantee (PBG) valid for 30 days beyond the warranty period by Supplier from any of the Consortium Banks of BHEL for 10% of total purchase order (P O) value in the prescribed Format. The PBG confirmation charges shall be borne by vendor.</p> <p>For foreign supplier: 80 % Payment of Supply value shall be made through USANCE L/C (1st)on 70th day of bill of lading date (B/L date) and balance 20% of supply value of purchase order plus 100% of erection & commissioning (E & C) value of purchase order will be paid through L/C (1Ind) after commissioning of equipment and on receipt of Performance Bank Guarantee (PBG) valid for 30 days beyond the warranty period by Supplier from any of the Consortium Banks of BHEL for 10% of total PO value in the prescribed Format. The PBG confirmation charges shall be borne by vendor .</p> <p>First L/C will be opened by CFFP BHEL before 2 months from scheduled delivery of PO and after receipt of Contract Execution Bank Guarantee and Order Acceptance.</p> <p>Second L/C will be opened 15 days prior to the scheduled and confirmed arrival of the technicians of supplier with their names and details for E&C at CFFP BHEL Haridwar.</p> <p>Note : Any deviation, in Payment Terms by bidder w.r.t. tender conditions following loading shall be applicable:</p> <p>(a) Base rate of SBI (as applicable on the date of bid opening: Techno commercial bid opening in case of two part bids) + 6 %, shall be considered for loading for the period of relaxation sought by bidders..</p> <p>(b) On account of payment through LC, Bank charges shall also be loaded for the deviation in</p> <p>(i) opening of LC by BHEL and</p> <p>(ii) period and amount of LC w.r.t. above NIT terms..</p>	
<p>2. Contract Execution Bank Guarantee (CEBG) : Vendor has to submit Contract Execution Bank Guarantee for 10% of the total PO value (supply + E&C) in the currency of order within 30 days from the date of purchase order (but before LC opening in case of foreign vendors) in the form of Bank Guarantee in BHEL format from BHEL consortium bank or from a reputed bank and confirmed by any consortium bank of BHEL . All bank charges on account of issuance and confirmation of CEBG whether incurred in India or outside India will have to be borne by the vendor. CEBG shall be kept valid up to 30 days from the date of commissioning of equipment at CFFP / BHEL.</p> <p>If the supplier fails to submit the CEBG even within 60 days from the date of PO, BHEL reserves the right to cancel PO & forfeit the EMD given by the supplier. In addition, in such case, action will be initiated in line with BHEL's extant guidelines for Suspension of Business dealings with Suppliers.</p> <p>Note : In case of foreign vendors if some indigenous supply is involved then Contract Execution Bank Guarantee shall be of combined order value (Import order value + indigenous order value in foreign currency) and to be submitted by foreign vendor.</p>	
<p>3. PBG terms:</p> <p>Performance Bank Guarantee (PBG) valid for 30 days beyond the guarantee / warranty period by Supplier from any of the Consortium Banks of BHEL for 10% of total PO Value (supply + E&C) in the prescribed Format. The PBG confirmation charges shall be borne by vendor. This bank guarantee shall have to be submitted before release of last balance payment.</p> <p>Note : In case of foreign vendors if some indigenous supply is involved then PBG value shall be of combined order value (Import order value + indigenous order value in foreign currency) and to be submitted by foreign vendor.</p>	
<p>4 . CURRENCY OF PAYMENT FOR FOREIGN VENDORS : (Euro / Dollar / YEN & GBP)</p>	
<p>5 . For indigenous supply the currency shall be Indian Rupees</p>	
<p>6 . Time period for Supply and Commissioning:</p> <p>For foreign vendor : Time period required by BHEL - 8 months (FOB - port of dispatch, B/L date) from the date of Purchase Order and should commissioned within 2 month after site clearance / readiness provided by CFFP BHEL .</p> <p>For Indegeneous vendor: Time period required by BHEL - 9 months (FOR - CFFP, BHEL, Haridwar) from the date of Purchase Order and should commissioned within 2 month after site clearance / readiness provided by CFFP BHEL .</p> <p>Note : Vendor should quote their earliest schedule for Supply and E&C against the schedule indicated above. BHEL, however, reserves the right to accept an offer not meeting the above schedule.</p>	

<p>7 . ORDER ACCEPTANCE : CEBG and order acceptance (ink-signed) will be submitted within 30 days from the date of PO.</p>	
<p>8. Submission of Bank Guarantee: All bank guarantees i.e CEBG as well as performance bank guarantee (PBG) should be from one of the BHEL consortium banks (annexure-III) and the bank guarantees should be in the proforma as prescribed by BHEL (annexure-II). BGs shall be from one of the Consortium Banks of BHEL or from a reputed Bank and confirmed by any Consortium Bank of BHEL. All bank charges on account of issuance and confirmation of CEBG whether incurred in India or outside India will have to be borne by the vendor.</p>	
<p>9. ERECTION AND COMMISSIONING VALUE : E&C value should be quoted separately by bidders. In case where quoted value of E&C is less than 10.0 % of basic Equipment cost or separate E&C values are not mentioned in the offer, value for E&C portion shall be considered 10.0 % of basic Equipment cost & accordingly supply value will be adjusted from that quoted value and balance will be released as E&C payment .</p>	
<p>10. Authorization for pre-inspection: BHEL is authorized to pre inspect the material at vendor's works. The material will be dispatched only after getting clearance from BHEL. Indigenous suppliers should give Pre-Dispatch Inspection (PDI) call at least 15 days in advance and foreign suppliers should give PDI call at least 45 days in advance. If supplier fails to give pre-inspection call with in stipulated time, this will not be a reason of penalty waiver or delivery extension.</p>	
<p>11 Penalty for delay in supply and erection and commissioning (E&C) : Penalty on delay in 'Supply' and/or 'E&C' will be applicable to the delays attributed to vendor. Penalty will be considered separately for 'Supply' and 'E&C'. - The rate of penalty for delayed Supply shall be @ 0.5% per week of delay of total PO value (supply + E&C) subject to a maximum of 10% of total PO value. - The rate of penalty for delayed E&C shall be @ 0.5% per week of delay of total PO value (Supply +E&C) in E&C subject to a maximum of 10% of total PO value (Supply + E&C). - Maximum penalty for delay in Supply and E&C together shall be limited to 15% of total PO value (Supply + E&C). - For calculating Late Delivery penalty delivery date shall be considered as per following: a . Indigenous Suppliers: Delivery FOR Destination:- Date of receipt at BHEL Hardwar. b . Import Supply: Delivery FOB - Port of dispatch :- Date of B / L. Note : - In case any bidder is not accepting the above penalty for delayed Supply and/or E&C, the offer of bidder shall be loaded to the extent to which it is not agreed by the bidder. - In case, any shortage is noticed viz-a-viz PO requirement in the main equipment /spares, such shortages shall be replenished by supplier on FOR destination basis without any cost implication to BHEL i.e. Custom Duty and freight charges etc. up to destination for such short supplies shall be borne by the supplier. Supply period indicated by bidder should include reasonable time required for approval of drawings and other inputs from BHEL. In the Techno-Commercial Bid, the bidder shall submit milestones for various activities in co-relation with Supply and E&C period quoted by him.</p>	
<p>12. Settlement of Disputes : For Foreign Vendor : In case of any dispute, settlement of disputes through arbitration shall be in accordance with Arbitration Rules of Conciliation and Arbitration of the ICC, Paris. The venue of arbitration shall be Delhi. The courts of Delhi shall have exclusive jurisdiction. For Indigenous Vendor : The venue of arbitration shall be Haridwar.Haridwar Courts will have exclusive jurisdiction.</p>	
<p>13. Drawing / design / information use: The vendor will have to give an undertaking that the drawing / design / information enclosed with the enquiry / proposed order will not be parted to any other agency and will also not be used for manufacturing for any other customer.</p>	
<p>14. Delivery of the equipment: Delivery must essentially be FOB - Sea port of dispatch for import and FOR BHEL Haridwar for indigenous. Sea freight charges and inland freight & Insurance for import will be arranged by CFFP BHEL Haridwar. Freight and transit insurance charges for indigenous items must essentially be quoted and indicated separately in price bid.</p>	
<p>15. 3 Sets of O&M Manual: 3 Sets of Operation & Maintenance Manual shall have to be supplied along with the equipment. Final payment will be released only after receipt of the required documentation (No of sets if mentioned in technical specification then same will prevail).</p>	

16. Training: Vendor shall provide required training to BHEL personnel free of cost.	
17. Details of Contact person Name, Designation, Department complete postal, E-mail address & Fax no, phone, Mobile no. to be mentioned.	
18. Import Supply: a. Phyto-sanitary Certificate essential for packages (Wooden)	
b. Country or origin certificate: Vendor to furnish the country of origin certificate from Chamber of Commerce with dispatch documents	
19. Validity: Validity of the offer should be 180 days from tender opening date.	
20. Bank Charges: Bank Charges on either side. Or your prices will be loaded suitably.	
21. Participation in Reverse Auction (R.A.) : BHEL may decide to process the case through RA. Vendors to give their confirmation for participation in Reverse Auction process.	
22. L1 price will be decided on landed cost to CFFP, BHEL basis. ** For evaluation, 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 in case of foreign supplier.	
23. Price bid should clearly indicate the details as per annexure E of price bid format. Replica of price bid (copy of price bid without price part) to be submitted alongwith techno commercial bid.	
24. Complete details (company name with address / Phone no / FAX / mail id) is required on which purchase order is to be released.	
25. Foreign Suppliers: Dispatching port & Country to be mentioned essentially in the offer.	
26. Total weight - Gross / Net in Kg of packages , package size / dimensions essentially should be indicated in the offer . Transportation and insurance charges will be calculated on the basis of same to decide L1 offer. In case any additional charges incurred by CFFP BHEL later on due to deviation in packages weight / size, actual difference will be to vendor's account.	
27. Risk Purchase Clause: In case of delays in supplies / defective supplies or non-fulfillment of any other terms and conditions given in the Purchase Order the purchaser may cancel the purchase order in full or part thereof, and may also make the purchase of such material from elsewhere / alternative source at the risk and cost of the supplier.	
28. Guarantee : 18 months from date of commissioning of equipment at CFFP / BHEL .	
29. Vendors who are not registered with CFFP BHEL Haridwar, duly filled "Supplier Registration Form" (available at www.bhel.com) with all the supporting documents has to be submitted along-with techno-commercial bid of offer. Please confirm that SRF is being submitted with your offer, if applicable. Please note that, if in any case duly filled up SRF along-with all the supporting documents is not received within 15 days of tender opening, offer will liable to be ignored.	
30 Foreign suppliers and their Indian agent (If any) must comply with the terms and condition given in annexure -IV.	
Note: Attach separate sheet for additional information if necessary. The above terms & condition supersedes the terms & conditions found contradictory written else where in the tender enquiry	

Date

Signature with Seal of company.

Price bid Format

Annexure- E

Tender Enquiry No. 3002P/940/4/0069P1.

S.N.	Parameters	Cost
1	Total cost of Chromite Sand Separator complying all parameters of technical specification of FT/SP/61 Rev 00.	
2	Spares cost as per 12.1 of specification.	
4	Applicable Taxes and duties	Excise Duty / CVD.....
		CST.....
		Service Tax & Any other.....
5	Freight and transit insurance charges upto CFFP BHEL Haridwar Stores (For Indegenous suppliers only)	
6	Cost of of erection and commissioning i.e. minimum 10 % of total equipment cost.	

NOTE:

A.	Copy of this sheet without price part must be submitted alongwith techno-commercial offer.
B.	List of items and quantity quoted against above point no 2 (without price part) must be submitted alongwith techno-commercial offer.

Signature with seal of company.



ANNEXURE-II

WAM-28

Proforma for Bank Guarantee

In consideration of the Bharat Heavy Electrical Limited Siri fort N. Delhi through Division CFFP Hardwar (hereinafter called the Company') having agreed to exempt----- (hereinafter called 'the said Contractor' which term includes 'Suppliers' for the purpose of this Bond) from the demand under the terms and conditions of an Agreement no / PO no ----- date. ----- made between -----and ----- for (hereinafter called 'the said Agreement') of Security Deposit for the due fulfillment by the said Contractor of the terms and conditions contained in the said Agreement, on production of a Bank Guarantee for Rs. ----- (Rupees-----only).

1. We, _____(Indicate the name of the Bank)_____
(hereinafter referred to as 'the Bank') at the request _____
_____(Contractor (s) do hereby undertake to pay to the Company an amount not exceeding Rs. _____
_____ against any loss or damage caused to or suffered or would be caused to or suffered by the Company by reason of any breach by the said Contractor (s) of any of the terms and conditions contained in the said Agreement.
2. We, _____(indicate the name of the Bank)_____ do hereby undertake to pay the amounts due and payable under this guarantee without any demur, merely on a demand from the Company stating that the amount claimed is due by way of loss or damage caused to or would be caused to or suffered by the Company by reason of breach by the said Contractor(s), of any of the terms of conditions contained in the said Agreement or by reason of the contractor(s), failure to perform the said Agreement. 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. _____.
3. We undertake to pay to the Company any money so demanded notwithstanding any dispute or disputes raised by the Contractor(s) 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 bond shall be a valid discharge of our liability for payment there under and the Contractor(s) shall have no claim against us for making such payment.

4. We, _____(indicate the name of 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 Agreement and that it shall

continue to be enforceable till all the dues of the Company under or by virtue of the said Agreement have been fully paid and its claims satisfied or discharged or till _____ Office / Department / Division of Bharat Heavy Electrical Limited certifies that the terms and conditions of the said Agreement have been fully and property carried out by the said contractor(s) and accordingly discharged this guarantee. Unless a demand or claim under this guarantee is made on us in writing on or before the _____ we shall be discharged from all the liability under this guarantee thereafter.

5. We, _____(indicate the name of the Bank)_____ further agree with the Company that the Company 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 Agreement or to extend time of performance by the said contractor(s) from time to time or to postpone for any time or from time to time any of the power exercisable by the company against the said contractor(s) 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 any reason of any such variation or extension being granted to the said contractor(s) or for any forbearance, act or omission on the part of the company or any indulgence by the company to the said contractor(s) 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.
6. This guarantee will not be discharged due to the change in the constitution of the Bank or the contractor(s).
7. We, _____(indicate the name of the bank)_____ lastly undertake not to revoke this guarantee during its currency except with the previous consent of the Company in writing.

Dated the _____ day of _____

For _____(indicate the name of the bank)_____

LIST OF BHEL CONSORTIUM BANK	
1	State Bank of India
2	Canara Bank
3	Bank of Baroda
4	Punjab National Bank
5	State Bank of Hyderabad
6	State Bank of Travancore
7	Corporation bank
8	Syndicate Bank
9	Indian Bank
10	Oriental Bank of Commerce
11	UCO bank
12	Central bank of India
13	IDBI Ltd.
14	HDFC Bank Ltd.
15	ICICI Bank Ltd.
16	Kotak Mahindra Bank ltd
17	The Federal bank Limited
18	Abn-Amro Bank
19	Citi Bank
20	HSBC
21	Deutsche Bank
22	Standard Chartered Bank
23	United bank of India
24	Vijaya Bank
25	Union Bank of India
26	Bank of India
27	Andhra Bank
28	Punjab & Sind Bank
29	Axis Bank

Terms and conditions regarding Indian agent of foreign suppliers:

01. BHEL shall deal directly with foreign vendors, wherever required, for procurement of goods. However, if the foreign principal desires to avail of the services of an Indian agent, then the foreign principal should ensure compliance to regulatory guidelines- which require mandatory submission of an Agency agreement.
02. It shall be incumbent on the Indian agent and the foreign principal to adhere to the relevant guidelines of Government of India, issued from time to time.
03. The agency agreement should specify the precise relationship between the foreign OEM/Foreign principal and their Indian agent and their mutual interest in the business. All services to be rendered by agent/associate, whether of general nature or in relation to the particular contract, must be clearly stated by the foreign supplier / Indian agent. Any payment, which the agent or associate receives in India or aboard from the OEM, whether as commission or as a general retainer fee should be brought on record in the agreement and be made explicit in order to ensure compliance to laws of the country.
04. Any agency commission to be paid by BHEL to the Indian agent shall be in Indian currency only.
05. Tax deduction at source is applicable to the agency commission paid to the Indian agent as per the prevailing rules.
06. In the absence of any agency agreement, BHEL shall not deal with any Indian agent (authorized representatives/ associate/consultant, or by whatever name called) and shall deal directly with the foreign principal only for all correspondence and business purposes.
07. The "Guidelines for Indian Agents of Foreign Suppliers" enclosed at annexure- 'A' shall apply in all such cases.
08. The supply and execution of the Purchase Order (including indigenous suppliers/service) shall be in the scope of the OEM/ Foreign principal. The OEM/ Foreign principal should submit their offer inclusive of all indigenous suppliers/services and evaluation will be based on 'total cost to BHEL'. In case OEM/ foreign principal recommends placement of order(s) towards indigenous portion of supplies/services on Indian Supplier (s)/ agent on their behalf, the credentials/capacity/capability of the Indian Supplier (s)/ agent to make the supplies/Services shall be checked by BHEL as per the extant guidelines of Supplier Evaluation, Approval and Review Procedure (SEARP), before opening of price bids. In this regards, details may be checked as per Annexure- 'B' (copy enclosed). It will be the responsibility of the OEM/ Foreign Principal to get acquainted with the evaluation requirements of Indian supplier/agent as per SEARP available on www.bhel.com.

The responsibility for successful execution of the contract (including indigenous supplies/services) lies with the OEM/ foreign principal. All bank guarantees to this effect shall be in the scope of the OEM/Foreign principal.

Guidelines for Indian Agents of Foreign Suppliers

- 1.0 There shall be compulsory registration of agents for all Global (Open) Tender and Limited Tender. An agent who is not registered with BHEL shall apply for registration in the registration form in line with SEARP.
 - 1.1 Registered agents will file an authenticated Photostat copy duly attested by a Notary Public/Original certificate of the Principal confirming the agency agreement and giving the status being enjoyed by the agent and the commission/ remuneration/ salary/ retainership being paid by the principal to the agent before the placement of order by BHEL.
 - 1.2 Wherever the Indian representatives have communicated on behalf of their principals and the foreign parties have stated that they are not paying any commission to the Indian agents, and the Indian representative is working on the basis of salary or as retainer, a written declaration to this effect should be submitted by the party (i.e. Principal) before finalizing the order.
- 2.0 Disclosure of particulars of agents/ representatives in India, if any.**
- 2.1 Tenderers of Foreign nationality shall furnish the following details in their offers:
 - 2.1.1 The Bidder(s)/ Contractor(s) of foreign origin shall disclose the name and address of the agents/ representatives in India if any and the extent of authorization and authority given to commit the Principals. In case the agent/ representative be a foreign Company, it shall be confirmed whether it is existing Company and details of the same shall be furnished.
 - 2.1.2 The amount of commission/ remuneration included in the quoted price(s) for such agents/ representatives in India.
 - 2.1.3 Confirmation of the Tenderer that the commission/ remuneration, if any, payable to his agents/ representatives in India, may be paid by BHEL in Indian Rupees only.
 - 2.2 Tenderers of Indian Nationality shall furnish the following details in their offers:
 - 2.2.1 The Bidder(s)/ Contractor(s) of Indian Nationality shall furnish the name and address of the foreign principals, if any, indicating their nationality as well as their status, i.e. whether manufacturer or agents of manufacturer holding the Letter of Authority of the Principal specifically authorizing the agent to make an offer in India in response to tender either directly or through the agents/ representatives.
 - 2.2.2 The amount of commission/ remuneration included in the price (s) quoted by the Tenderer for himself.
 - 2.2.3 Confirmation of the foreign principals of the Tenderer that the commission/ remuneration, if any, reserved for the Tenderer in the quoted price(s), may be paid by BHEL in India in equivalent Indian Rupees on satisfactory completion of the Project or supplies of Stores and Spares in case of operation items.
 - 2.3 In either case, in the event of contract materializing, the terms of payment will provide for payment of the commission/ remuneration, if any payable to the agents/ representatives in India in Indian Rupees on expiry of 90 days after the discharge of the obligations under the contract.
 - 2.4 Failure to furnish correct and detailed information as called for in paragraph 2.0 above will render the concerned tender liable to rejection or in the event of a contract materializing, the same liable to termination by BHEL. Besides this there would be a penalty of banning business dealings with BHEL or damage or payment of a named sum.

---X---

This format is applicable only to Indian Suppliers/ Agents supplying indigenous portion of Foreign Purchases.

* In all other cases, extant guidelines of SEARP, 2010 are to be followed.

SEARP (SRF) Clause No	Detail
	Name & address of the firm
1.0	Products/ Systems / Services being considered for
2.0	General Information
2.2	Name of Chief Executive
2.3	Details of authorized signatory
3.0	Ownership Information
3.1	Type of firm
3.2	Nature of Business <ul style="list-style-type: none"> • <i>Attach authorization letter and agency agreement from Principal (from whom capital equipment is procured)</i> • <i>Attach copy of declaration from Foreign Principal for total guarantee/ warranty of indigenous supplies</i>
3.3	Year of establishment
3.4	Year of commencement of business
4.0	Registration particulars
4.1	Permanent Account No.
4.2 / 4.3	Sales Tax / TIN no
4.6	Service tax no. (in case of E&C)
5.0	Organisational strength
6.0	Other particulars
6.1	If the company is already registered with other units
6.2	Directors/ Partners, if related to any BHEL Employee
6.9	If any Ex BHEL Personnel employed by the Company
6.12	Details of pending legal issues with BHEL
6.13	Bank Account information
9.0	Financial information
9.6	Sales/ Turnover details of last 3 years (or from the date of incorporation whichever is less)

---X---

AUTHORISATION LETTER
FOR E-PAYMENT/ELECTRONIC FUNDS TRANSFER (EFT/RTGS)
PLEASE FILL UP THE FORM IN CAPITAL LETTERS ONLY

ANNEXURE-D
Page 1 of 1

TYPE OF REQUEST (Tick One)	<input type="checkbox"/>	CREATE	<input type="checkbox"/>	CHANGE
BHEL Vendor/ Supplier Code	<input type="text"/>			
Company's Name	<input type="text"/>			
Address	<input type="text"/>			
City	<input type="text"/>			
Pincode	<input type="text"/>			
State	<input type="text"/>			
Contact Person(S)	<input type="text"/>			
Telephone NO.	<input type="text"/>			
FAX. No.	<input type="text"/>			
e-mail id	<input type="text"/>			
1. Bank Name	<input type="text"/>			
2. Bank Address	<input type="text"/>			
3. Bank Telephone No.	<input type="text"/>			
4. Bank Account No.	<input type="text"/>			
5. Account Type.	<input type="text"/>			
6. Bank's Branch Code	<input type="text"/>			
7. Bank Swift Code	<input type="text"/>			
(aplicable to EFT only)				
8. Enclose blank cancelled cheque	<input type="checkbox"/>	<input type="checkbox"/>		

DECLARATION

1. I as representative/Owner of the above named company, hereby authorize BHEL CFFP, Ranipur, Haridwar to electronically make payments to the designated bank account. I hereby certify that the particulars given above are true, complete and correct.
(2) If the transsation is delayed or not effected at all for reasons of incomplete or incorrect information, I would not hold BHEL/transfereing Bank responsible.
3. This authority remains in full force untill BHEL, CFFP, Ranipur, Haridwar receives & acknowledge written notification requesting a change or cancellation.
4. I have read the contents of the covering letter and agree to discharge the responsibilty expected of me as a participant under E-payment/EFT/RTGS.

Date:

Authorized Signatory

Designation

Company Seal

Verification By Bank



BHARAT HEAVY ELECTRICALS LIMITED
CENTRAL FOUNDRY FORGE PLANT

Pre-Qualification Criteria for CHROMITE SAND SEPARATOR

Ref: Open Tender Enquiry No: 3002P/940/4/0069P1.

PREQUALIFICATION CRITERIA FOR SUBMISSION OF TECHNO-COMMERCIAL OFFER OF CHROMITE SAND SEPARATOR

1. Offers from original manufacturer only shall be considered for evaluation. Offers from agents shall not be considered.
2. Vendor should have supplied and installed chromite separators of capacity 2 MT or above earlier.
3. A list of foundries where the plant has been installed, along with their capacity, year of installation, contact details of foundries to be provided along with techno-commercial offer.
4. Performance Certificate from any of the two foundries where similar capacity plant has been installed by vendor to be enclosed along with techno-commercial offer. The certificate should not be more than two year old.



BHARAT HEAVY ELECTRICALS LIMITED
CENTRAL FOUNDRY FORGE PLANT

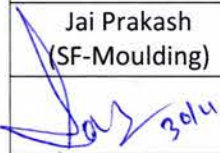
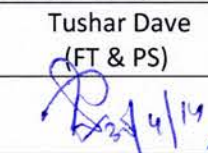

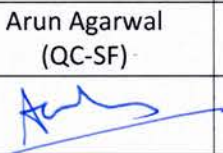
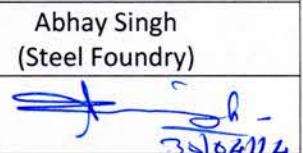
CHROMITE SAND SEPARATOR

SPECIFICATION NO. : FT/SP/61 REV 00

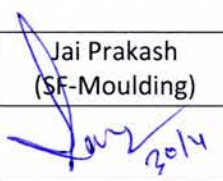
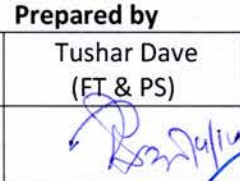


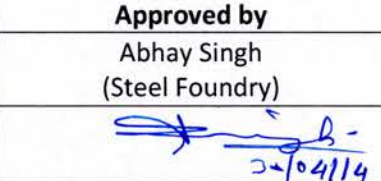
Sl. No.	Details	Remarks for/from Vendor
1.0	DESCRIPTION	
1.1	This specification governs the requirement of Chromite Sand Separator of capacity 5 T/hour along with two pneumatic conveyor system/pump for transporting Silica sand (capacity 5 T /Hr. each) & one pneumatic conveyor system/pump (capacity 5 MT / Hr.) for transporting Chromite sand	Vendor to confirm
2.0	OBJECTIVE	
2.1	The plant shall be used for separating chromite sand from reclaimed/attrited mix of used chromite and silica sand generated during knockout of steel castings from the mould. Separated Silica sand & Chromite sand shall be subsequently used for moulding activities.	Vendor to confirm
3.0	SCOPE	
3.1	Scope of supply includes design, manufacture, supply, erection and commissioning of the plant at CFFP, BHEL Haridwar. The technical and general requirements of the chromite sand separator are given below. The supplier shall give guarantee for trouble free operation of the plant for period of eighteen months from the date of commissioning of the unit.	Vendor to confirm
4.0	DESIGN	
4.1	The Chromite Separator plant shall be required to be installed adjacent to existing sand reclamation plant inside a shed the details of which are attached as annexure-A to this specification. The design of the separator plant should be made accordingly.	Vendor to confirm
4.2	Floor area required (Length, Width, Height) for complete machine & accessories is to be furnished by vendor in the technical offer.	To specify
4.3	Vendor is to submit detailed drawings of layout & design to BHEL for approval before start of manufacturing.	Vendor to confirm
5.0	TECHNICAL REQUIREMENTS	

Prepared by				Approved by
Jai Prakash (SF-Moulding)	Tushar Dave (FT & PS)	Ajay Kaithal (SF-M&S)	Arun Agarwal (QC-SF)	Abhay Singh (Steel Foundry)

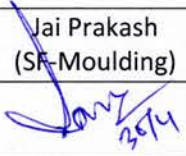
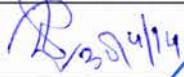

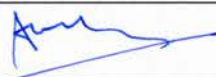
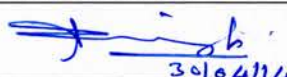
Sl. No.	Details	Remarks for/from Vendor
5.1	<p>CAPACITY</p> <p>The plant should be capable of processing, reclaimed/attrited mix of used chromite and silica sand @ 5 T/hour. The plant should be able to run round the clock (24x7).</p>	Vendor to confirm
5.2	<p>CHARACTERISTICS of INPUT SAND</p> <p>The input sand shall be fully attrited/reclaimed mix of resin (acid/alkaline based) bonded chromite and silica sand generated during knock-out of steel castings from the mould. Maximum temperature of input reclaimed sand may be Ambient + 20 °C (Ambient Temp. = 0 °C to 47 °C)</p>	Vendor to note
5.3	<p>QUALITY OF OUTPUT CHROMITE SAND AFTER PROCESSING THROUGH PLANT</p> <p>The separated chromite sand shall be free from iron pieces which are used to strengthen the mould, fins and sprayed metal resulted from pouring.</p> <p>The separated chromite sand shall be free from fine sand particles, dust, and any silica gel form.</p> <p>The plant should be capable of delivering chromite sand with a minimum purity of 95%</p>	Vendor to confirm
5.4	<p>RECLAMATION PROCESS</p> <p>The plant shall be capable of working round the clock (24x7) at the rate of 5T/hour of input sand. Accordingly all mechanical components and electrical drives and equipments shall be of continuous rating.</p> <p>The adopted principle of sand separation should be detailed out by the vendor in their offer. This should be supported by General Arrangement Drawing, Foundation Drawing of proposed plant alongwith schematic sketch of equipments, material, individual sizes and weight.</p> <p>All details of magnetic separation unit for chromite separation from silica should be provided in the offer.</p>	Vendor to confirm
5.5	<p>The separation plant shall be equipped with suction and ventilation systems to ensure dust free environment without noise and any other form of pollution. Details of dust exhaust system to be provided alongwith the offer.</p>	Vendor to confirm
5.6	<p>3 Nos. pneumatic sand conveyor systems/pumps should be provided alongwith separation plant. Sand conveyor systems/pumps shall be capable of conveying sand upto a length of 150 m & height upto 18 m.</p>	Vendor to confirm

Prepared by				Approved by
Jai Prakash (SF-Moulding)	Tushar Dave (FT & PS)	Ajay Kaithal (SF-M&S)	Arun Agarwal (QC-SF)	Abhay Singh (Steel Foundry)
				

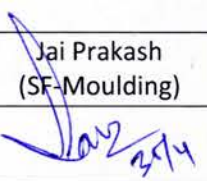
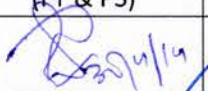



Sl. No.	Details	Remarks for/from Vendor
5.7	MACHINE LIGHTS:	
5.7.1	Machine Lights for sufficient illumination of complete working area should be provided for clear visibility.	Vendor to confirm
5.7.2	Any lights required in the foundation/ pit area shall also be foreseen and supplied by the vendor.	Vendor to offer & specify details.
5.7.3	All light fittings, consumables, adapters/receptacles should have compatibility with Indian equivalents	Vendor to confirm
5.8	AIR CONDITIONERS:	
5.8.1	It will be preferred if the electrical controls work efficiently without AC and Dehumidifiers within the specified conditions. However, if provided, then Air Conditioners with Dehumidifiers of suitable/ sufficient capacity and proper drainage pipes for condensate, are to be provided for all Electrical/ Electronic Panels/ Cabinets including operator's Panel considering specified ambient conditions. Detailed specifications of the same are to be submitted. The Air Conditioners are not to be mounted on top of the panels.	Vendor to offer and submit details.
5.9	HYDRAULIC SYSTEM (IF USED)	
5.9.1	If hydraulic system is used anywhere then it should be of reputed make centralised Hydraulic system . Details are to be submitted	To specify
5.10	LUBRICATION SYSTEM	
5.10.1	Lubrication system of all Drive Gear box/Gearing system/Bearings	Vendor to confirm & submit detail
5.11	ELECTRICAL	
5.11.1	Power consumption for running the plant at full load to be specified by the vendor	Vendor to specify
5.11.2	415V +10% / -10%, 50HZ +/- 3 HZ, 3 Phase AC (3 wire system without neutral) Power Supply Source will be provided by BHEL at a single point near the machine, as per layout recommended by Vendor. All types of cables, connections, circuit breakers etc. required for connecting BHEL's power supply point to different parts of the machine/ control cabinets, etc., shall be the responsibility of vendor. Requirement of grounding/ earthing with required material (Indian make) details is to be informed by vendor well in advance so that same could be incorporated during construction of foundation. The vendor can take earthing connection from the nearest column of the production shop.	To confirm

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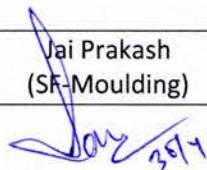
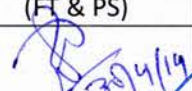
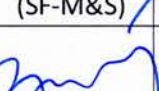
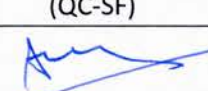

Sl. No.	Details	Remarks for/from Vendor
5.11.3	Complete panels to be fuseless except Thyristor drives, where thyristor protection fuses are to be used. In all other cases MCCBs/ MPCBs etc. to be used.	To confirm
5.11.4	PLCs, Drives & basic electrical equipments like contactors, MPCBs, MCCBs ACBs etc. to be Siemens make	To confirm
5.11.5	PLCs & drives to have profibus / Ethernet communication capability. PLC programming software / application software must be supplied in soft copy.	To confirm
5.11.6	Indicating lamps to be high luminous type LED's	To confirm
5.11.7	All cables to have bottom entry into panels. Power & Control terminals to be grouped separately with 10% extra terminals in each group.	To confirm
5.11.8	One extra module of each type PLC module to be provided (Min one module each of DI, DO, AI & AO).	To confirm
5.11.9	In general the control voltage is to be single phase 220v,50Hz,AC.	To confirm
5.11.10	All panels should be provided with voltmeter, ammeter and energy meter. They should also contain phase indicating LED's in incoming supply.	To confirm
5.11.11	All electrical & electronic control cabinets & panels should be dust and vermin proof	To confirm
5.11.12	All electrical components in the cabinets should be mounted on DIN Rail	To confirm
5.11.13	All electrical and electronic panels including operator's panel should be provided with fluorescent lamps for sufficient illumination and power receptacles of 220Volts, 5/15 Amp AC. All adapters/receptacles should have compatibility with Indian equivalents.	To confirm
5.11.14	Motors shall conform to IEC or Indian Standards. Vendor to confirm that Main spindle motor will be air cooled. Vendor to provide test certificates for all the motors	To confirm
5.11.15	All cables moving with traversing axes should be installed in caterpillar / Drag chain. Additionally, all the cable trays required for laying of cables should be included in the offer.	To confirm
5.11.16	Vendor should ensure the proper earthing for the machine and its peripherals.	To confirm
5.11.17	Following safety features in addition to other standard safety features should be provided on the machine:	To confirm

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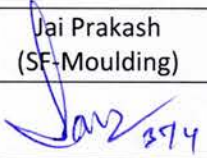
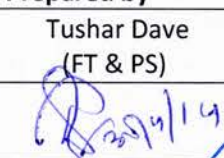

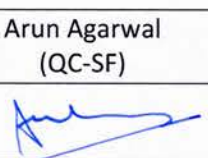
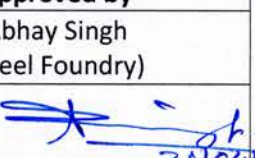
Sl. No.	Details	Remarks for/from Vendor
6.0	SAFETY ARRANGEMENTS	
6.1	Machine should have adequate and reliable safety interlocks / devices to avoid damage to the machine, work piece and the operator due to the malfunctioning or mistakes. Machine functions should be continuously monitored and alarm / warning indications through lights/ alarm should be available.	To confirm
6.2	A detailed list of all alarms / indications provided on machine should be submitted by the supplier.	To confirm & submit
6.3	All the pipes, cables etc. on the machine should be well supported and protected. These should not create any hindrance to machine operator's movement for effective use of machine.	To confirm
6.4	All the rotating parts used on machine should be statically & dynamically balanced to avoid undue vibrations.	To confirm
6.5	Emergency Switches at suitable locations as per International Norms should be provided.	To confirm
6.6	Oil lines if any should not run with electrical cable in the same tray / trench.	To confirm
7.0	ULTRA ISOLATION TRANSFORMER	
7.1	Indian make Ultra Isolation Transformer suitable for complete machine, its drives, controls, etc. shall be supplied	To confirm
8	Make, Model and Rating	To specify
8.1	Catalogue of the Ultra Isolation Transformer shall be submitted with the offer.	To specify
9.0	First filling of all required Oils to be supplied by vendor	To confirm
9.1	PNEUMATIC SYSTEM:	
10.0	Vendor to specify any requirement of compressed air supply for the operation of the machine. If so, then the system should be so designed to have additional provision and required accessories before Refrigerated type Air Dryer so that BHEL compressed air supply having pressure 5 Kg/sq.cm with high moisture could be used as and when required.	To specify
10.1	LEVELING & ANCHORING SYSTEM	
10.2	Complete set of anchoring materials including foundation bolts, nuts, washers, fixators, levelling shoes etc. to fix the machine to the foundation	To confirm & submit details

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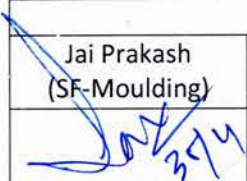
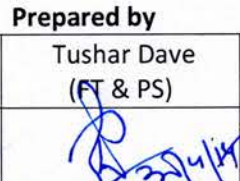
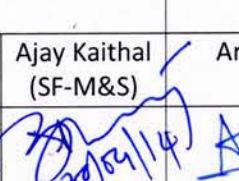
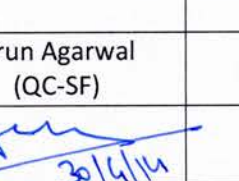
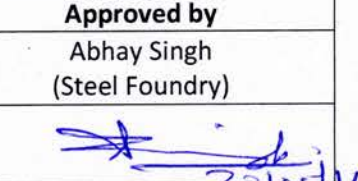
Sl. No.	Details	Remarks for/from Vendor
	should be supplied.	
11.0	TOOLS FOR ERECTION, OPERATION & MAINTENANCE :	
11.1	Tools and equipment required for erection of the machine shall be brought by the vendor. Necessary tools like Torque Wrenches, Spanners, Keys, grease guns etc. for operation and maintenance of the machine should be supplied. List of such tools should be submitted with offer.	Vendor to offer
12.0	SPARES:	
12.1	Itemised breakup of mechanical, hydraulic, electrical and electronic spares including fast wearing consumables used on the machine in sufficient quantity as per recommendation of Vendor for 2 years of trouble free operation on three shifts continuous running basis should be offered by vendor. Unit Price of each item of spare should be offered separately.	Vendor to offer
12.2	All types of spares for total machine and accessories should be available for at least ten years after supply of the machine. If machine or control is likely to become obsolete in this period, the vendor should inform BHEL sufficiently in advance and provide drawings of parts / details of spares & suppliers to enable BHEL to procure these in advance, if required.	Vendor to confirm
12.3	Vendor to confirm that complete list of spares for machine and accessories, along with specification/ type/ model, and name & address of the spare supplier shall be furnished along with documentation to be supplied with the machine.	Vendor to confirm
13.0	DOCUMENTATION :	
13.1	Five sets of following documents (Hard copies) and two sets of soft copies(Pen drive) in English language should be supplied along with the machine	Vendor to confirm
13.2	Operating manuals of Machine	Vendor to confirm
13.3	Detailed Maintenance manual of machine with all drawings of machine assemblies (Including part Details)/sub-assemblies/parts including Electrical / Pneumatic/ Hydraulic circuit diagrams. All Assembly/ Sub Assembly Drawings to be supplied with the part list also.	Vendor to confirm
13.4	Maintenance & commissioning manuals	Vendor to confirm
13.5	Manufacturing drawings for all supplied tool holders, adapters, sleeves, fixtures etc.	Vendor to confirm
13.6	Catalogues, O&M Manuals of all bought out items including drawings,	Vendor to confirm

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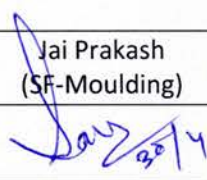
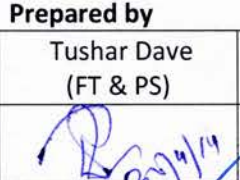
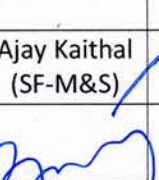
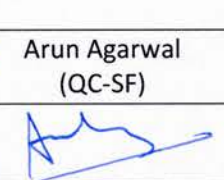

Sl. No.	Details	Remarks for/from Vendor
	wherever applicable.	
13.7	Detailed specification of all rubber items and hydraulic/lube fittings if used.	Vendor to confirm
13.8	Operating Manuals, Maintenance Manuals & Catalogues for supplied Voltage Stabilizer, Isolation Transformer, and all supplied Accessories.	Vendor to confirm
13.9	Complete Master List of parts used in the machine shall be submitted by the vendor.	Vendor to confirm
13.10	All drawings such as General Assembly & Foundation drawings etc. to be made available by Vendor at the time of PDI.	Vendor to confirm
14.0	TRAINING	
14.1	BHEL Persons should be trained as given below: (a) Electrical, Electronic maintenance for machine & other supplied equipments (b) Mechanical & Hydraulic maintenance of the machine & other supplied equipments (c) Operation of the machine & other supplied equipments (d) Training on PLC/NC Features of the machine, if any Pre-dispatch inspection of the machine may also be carried out by the team .BHEL reserves the right to choose no. of persons, field & period of training, out of above, while deputing their engineers for training.	Vendor to confirm & offer
14.2	Travel, boarding & lodging for the trainees shall be borne by BHEL if they are being sent to vendor's place.	Vendor to confirm
14.3	Competent, English speaking experts shall be arranged by the vendor during training for satisfactory & effective training of BHEL personnel.	Vendor to confirm
14.4	Vendor should commit to organize training of BHEL Engineer for advanced features and specialised training if so required by BHEL.	Vendor to confirm
15.0	FOUNDATION	
15.1	Dynamic soil parameters are as follows: (i) $C_u = 4.937 \text{ kg/cm}^3$ (for block size of 1.5 m x 1m x1m) $C_u = 1.667 \text{ kg/cm}^3$ (for foundation size of 10 M ² or more) (ii) $C_\phi = 9.70 \text{ kg/cm}^3$ (iii) $C_\psi = 4.20 \text{ kg/cm}^3$ Bearing Capacity: Depth : 5 M From Shear consideration : 39 T/M ² From Settlement consideration : 9-10 T/M ²	For vendor's information.

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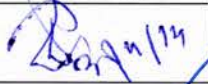



Sl. No.	Details	Remarks for/from Vendor
	Recommended B. Capacity : 9 T/M ²	
15.2	Complete foundation drawing with load requirements and construction details to be submitted by vendor within one month of placement of order. Foundation shall be built by BHEL based on the drawings provided by vendor.	Vendor to confirm
16.0	ERECTION & COMMISSIONING	
16.1	Supplier to take full responsibility for carrying out the erection, start up, testing of machine, it's control & all types of other supplied equipment , etc. Service requirement like power, air & water shall be provided by BHEL at only one point to be indicated by supplier in their foundation/layout drawings. Other requirements like crane and helping personnel shall also be provided by BHEL. Details of these requirements should be informed by vendor in advance.	To confirm
16.2	Erection & Commissioning of Voltage stabilizer, Isolation Transformer shall also be responsibility of the vendor.	To confirm
16.3	Tools, Tackles, instruments and other necessary equipment required to carry out all above activities should be brought by the supplier.	To confirm
16.4	Commissioning spares, required for commissioning of the machine within stipulated time, shall be brought by the supplier on returnable basis.	To confirm
16.5	All Cover Plates required for the machine and its peripherals including pits, if any, shall be supplied and installed by the vendor.	To confirm
16.6	Portion, if any, of the machine, accessories and other supplied items where paint has rubbed off or peeled during transit or erection should be repainted and merged with the original surrounding paint by the vendor. For this purpose, the vendor should supply sufficient quantity of touch-up paint of various colours of paint used.	To confirm
16.7	Schedule of Erection and Commissioning shall be submitted with the offer.	To specify
16.8	BHEL reserves the right to inspect the site and activities during erection and commissioning	Vendor to agree
17.0	AMBIENT CONDITIONS & THERMAL STABILITY :	
17.1	Total machine including all supplied items should work trouble free and efficiently under following operating conditions. Power Supply: Voltage: 415 V - 10%, +10% Frequency: 50 Hz +3%, - 3%	To confirm

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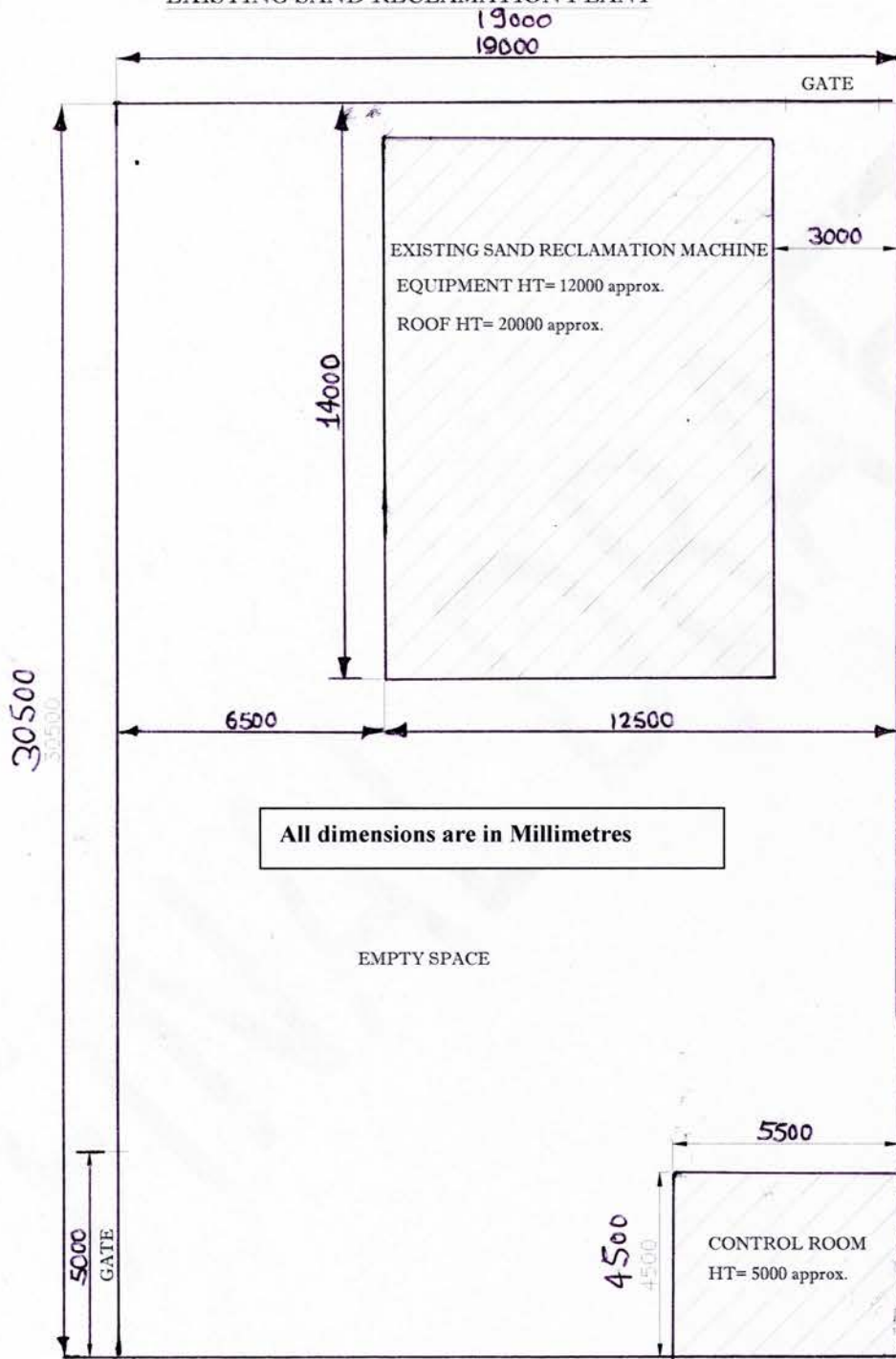
Sl. No.	Details	Remarks for/from Vendor
	Ambient Conditions: Temperature = 0 to 47 degree Celsius Relative Humidity = 95% max. (Vendor to confirm that machine is suitable for above and details of provisions on the machine for the same are to be furnished by Vendor)	
17.2	Weather conditions are tropical, Atmosphere may be dust laden during some part of the year. Machine shall be kept in the normal shop floor condition. Max. Temperature variation is up to 25 deg Celsius in 24 hours. (Vendor to confirm that machine is suitable for above and details of provisions on the machine for the same are to be furnished by Vendor)	To confirm
17.3	Thermal Stability of the complete machine keeping in view specified Ambient Conditions and accuracy requirements of BHEL components and trouble free operation of the machine should be ensured by vendor. (Confirm that machine is suitable for above and details of provisions on the machine for the same should be furnished)	To confirm
17.4	The machine, including attachments and accessories, should be suitable for 24 hours continuous operation to its full capacity for 24 hour a day and 7 days a week throughout. Vendor to ensure and confirm the same.	To confirm
17.5	The machine will be tested for continuous running of 24 hrs (with or without load). If any break down occurs during this test, the test will be repeated for 24 hrs from that time.	To confirm
17.6	Demonstration of all features of the machine, control system, all supplied attachments & accessories to their full capacity and to the satisfaction of BHEL for efficient and effective use of the machine	To confirm
17.7	Training of BHEL machine operators in operation of complete machine & accessories etc by the supplier's experts / engineers during their stay at BHEL works preferably in Hindi.	To confirm
18.0	GENERAL	
18.1	Total connected load (KVA): Operating Power Factor should be greater than 0.9 lagging. If it is less, then it should be corrected by suitable means.	To specify
18.2	Painting of Machine / Electrical Panels : (Polyurethane Paint)	To confirm
18.3	Total weight of the machine with breakup of major parts/assemblies of the machine	To specify
18.4	Weight of heaviest part of machine	To specify
18.5	Weight of the heaviest assembly / sub-assembly of the Machine	To specify

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Sl. No.	Details	Remarks for/from Vendor
18.6	Dimensions of largest part/ sub-assembly/ assembly of the machine	To specify
18.7	Detailed catalogues, sketch/ photographs of the m/c and accessories/ attachments should be submitted with the offer.	To confirm
18.8	Hydraulic, Pneumatic & oil pipings should be preferably metallic except places where flexible pipings are essential. All the pipes required for the same shall be included in the standard scope of the machine.	To confirm
18.9	Ladder is to be provided to access the machine elements located at the top of the column.	To confirm
18.10	Oil & water piping if any should not be located in the tray / trench in which electrical cables are laid.	Vendor to confirm
18.11	All Cover Plates required for the machine and its peripherals shall be supplied by the vendor.	Vendor to confirm
18.12	Deviation, if any	Vendor to specify in detail
18.13	Do's & Don'ts as well as observation aspects and precautions to be specified	Vendor to inform

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EXISTING SAND RECLAMATION PLANT



 OCCUPIED AREA

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<i>Jai Prakash</i> 30/4/14	<i>Tushar Dave</i> 30/4/14	<i>Ajay Kaithal</i>	<i>Arun Agarwal</i>	<i>Abhay Singh</i> 30/04/14