

	HEAVY ENGINEERING CORPORATION LIMITED
	PROJECT DIVISION

**HEAVY ENGINEERING CORPORATION LIMITED
PROJECT DIVISION
PURCHASE DEPTT.**

Open Tender Enquiry No. : HEC/PROJ/PUR/MADHUBAND-127

Dated 07.10.2021

Dear Sir,

We request you to submit your most competitive offer for the following items as per the given schedule.

Enquiry Schedule:

SI No.	Description	Unit of Measure	Qty	Remarks
1.	Design, engineering, manufacture, inspection, assembly, shop testing, painting at manufacturer's shop, packing, transportation ,supply, and Performance Guarantee test at site of Laboratory Equipments for 5.0 MTPA Madhuband NLW Coal Washery Project of BCCL .	No.s	As per NIT TS	Specification shall be exactly in line with Enclosure-II (Technical specification)

Schedule of tender receipt of Offer: : As mentioned in www.etenders.gov.in

Schedule of tender opening of

Techno-commercial bid: : s mentioned in www.etenders.gov.in

Price Bid opening date : Will be intimated later through E-tender Portal only.

Tender is available on our website in e-procurement section i.e. <https://etenders.gov.in/eprocure/app> . Approved Bidders may go through the tender document. Bidders are required to upload the bid along with all supporting documents including priced part (BoQ) only on the e-tendering website (<https://etenders.gov.in/eprocure/app>), on or before the due date and time for submission of bid.

EMD/Tender fee to be submitted and sealed in separate envelop superscribed Tender No. & Due date of offer submission.

Thanking you,

(Pradip Kumar)
Sr.Manager /Purchase/PROJECT DIVISION
Heavy Engineering Corporation Limited HMBP ADM. BUILDING
(ANNEXE) DHURWA, RANCHI 834004
Ph.06512401266/240056 Fax. : 0651 – 2401533
E-mail: projectpurchase@hecltd.com



HEAVY ENGINEERING CORPORATION LIMITED

PROJECT DIVISION

INSTRUCTIONS TO TENDERER (ITT)

All bidders are requested to go through the all parts of Tender Document very carefully in detail before submitting the offer.

1.0 Offer has to be submitted only online at E-tender Portal: www.etenders.gov.in. Offers submitted in Hard copy shall not be considered, however tender Cost, Earnest Money Deposit (Original Demand Draft/bank Guarantee) may be submitted to us in hard copy. Scan copy of tender Cost & EMD to be uploaded in part-1 of offer i.e technocommercial bid.

2.0 Prospective Tenderers are advised to get register themselves only on at NIC e-tender portal i.e. <https://etenders.gov.in/eprocure/app>, obtain 'User ID' & 'Password' and go through the 'Self Help files' available in the Home Page after log in to the portal <http://etenders.gov.in>. They should also obtain Class III Digital Signature Certificate (DSC) in parallel which is essentially required for submission of their application. Detailed instructions for online bid submission are attached in **annexure-3**. No registration fee would be charged from the bidders.

NOTE:

- i. Please note that there is no provision to take out the list of parties downloading the tender document from the above referred web site. As such, tenderers are requested to see the website once again before due date of tender opening to ensure that they have not missed any corrigendum uploaded against the said tender after downloading the tender document. The responsibility of downloading the related corrigenda, if any, will be that of the downloading parties.
- ii. No separate intimation in respect of corrigendum to this NIT(if any) will be sent to tenderers who have down loaded the documents from website. Please see website i.e., <http://www.hecltd.com> or <http://www.etenders.gov.in>
- iii. HEC reserves the right to extend / change the schedule of any activity by intimating the bidders through a notification on the e-tender portal only.

The Following two covers shall be submitted through online CPP - portal by the bidders. Last date and time of submission of bids (cover I, II) is as per given dates. **No other modes of bid submission is acceptable.**

Cover – I: - Containing techno-commercial bid and Technical Specification (As per ITT, Enclosure-I (Commercial terms & Conditions) and Enclosure-II (Technical Specification))

Scan copy of documents to be uploaded required as per Annex- 1 – Proof of Tender Fee submission document (DD/BG/NEFT/RTGS), SSI/NSIC/MSME certificate (for exemption of tender fee) and other relevant documentary evidence (PO copy, performance certificate etc.)

3.0 Cover - II: Price Bid (BoQ)

The tenderer shall upload the digitally signed Schedule of price bid in the form of BOQ.xls *Bidders may please note, the schedule of quantities is attached in the portal. The same (BOQ) shall be downloaded and be filled in the editable (un protected) cells only and they should necessarily submit their financial bids in the format provided after entering the financial quotes, name of the bidder etc.*

4.0 Bid Opening Process is as below:-

Cover-I: Technical bid opening date will be as per given dates. If any clarification is needed

	HEAVY ENGINEERING CORPORATION LIMITED
	PROJECT DIVISION

from the bidder about the deficiency in his uploaded documents in Cover-I, the bidder will be asked to provide it through Short fall documents folder in e-tendering portal. The bidder shall upload the requisite clarification / documents within time specified by HEC, failing which tender will be liable for rejection. Cover-II: The financial bids of the contractors / firms found to be meeting the qualifying requirements and technical criteria shall be intimated through portal. (Depending on Cover-I evaluation any changes in the date shall be intimated through e-tendering portal).

5.0 Tender Fee of Rs. 200/- in the form of Demand Draft in favour of Heavy Engineering Corporation Ltd., payable at Ranchi.

a) Tenders not accompanied with Tender Fee shall be liable for rejection.

Exemption of Tender Fee shall be applicable on submission of valid SSI/NSIC/MSME certificate and as per prevailing govt guidelines. SSI/NSIC/MSME Certificate to be uploaded in Techno Commercial Part 1.

The tender fee and EMD exemption is applicable to MSMEs subject to conditions given below:

- i. MSMEs participating in the tender must submit valid & authorized copy of certificate of registration with any one of the above agencies. In case of bidders submitting DIC registration certificate shall attach original notarized copy of the DIC certificate. The MSME's Bidder to note and ensure that nature of services and goods/items manufactured mentioned in MSME's certificate matches with the nature of the services and goods /items to be supplied as per Tender.
- ii. Traders / resellers / distributors / authorized agents will not be considered for availing benefits under Public Procurement policy 2012 for MSMEs as per MSME guidelines issued by MoMSME.
- iii. The registration certificate issued from any one of the above agencies must be valid as on Bid closing date of the tender. Bidder shall ensure validity of registration certificate in case bid closing date is extended.
- iv. The MSMEs who have applied for registration or renewal of registration with any of the above agencies / bodies, but have not obtained the valid certificate as on close date of the tender, are not eligible for exemption / preference.
- v. Where any aggregator has been appointed by the Ministry of MSME, themselves quote on behalf of some MSE units, such offers will be considered as offer from MSE units and all such facilities would be extended to these aggregators also.

6.0 Examination of Terms & Conditions- Technical Evaluation

Any bidder seeking benefit/preference under MSME / Make in India or any other policy/scheme of the Government of India, which is currently in force MUST at the time of bidding itself enclose all relevant documents / certificates etc. for claiming such benefits. The bidder must also clearly highlight the provisions of the policy and the kind of benefit being sought by it for which it meets the conditions for claiming such benefits. It may be noted that no other benefit / preference / concessions which is beyond the scope of the policy or the bidder's entitlement under the policy shall be given / considered by us. If the bidder fails to claim such benefit and/or fail to submit necessary documents/certificates in support of its claim at the time of bidding itself, its claim shall not be entertained at a later stage in the bidding process and no opportunity shall be provided to it to submit any document / certificate.

6.1 Evaluation and comparison of bids

	HEAVY ENGINEERING CORPORATION LIMITED
	PROJECT DIVISION

The bids shall be evaluated on the basis of final landed cost which shall be arrived as under and as per format given in BOQ of e-Tender:

For Goods manufactured within India

i)	The price of the goods quoted Ex-works
ii)	GST which will be payable on the goods if the contract is awarded.
iii)	The charges for inland transportation, insurance and other local services required for delivering the goods at the desired destination as specified in the BOQ.
iv)	The installation, commissioning and training charges including any incidental services, if any as given in Scope of Works of NIT
v)	Deviation to NIT payment terms.

The comparison between the offers shall be made on FOR destination on Landed cost basis.

7.0 PERIOD OF VALIDITY OF TENDER

Unless otherwise specified, the Tenderer shall keep his tender valid initially for a period of 120 days from the due date of opening of the tender.

8.0 LANGUAGE

The Tender shall be submitted in English language.

9.0 NO CLAIM OR COMPENSATION FOR SUBMISSION OF TENDER

The Tenderer whose Tender is not accepted shall not be entitled to claim any costs, charges, expenses of and incidental to or incurred by him through or in connection with his submission of Tenders, even though HEC Ltd may decide to withdraw the Invitation of Tender.

10.0 INCOME TAX / SALES TAX CLEARANCE CERTIFICATE / PAN

The Tenderer shall furnish the Income Tax Clearance Certificate, Sales Tax Clearance Certificate and copy of PAN with the tender duly countersigned by the respective officer under the seal of the office. Failure to produce the requisite certificate with tender, their quotation is liable to be rejected.

11.0 CONFIDENTIALITY

Tenderer shall note that all data/drawings/specifications enclosed with Tender document is confidential. Tenderer shall keep all data/drawings in strict confidence and shall not copy or pass on any of the Tender papers etc. to any third party. Tenderer shall return the Tender documents along with the Tender.

12.0 NOTICES ON BEHALF OF HEC LTD

Notice and Certificate on behalf of HEC LTD in connection with the Purchase Order may be given by duly authorised officers of HEC LTD. Any modification which may become necessary in the interim period will be intimated to you as soon as possible.

13.0 PURCHASER's RIGHT TO ACCEPT ANY BID AND TO REJECT ANY OR ALL BIDS

The Purchaser reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids at any time prior to award of contract, without thereby incurring any liability to the affected Bidder or bidders or any obligation to inform the affected Bidder or bidders of the grounds for the Purchaser's action.

	HEAVY ENGINEERING CORPORATION LIMITED
	PROJECT DIVISION

14.0 General conditions of the contract :

Unless otherwise specified in the Terms & Conditions above, this order shall be governed by General conditions of contract of purchase of HEC Ltd, which is available in the web site of HEC.(www.hecltd.com):

Note:-

1. As per the govt. Guidelines it is to be specified clearly in your offer whether your firm is registered with SSI/NSIC/MSME and also confirm whether the firm is owned by SC/ST WOMEN Entrepreneurs or not.
2. Pl. provide UAM no to avail Facilities of MSME.
3. Please get registered your firm with HEC Ltd.

	HEAVY ENGINEERING CORPORATION LIMITED
	PROJECT DIVISION

Annexure – 1

PART – I

(To be filled by the bidder and to be uploaded along with techno-commercial bid)

Quotation No.....

SI No.	Requisite		Remark
1	Submission of the offer with signed and stamped copy of annexure-A,B & C of commercial Terms & conditions and Enclosure-2 of Technical specification .	Upload the relevant documents	
2	Whether SSI/NSIC/MSME	Yes / No (In case yes, then upload certificate)	
3	Whether SSI/NSIC/MSME owned by SC/ST/WOMEN Entrepreneurs		
4	Tender fee (Rs 200/-) XXXXXXXXXX	Yes / No (In case yes, then upload scan copy of DD/BG/Online receipt)	
5	F.O.R. Madhuband NLW Washery Site , BCCL , Dhanbad (As per clause 1 of Terms & condition)	Yes / No	
6	Payment Term (As per clause 6 of Terms & condition)	Yes / No (In case your answer is No, then please mention your term)	
7	Delivery Term (As per clause 5 of Terms & condition)	Yes / No (In case your answer is No, then please mention your term)	
8	Validity (one hundred and twenty (120) days from the due date of opening of the tender.)	Yes / No	
9	L.D. Clause (As per clause 9 of Terms & conditions)	Yes / No	
10	Guarantee Clause (As per clause 7 of Terms & conditions)	Yes / No	
11	Performance Bank Guarantee (As per clause 8 of Terms & conditions)	Yes / No	
12	Security Deposit (As per clause 8 of Terms & conditions)	Yes / No	
13	GST	Yes / No, Applicable GST (%).....	
14	Inspection (As per clause 4 of Terms & conditions)	Yes / No	
15	Whether Terms & Condition/Note etc. mentioned in the tender enquiry is acceptable to the tenderer	Yes / No	
16	GCC of HEC to be Accepted	Yes / No	

(Signature of Tenderer with seal)

	HEAVY ENGINEERING CORPORATION LIMITED
	PROJECT DIVISION

Annexure - 2
PART-II (Price Bid)

1. The tenderer shall upload the digitally signed Schedule of price bid in the form of BOQ.xls
2. Bidders may please note, the schedule of quantities is attached in the portal. The same (BOQ) shall be downloaded and to be filled in the editable (un protected) cells only and they should necessarily submit their financial bids in the format provided after entering the financial quotes, name of the bidder etc.
3. Bidders to note that the price as per the offer is strictly to be mentioned under Part-II of Price bid and not to be disclosed in any manner under techno-commercial bid Part-I ,In case price of the bidder is disclosed under techno-commercial bid Part-I , the offer of the firm will be summarily rejected.
4. **Evaluation of offer shall be done item wise only.**

	HEAVY ENGINEERING CORPORATION LIMITED
	PROJECT DIVISION

Annexure 3 **Instructions for Online Bid Submission**

The bidders are required to submit soft copies of their bids electronically on the CPP Portal, using valid Digital Signature Certificates. The instructions given below are meant to assist the bidders in registering on the CPP Portal, prepare their bids in accordance with the requirements and submitting their bids online on the CPP Portal.

More information useful for submitting online bids on the CPP Portal may be obtained at: <https://eprocure.gov.in/eprocure/app>.

REGISTRATION

- (i) Bidders are required to enroll on the e-Procurement module of the Central Public Procurement Portal (URL: <https://etenders.gov.in/eprocure/app>) by clicking on the link "Online bidder Enrollment" on the CPP Portal which is free of charge.
- (ii) In case of any clarification please contact M/s NIC, before the schedule time of the submission of bid. Contact Person:- **BABLOO SONI:9471312543**
- (iii) As part of the enrolment process, the bidders will be required to choose a unique username and assign a password for their accounts.
- (iv) Bidders are advised to register their valid email address and mobile numbers as part of the registration process. These would be used for any communication from the CPP Portal.
- (v) Upon enrolment, the bidders will be required to register their valid Digital Signature Certificate (Class II or Class III Certificates with signing key usage) issued by any Certifying Authority recognized by CCA India (e.g. Sify / nCode / eMudhra etc.), with their profile.
- (vi) Only one valid DSC should be registered by a bidder. Please note that the bidders are responsible to
ensure that they do not lend their DSC's to others which may lead to misuse.
- (vii) Bidder then logs in to the site through the secured log-in by entering their user ID / password and the password of the DSC / e-Token.

SEARCHING FOR TENDER DOCUMENTS

- i) There are various search options built in the CPP Portal, to facilitate bidders to search active tenders by several parameters. These parameters could include Tender ID, Organization Name, Location, Date, Value, etc. There is also an option of advanced search for tenders, wherein the bidders may combine a number of search parameters such as Organization Name, Form of Contract, Location, Date, Other keywords etc. to search for a tender published on the CPP Portal.
- ii) Once the bidders have selected the tenders they are interested in, they may download the required documents / tender schedules. These tenders can be moved to the respective 'My Tenders' folder. This would enable the CPP Portal to intimate the bidders through SMS / e-mail in case there is any corrigendum issued to the tender document.
- iii) The bidder should make a note of the unique Tender ID assigned to each tender, in

	HEAVY ENGINEERING CORPORATION LIMITED
	PROJECT DIVISION

case they want to obtain any clarification / help from the Helpdesk.

PREPARATION OF BIDS

- i) Bidder should take into account any corrigendum published on the tender document before submitting their bids.
- ii) Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bid. Please note the number of covers in which the bid documents have to be submitted, the number of documents - including the names and content of each of the document that need to be submitted. Any deviations from these may lead to rejection of the bid.
- iii) Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document / schedule and generally, they can be in PDF / XLS / RAR formats. Bid documents may be scanned with 100 dpi with black and white option which helps in reducing size of the scanned document.
- iv) To avoid the time and effort required in uploading the same set of standard documents which are required to be submitted as a part of every bid, a provision of uploading such standard documents (e.g. PAN card copy, annual reports, auditor certificates etc.) has been provided to the bidders. Bidders can use "My Space" or "Other Important Documents" area available to them to upload such documents. These documents may be directly submitted from the "My Space" area while submitting a bid, and need not be uploaded again and again. This will lead to a reduction in the time required for bid submission process.

Note: My Documents space is only a repository given to the Bidders to ease the uploading process. If Bidder has uploaded his Documents in My Documents space, this does not automatically ensure these Documents being part of Technical Bid.

SUBMISSION OF BIDS

- i) Bidder should log into the site well in advance for bid submission so that they can upload the bid in time i.e. on or before the bid submission time. Bidder will be responsible for any delay due to other issues.
- ii) The bidder has to digitally sign and upload the required bid documents one by one as indicated in the tender document.
- iii) Bidder has to select the payment option as "offline" to pay the tender fee / EMD as applicable and enter details of the instrument.
- iv) Bidder should prepare the EMD as per the instructions specified in the tender document. The original should be posted/couriered/given in person to the concerned official, latest by as specified in the tender documents. The details of the DD / any other accepted instrument, physically sent, should tally with the details available in the scanned copy and the data entered during bid submission time. Otherwise the uploaded bid will be rejected.
- v) Bidders are requested to note that they should necessarily submit their financial bids in the format provided and no other format is acceptable. If the price bid has been given as a standard BOQ format with the tender document, then the same is to be

	HEAVY ENGINEERING CORPORATION LIMITED
	PROJECT DIVISION

downloaded and to be filled by all the bidders. Bidders are required to download the BOQ file, open it and complete the white coloured (unprotected) cells with their respective financial quotes and other details (such as name of the bidder). No other cells should be changed. Once the details have been completed, the bidder should save it and submit it online, without changing the filename. If the BOQ file is found to be modified by the bidder, the bid will be rejected.

- vi) The server time (which is displayed on the bidders' dashboard) will be considered as the standard time for referencing the deadlines for submission of the bids by the bidders, opening of bids etc. The bidders should follow this time during bid submission.
- vii) All the documents being submitted by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data. The data entered cannot be viewed by unauthorized persons until the time of bid opening. The confidentiality of the bids is maintained using the secured Socket Layer 128 bit encryption technology. Data storage encryption of sensitive fields is done. Any bid document that is uploaded to the server is subjected to symmetric encryption using a system generated symmetric key. Further this key is subjected to asymmetric encryption using buyers/bid openers public keys. Overall, the uploaded tender documents become readable only after the tender opening by the authorized bid openers.
- viii) The uploaded tender documents become readable only after the tender opening by the authorized bid openers.
- ix) Upon the successful and timely submission of bids (i.e. after Clicking "Freeze Bid Submission" in the portal), the portal will give a successful bid submission message & a bid summary will be displayed with the bid no. and the date & time of submission of the bid with all other relevant details.
- x) The bid summary has to be printed and kept as an acknowledgement of the submission of the bid. This acknowledgement may be used as an entry pass for any bid opening meetings.

ASSISTANCE TO BIDDERS

Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority for a tender or the relevant contact person indicated in the tender.

Any queries relating to the process of online bid submission or queries relating to CPP Portal in general may be directed to the 24x7 **CPP Portal** Helpdesk.

Note: For any query related to registration and processing on the Portal please visit FAQ available at <https://etenders.gov.in/eprocure/app?page=FAQFrontEnd&service=page>

You may call the Helpdesk. The 24 x 7 Help Desk Numbers are

0120-4200462, 0120-4001002, 0120-4001005, 0120-6277787

E-Mail: support-eproc@nic.in

Or

You may call to our service provider, :06512400562,06512401266

E-Mail : projectpurchase@hecltd.com



HEAVY ENGINEERING CORPORATION LIMITED

PROJECT DIVISION

Annexure 4 **BANK GUARANTEE PROFORMA FOR** **EARNEST MONEY DEPOSIT**

(TO BE STAMPED IN ACCORDANCE WITH STAMP ACT)
(TO BE ISSUED BY ANY NATIONALISED/SCHEDULED BANK
AUTHORISED BY RBI TO ISSUE A BANK GUARANTEE)

To:

Heavy Engineering Corporation Limited

Ranchi-834004

WHEREAS _____ *[name and address of Tenderer]* (hereinafter called "the Tenderer")

shall be submitting its Tender dated _____ *[date of the Tender]* for the work.
[name of the work] (hereinafter called "the Tender").

KNOW ALL MEN by these present that we, _____ *[name of the bank]* of
[name of the country] _____ having our registered office at
[address of the bank] (hereinafter called "the bank"), are bound unto the Heavy Engineering Corporation Limited, P.O. Dhurwa, Dist. Ranchi (Jharkhand) (hereinafter called "the Purchaser") for the sum of *[amount of the Guarantee in words and figures]* for which payment well and truly to be made to the said Purchaser the Bank binds itself, his successors and assigns by these presents. SEALED with the Common Seal of the said bank this _____ day of 200_.

THE CONDITION of this obligation are :

1. If the Tenderer withdraws its Tender during the period of Tender Validity specified by the Purchaser on the Tender form ; or
2. If the Tenderer withdraws having been notified of the acceptance of its Tender by the Purchaser during the period of Tender Validity :
 - (a) Fails or refuses to execute the Contract Agreement when required ; or
 - (b) Fails or refuses to furnish the Security-cum-Performance Guarantee Security (if any) in accordance with the Tender conditions.

We, _____ *[name of the bank]* undertake to pay to the Employer up to the above amount upon receipt of its first written demand, without the Employer having to substantiate its demand, provided that in its demand the Employer will note that the amount claimed by it is due to it owing the occurrence of 1 or both of the 2 (a) or (b) specifying the occurred condition or conditions.

This guarantee will remain in full force up to and including the date and any demand in respect thereof should reach the Bank not later than the date of expiry of this guarantee.

For and on behalf of the Bank.

Signature
Name
Designation
Common Seal of Bank



HEAVY ENGINEERING CORPORATION LIMITED

PROJECT DIVISION

ENCLOSURE - I

COMMERCIAL TERMS AND CONDITIONS

DEFINITIONS :

EMPLOYER	Madhuband NLW Washery / Bharat Coking Coal Ltd. (BCCL)
PURCHASER	Heavy Engineering Corporation Limited
SUPPLIER	Successful Bidder
ITT	Instructions to Tenderer
Start-up	Refer Technical Specification (Enclosure- II)
Trial Operation	Refer Technical Specification (Enclosure- II)
Performance & Guarantee Test	Refer Technical Specification (Enclosure- II)
Site Engineer	Engineer In charge of Employer
Store/Site	Store/Site shall be the Store/Site of the Employer at Madhuband NLW Washery / Bharat Coking Coal Ltd. (BCCL), Dhanbad

1.0 SCOPE OF SUPPLY / WORK & SERVICES :

- 1.1** The scope of supply is to manufacture and deliver the total equipment / items in full and good condition as given in technical specification (enclosed at "Enclosure-II") FOR Site basis within Madhuband NLW Washery / Bharat Coking Coal Ltd. (BCCL) located in Madhuband, Distt. : Dhanbad (Jharkhand)

The scope includes, inter alia, all auxiliary and ancillary related activities such as procurement of all inputs, raw materials, bought-out components and consumables including testing and inspection, painting, safe & secure packing, handling and transportation of finished equipment duly inspected and accepted by PURCHASER/representative of Employer/Consultant till safe delivery in Purchaser's Store at Project Site

Any scope of supplies which is not specifically mentioned in this order but materially required for the completion of the supplies and/or for safe, trouble free normal operation shall be supplied free of cost to the Purchaser/Employer unless, expressly excluded in this order.

- 1.2** The approval by the Purchaser at any stage for any supplies by the supplier/supplier's sub-suppliers shall not relieve the supplier of his obligations under this order.

2.0 PRICE BASIS

2.1 FOR SUPPLIES :

- 2.1.1** Prices shall be firm till execution of order in full. No escalation will be admissible and granted on any account under any circumstances. Price schedule is enclosed at Annexure-D
- 2.1.2** The Prices are for the entire Scope of the Facilities including Commissioning spares, oils, grease, lubricants, flushing liquor, chemicals for pickling & Special Tools & Tackles if any etc., required till commissioning of the facilities.
- 2.1.3** The Prices are inclusive of all Taxes, Duties and freight upto site store. Price shall comprise of Basic Price, GST, freight, as may be applicable and prevailing on Base Date of the Purchase order.
- 2.1.4** The payment of duties, taxes, levies, etc., will be reimbursed (on actual) against



HEAVY ENGINEERING CORPORATION LIMITED

PROJECT DIVISION

documentary evidence to be produced by the Supplier, subject to a ceiling indicated in Price Schedule of the P.O. In no case the reimbursement towards duties and taxes, etc., shall exceed the amount indicated in price schedule of the P.O. towards duties, taxes, levies, etc. except on account of variation in Taxes & Duties.

3.0 TAXES & DUTIES

3.1 FOR SUPPLY

- a) GST on finished items are included in the purchase order price. GST on finished items shall be paid at the rates prevailing at the time of delivery period or purchase order delivery period, whichever is earlier and will be limited to taxes and duties actually paid by the Supplier subject to a maximum value declared in their Bid. GST shall not be paid on the intermediate products, components, assemblies, raw materials etc. purchased by the Supplier.
- b) Any revised imposition of taxes/duties on the finished items within the purchase order delivery period will be reimbursed by PURCHASER against documentary evidence. Similarly, if any of existing taxes, duties, are reduced or abolished, PURCHASER shall be entitled to get the resultant benefit in full.
- c) Original copy of the GST Invoice as duty paying document (i.e., Buyer's Copy of GST Invoice) shall be furnished by Supplier for claiming GST on the finished items. In addition to the above, the Supplier shall furnish a certificate to the effect that no refund of GST has been obtained or claimed except credit under GST Rule . In case any refund is obtained in future by the Supplier, the same shall be immediately passed on to PURCHASER in full.
- d) Duplicate copy of the GST Invoice (i.e., Transporter's Copy) shall be sent along with Transporter and it should be ensured that the transporter's copy of excise invoice is handed over to Site/Stores of EMPLOYER/PURCHASER, along with the consignment. Documentary evidence shall be furnished by the Supplier regarding receipt of Transporter Copy of invoice at site stores of EMPLOYER/PURCHASER.
- e) GST Invoice should be Drawn in favor of EMPLOYER as per the details indicated in the dispatch instructions. PURCHASER shall not reimburse GST in case GST Invoice is not drawn as stated in the dispatch instruction. GST Invoice should contain all the particulars as per Latest Notification issued by Central Board of Excise and Customs / other concerned authorities.
- f) GST No. of HEC: 20AAACH4534P3ZL

3.2 Way Bills (If Required)

Road permit will be required in Jharkhand State for transportation of equipment & accessories from outside of Jharkhand. for construction of Madhuband NLW Washery. Employer shall issue the way bill which will be given to the supplier on written request submitting all detail required for issue of Way Bills.

4.0 INSPECTION: As per instruction in Technical Specification.

5.0 DELIVERY: Inspection call with all relevant documents as per approved QAP shall be submitted within 10 days from the date of approved drawing and QAP whichever is later. Drawings and QAP will be submitted for approval within for approval within two weeks from the date of receipt of P.O & all data from our side. Delivery at site shall be completed within 15 days from the date of issue of despatch clearance/inspection certificate whichever is applicable.

6.0 TERMS OF PAYMENT

Subject to any deduction, which PURCHASER may be authorized to make under the Purchase order, the Purchase order Price shall be payable as follows :



HEAVY ENGINEERING CORPORATION LIMITED

PROJECT DIVISION

A) FOR SUPPLY

90% of the basic price including P&F charges along with full taxes and freight within 60 days from date of receipt of materials at site and submission of following complete and correct documents in eight (1 original + 7 copies) Sets at HEC, Ranchi after receipt of items at Site Stores of EMPLOYER/PURCHASER. Supplier ensure that dispatches are made and Invoices are raised strictly as per the order.

- i) Five (5) copies (1 original + 4 copies) of GST invoice duly signed by the Supplier.
- ii) Challan/Lorry Receipt received by Employer's Material Receiving Department/ Stores/ Site.
- iii) Packing list duly signed by the Supplier.
- iv) Copy of E-way bill/s .
- v) Copy of intimation to Insurance Company for Transit Insurance as per Clause no.10.0
- vi) Original of the transporter's freight payment certificate.
- vii) Test certificates for bought-out items
- viii) Inspection certificates/Dispatch Clearance, issued by the Engineer of HEC/ Consultant for manufactured items.
- ix) Certificate from the Supplier to the effect that contents in each case are neither more nor less than those entered in the invoice and packing list and quality of the goods is guaranteed and as per the relevant specification.
- x) Guarantee Certificate as per clause no 7.
- xi) GST-R1 (GST Return Copy)

B) Balance 10% of the basic price shall be paid at the end of guarantee period (24 months from the date of last receipt) or within **360 days** from the date of receipt of last consignment at Site Store whichever is earlier on submission of performance Bank Guarantee of equivalent amount valid till guarantee period.

Note:

- 1. In case there is deviation in payment terms against NIT Payment terms , credit for no. of days will be taken into consideration, while arriving at Landed cost of material to decide L-1 firm. Interest @ 12.05% per annum will be loaded while calculating the Landed cost.
- 2. For payment all the processing charges by the bank shall be on account of the firm.
- 3. Payment as mentioned above will be made after receipt of material , by I/c(Fin), Project division, HEC Ltd., Ranchi – 834004 through RTGS on submission of Mandate Form duly signed by Bank.

7.0 GUARANTEE:

The equipment/materials must carry a guarantee against faulty materials, faulty design, defective and bad workmanship for a period of 12 months from the date of Performance



HEAVY ENGINEERING CORPORATION LIMITED

PROJECT DIVISION

and Guarantee Test or 24 months from the date of receipt of last consignment at site store whichever is earlier. Any defects noticed during the guarantee period will have to be replaced by the supplier free of cost and replacement of parts/materials will also have a similar guarantee. A Guarantee Certificate must be provided at the time of delivery.

8.0 BANK GUARANTEES

8.1 Security Bank Guarantee & Performance Bank Guarantee (as per Annexure – E)

The Supplier shall, within 15 (fifteen) days after the date of Purchase Order as specified, provide a Security Bank Guarantee (as per Annexure-E hereof) for the due performance of the contract an amount equivalent to 10% of the Total basic Price as indicated in the Price Schedule in the same currency or currencies valid till completion of supply which will be converted into performance Bank Guarantee valid till guarantee period.

8.2 Claims under Security (Bank Guarantee)

If the Purchaser considers itself entitled to any claim under any Bank Guarantee, it shall so notify the Supplier by registered/speed post, specifying the default of the Supplier upon which claim is based and it shall require the Supplier to remedy the same. If the Supplier fails to remedy or to take steps to remedy the same within fourteen days of receipt of such notice, then the Purchaser shall be entitled to invoke Security BG/PBG.

9.0 LIQUIDATED DAMAGES FOR DELAY IN COMPLETION

Time and date stipulated in the Purchase Order for completion of delivery of equipment/item shall be deemed to be the essence of the Purchase order. The Supplier shall complete the delivery of the equipment/item in accordance with the schedule stipulated in the Purchase Order. If, however, the supplier fails to fulfill the delivery in accordance with the time schedule, or within such extended time schedule as may be further granted to the supplier, the supplier shall be liable to pay as liquidated damages, a sum of 1/2% of the final purchase order basic price (as defined under clause 2) per week of delay or part thereof, and such liquidated damages shall be limited to a maximum ceiling of 10 % of the final total basic price (as defined under clause 2)

For the purpose of this clause delivery date shall mean the date on which the said goods are delivered to Site Stores of EMPLOYER/PURCHASER. Delivery at site shall be completed within 15 days from the date of issue of despatch clearance/inspection certificate/way bill whichever is applicable. The supplier shall provide the necessary proof as to the delivery of equipment/item concerned for this purpose.

PURCHASER may recover the liquidated damages payable by the supplier from any amount due to him or which may subsequently become due to him under this or any other purchase order.

10.0 TRANSIT INSURANCE

Shall be covered under Marine-cum-Erection & Commissioning(MCE) policy taken by us. The policy No. and detail address of the Insurance Company will be intimated to the supplier before despatch. Supplier shall have to furnish full despatch details to the Insurance Company with the copy to this office immediately after despatching the materials.

11.0 MODE OF DESPATCH

For the consignments to be dispatched by Road, the supplier shall ensure that the following are observed by them :

- i) All dispatches must be effected only on receipt of written despatch clearance from PURCHASER.



HEAVY ENGINEERING CORPORATION LIMITED

PROJECT DIVISION

- ii) Supplier shall despatch all the materials **consigned to Project Officer, Madhuband NLW Washery, P.O. Nudkhurkee, Distt: Dhanbad (Jharkhand) Account : HEAVY ENGINEERING CORPORATION LIMITED**
- iii) Identify and obtain the correct type of trucks/trailers, keeping in view the nature of consignments to be dispatched.
- iv) Care shall be taken to avoid damages during transit to ensure that all packages are firmly secured.
- ii) All consignments dispatched by truck/trailor shall be consigned on door delivery basis (Full or part lorry load). No. transshipment is allowed.
- vi) The transporter must be approved by Bank Association.
- iii) In case any other mode of transport has to be restored other than that mentioned in the Purchase Order, the same should be done only after obtaining prior approval in writing from the Purchaser. By allowing such transportation no increase in freight charges shall be allowed and in case there is decrease, the actual shall be payable to the supplier

12.0 PACKING, FORWARDING AND SHIPMENT

- a) The Supplier, wherever applicable, shall after proper painting, pack and crate all equipment in such a manner as to protect them from deterioration and damage during rail and road transportation to the site and storage at the site till the time of erection. The Supplier shall be held responsible for all damages due to improper packing. The supplier shall be liable to deliver the material at the destination as per specification. Any damage during transit shall be sole responsibility of the supplier. In case of damage, the material shall be liable to be rejected and supplier shall replace the same and lift the rejected material within time at their risk and cost.
- b) The Supplier shall notify the Purchaser of the date of each shipment from his works, and the expected date of arrival at the site for the information.
- c) The Supplier shall also give all shipping information concerning the weight, size and content of each packing including any other information the Purchaser may require.
- d) The Supplier shall prepare detailed packing list of all packages and containers, bundles and loose material forming each and every consignment despatched to site. The Supplier shall further be responsible for making all necessary arrangements for loading, unloading and other handling right from his works upto the safe delivery at site store,

13.0 DEMURRAGE, WHARF-AGE, ETC.

All demurrage, wharf-age and other expenses incurred due to delayed clearance of the material or any other reason shall be to the account of the Supplier.

14.0 FORCE MAJEURE

- A) Force majeure is herein defined as any cause which is beyond the control of the Supplier or Purchaser as the case may be which they could not foresee or with a reasonable amount of diligence could not have foreseen and which substantially affect the performance of the purchase order, such as:
 - (a) natural phenomena, including but not limited to floods, draughts, earthquakes and epidemics:
 - (b) acts of any government, including but not limited to war, declared or undeclared, priorities, quarantines, embargoes,



HEAVY ENGINEERING CORPORATION LIMITED

PROJECT DIVISION

Provided either party shall within fifteen (15) days from the date of occurrence of such a cause notify the other in writing of such causes.

- B)** The bidding document will clearly state that
- (a) The Supplier will advise, in the event of his having resort to this clause by a registered letter duly certified by the local chamber of commerce or statutory authorities, the beginning and end of the cause of delay, within fifteen days of the occurrence and cessation of such force majeure condition. In the event of delay lasting over two months, arising out of force majeure, the purchase order may be terminated at the discretion of the purchaser.
 - (b) For delays arising out of Force Majeure, the Supplier will not claim extension in completion date for a period exceeding the period of delay attributed to causes of Force Majeure and neither EMPLOYER nor PURCHASER shall be liable to pay extra costs (like increase in rates, remobilization advance, idle charges for labour, machinery etc.).
 - (c) If any of the Force Majeure conditions exists in the place of operation of the Supplier even at the time of submission of the bid he will categorically specify them in the bid and state whether they have been taken into consideration in their quotations.
- C)** The Supplier or the Purchaser shall not be liable for delays in performing his obligations resulting from any force majeure cause as referred to and/or defined above. The date of completion will, subject to hereinafter provided, be extended by a reasonable time even though such cause may occur after Supplier's performance of his obligations has been delayed for other causes.

15.0 LONG TERM AVAILABILITY OF SPARES

- 15.1 The Supplier shall guarantee the long term availability of spares to the Employer for the full life of the equipments covered under the purchase order. The Supplier shall guarantee that before going out of production of spare parts of the equipment covered under the purchase order, he shall give the Employer at least twelve (12) months advance notice so that the later may order his bulk requirement of spares, if he so desires. The same provision will also be applicable to sub-Supplier. Further, in case of discontinuance of manufacture of any spares by the Supplier or his sub-Suppliers, the Supplier will provide the Employer two years in advance, with full manufacturing drawings, material specifications and technical information required by the Employer for the purpose of manufacture of such items.
- 15.2 Further, in case of discontinuance of supply of spares by the Supplier or his sub-Suppliers, the Supplier will provide the Employer with full information for replacement of such spares with other equivalent makes, if so required by the Employer.

16.0 MARKING OF EQUIPMENT:

The materials must be marked/stenciled of Equipment No.

17.0 NOTIFICATION OF DESPATCH :

Each and every despatch should be notified immediately after despatch giving the relevant particulars like Truck No., Challan No. with date, C/Note No., Name of the transporter with their full address, date of despatch etc. to the following through telex/telegram/fax :

	HEAVY ENGINEERING CORPORATION LIMITED
	PROJECT DIVISION

a)	Project Manager(I/c) HEC Ltd., Madhuband NLW Washery, HEC Ltd.,Ranchi- 834004
b)	Sr.MGR(Purchase), Project Division HMBP Adm. Bldg. Annexe, HEC Ltd.,Ranchi- 834004

18.0 PAYING AUTHORITY

Payment as mentioned above will be made by Sr.Manager (I/C,Finance), ***Project Division, HEC Ltd., Ranchi 834 004.***

19.0 PROGRESS REPORT:

Progress of delivery/inspection must be given to the officer who has signed the purchase order, on the 15th and 30th of each month during currency of delivery period. Where delivery period is crossed by the supplier, he has to take approval of buyer in writing before despatch.

20.0 SUBLETTING AND ASSIGNMENT :

The supplier shall not, have without the previous consent in writing of the purchasers, sublet, transfer or assign the purchase order or any part thereof or interest therein or benefit or advantage thereof in any manner whatsoever. Provided nevertheless that any such consent shall not relieve the supplier from any obligation, duty or responsibility under the purchase order.

21.0 CHANGE IN A FIRM :

Where the supplier is a partnership firm, a new partner shall not be introduced in the firm except with the previous consent in writing of the purchaser (which may be granted only as an exception) of a written undertaking by the new partner to perform the purchase order and accept all liabilities incurred by the firm under the purchase order prior to the date of such undertaking.

22.0 CONSEQUENCE OF BREACH :

Should the supplier or a partner in the supplier firm commit breach of either of the clauses (20) and (21) of this commercial terms and conditions, it shall be lawful for the purchaser to cancel the purchase order and purchase or authorize the purchase of the stores at the risk and cost of the supplier firm and that even the provisions of Clause (9) shall, as far as applicable, apply.

The decision of Heavy Engineering Corporation Limited as to any matter or thing concerning or arising out of this clause or any question whether the supplier or any partner of the supplier firm has committed a breach of any of the conditions in this clause contained shall be final and binding on the supplier.

23.0 CONSIGNEE :

Site in charge,Madhuband NLW Washery,HEC Ltd , PO Nudkhurkee, Distt. Dhanbad, State: Jharkhand, PIN: 828307
GST No. of HEC: 20AAACH4534P3ZL

And bill to HEC Ltd , Project Division , Ranchi ,Jharkhand , GST No. of HEC: 20AAACH4534P3ZL

25.0 TRAINING OF PERSONNEL:

	HEAVY ENGINEERING CORPORATION LIMITED
	PROJECT DIVISION

Supplier shall provide free of cost training of personnel from PURCHASER/NCL for 1 (one) man month at his works. However, boarding, lodging and fare etc shall be borne by the purchaser/employer.

26.0 Q.A. PLAN : Approved QAP and inspection procedure by Project Officer/Madhuband NLW Washery/BCCL shall apply.

27.0 WEIGHT OF EQUIPMENT
Weight of equipment must be intimated to the purchaser before effecting delivery.

28.0 COMMISSIONING SPARES: Will be supplied free of cost as required.

29.0 FORMAT AND NAME PLATE
All the drawings should be prepared in the format and nameplates with drawing No. out of allotted drawing Nos. to be given to the supplier at the time of placement of order.

30.0 DRAWING, DOCUMENTS & MANUALS
Will be furnished as per Technical Specification(Refer Enclosure-II).

32.0 UNIT RATES
Unit rates of various supply item which may be required during execution of this package will remain firm till execution of the order.

33.0 BOUGHT-OUT ITEMS:
Un-priced purchase order of supplier's bought-out items will be submitted to us within a week after issue of your order.

34.0 PAINTING
Painting will be done as per Technical Speciation (Refer Enclosure-II).

35.0 REJECTION
If the stores supplied are not to specifications/samples or in accordance with order and are rejected, the same will be removed by supplier at supplier's own risk and cost within 21 days of the date of intimation of rejection by Inspection Deptt/Stores Deptt/Purchase Deptt. If no instruction are received from supplier with regard to mode of despatch, purchaser/employer shall be free and reserve the right to return the rejected materials at supplier's risk and cost and to recover entire freight and other incidentals incurred by PURCHASER. Such rejected stores will be kept in our go down/site for 21 days from the date of intimation to supplier and thereafter those remain at supplier's risk and cost. The purchaser shall also be entitled to recover ground rent/demurrage charges on the rejected stores after expiry of free time mentioned above.

36.0 SPECIAL INSTRUCTION (DESPATCH MARK/IDENTIFICATION MARK)
The following markings are to be done on each package

a)	From	
b)	For	Project Officer, Madhuband NLW Washery, P.O. Nudkhurkee, Distt: Dhanbad (Jharkhand) Account : HEAVY ENGINEERING CORPORATION LIMITED

	HEAVY ENGINEERING CORPORATION LIMITED	
	PROJECT DIVISION	

c)	Case No.	The case no. shall be written in the form of a fraction the numerator of which shall be serial number of the case and the denominator representing the total number of cases.
d)	Order No.	
e)	Net Weight	
f)	Gross Weight	

37.0 LEGALITY AND DISPUTE SETTLEMENT :

- a) This order/purchase order shall be governed by and interpreted according to the relevant laws of India with jurisdiction of courts at Ranchi.
- b) Any dispute that may arise between the parties out of or in-connection with this order/purchase order or for the breach thereof, shall be settled amicably and in good faith by negotiations between the designated executives of the parties, at the first instance.
- c) In the event, the parties fail to resolve the disputes or differences arising out of or in connection with the order/purchase order or execution thereof through amicable settlement, the same shall be referred to settlement through “adjudication” of the same by the Sole Arbitrator appointed by PURCHASER. Such arbitration shall proceed as per the provisions of Arbitration and Conciliation Act, 1996 and /or amended from time to time.
- d) The arbitration shall be governed by and in accordance with the Arbitration and Conciliation Act, 1996 for adjudication of the disputes and differences including claims and counter-claims of the parties. The award rendered shall be final and binding upon both the parties.
- e) The venue of arbitration shall be normally at Ranchi only, unless and until agreed otherwise by the parties.
- f) The courts at Ranchi in the State of Jharkhand shall have the exclusive jurisdiction in respect of all the disputes arising out of this contract.

38.0 OTHER TERMS AND CONDITIONS

Other terms and conditions which are not mentioned above shall be as per General Terms and Conditions of Contract of the Corporation which can be downloaded from our website ***www.hecltd.com***.

Enclosures:

1. Form of Tender (Annexure-A)
2. No Dispute Certificate (Annexure –B)
3. Check List for acceptance/ confirmation of commercial terms & conditions (Annexure-C)
4. Proforma for Security / Performance Bank Guarantee (Annexure-E)

	HEAVY ENGINEERING CORPORATION LIMITED
	PROJECT DIVISION

Annexure-A

FORMS OF TENDER

Sub : TENDER No..... For work _____

To,

SR. MGR/CPURCHASE & CONTRACT CELL
PROJECT DIVISION , HEC LTD. RANCHI-4

Dear Sir,

We offer to execute the Works described above in accordance with the Conditions of Contract accompanying the Tender Document issued to us.

This tender and your written acceptance of it shall constitute a binding contract between us. We understand that you are not bound to accept the lowest or any tender you received.

We hereby confirm that this tender complies with the tender validity and tender security required by the tender documents.

Yours faithfully

Authorised Signature :

Name and Title of the Signatory :

Name of Tenderer :

Address :

Date :

(To be filled by the tenderer)

	HEAVY ENGINEERING CORPORATION LIMITED
	PROJECT DIVISION

Annexure-B

NO DISPUTE CERTIFICATE

Sub : TENDER for the Work _____

To,

The Sr. Manager/Purchase
Projects Division/HEC
HMBP Adm. Building(Annexe)
Dhurwa, Ranchi -834 004, Jharkhand

Dear Sir,

We hereby declare that there is no dispute with Heavy Engineering Ltd., Ranchi on date.

Yours faithfully

Authorised Signature :

Name and Title of the Signatory :

Name of Tenderer :

Address :

Date :

(To be filled by the tenderer)

**HEAVY ENGINEERING CORPORATION LIMITED****PROJECT DIVISION****ANNEXURE – C****Sh 1 of 2****CHECK LIST FOR ACCEPTANCE / CONFIRMATION OF COMMERCIAL TERMS & CONDITIONS**

Please confirm your acceptance of following Clauses of Commercial Terms & Conditions :-

CLAUSE No.	PARTICULARS	ACCEPTANCE / CONFIRMATION OF TENDERER (YES / NO)	REMARKS
1.0	SCOPE OF SUPPLY / WORK & SERVICES		
2.0	PRICE BASIS		
3.0	TAXES & DUTIES		
4.0	INSPECTION		
5.0	DELIVERY		
6.0	TERMS OF PAYMENT		
7.0	GUARANTEE		
8.0	BANK GUARANTEES		
9.0	LIQUIDATED DAMAGES DUE TO DELAY IN COMPLETION		
10.0	TRANSIT INSURANCE		
11.0	MODE OF DESPATCH		
12.0	PACKING, FORWARDING AND SHIPMENT		
13.0	DEMURRAGE, WHARF-AGE, ETC.		
14.0	FORCE MAJEURE		
15.0	LONG TERM AVAILABILITY OF SPARES		
16.0	MARKING OF EQUIPMENT		
17.0	NOTIFICATION OF DESPATCH		
18.0	PAYING AUTHORITY		
19.0	PROGRESS REPORT		
20.0	SUBLETTING AND ASSIGNMENT		
21.0	CHANGE IN A FIRM		
22.0	CONSEQUENCE OF BREACH		
23.0	CONSIGNEE		
24.0	FIRST FILL OF CONSUMABLES, OILS AND LUBRICANTS		
25.0	TRAINING OF PERSONNEL		
26.0	Q.A. PLAN		
27.0	WEIGHT OF EQUIPMENT		
28.0	COMMISSIONING SPARES		
29.0	FORMAT AND NAME PLATE		
30.0	DRAWING, DOCUMENTS & MANUALS		
31.0	ONE YEAR OPERATIONAL SPARES AND TOOL & TACKLES		
32.0	UNIT RATES		

	HEAVY ENGINEERING CORPORATION LIMITED
	PROJECT DIVISION

ANNEXURE – C
Sh 2 of 2

CHECK LIST FOR ACCEPTANCE / CONFIRMATION OF COMMERCIAL TERMS & CONDITIONS

Please confirm your acceptance of following Clauses of Commercial Terms & Conditions :-

CLAUSE No.	PARTICULARS	ACCEPTANCE / CONFIRMATION OF TENDERER (YES / NO)	REMARKS
33.0	BOUGHT-OUT ITEMS		
34.0	PAINTING		
35.0	REJECTION		
36.0	SPECIAL INSTRUCTION (DESPATCH MARK / IDENTIFICATION MARK)		
37.0	LEGALITY AND DISPUTE SETTLEMENT		
38.0	OTHER TERMS AND CONDITIONS		

	HEAVY ENGINEERING CORPORATION LIMITED
	PROJECT DIVISION

ANNEXURE - E

SECURITY / PERFORMANCE BANK GUARANTEE
(To be executed on Non-Judicial Stamp Paper of appropriate value)
 (TO BE ISSUED BY ANY NATIONALISED/ SCHEDULED BANK
 AUTHORISED BY RBI TO ISSUE A BANK GUARANTEE)

..... **(Name of the Bank)**

Address.....

Guarantee No.

A/c Messrs **(Name of Contractor)**

Date of Expiry

Limit to liability (**currency & amount**) .

Contract No.

For **(Name of Facilities)**

Subject:..... **Performance Bank Guarantee.**

Date 201.

To
Heavy Engineering Corporation Limited
P.O. Dhurwa, Dist. Ranchi, Pin - 834 004, (Jharkhand)

Dear Sir,

We refer to the Contract Agreement / Purchase Order (hereinafter called the "Contract") Reference No..... Dated between you and M/s. **(Name of the Contractor)** (hereinafter called the "Contractor") for the design, civil, manufacture, supply of plant & equipment, refractories and structures, storage, insurance & handling, erection, testing, commissioning and performance guarantee tests of .. . **(Name of the Facilities)** (~~strikeout whichever is not applicable~~).

In consideration of the Heavy Engineering Corporation Limited, having its Registered office at Plant Plaza Road, P.O. Dhurwa, Ranchi - 834004 (hereinafter called to as the "Purchaser" which expression shall unless repugnant to the context or meaning thereof, include all successors, administrators and assigns) having awarded to _____ [*Name & Address of the supplier*] (hereinafter called to as "Contractor" which expression shall unless repugnant to the context or meaning thereof include its successors, administrators, executors and assigns) the work _____ [*Name of the Work*] by issue of Letter of Award No. _____ [*Letter of Intent No.*] and the same having been unequivocally accepted by the Contractor resulting into a Purchase Order No. _____ dated _____ valued at _____ [*value of P. O.*] (hereinafter called 'the Contract') and the



HEAVY ENGINEERING CORPORATION LIMITED

PROJECT DIVISION

Purchaser having agreed to accept Performance Bank Guarantee of ____ [*indicate figure*]% of the Contract Sum _____ [*amount in figures and words*] from a Nationalized/Scheduled Bank for due performance of the work executed by the Contractor as per the terms & conditions contained in the said Contract.

We, _____ [*name of the Bank*], of _____ [*address of the Bank*] (hereinafter called to as "Bank" which expression shall unless repugnant to the context or meaning thereof, include its successors, administrators, executors and assigns) do hereby guarantee and undertake to pay the Purchaser immediately on demand and or, all money payable by the Contractor to the extent of _____ [*amount of guarantee in figures and words*], at any time from _____ to _____ without any demur, reservation, recourse, contest or protest and/or without any reference to the Contractor. Any such demand made by the Purchaser on the Bank shall be conclusive and binding notwithstanding any difference between the Purchaser and the Contractor or any dispute pending before any Court, Tribunal, Arbitrator or any other authority. We agree that the Guarantee herein contained shall be irrevocable and shall continue to be enforceable as per the terms & conditions contained in the said Contract.

The Purchaser shall have the fullest liberty without affecting in any way the liability of the Bank under this Guarantee, from time to time, to extend the validity of time of Performance of the Contract by the Contractor. The Purchaser shall have the fullest liberty without affecting this Guarantee, to postpone, from time to time, the exercise of any powers vested in them or of any right which they might have against the Contractor, and to exercise the same at any time in any manner, and either to enforce or to forebear or to enforce any covenants contained or implied in the Contract, between the Purchaser and the Contractor or any other course or remedy or security available to the Purchaser. The Bank shall not be released of its obligations under these presents by any exercise by the Purchaser of its liberty with reference to matter aforesaid or any of them or by reason of any other act of forbearance or other acts of omission or commission on the part of the Purchaser or any other indulgence shown by the Purchaser or by any other matter or thing whatsoever which under law would, but for this provision, have the effect of relieving the Bank. The Bank also agrees that the Purchaser at its option shall be entitled to enforce this Guarantee against the Bank as a Principal Debtor in first instance, without proceeding against the Contractor and notwithstanding any security or other Guarantee that the Purchaser may have in relation to the Contractor's liabilities.

This Bank Guarantee shall be operable at State Bank of India, Commercial Branch, MECON Campus, Doranda, Ranchi.

Dated this _____ day of _____ at _____

For and on behalf of the Bank.

Signature _____

Name _____

Designation _____

Common Seal of Bank _____

Enclosure-II

TECHNICAL SPECIFICATION FOR LABORATORY EQUIPMENTS INDEX

Sl. No.	Description	Page No.
1.	Scope of Works	2 of 10
2.	Codes & Standard	2 of 10
3.	Technical Specification	2 of 10
4.	Painting	3 of 10
5.	Inspection, testing & inspection certificate	4 of 10
6.	Quality assurance plan	5 of 10
7.	Test	6 of 10
8.	Spares tools and tackles	7 of 10
9.	Supervision of erection ,testing & trainings	7 of 10
10.	Drawing & Documents	8 of 10
11.	Operating & maintenance Manuals	9 of 10
12.	Drawing/Documents/Data to be Furnished	9 of 10
	<u>ANNEXURES</u> i) Annexure- 1 : List of Equipment & specification.	

**1.0 SCOPE OF WORK**

The scope of work include design, engineering, manufacture, inspection, assembly, shop testing, painting at manufacturer's shop, packing, transportation ,supply, and Performance Guarantee test at site of **Laboratory Equipments** for 5.0 MTPA Madhuband NLW Coal Washery Project of BCCL.

The Laboratory Equipments shall consist of, but not limited to the following:

- a) Laboratory Equipments should be complete in all respect.
- b) Operational & maintenance Spares if any for 2 year maintenance operation shall be supplied in requisite quantity as specified by the equipment supplier. A separate list with quantities and unit prices shall be furnished along with the offer.
- c) Drawings documents.
- d) Special Tools and Tackles, if any. Unit price to be quoted separately in the price bid.
- e) Required quantity of initial fill of oil, grease, lubricants, hydraulic fluid etc. and other consumables which are necessary for cleaning/flushing including, testing and commissioning of the machines to be included under scope of supply. It is to be supplied separately.
- f) Operation & Maintenance Manuals.
- g) Scope of supply also includes training & development program for operation & maintenance of the equipment & the price of same shall be quoted separately on the basis of per man per day.
- h) Statutory approval wherever required shall be taken by the Vendor for the equipment being supplied by them from relevant state/ central authorities.

2.0 CODES & STANDARD

The design, manufacture, inspection and testing of Laboratory Equipments shall comply with all the currently applicable statutes, regulations and safety codes in the locality where the equipment is to be installed. The Laboratory Equipments shall conform to the latest edition of standards and codes. Other internationally acceptable standards/codes, which ensure equal or higher performance than those specified, shall also be accepted. Nothing in this specification shall be construed to relieve the bidder of the required statutory responsibility. In case of any conflict in the standard and this specification, the decision of the Employer shall be final and binding. Hierarchy of specification will be as under:

- i) Technical Specification (TS).
- ii) Indian Standard (IS)
- iii) International Standard

3.0 TECHNICAL SPECIFICATION

As per enclosed **Annexure-1**

3.01 Every Laboratory Equipments **shall** have a name plate bearing the following particulars:

- a. Manufacturer's name, trade-mark and year of manufacture
- b. Designation of equipment indicating its size & other details.
- c. Manufacturer's serial number
- d. Every fluid coupling shall be accompanied with the following information
- e. Specification and quantity of lubricant
- f. List and specification of wearing parts

3.02 BASIC DATA

Ambient temperature : 50 degree C
 Relative Humidity : 100%
 Environment : Dusty (Coal dust)
 Quantity required : As per specification given in annexure- 1.

3.03 INSPECTION AND QUALITY CONTROL BEFORE DESPATCH

Inspection & Testing to be carried out : As per approved Quality Assurance Plan (QAP)
 Inspecting Authority : HEC / BCCL / Authorized Agency

The manufacturer has to prepare a detailed Quality Assurance Plan (QAP) in the prescribed format (to be provided by HEC) and submit in triplicate for HEC/BCCL approval.

The QAP should cover all necessary checks, in addition to the following minimum requirement, related to receiving inspection of raw materials / bought-out items, in-process & final inspections including painting, marking, packing, etc.

- **Special Materials**

For the special materials e.g. casing, impeller, etc., the manufacturer shall furnish test certificates (chemical composition and mechanical properties) from approved testing laboratories like SISI lab., CMERI-Durgapur, etc. at no extra charge. Samples of such materials shall be selected as per relevant standard by the Purchaser's (HEC/BCCL) representative from the manufactured components.

- **Forgings & casting**

Ultrasonic Testing, Hardness other than Chem. Analysis & Mech. Properties.

- **Other checks**

- Dimensional checking of all items.
- pressure / leakage, rotational tests.
- Test certificates of materials and bought-out items.


3.04 DEVIATION, IF ANY

In case of any latent or silent deviation contained in the offered specification which might subsequently be revealed during scrutiny by HEC/BCCL, the same shall be remedied /taken care of by the Supplier for getting BCCL's approval promptly, without any additional price implication to Purchaser.

4.0 PAINTING:

Painting at Manufacturing Works:

Painting shall be carried out after issue of inspection certificate. All exposed metal parts of the equipment including piping, structure railing etc. wherever applicable, after installation unless otherwise surface protected, shall be first painted with at least one coat of suitable primer which matches the shop primer paint used, after thoroughly cleaning all such parts of all dirt, rust, scales, greases, oils and other foreign materials by wire brushing, scarping or sand blasting, and the same

	HEAVY ENGINEERING CORPORATION LIMITED
	PROJECT DIVISION

being inspected and approved by the HEC/ BCCL and/or his duly authorized representative for painting. Afterwards, the above parts shall be finished with two coats of alloyed resin machinery enamel paints. The quality of the finish paint shall be as per the standards of ISI or equivalent and to be of the color as approved by the HEC/ BCCL.

5.0 INSPECTION, TESTING & INSPECTION CERTIFICATE

- a) The HEC/ BCCL or his duly authorized representative and/or outside inspection agency acting on behalf of BCCL shall have at all reasonable times access to the Bidder's premises and shall have the power at all reasonable times to inspect and examine the materials and workmanship of the works during its manufacture or erection and if part of the works is being manufactured or assembled at other premises or works, Bidder shall obtain from the HEC/ BCCL or his duly authorized representative permission to inspect as if the works were manufactured or assembled on the Bidder's own premises or works.
- b) Bidder shall give the HEC/ BCCL fifteen (15) days written notice of any material being ready for testing. Such tests shall be to the bidder's account except for the expenses of the HEC/ BCCL or his nominee. The BCCL, unless witnessing of the tests is virtually waived, shall attend such tests within fifteen (15) days of the date on which the equipment is notified as being ready for test / inspection, failing which the bidder may proceed with the test which shall be deemed to have been made in the HEC/ BCCL or his nominee's presence and he shall forthwith forward to the HEC/BCCL or his nominee duly certified copies of tests in four copies.
- c) The HEC/ BCCL or his nominee shall within fifteen (15) days from the date of inspection as defined herein give notice in writing to the Bidder, of any objection to any drawings and all or any equipment and workmanship which in his opinion is not in accordance with the contract. The Bidder shall give due consideration to such objections and shall either make the modifications that may be necessary to meet the said objections or shall confirm in writing to the HEC/ BCCL or his nominee giving reasons therein, that no modifications are necessary to comply with the contract.
- d) The factory tests have been completed at the Bidder's works, the HEC/ BCCL or his nominee shall issue a certificate to this effect within fifteen (15) days after completion of tests but if the tests are not witnessed by the HEC/ BCCL or his nominee, the certificate shall be issued within fifteen (15) days of the receipt of the Bidder's test certificate by the HEC/ BCCL or his nominee. Failure of the HEC/ BCCL or his nominee to issue such a certificate shall not prevent the Bidder from proceeding with the works. The completion of these tests or the issue of the certificate shall not bind HEC/ BCCL to accept the equipment should it, on further tests after erection, be found not to comply with the contract.
- e) In all cases where the contract provides for tests whether at the premises or works of the Bidder, the Bidder, except where otherwise specified, shall provide free of charge such items as labour, materials, electricity, fuel, water, stores, apparatus and instruments as may be reasonably demanded by the HEC/ BCCL or his nominee to carry out effectively such tests of the equipment in accordance with the contract to accomplish testing.
- f) The inspection by HEC/ BCCL or his nominee and issue of Inspection Certificate thereon shall in no way limit the liabilities and responsibilities of the Bidder in respect of the agreed quality assurance programme forming a part of the contract.
- g) The above Clauses are also applicable for operation & maintenance during entire contract period, wherever required.

6.00 QUALITY ASSURANCE

6.1.1 QUALITY ASSURANCE PROGRAMME:


To ensure that the equipment and services under the scope of this contract whether manufactured or performed within the Bidder's works or at his sub-contractor's premises or at the owner's site or at any other place of work are in accordance with the specifications, the bidder shall adopt suitable quality assurance programme to control such activities at all points necessary. Such programme shall be outlined by the bidder and shall be finally accepted by the engineer after discussion before the issue of letter of acceptance of tender. A quality assurance programme of the bidder shall generally cover the following :

- a) His organization structure for management and implementation of the proposed quality assurance programme.
- b) Documentation control system.
- c) Qualification data for bidder's key personnel.
- d) The procedure for purchase of materials ,parts, components and selection of bidders services including analysis, source inspection, incoming raw-material inspection, verification of materials purchased etc.
- e) System for shop manufacturing and site erection control including process control and fabrication and assembly controls.
- f) Control of non-conforming items and system for corrective actions.
- g) Inspection and test procedure both for manufacturing and field activities.
- h) Control of calibration and testing of measuring and testing equipments.
- i) System for indication and appraisals of inspection status.
- j) System for quality audits
- i) System for authorizing release of manufactured products to the owner.
- k) System of maintenance records.
- l) System for handling, storage and delivery and
- m) A quality plan detailing out the specific quality control procedure adopted for controlling the quality characteristics relevant to each items of equipment furnished and each work at different stages executed at work site.

6.1.2 QUALITY ASSURANCE DOCUMENTS:

The contractor shall be required to submit the following Quality Assurance Documents within three weeks after dispatch of the equipment:

- a) All Non-destructive examinations procedures, stress relief and weld repair procedure actually used during fabrication.
- b) Welder and welding operator qualification certificates.
- c) Welder identification list, listing welder's and welding operator's qualification, procedure and welding identification symbols.
- d) Material mill test reports on components as specified by the specification.
- e) The inspection plan with verification, inspection plan check points, verification

	HEAVY ENGINEERING CORPORATION LIMITED
	PROJECT DIVISION

Sketches ,if used and method used to verify that the inspection and testing points in the inspection plan were performed satisfactorily.

- f) Sketches and drawings used for indicating the method of traceability of the radiography to the location on the equipment.
- g) All non-destructive examinations results reports including radiography Interpretation reports.
- h) Stress relief time temperature charts.
- i) Factory test results for testing required as applicable as per applicable codes and standard referred in the specification.
- j) The BCCL or his duly authorized representative reserves the right to carry out quality audit and quality surveillance of the systems and procedures of HEC/bidders quality management and control activities


7.0 TEST

7.1 START UP

- 7.1.2 HEC's commissioning/start-up engineers specifically identified as far as possible shall be responsible for carrying out all the pre-commissioning tests. On completion of inspection, checking and after the pre-commissioning tests are satisfactorily over, the complete equipment shall be placed on initial operation during which period the complete equipment shall be operated integral with sub-systems and supporting equipment as a complete plant referred hereinafter as plant.

7.3 PERFORMANCE AND GUARANTEE TEST

- 7.3.1 The final test as to the performance guarantees shall be conducted at site by Bidder in presence of HEC/ BCCL or his nominee. Such tests will be commenced within a period of two (2) weeks after successful completion of trial operations. Any extension of time beyond the above two (2) weeks shall be mutually agreed upon.
- 7.3.2 These tests shall be binding on both the parties of the contract to determine compliance of the equipment with the performance guarantees.
- 7.3.3 The instrumentation and control equipment will be used during such tests and the Bidder shall use all calibrated measuring equipment and devices as far as practicable. However, immeasurable parameters shall be taken into account in a reasonable manner by the HEC/BCCL, for the equipment of these tests. The tests will be conducted at the specified load points and as near the specified cycle condition as practicable. The Engineer shall apply proper corrections in calculation, to take into account conditions which do not correspond to the specified conditions.
- 7.3.4 All the equipment including any special equipment, tools and tackles and other facilities required for the successful completion of the performance and guarantee tests shall be provided by the Bidder, free of cost.
- 7.3.5 The guaranteed performance figures of the equipment shall be proved by Bidder during these performance and guarantee tests. Should the results of these tests show any decrease from the guaranteed values, the Bidder shall modify the equipment as required to enable it to meet the guarantees. In such case, Performance Guarantee Tests shall be repeated within one month, from the date the equipment is ready for re-tests and all cost for modifications including labour, materials and

	HEAVY ENGINEERING CORPORATION LIMITED
	PROJECT DIVISION

the cost of additional testing to prove that the equipment meets the guarantees, shall be borne by the Bidder. Duration of performance guarantee tests will be of one month of which 6 (six) days continuous on load operation is the minimum requirement and in case it fails, the process of Performance Guarantee Tests will be repeated.

7.3.6 The specific tests to be conducted on equipment have been brought out in the technical specifications.

7.3.7 Performance and guarantee test shall make allowance for instrumentation errors as may be decided by the engineer-in-charge BCCL.

08.00 SPARES, TOOLS & TACKLES

08.01 COMMISSIONING SPARES

Supply of commissioning spares as required shall be in the scope of supply of the Vendor along with the equipment. The list of commissioning spares shall cover requirements of erection, cold tests, start-up and initial operation of the equipment till integrated testing & successful commissioning. Any leftover commissioning spares shall be the property of the Employer. Any commissioning spares required over and above the list given by the Vendor shall have to be provided by the Vendor free of cost up to the successful commissioning & commencement of commercial production of the plant and equipment. The list of commissioning spares shall be indicated.

08.02 SPARES FOR TWO YEARS OPERATION & MAINTENANCE

1. The Vendor shall ensure the interchangeability of the parts wherever possible. The Vendor shall furnish an itemized list of interchangeable spares and the same shall be indicated in offer.


The list of spares as necessary and recommended by the Vendor for two years' of reliable and trouble free operation and maintenance of the equipment shall be furnished

2. Spares list giving complete list of the replaceable parts, fully illustrated, shall be supplied. The list shall include the following information.

- Item designation
- Reference drawings
- Quantity installed
- Quantity recommended for two years' normal operating including the insurance spares
- Weight of each spare part
- Vendor or sub-vendor's catalogue number
- Recommended minimum stock
- Expected replacement time
- Installation instruction in detail shall be supplied both for original installation and future, for replacement of major electrical equipment, circuit wiring diagram shall be provided.

09.00 SUPERVISION OF ERECTION, TESTING AND TRAININGS


Firm to provide training & development program and installation supervision for operation of the equipment.

	HEAVY ENGINEERING CORPORATION LIMITED
	PROJECT DIVISION

10.00 DRAWINGS & DOCUMENTS

10.01 Drawings

- 10.01.01** All drawings submitted by the Bidder including those submitted at the time of bid shall be sufficiently detailed to indicate the type, size, arrangement, weight of each component, break-up for packing and shipment, the external-connections, fixing arrangements required, the dimensions required for installation and inter-connections with other equipment and materials, clearances and spaces required between various portions of equipment and any other information specifically mentioned in the specifications.
- 10.01.02** Each drawing submitted by the successful Bidder shall have Title Block approved by the Purchaser indicating the name of the ***Employer, Purchaser, name of the project, title, Drawing No. etc.*** If standard catalogue pages are submitted the applicable items shall be indicated therein. All titles, noting, markings and writings on the drawing shall be in English. All the dimensions should be in metric units.
- 10.01.03** HEC/BCCL may use a 35 mm microfilm system in processing drawings. All drawings shall be suitable for microfilming. Drawings which are not suitable for microfilming will not be accepted. A copy of each drawings reviewed shall be returned to Bidder/HEC as stipulated herein. HEC/BCCL may also accept and use floppies/ CDs for computer based drawings.
- 10.01.04** Copies of drawings returned to the Bidder will be in the form of a print with the Employer's marking, or a print made from a microfilm of the marked up drawing or in the form of aperture cards if Bidder has facilities to process such cards or print made from floppies/CDs for computer based drawings.
- 10.01.05** The drawings submitted by the Bidder shall be reviewed by the HEC/ BCCL or his nominee as far as practicable within two (2) weeks and shall be modified by the Bidder if any modifications and / or corrections are required by the HEC/ BCCL or his nominee. The Bidder shall incorporate such modifications and/or corrections and submit the final drawings for approval. Any delay arising out of failure by the Bidder to rectify the drawings in good time shall not alter the contract completion date.
- 10.01.06** The HEC/ BCCL or his duly authorized representative's approval shall not alter the Bidder's responsibilities for the Design & Performance of items/equipment.
- 10.01.07** The drawings sent for approval to the HEC/BCCL or his duly authorized representative shall be in eight (8) Sets and one reproducible original of the drawings. One print of such drawings shall be returned to Bidder/HEC by the BCCL marked retained for record and released for execution. OR approved/ approved with corrections. Bidder/HEC shall thereupon furnish BCCL with twelve (11) prints and one reproducible original of the drawings after incorporating all corrections, if any.
- After completion of set up and before start of commercial operation, Bidder/HEC shall submit four sets of all final i.e. 'As built' drawings on 'Reproducible Tracing Film (RTF).
- 10.01.08** All manufacturing and fabrication work in connection with the equipment prior to the approval of the drawings shall be at the Bidder's risk. The Bidder may make any changes in the design which are necessary to make the equipment conform, to the provisions and intent of the contract and such changes will again be subject to approval by the HEC/ BCCL or his duly authorized representative. Approval of Bidder's drawings or work by the HEC/BCCL and/or his duly authorized representative shall not relieve the Bidder of any of his responsibilities and liabilities under the contract.

	HEAVY ENGINEERING CORPORATION LIMITED
	PROJECT DIVISION

11.00 OPERATING AND MAINTENANCE MANUALS:

“As built” drawings and/ or operating and Maintenance manuals required shall be supplied by the Bidder.

11.01 INSTRUCTION MANUALS

11.01.01 The Bidder shall submit to the HEC/BCCL and/or his duly authorized representative, preliminary instruction manuals for all the equipment, covered under the contract within the time agreed upon between the Purchaser & the Bidder. The final instruction manuals complete in all respects shall be submitted by the Bidder thirty (30) days before the first shipment of the equipment. The instruction manuals shall contain full details and drawings of all the equipment furnished, the erection procedures, testing procedures, operation and maintenance procedures of the equipment. These instruction manuals shall be submitted in the form of two (2) reproducible original and fifteen (15) copies.

11.01.02 If after the commissioning and initial operation of the plant, the instruction manuals require any modifications/ additions/changes, the same shall be incorporated and the updated final instruction manuals in the form of two (2) reproducible original and fifteen (15) copies shall be submitted by the Bidder to the HEC/BCCL.

11.01.03 The Bidder shall furnish to the HEC/BCCL, fifteen (15) sets of spare parts catalogue.

11.01.04 In addition, the Bidder shall supply three (3) sets of all the documents, specifications and as built drawings in CDs. The documents supplied shall be in easily readable, search & printable format

11.01.05 The Bidder has to carry out the work in such a manner that it does not affect the operation of the Plant/Shop. If other Bidders are also engaged in the same work site for other jobs, the Bidder will work with them in a co-ordination manner.

12.00 DRAWING/DOCUMENTS/DATA TO BE FURNISHED

12.01 DRAWINGS & DOCUMENTS TO BE SUPPLIED WITH OFFERS


Following drawings and documents shall be furnished by the manufacturer / supplier along with offer.

- i) Make and model of equipment/parts/components.
- ii) General arrangement drawings, specification, data sheet of the equipment
- iii) Catalogues/leaflets for all equipment including bought out items. Details of bought out items with makes shall be given separately.
- iv) Standard/special accessories being considered for supply along with the equipment,
- v) List of commissioning Spares
- vi) Critical Spare for Two year operational & maintenance spares
- vii) List of special Tools and Tackles if any
- viii) Specification of material of construction of major parts/components

12.02 DRAWINGS & DOCUMENTS TO BE SUPPLIED BY SUCCESSFUL BIDDER

Following drawings and documents shall be furnished by the manufacturer / supplier within 2 weeks from the date of order, for HEC/BCCL approval.

- i) Schedule of Design, procurement, manufacture, inspection/ testing and delivery. In the form of a bar chart.
- ii) General arrangement drawings, specification, data sheet of the equipment.
- iii) Equipment installation layout with load data (static & dynamic).
- iv) Quality Assurance plan and Inspection/ Test Procedures.

	HEAVY ENGINEERING CORPORATION LIMITED
	PROJECT DIVISION

- v) Inspection / Test Certificates and Guarantee Certificate for the main equipment. Components and raw materials as applicable- During inspection.
- vi) Instruction & maintenance Manual- during delivery of equipment/ spares. (draft document to be furnished for BCCL's comments/ approval.
- vii) Catalogues/leaflets for all equipment including bought out items. Details of bought out items with makes shall be given separately.
- viii) Standard/special accessories being considered for supply along with the equipment,
- ix) List of commissioning, one year operational & maintenance spares,
- x) List of special Tools and Tackles if any
- xi) Specification of material of construction of major parts/components.

12.03 Drawing & Documents To Submitted After Placement Of Order

Drawing & Documents To Submitted After Placement Of Order

- a) Drawings listed hereinafter shall be submitted to the Purchaser/his consultant in stages for approval, starting within two weeks of issue of letter of intent and prior to the commencement of fabrication. The load data/ drawing must be submitted within two weeks of issue of letter of intent.
- b) General arrangement drgs drawn to the scale and containing all information's as described elsewhere along with weight for individual equipment.
- e) In addition to the above, the Purchaser/ consultant reserves the right to insist on the submission of calculation and/or drawings for any technical, structural and Electrical components as required.
- f) Submission of detailed design calculations, analysis (static and dynamic) and drawings for Purchasers acceptance and approval. All documents and drawings shall be supplied in copies and two reproducible. All calculation shall be submitted in sets.
- g) Quality Assurance plan and Inspection/ Test Procedures.

12.04 Contract drawings and documents to be furnished along with the supply:

- a) Erection drawings, erection specification & erection instructions
- b) Instruction for storage and reconservation including those for electrical, instrumentation and communication items
- c) Performance data
- d) Test charts and inspection certificates in bound volume
- e) Operation & maintenance manuals
- f) Safety manuals
- g) Manufacturing drawing and bill of materials for all spares and wearing parts (excluding those for proprietary items)
- h) Ordering specifications including catalogues and details for all spares (including proprietary items) along with spares list.
- i) Ordering specifications for operating consumables/ supplies
- j) All as built drawings, in bound volumes incorporating approved changes if any made during Erection and commissioning, shall be supplied progressively within two months of commissioning of the (all drawings are to be furnished even if there is no change) equipment.
- k) Classified list of drawings in A4 size (also in soft copy form).

**TECHNICAL SPECIFICATION OF LAB EQUIPMENT****List of Laboratory Equipments :-**

Sl No.	Equipment	Qty in Nos/sets
1.	VM furnace	1
2.	Moisture testing Furnace	1
3.	Weighing machine- 300Kg	1
4.	Electronic Balance cap-5.0Kg	1

General Specification of the Equipment: -**1. VM Furnace :**

- Schedule of Requirement: - Volatile Matter Furnace for laboratory for determination of volatile matters of coal samples.
- Temperature Range: - 0-1200 degree centigrade.
- Material of Construction: - Outer body made of MS with good finish paint. Inner body made of stainless Steel.
- Other Details: - The heating arrangement through Hair pin type coil Kanthol A-1 make. Temperature maintained through Digital Controller of temperature range ambient to 1200 degree centigrade (Accuracy +/- 1 degree centigrade). Working temperature 900+/- 10 degree centigrade. Insulation through ceramic blanket suitable for 1200 degree centigrade. Hinge type door with a small round opening in the center and provision closing the hole as and when required. One Chimney in the back side of the furnace as an exhaust. Control panel consists of indicating lamp, digital controller, toggle switch, fuse etc. Also shall be provided with steel tongues and insulated gloves.
- Power Supply: - 220/230V/50-60 HZ. Complete with plug top, cable.
- Calibration: - One calibrated digital controller with thermos couple shall be supplied with the furnace.
- Note: - As per IS: 1350 (Part-I)-1984 and other relevant IS: code.

2. Moisture Testing Furnace :

- Schedule of Requirement: - Moisture Furnace for laboratory completes with all control facilities for determination of moisture of coal samples.
- Air Circulation: - By air circulating fan.
- Temperature: - Ambient to 108 degree centigrade. Accuracy +/- 2 degree centigrade.
- Material of Construction: - Outer body made of MS with good finish paint. Inner body made of stainless Steel.
- Shelves: - 3 nos. adjustable SS trays.
- Other Details: - Small blower attached to lower side of the oven. The inner body heated through Nichrom Wire is fitted in base frame. The temperature maintained through digital temperature controller of temperature range ambient to 108 degree centigrade +/- 2 degree centigrade. The control unit shall be provided with sensors, indicating lamps, Digital Controller, device for fine control, toggle switch, fuse etc. Upper side air vent.



- Power Supply: - 220/230V/50-60 HZ. Complete with plug top,cable.
- Note :- As per IS: 1350 (Part-I)-1984 and other relevant IS: code

3. Weighing Machine :

- Schedule of Requirement: - Electronic balance for laboratory for weighing coal samples.
- Display :- Bright Digital Display
- Capacity :- 0 – 300 kg
- Readability/Accuracy :- 1 gm
- Power :- Suitable for both 220V AC or Battery
- Material of Construction: - Stainless steel weighing platform.
- Operating Temperature :- Ambient temperature upto 50 degree centigrade
- Other details: - Feather touch membrane keyboard with audible indication during entry.

4. Electronic Balance :

- Schedule of Requirement :- Electronic Balance (analytical) for laboratory for determination of ash etc. of coal samples.
- Display :- LCD with Backlit and high contrast Digital display.
- Capacity : 5 Kg.
- Readability/Accuracy: - 0.001 gm.
- Power :- Suitable for both 220V AC or Battery
- Material of Construction: - Stainless steel weighing platform.
- Operating Temperature :- Ambient temperature upto 50 degree centigrade
- Other details :- Feather touch membrane keyboard with audible indication during entry. Wind screen 3 glass doors, real time temperature compensation, automatic calibration software and other necessary features.