



INVITATION TO TENDER

Ref: OPS/OS/WC/2016-17/40/053

Date: 13.12.2016

Sub: Tender for Mechanical Contract for Unloading, Fabrication, Erection, Testing, Painting of Heater Components and Its Auxiliaries and Providing Assistance for Pre-commissioning and Commissioning of Heater Package and Auxiliaries at M/s. IOCL - Haldia, West Bengal – Reg.

Sealed tenders are invited under **two bid system**, Techno-Commercial Bid (Part-I) and Price Bid (Part-II) from the reputed and experienced contractors with sound technical and financial capability for the subject work.

SL. No.	NAME OF THE WORK	ESTIMATE VALUE ₹	EMD ₹	WORK COMPLETION PERIOD	LAST DATE FOR RECEIPT OF TENDER
01	Mechanical Contract for Unloading, Fabrication, Erection, Testing, Painting of Heater Components and Its Auxiliaries and Providing Assistance for Pre-commissioning and Commissioning of Heater Package and Auxiliaries at M/s. IOCL - Haldia, West Bengal	230.00 Lakhs	4.60 Lakhs	6 Months	28.12.2016 up to 14.00 Hrs.

1.0 ELIGIBILITY CRITERIA

- I) Average annual turnover of the contractor during the last 3 years ending 31st March 2016 should be at least 30% of the estimated value (i.e. ₹ 69.00 Lakhs). In case annual turnover for FY 2015-16 is not finalized or ITR is not submitted by the contractor, Average annual turnover during the last 3 years ending 31st March 2015 shall be considered.

Tenderer should enclose copy of EPF, ESI, PAN, TIN, Service Tax New registration, Sales Tax / WCT/ West Bengal VAT Registration certificate, Income tax returns for last three years (FY 2012-13, 2013-14 & 2014-15/2015-16) and Profit & Loss account and Balance Sheet certified by the Practicing Chartered Accountant for the last 3 years.

- II) The Contractor should have experience of completing similar works during last 7 years ending 30th November 2016 as given below:
- (a) Three similar completed works costing not less than the amount equal to 40% of the estimated value (i.e. ₹ 92.00 Lakhs each)
- OR
- (b) Two similar completed works costing not less than the amount equal to 50% of the estimated value. (i.e. ₹ 115.00 Lakhs each)
- OR
- (c) One similar completed work costing not less than the amount equal to 80% of the estimated value. (i.e. ₹ 184.00 Lakhs)

Work orders & Job Completion Certificates from the customer shall be enclosed in support of successful and satisfactory completion of the orders.

Note: Similar Works means Fabrication & Erection of Structural, Erection of Static / Rotary Equipments including Heavy lifts, fabrication, erection, NDT, Testing of Coils/ Piping.

III) The works executed in the own name of the tenderer will only be considered for eligibility criteria.

The bidder has to submit the documentary proof along with technical bid for the above.

Also Qualification Criteria shall be as per Clause 1.5 in page no. 4 of GCC (Document No. PS:MSX:GCC.Rev.01).

- IV) Bidder to confirm the Manpower deployment schedule as per Annexure-VI and Construction machineries deployment schedule as per Annexure-VII.
- V) The data/ documents as specified in clause 1.7 in Page No.5 of GCC (Document No. PS:MSX:GCC.Rev.01) are to be enclosed to technical bid.

2.0 BREIF DESCRIPTION OF WORK :

Site work for unloading, handling and stacking of materials at site, erection, painting, testing, pre-commissioning & commissioning assistance, including all machineries, cranes, labour, tools, tackles and consumables (Electrode, Gas, Argon etc.) whatsoever required for erection of Heaters and its auxiliaries as per drawings, EIL standards & specifications and SOQR.

The various components of the Heater will be fabricated in Modular form at BHEL-HPVP shop and will be dispatched to site to minimize the quantum of the site works.

For erection of Heater components, contractor has to arrange the required capacity of cranes at their cost.

The detailed scope of work is as given in the Annexure-I, EIL Standards, Specifications, Drawings and SOQR enclosed to NIT.

3.0 LOCATION OF SITE:

The site is located at M/s IOCL HALDIA – West Bengal. The tenderers are advised to visit the site before submission of the tender to assess for themselves the site conditions, the entry restrictions, safety requirements, labour regulations, local conditions etc. at M/s IOCL HALDIA – West Bengal.

4.0 EARNEST MONEY DEPOSIT

The tender shall be accompanied with a Demand Draft of ₹ **4,60,000/-** (Rupees four Lakhs sixty thousands only) towards EMD only in the following forms:

- a) Cash Deposit as permissible under the extant Income Tax Act (before tender opening).
 - b) Electronic Fund Transfer credited in BHEL account (before tender opening).
 - c) Banker's Cheque/ Pay Order/ Demand Draft, in favour of BHEL, Visakhapatnam along with offer
- I. EMD by the tenderer will be forfeited as per NIT conditions, if:
- a) After opening the tender and within the offer validity period, the tenderer revokes his tender or makes any modification in his tender which is not acceptable to BHEL.
 - b) The contractor fails to deposit the required security deposit or commence the work within the period as per LOI/ Contract.

c) EMD by the tenderer shall be withheld in case any action on the tenderer is envisaged under the provisions of extant "Guidelines on Suspension of business dealings with suppliers/contractors" and forfeited/ released based on the action as determined under these guidelines.

II. EMD given by all unsuccessful tenderers shall be refunded normally within 15 days of award of work.

III. EMD shall not carry any interest.

IV. EMD of successful tenderer will be retained as part of Security Deposit.
successful bidder.

Note: Micro & Small Enterprises (MSEs) are eligible for exemption of EMD as per clause no. 2.29 of annexure – III.

5.0 WORK COMPLETION PERIOD:

The entire scope of work is to be completed within **SIX months** from the date of mobilization call or one month from the date of receipt of last materials at site whichever is later.

6.0 LIQUIDATED DAMAGES:

In the event of any delay in completion of work or part thereof as per the contractual completion period due to the reasons attributable to contractor, BHEL - HPVP shall have the right to impose Liquidated Damage at the rate of 0.5% of the contract value for every complete week of delay or part thereof subject to a maximum of 10% of the contract value.

7.0 SECURITY DEPOSIT:

Security Deposit shall be collected from the successful tenderer as per clause 1.10 of annexure- III

8.0 INCOME TAX & WORK CONTRACT TAX:

Income tax & work contract tax as per statutory requirement will be deducted on each payment made to the contractor and TDS certificate will be issued to this effect.

9.0 PAYMENT TERMS

90 % progressive payment based on work done against monthly RA bills.

Out of 90%, 5% will be released against final painting & 5% will be released against mechanical completion & final acceptance by consultant / customer.

Balance 10% on completion and acceptance of work and submission of final bill along with relevant documents as per contract and after expiry of guarantee period/defect liability period. However, this retention amount can be released on commencement of guarantee period and on submission of equivalent Performance bank guarantee valid for Defect liability period plus claim period of 3 months.

The detailed billing break-up to be prepared and to be approved by BHEL-HPVP for submission of monthly RA bill after award of job.

10.0 MODE OF PAYMENT:

The mode of payment and measurement of work completed shall be as per relevant clauses of General Conditions of contract and Special Conditions of the contract.

Payment will be released only through RTGS/ NEFT and all documents required for the same as specified in SCC are to be submitted by contractor along with the bill.

FINAL BILL

Final bill shall be submitted after completion of all works and material reconciliation along with following documents as specified in General Conditions of contract.

- a) Work Completion Certificate by BHEL Site In- charge.
- b) No Claim certificate by Contractor.
- c) Clearance Certificates wherever applicable viz. Clearance Certificates from Customer, various Statutory authorities like Labour Department, PF authorities, Commercial Tax Dept. etc.
- d) Indemnity Bond as per prescribed format.

11.0 PRICE SCHEDULE, TAXES & DUTIES:

- a. Prices shall be quoted in the price schedule attached to the tender for the complete scope of work.
- b. The quoted prices shall be inclusive of all applicable taxes & duties as applicable as on date of tender submission except service tax. However, Service Tax as applicable shall be reimbursed on submission of proof of payment.
- c. In addition to existing taxes, any new taxes imposed by Central/ State Govt. shall be payable by the contractor and same shall be reimbursed on submission of relevant documents/proof of payment.
- d. In case, any new tax is imposed instead of existing tax, difference of the amount shall be reimbursed/ recovered on submission of documentary evidence.
- e. Any new tax is imposed by Central/ State Govt. or there is any variation in taxes after expiry of delivery / contract period, the same shall be borne by contractor only.
- f. All terms & conditions of the contract in respect of taxes & duties are subject to new taxation laws introduced time to time by Govt. and terms & conditions will deemed to be modified in accordance with the provisions of New Laws (i.e., GST)
- g. The quoted prices shall be fixed & firm without any escalation during the entire period of contract and till completion of the work.
- h. Tenderer should quote the amounts in figures & words. It may be noted that corrections, overwriting etc. are not allowed.
- i. All rates shall be quoted in the tender format only.

12.0 REVERSE AUCTION:

“BHEL reserves the right to go for Reverse Auction (RA) (Guidelines as available on www.bhel.com) instead of opening the sealed envelope price bid, submitted by the bidder. This will be decided after techno-commercial evaluation. Bidders to give their acceptance with the offer 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.

Those bidders who have given their acceptance to participate in Reverse Auction will have to necessarily submit ‘Process compliance form’ (to the designated service provider) as well as ‘Online sealed bid’ in the Reverse Auction. Non-submission of ‘Process compliance form’ or ‘Online sealed bid’ by the agreed bidder(s) will be considered as tampering of the tender process and will invite action by BHEL as per extant guidelines for suspension of business dealings with suppliers/ contractors (as available on www.bhel.com).

The bidders have to necessarily submit online sealed bid less than or equal to their envelope sealed price bid already submitted to BHEL along with the offer. The envelope sealed price bid of successful L1 bidder in RA, if conducted, shall also be opened after RA and the order will be placed on lower of the two bids (RA closing price & envelope sealed price) thus obtained. The bidder having submitted this offer specifically agrees to this condition and undertakes to execute the contract on thus awarded rates.

If it is found that L1 bidder has quoted higher in online sealed bid in comparison to envelope sealed bid for any item(s), the bidder will be issued a warning letter to this effect. However, if the same bidder again defaults on this count in any subsequent tender in the unit, it will be considered as fraud and will invite action by BHEL as per extant guidelines for suspension of business dealings with suppliers/ contractors (as available on www.bhel.com).

As a reminder to the bidders, system will flash following message (in RED Color) during the course of 'online sealed bid':

"Bidders to submit online sealed bid less than or equal to their envelope sealed bid already submitted to BHEL".

General terms & conditions governing RA are mentioned in the special conditions at Annexure-VIII

13.0 VALIDITY OF OFFER:

The offer shall be valid for a period of **Six months** from the last date for tender submission.

14.0 RISK PURCHASE:

In case the contractor fails to execute the work due to any reason, BHEL reserves the right to get the same completed through some other party at the risk & cost of the contractor and any additional expenditure incurred due to the same shall be charged to the contractor.

15.0 GENERAL:

15.1 Bidders shall confirm their acceptance to all the terms & conditions of the tender enquiry.

Deviations to the tender conditions are not acceptable and BHEL-HPVP reserves the right to reject such offers which do not meet Technical / Commercial requirements without any / further correspondence.

Bids not accompanied with requisite EMD/NSIC/MSME registration certificate, late / delayed bids, incomplete / conditional offers, bids not conforming to the terms & conditions specified in the tender documents are liable for rejection.

15.2 BHEL reserves the right to modify or cancel or short close the tender at any stage at its discretion without assigning any reason thereof.

15.3 The bidders shall study the Tender documents and all other relevant documents in detail for understanding the scope of work involved in various items before submission of offers.

For any clarifications required on this tender document, scope of work etc., the bidders shall depute their authorized representatives to HPVP, Visakhapatnam with prior intimation to get clarifications from concerned authorities.

15.4 Manager (E&C) shall be the Officer-in-charge for herein after referred to as such in the tender.

15.5 Lowest offer need not be the rate acceptable to BHEL-HPVP. BHEL-HPVP reserves the right for negotiation with the L1 bidders or opt for Reverse Auction as per applicable guidelines.

15.6 The following documents (enclosed) shall form part of the contract including this Notice Inviting Tender.

INDEX OF CONTENTS			
Sl. No.	Description Of Documents	Document/Drawing/ Standard/ Specification	Remarks
1	Detailed Scope of Work		Annexure-I
2	Schedule Of Quantities & Rates (SOQR)		Annexure-II
3	General Conditions of Contract		Annexure-III
4	Special Conditions Of the Contract		Annexure- IV
5	Painting Schedule Rev: A		Annexure-V
6	Manpower Deployment schedule		Annexure-VI
7	Construction Machineries deployment schedule		Annexure-VII
8	Terms & Conditions of Reverse Auction		Annexure- VIII
9	Acceptance to the Tender terms & Conditions		Annexure-IX
10	Minimum Wages As Per Central Labour Department		Annexure-X
11	Contractor Information		Annexure-XI
12	Check List		Annexure-XII
13	Offer forwarding letter / Tender submission letter	Form No: F-01 Rev 0	
14	Declaration by authorized signatory of bidder	Form No: F-02 Rev 0	
15	No deviation certificate	Form No: F-03 Rev 0	
16	Declaration confirming knowledge about site conditions	Form No: F-04 Rev 0	
17	Agreement	PS:MSX:F & P Rev 0	
18	Bank Guarantee	Form No: F-11 Rev 0	
19	Indemnity Bond	Form No: F-21 Rev 0	
20	Power of Attorney	Form No: F-25 Rev 0	
21	Job Specification of Fired Heaters	A609-78-41-SP-002	
21	Standard specification of Execution of Fired Heater System	6-17-001	Rev 4
22	Std. specification for coil works	6-17-003	Rev 4
23	Standard specification for QC check for Fabrication and Erection	6-17-0017	Rev 0
24	Welding Symbols	7-68-0251	Rev 5
25	Installation and Testing of FD and ID Fan	A609-103-82-41-OD-T001	Rev A
26	Safety Measures for Electrical Installation during Construction	7-51-0332	Rev 2
27	Special conditions of contract -Technical	103-78-41	Rev 0
28	G A Drawings	A609-103-7841-101 to 104	Rev A
29	General note on Heater Package	A609-103-78-4108	Rev A
30	Standard Specification for surface preparation and protective coating	6-79-0020	Rev 0
31	Specification for documentation requirement from Contractor	6-78-002	Rev 0
32	Stack Field Splice details	7-17-0428	Rev 4
33	List of Modularization Drawings	1-48-801-d-000 to1-48-803-d-000 and sketches of Radiant and Convection coils	Rev 0
34	Modularization Philosophy	7794-M	Rev 0
35	GA of Cast Air Pre-Heater	GA -APH-6681-01	Rev 0
36	QAP	CQP -037	Rev 0

16.0 TENDER COLLECTION:

Tender Documents can be downloaded from our Websites www.bhelviz.co.in & www.bhel.co.in.

17.0 TENDER SUBMISSION:

17.1 The Bid shall be submitted in two parts.

Part-I: Techno-Commercial Bid shall be placed in one cover along with the following documents:

- a. All pages of tender document after duly signed & stamped
- b. Proof of document for payment of Earnest Money Deposit of ₹ 4,60,000/-
- c. Income tax returns for last 3 year, Profit & Loss account and Balance Sheet certified by the Practicing Chartered Accountant for the last 3 years
- d. Copy of P.F. Registration Certificate.
- e. Copy of E.S.I Registration Certificate.
- f. Experience Certificates in line with eligibility criteria
- g. Copy of Service Tax Registration Certificate.
- h. Copy of PAN & TIN.
- i. All other applicable documents as detailed in the tender

Part-II: Price Bid in the prescribed format shall be placed in **another separate cover.**

The tender documents including the various supporting documents enclosed by the bidder should be **signed on all pages with seal.**

Both covers containing Part- I & Part- II bids shall be placed in **another bigger size envelope** duly superscribing the **Tender No. & Subject** on the envelope.

17.2 The tender completed in all respects **shall be dropped** in the **Outsourcing** tender box kept at reception counter, ADM building **latest by 14.00 Hrs. on 28.12.2016.**

Bidder may also send their offers by Post to **"Outsourcing Tender Box, Admn. Building, BHEL - HPVP, Visakhapatnam - 530012".**

Last date for receipt of tenders is **28.12.2016 up to 14.00 hrs.** BHEL-HPVP is not responsible for any postal or other delays in submission of offers.

Offers received in any other form will not be accepted.

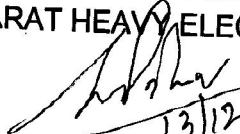
17.3 Submission of offer by a tenderer implies that all the tender documents were read by the tenderer and the tenderer is aware of the scope and specifications of the work, site condition, local conditions and rates at which stores, tools and plant, free / chargeable materials etc., will be issued to him by BHEL - HPVP and other factors having bearing on the execution of the work.

18.0 OPENING OF TENDERS:

Techno-commercial Bids will be opened on **28.12.2016 at 14.00 Hrs.** at Customer Cell, Admn. Building, BHEL- HPVP. The bidders may depute their representatives at the time of opening. The price bid of the technically qualified bidders will also be opened in the presence of representatives of the bidders and the date & time of opening of price bids will be intimated later. In case of reverse auction, the date of conducting reverse auction will be intimated in advance at appropriate time.

If bids are not accompanied by requisite EMD/Valid NSIC Certificate/MSME registration certificate along with Part- I (Techno Commercial Bid), then Part-II (Price Bid) will not be considered for opening.

Yours Faithfully,
For BHARAT HEAVY ELECTRICALS LIMITED,


13/12/2016
Sr. Manager (OS)
S.C. PASHA
Sr. Manager (Out Sourcing)
BHEL - HPVP

DETAILED SCOPE OF SITE WORKS OF HEATERSPART A (Technical):

Heater package consists of three heaters as under:

1. 103-F-001 (MHC Heater)
2. 103-F-002 (ATM Distillation Heater)
3. 103-F-003 (HDT Reactor Heater)

The heaters are vertical, cylindrical heater with self mounted convection section and Off-take Ducts from MHC Heater and ATM Distillation Heater are connected to a stack on the top of HDT Reactor Heater. All the heater components shall be fabricated in BHEL-HPVP shop and supplied to site as modules/segments. All bought out components shall be dispatched to site directly from vendors works. Contractor has to carry out the erection of these components at site as per drawings, standard and specifications.

The heaters are having platforms and ladders which are to be erected by the contractor. The ladders and platforms will be supplied to the site in pre-fabricated condition from BHEL-HPVP. Any mismatch or fabrication of small component inclusive of cutting, drilling, welding, painting etc. has to done at site by the contractor. The contractor has to erect the stack on the top of HDT Reactor Heater along with Ladders and platforms.

There are FD fans (2 Nos.) and ID fan (1 No.) which are connected to HDT Reactor Heater (103-F-003) by Air Ducts. The Duct will be supplied to the contractor in prefabricated condition in DU's which are to be erected by the contractor along with Damper, Air preheater and Duct supporting structure etc. The contractor has to do erection, alignment and do pre-commissioning activities for the Fans.

The following drawings may be referred with respect to above to have a clear understanding of the work involved.

SI No	Drawing No
1	A609-103-78-41-0101
2	A609-103-78-41-0102
3.	A609-103-78-41-0103
4.	A609-103-78-41-0104
5	A609-103-78-41-1100
6.	A609-103-78-41-1105
7.	A609-103-78-41-1106
8.	A609-103-78-41-0111
9.	A609-103-78-41-0112

The section wise details are as under.

1.0 RADIANT SECTION

Radiant section shall be fabricated in segments assembled with columns, stiffeners at BHEL-HPVP with vertical flanged joints (to be welded after alignment) and dispatched to site as Modules. The floor plates and arch plate and part of the convection supporting structure duly assembled and welded shall be supplied in **Pre-fabricated condition** to site as per modular philosophy vide Document No: 7794 – M.

The number of modules to be made for Radiant sections in Heater wise are as follows:

103-F-001 (MHC Heater)	: 3 nos. Segments.
103-F-002 (ATM Distillation Heater)	: 3 nos. Segments.
103-F-003 (HDT Reactor Heater)	: 5 nos. segments.

The radiant shell section shall be unloaded, stacked, properly stored and transported from storage area to erection site, erected, aligned, welded and grouted as per AFC drawings, EIL Specifications and Standards, QAP etc.

The base plate of the Columns of Radiant shell will be sent in tack weld condition to accommodate any mismatch in the foundation / foundation bolts. Any mismatch to be corrected by contractor to suit the drilled holes as per drawing and welding of the base plate with columns to be carried out after erection.

All the requisite temporary staging/ scaffolding required for the erection, alignment, welding are to be arranged by the contractor.

The openings for sight doors, observation doors, access doors, peep hole doors, tapping points, Spigot pipes, HC Inlet & out lets etc., are to be marked and openings are to be made in position by the contractor. Sight doors, access doors & observation doors will be supplied in finished condition duly refractory lined wherever applicable. These are to be unloaded, stacked, properly stored, transported from storage area to erection site, assembled with radiant section, aligned and welded to radiant shell as per AFC drawings, EIL Specifications and Standards, QAP etc.

The Instrument tapping connections like Skin thermocouples, PI, PT etc. will be supplied in pre-fabricated condition and are assembled & welded to the casing of radiant section.

The wall tube hanger supports for the radiant coils will be supplied to site in finished condition. Unloading, stacking, proper storing, transporting from storage area to erection site, assembly with radiant section, alignment and welding to radiant shell as per drawings, & specifications is in scope of contractor. These activities are to be carried out by contractor prior to the refractory work and erection of the radiant coil banjos.

After completion of all the mechanical works, the radiant section will be released for refractory work to be carried out by other vendor. All necessary coordination for carrying out the refractory work is in scope of the contractor.

Any other mechanical works like removal of scaffolding / staging materials etc. pertaining to release of the work front for the refractory work in radiant section is in scope of the contractor.

After the completion of refractory work in radiant section, the erection of radiant coils work is to be commenced.

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Radiant coils shall be supplied in number of banjos in **pre-fabricated condition** to site along with temporary structure and stiffeners for maintaining the profile. The shop weld joints of these banjos will be duly tested, with NDT & Radiography carried out and will be supplied in ready for erection condition.

The number of banjos which will be supplied to site Heater wise are as follows:

103-F-001 (MHC Heater) : 4 nos. Banjos

103-F-002 (ATM Distillation Heater) : 4 nos. Banjos.

103-F-003 (HDT Reactor Heater) : 8 nos. Banjos

These banjos are to be unloaded, stacked, properly stored, transported from storage area to site, erected along with temporary structure, assembled, aligned and field joints are to be welded inside / outside Radiant section and NDT & 100% Radiography shall be carried out as per approved WPS, QAP, PQR, AFC drawings, EIL Specifications and Standards etc.

The temporary structure along with the stiffeners which has come along with radiant coil banjos are to be cut, dismantled and removed after the alignment and welding of the field joints of the radiant coil, in order to maintain the profile accuracy.

The stems of Skin thermocouples are to be welded on the radiant coils and NDT to be carried out as per the EIL standards & specifications with approved WPS, PQR & electrodes.

All spigot pipes are to be assembled & welded to Radiant coil as per Drawings / EIL Standards/ Specifications.

The supporting structure for convection section will be dispatched to site in prefabricated condition in DU's and are to be assembled and welded on top of the radiant section.

The cross over piping spools connecting the Radiant coils outlet and convection coils inlet will be fabricated, welded and NDT carried out & Tested at BHEL HPVP and sent to site in **prefabricated spools**. Only the Field Joints - are to be assembled, welded and 100% Radiography and required NDT etc., to carried out at site. Erection of coil anchors, cross guides, piping supports etc as per AFC drawings, EIL Specifications and Standards are to be carried out at site. After completion of field joints system hydro-test has to be conducted for individual Heaters.

Fixing of tube seals as per enclosed EIL specifications and Standards for all coil parts coming out of furnace shell through sleeves. Other items like nozzles, pressure gauges etc shall be erected & assembled.

Erection/ assembly & welding of wall tube hangers, brackets, and its support brackets, guide angles etc for coil work as per AFC drawings, EIL Specifications and Standards before coil erection.

Brief details of Radiant Section: The weights of the modules are only indicative. The weight indicated in SOQR are final.

HDT Heater 103-F-003

Approx	Module-1	Module-2	Module-3	Module-4	Module-5
Width	4400	4400	4400	4465	4400
Length	12600	12600	12600	12600	12600
No of Column	2	1	2	2	1
Weight	5.0	3.5	5.0	5.0	3.5

Atm. Distillation Feed Heater 103-F-002

Approx	Module-1	Module-2	Module-3
Width	4100	4100	4100
Length	8400	8400	8400
No of Column	3	4	3
Weight (M.T.)	4.0	4.24	4.0

MHC Heater 103-F-001

Approx	Module-1	Module-2	Module-3
Width	4200	4100	4100
Length	9100	9100	9100
No of Column	3	4	3
Weight (M.T.)	4.5	5.0	4.5

COILS OF RADIANT SECTION**HDT Heater: 103-F-003 (Material Spec- A312 TP 321, Size:141.3 X15.8th)**

Approx.	Banjo Size / No
Width	2400
Length	10600
Banjo Nos.	8
Weight (M.T.)	6 M.T. / each

Atm. Distillation Feed Heater: 103-F-002 (Material Spec-A 335 Gr P9, Size: 114.3X6.02)

Approx.	Banjo Size / No
Width	2550
Length	6500
No	4
Weight (M.T.)	1.6 M.T. / each

MHC Heater 103-F-001 (Material Spec- A312 TP 321, Size: 168.3X14.3)

Approx.	Banjo Size/ No.
Width	2560
Length	7026
No	4
Weight (M.T.)	3.5 M.T./ each

2.0 CONVECTION SECTION:

The convection section of the Heater shall be made in **Modules** and sent to site in pre-fabricated condition. The number of modules for each heater are as follows.

103-F-001 (MHC Heater) : 2 nos.

103-F-002 (ATM Distillation Heater) : 3 nos.

103-F-003 (HDT Reactor Heater) : 2 nos.

Modules of convection section will be supplied to site in **pre-fabricated condition** with all the convection coils & jump over coils duly installed, assembled, welded & hydro tested and duly refractory lined complete in all respects. Also the tapping points like PT & TE, observation doors/ steam lancing will be assembled and welded to the convection module.

Unloading, stacking, proper storing, transporting from storage area to erection site, erection of Modules as per AFC drawings, EIL Specifications and Standards is in the scope of contractor. The assembly, welding of Modules are to be carried out with continuous welding on outside and inside as per AFC drawings, EIL Specifications and Standards.

Header Boxes for the Convection section will be sent to site in pre-fabricated condition duly assembled, welded and refractory lined. Unloading, stacking, proper storing, transporting from storage area to erection site, assembly with convection modules, alignment and welding as per AFC drawings, EIL Specifications and Standards is in scope of contractor. The jumps over between the modules for the coils are to be welded after completion of alignment and welding of modules.

MHC Heater 103-F-001				
Module	Width	Height	Length	Weight (M.T.)
I	1456	3190	6406	14.7
II	1456	2870	6406	10.0
ATM Distillation Heater 103-F-002				
I	1228	3634	4326	21.5
II & III	1228	4156	4326	22.0
HDT Reactor Heater 103-F-003				
I	1764	3471	8026	38.50
II	1764	2929	8026	29.35
All the Modules will be supplied with Refractory lining and Convection coils inserted in position duly NDT done and Hydro tested.				

The weights of the modules are only indicative. The weight indicated in SOQR are final.

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3.0 Erection, welding, all applicable NDT and radiography required for all fittings, sleeves (CS & SS), valves & flanges for instruments and auxiliary connection including connection for snuffing steam as per AFC drawings, EIL Specifications and Standards are to be carried out by contractor.

4.0 CAST AIR PREHEATER:

Cast Air Pre Heater will be supplied in 5 (Five) Modules in Finished condition directly to site from the vendor. These Modules are to be unloaded, stored properly, stacked, transported to erection site by contractor. These modules are to be installed on the supporting structure which will be supplied in Prefabricated condition from BHEL-HPVP. The erection, assembly, welding of Modules on the supporting structure are to be carried out as per AFC drawings, EIL Specifications and Standards.

DESCRIPTION	SIZE (LX B X H)	GROSS WEIGHT (MT)	VOLUME (M ³)
MODULE -I	2420 X 2610X 2230	11.0	14.0
MODULE -II	2170 X 2160 X 2130	8.5	9.9
MODULE -III	2170 X 2160X 3170	14.0	14.8
MODULE -IV	2170 X 2160X 3170	14.0	14.8
MODULE -V	2170 X 2160 X 2650	10.5	12.4
AIR CROSS OVER DUCTS 4 NOS.		7.0	36.4
TOTAL WEIGHT		61.0	

5.0 SUPPORTING STRUCTURE FOR STAIRCASE, DUCTS, AIR PRE-HEATER:

The supporting structure will be sent loose in prefabricated condition which are to be unloaded, stacked, properly stored, transported from storage area to site, erected, assembled, aligned and welded to the respective components of Heater by the contractor as per AFC drawings, EIL Specifications and Standards.

6.0 FLUE GAS DUCTS:

These Ducts with flanged ends duly **prefabricated & refractory lined** shall be supplied to site in DU's (dispatchable units). These ducts are to be unloaded, stored properly, stacked, transported to erection site by contractor. These ducts are to be assembled with Damper / Expansion joints at site. The dampers / Expansion joints will be supplied by the Vendor directly to site. Erection of dampers and shut-off blades including control panel, actuators and winch cable arrangements are to be carried out by contractor. After the assembly with damper, these off take ducts are to be erected, bolted and welded as per AFC drawings, EIL Specifications and Standards. Any minor modifications during the assembly of Ducts with Dampers & Ducts to Ducts are to be carried out by the contractor at his own cost.

7.0 COLD AIR DUCTS:

These Ducts with flanged ends duly **prefabricated** shall be supplied to site in DU's (dispatchable units). These are to be unloaded, stored properly, stacked and transported to erection site. Erection in position, assembly, bolting and welding as per AFC drawings, EIL Specifications and Standards are to be carried out at site by the contractor.

8.0 HOT AIR DUCTS:

These Ducts with flanged ends duly **prefabricated** shall be supplied to site in DU's (dispatchable units). These are to be unloaded, stored properly, stacked and transported to erection site. These ducts are to be assembled with Damper / Expansion joints at site. The dampers / Expansion joints will be supplied by the Vendor directly to site. Erection of dampers and shut-off blades including control panel, actuators and winch cable arrangements are to be carried out by contractor. Erection in position, assembly, bolting and welding as per AFC drawings, EIL Specifications and Standards are to be carried out at site.

9.0 BYPASS DUCTS:

These Ducts with flanged ends duly **prefabricated & refractory lined** shall be supplied to site in DU's (dispatchable) units. These are to be unloaded, stored properly, stacked and transported to erection site. These ducts are to be assembled with Damper / Expansion joints at site. The dampers / Expansion joints will be supplied by the Vendor directly to site. Erection of dampers and shut-off blades including control panel, actuators and winch cable arrangements are to be carried out by contractor. Erection in position, assembly, bolting and welding as per AFC drawings, EIL Specifications and Standards are to be carried out at site.

10.0 PLATFORM & STAIRCASE STRUCTURE, LADDERS, GRATINGS:

The Operating platforms & staircase structures, ladders, handrails, supporting columns etc., for the radiant section, convection section, off take ducts will be supplied to site in **prefabricated condition** in DUs in transportable dimensions.

These structures are to be unloaded, stacked, properly stored, and transported from storage area to site. Erection of structures in sequence, assembly, alignment, welding and grouting as per drawings / specifications are to be carried out by the contractor as per drawings, EIL Specifications and Standards.

Electro forged Gratings will be supplied to site in finished condition in loose which are to be erected, assembled and fixed / welded on platforms at site as per Drawings/ EIL Standards/ EIL Specifications. Painting of the Gratings has to be done as per the approved painting schedule.

11.0 STACK:

The Stack will be supplied in fabricated condition in **4 (Four)** sections with flange joints duly lined with refractory. Erection of stack sections, assembly, alignment, bolting of Flange joints and welding of the flange joints from inside, as per drawings/specifications and instructions of BHEL - HPVP/EIL. The platform structures for the stack will be supplied to site in prefabricated condition and these are to be unloaded, stored properly, stacked and transported to erection site, assembled with stack, welded and erected. Approximate weight of the Stack pieces is as under.

Pieces from bottom of Stack	From Elevation	To Elevation	Length (Meter)	Approximate weight (M.T.)
1 st piece	27600	38700	11.1	28.35
2 nd piece	38700	50400	11.7	25.53
3 rd piece	50400	62000	11.6	20.34
4 th piece	62000	65000	3.0	8.53
Total			37.4	82.75

12.0 BOUGHT OUT COMPONENTS:

All the bought out components like FD Fans, ID Fans, Dampers, Sight Doors, Expansion joints, Coil Hanger Supports, Skin Thermocouples, etc. will be supplied by BHEL vendors directly to site. Unloading, Stacking, proper storing, transportation of materials from storage point to work site, cleaning, assembly, installation/erection, including fixing of bolts, nuts, gaskets/packing, washers, welding etc. if any, grouting, system testing, trial runs and including attending minor rectification, if any and completing the work in all respects as per drawings, specifications and instructions of BHEL - HPVP/EIL.

a) BURNERS:

Burners along with all auxiliaries will be supplied by vendor in finished condition directly to site. Unloading, stacking, proper storing, shifting from storage area to site, trial assembly & alignment of Burners with Burner blocks / tiles, coordination with refractory vendor for fixing of the Burner tiles, cleaning, Installation of the burners along with all the components including Igniters, wind box, control panels etc complete in all respects to be carried out by the contractor as per Drawings, EIL Specifications and Standards. **The trial runs, pre-commissioning and commissioning activities are also to be done in presence of the Vendor and required assistance for the same is to be provided by contractor.**

b) FD & ID Fans with motors and its Auxiliaries:

Unloading, Stacking, proper storing, transportation of materials from storage point to work site, Erection, assembly, bolting, alignment, grouting including supply of grouting materials etc., of FD & ID Fans, Motors including Local panels, complete in all respects as per drawings EIL specifications & Standards and instructions of BHEL - HPVP/EIL. The scope shall also include installation of panel for Variable Frequency Drive (VFD) at substation (1 No. per each Fan) [**2 No.-FD Fan with Motor, VFD, 1 No.-ID Fan with Motor, VFD**]. **Contractor has to arrange specialized manpower like Millwright Fitter etc. for the erection and alignment of FD Fans and ID fans and the same has to be carried out under the supervision of the Expert supplied by the vendor. The trial runs, pre-commissioning and commissioning activities are also to be done in presence of the Vendor and required assistance for the same are to be done by contractor.**

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c) Dampers / Expansion Joints:

Dampers will be supplied directly to site from the Vendor. Unloading, Stacking, proper storing, transportation of materials from storage point to work site, Erection, assembly, alignment, bolting / welding has to be carried out by the contractor. Other accessories like Actuator / Winch cable arrangement is also to be installed along with Damper as per Drawings/ EIL Standards & specifications.

d) Sight Doors:

Sight Doors will be supplied directly to site from the Vendor. Unloading, Stacking, proper storing, transportation of materials from storage point to work site, Erection, assembly, alignment, bolting / welding has to be carried out by the contractor. Other accessories like SS Retainer plates, Tape Gasket etc. are also to be installed along with Doors as per Drawings/ EIL Standards & specifications.

e) Skin Thermocouples:

Skin Thermocouples will be supplied directly to site from the Vendor. Unloading, Stacking, proper storing, transportation of materials from storage point to work site, Erection, assembly, alignment, welding of the same on the Coils along with pad plate has to be carried out by the contractor. Other accessories are also to be installed along with Thermocouples as per Drawings/ EIL Standards & specifications.

f) Coil Hanger Supports:

These will be supplied directly to site from the Vendor. Unloading, Stacking, proper storing, transportation of materials from storage point to work site, Erection, assembly, alignment, bolting / welding has to be carried out by the contractor. Other accessories like Shear plate etc. are also to be installed along with Supports as per Drawings/ EIL Standards & specifications.

13.0 PAINTING:

All the fabricated components of Heater will be supplied to site duly applied with painting as per the approved painting schedule **except the Finish coat**. The locations of the in-situ welding joints where different components are assembled/ welded at site and the locations where applied paint is damaged during transportation / erection are to be applied with primer and all subsequent coats of painting by contractor as per approved Painting Schedule, EIL Specifications and Standards. After mechanical completion of the job, Finish coat of Paint are to be applied by contractor. **Paints will be supplied by BHEL-HPVP as Free issue.**

14.0 Fixing of EIL / BHEL name plates as per EIL Specifications and Standards. Name plates will be supplied to site in finished condition. Testing / Verification of complete heater & ducting system to check air leaks by conducting "**Smoke test**" as per EIL Specifications and Standards.

15.0 Hydro testing, air purging, boxing up of heater and make the heater ready for dry out, opening of heater after dry out, inspection, rectification of heater (if required) and re boxing up are to be carried out by contractor. Hydro testing of the heaters is to be carried out by using DM water as per EIL Standards/ Specifications. Contractor to arrange the required quantities of DM water, filling pump and Hydro test pressure pump along with calibrated pressure gauges as per requirements. After Hydro test, the hydro test water is to be removed by air flushing for which contractor has to arrange required capacity of Air compressor. All temporary materials such as blind flanges, isolation valves, pressure gauges, fasteners, NRVs, gaskets etc., are to be arranged by contractor at his own cost.

16.0 PRECOMMISSIONING & COMMISSIONING ASSISTANCE:

Contractor has to provide manpower assistance, tools & tackles during the Dry out, pre-commissioning and commissioning of the Heater.

Contractor has to provide manpower assistance of **360 Man days (including over time, Sundays and holidays)** as detailed below.

(12 persons a day 4 in each shift: Fitter 1 no, Rigger – 1 no, Helpers – 2 nos. for in 3 shifts for a period of 15 days with tools, tackles and consumables).

In addition to Precommissioning & Commissioning assistance, Contractor has to supply manpower like Electrician / Instrumentation Technicians for the installation of Skin Thermocouples, FD Fan motors connections, VFD Panels and allied works like installation of cable trays, cabling etc. on Man day basis as per SOQR (Annexure-II)

17.0 Any other works if required as per drawings, specifications, QAP etc., for total completion of site works of the Heater package are to be carried out by contractor without any extra cost.

18.0 The contractor has to do necessary liaison with the IBR Authorities for erection and hydro testing of coils. Supportive documents will be provided by BHEL – HPVP.

PART-B**CONTRACTOR' S SCOPE / RESPONSIBILITY:**

- 1) The detailed scope of work as mentioned above from Pt. 1.0 to Pt. 18.0 to and all works required for the completion of the job are to be carried out by Contractor within the Quoted price. The quantities indicated in SOQR are tentative only and may vary \pm 15%. However, the rates quoted by the contractor shall be firm till the completion of job.**
- 2) Since the work is to be carried out near existing running plant, temporary barricading as required at site has to be provided by contractor to the satisfaction of BHEL/ EIL / IOCL HALDIA.
All the requirements of IOCL HALDIA 's Operation personnel in this regard are to be met and carried out.**
- 3) All necessary manpower skilled, semi-skilled, unskilled, along with all machinery, tools and tackles etc., required for completion of the job in all respects.**
- 4) Heater components, FD & ID Fans, Structures are to be erected on the already available foundation pedestals. Minor chipping and making good the foundations pedestals suitable for erection are to be carried out by contractor. The packing plates/ Shim plates required for base plates are to be supplied by the contractor without any extra cost.**
- 5) Grouting of base plates including Supply of Non shrink grouting material having compressive strength of 40 KN/ MM² as approved by BHEL – HPVP/EIL/IOCL HALDIA – West Bengal.**
- 6) Structural, platforms, ladders, hand rails, gratings etc. supplied in **prefabricated condition** shall be erected & welded sequentially so as to facilitate easy erection and site convenience. Minor foundations required for the staircase structures and ladders resting on the ground are to be carried out by contractor at his own cost.**
- 7) Suitable cranes required for Unloading, material handling, shifting etc. of components of heater are to be deployed by the contractor within the quoted rates during entire tenure of the project.**

Suitable cranes required for Erection of all the Heater components up to the Radiant section including erection of Radiant coils are to be arranged as and when required by the contractor within the quoted rates.

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Suitable higher capacity cranes of adequate capacity for the erection of Heavy lifts like Convection Modules, Air Pre-Heater modules, Stack Modules, Ducts etc. at higher elevation to be deployed by the contractor as and when required within the quoted price. To ascertain the capacity of the crane, GAD, Elevation drawings and Modularization Philosophy, SOQR etc., may be referred to.

Since the Heater components will be despatched to site in Modules as detailed above, the erection of these modules has to be carried out by contractor by deploying suitable cranes at his own cost. The erection scheme & the rigging procedure for the erection of the Heater components are to be submitted to BHEL-HPVP/ EIL / IOCL HALDIA for review and approval prior to erection.

Hard standing required for movement of cranes for erection of components is in the scope of contractor and contractor shall provide the same at his own cost. Required sleepers / plates for the same is to be provided by the contractor at his own cost.

8) Construction Power:

Customer shall provide Construction Power of 400 Amps to the contractor at one point from the sub-station which is approximately 1 Km away from the work site. Supply of required cable, cable laying from sub-station to work site is to be done by the contractor. Further distribution including installation of Electrical panel, MCCB, cabling, Main switches, ELCBs, Energy meter and all other accessories like Fire Buckets, Rubber Mats, Danger boards etc. are to be arranged by contractor at his own cost. Construction of earth pits, earthing of the panel along with all safety devices as per standard norms prevailing at IOCL HALDIA-West Bengal are to be arranged by contractor at his own cost. Licensed & Qualified electrician to be deployed by contractor and all liasioning activities required for energizing the panel and further distribution from the panel to the site are to be taken care by the contractor. Any additional power requirement shall be arranged by contractor at his own cost. Electricity will be charged at the rate of Rs.9.79 per KW or as charged by IOCL Haldia.

9) Construction Water:

Construction Water shall be provided to the contractor at one point at a cost of Rs.13.62 per Cubic Meter. Further distribution to work spot with necessary piping, water meters etc. as per the safety rules and regulations in vogue at site shall be carried out by the contractor at his own cost. In special circumstances when customer is not in a position to provide power and water, the contractor has to make his own arrangements and carry out the job without any interruption.

10) Since the heater is beside running unit of refinery, Contractor has to obtain all work permits viz. Hot Work permit, Cold work permit, Height work, permit for cranes etc. daily before starting job after fulfilling all the formalities required to obtain the same.

11) Supply & Installation of all temporary staging and scaffolding required for the site works of the heater is to be carried out by contractor.

12) INSPECTION & TESTING:

a) Approved QAP for the total job is enclosed in the tender. However, contractor shall prepare and submit detailed QAP, Job procedures, WPS, PQR s, ITP s and QC Formats for all site works which are to be approved by M/s BHEL -HPVP / EIL / IOCL HALDIA in line with the relevant EIL Standards and EIL specifications of this package.

b) All the materials shall be inspected by M/s. BHEL - HPVP / EIL after receipt at site as per approved ITP/ QAP & Specifications. Necessary assistance required for carrying out the Inspection has to be provided by contractor. Required Tests for the structural materials as per Random sampling plan as per EIL Standards/ specifications are to be carried out by the contractor in the EIL approved lab and all necessary charges towards the same are to be borne by the contractor.

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- c) All the Site works shall be inspected stage wise and in Final stage by M/s. BHEL - HPVP / EIL / EIL –HMTD / IOCL HALDIA as per approved QAP / ITP's & as mentioned in the EIL Specifications and EIL Standards. All Necessary assistance required for carrying out the Inspection has to be provided by contractor.

The site works should conform to the allowances mentioned in the relevant EIL specifications and EIL standards. Any rework / repairs resulting against the same are to be carried out by the contractor without any cost implications to the satisfaction of BHEL-HPVP/ EIL / IOCL HALDIA.

- d) The welders deployed for the structural works and coil works are to be Qualified as per approved WPS, PQR and for IBR valid IBR certificate should be there. All the necessary tests required for the qualification of Welders are to be carried out by contractor. **All liasioning work including drawing approval & erection of coil works in the purview of IBR is to be done by the contractor, the same to be included in the quoted price.**
- e) The welding consumables required for welding of all CS, LAS & SS components of heaters are to be supplied by the contractor within the quoted rate and are to be procured from BHEL–HPVP/ EIL approved vendors along with relevant Manufacturer test certificates. Indicative Welding consumables are listed as Welding Data Sheet. The electrodes are to be purchased from approved vendor list enclosed with the tender.
- f) PMI for all the pre-fabricated SS and LAS components to be carried out before and after installation and also for the site weld joints as per EIL specifications and EIL standards. The required PMI machine for carrying out PMI testing is to be arranged by contractor at his own cost.
- g) All NDT (Liquid Penetrant Test, Preheating, MPT, UT, Radiography, PWHT etc.) as applicable are to be carried out by contractor. The job procedures for the same are to be prepared in line with EIL Specifications / Standards and are to be submitted by contractor for approval by BHEL- HPVP/EIL / IOCL HALDIA.
- h) Hydro testing, air purging, boxing up of heater and making the heater ready for dry out, assistance during dry out, opening of heater after dry out, inspection, rectification of heater (if required) and boxing up are to be carried out by contractor.
- i) Testing/verification of complete heater & ducting system to check air leaks by conducting "Smoke test" as per EIL specifications & Standards.
- j) Application of painting as per approved painting schedule as mentioned vide clause 13.0 Part-A of Annexure –I is in scope of contractor. However, paints will be supplied **BY BHEL as Free issue.**
- k) The refractory and Insulation work is not in the scope of the contractor but all the liaising work/coordination for the execution of application of refractory work is to be extended by the contractor to the refractory agency.

13) BHEL-HPVP SCOPE:

- a) All the permanent raw materials will be supplied by BHEL- HPVP.
- b) All AFC drawings, EIL Specifications, EIL Standards and approved QAP for total job will be furnished by BHEL-HPVP.
- c) Supply of paints.

PART – C (COMMERCIAL)**1.0 PRICE:**

Tenderer shall quote his best competitive price for the subject work detailed in Annexure-I, EIL Standard & specifications and drawings in the proforma "SCHEDULE OF QUANTITIES AND RATES" (SOQR) enclosed at **Annexure – II**. **Prices shall be inclusive of all taxes and duties except for Service tax. Service Tax shall be reimbursed against proof of payment and submission of documents as per prevailing act.**

2.0 TERMS OF PAYMENT:

90% progressive payment based on work done against monthly RA bills. Out of 90%, 5% will be released against final painting & 5% will be released against mechanical completion & final acceptance by consultant / customer.

Balance 10 % on completion and acceptance of work and submission of final bill along with relevant documents as per contract and after expiry of guarantee period/defect liability period. However, this retention amount can be released on commencement of guarantee period and on submission of equivalent Performance bank guarantee valid for Defect liability period plus claim period of 3 months.

The detailed billing break-up to be prepared and to be approved by BHEL-HPVP for submission of monthly RA bill after award of job.

3.0 Mode of payment:

The mode of payment and measurement of work completed shall be as per relevant clauses of General Conditions of contract and Special Conditions of the contract.

Payment will be released only through RTGS/ NEFT and all documents required for the same as specified in SCC are to be submitted by contractor along with the bill.

FINAL BILL

Final bill shall be submitted after completion of all works and material reconciliation along with following documents as specified in General Conditions of contract.

- a) Work Completion Certificate by BHEL Site In- charge.
- b) No Claim certificate by Contractor.
- c) Clearance Certificates wherever applicable viz. Clearance Certificates from Customer, various Statutory authorities like Labour Department, PF authorities, Commercial Tax Dept. etc.
- d) Indemnity Bond as per prescribed format.

4.0 SECURITY DEPOSIT:

The successful tenderer shall submit Security Deposit before start of the work as per Clause No. 1.10 of General Conditions of Contract (Doc. No. PS: MSX: GCC. Rev.01)

5.0 INCOME TAX:

Income Tax will be recovered from each RA bill of the contractor as per the rules and regulations in force in accordance with the income tax act prevailing from time to time. TDS certificate to that effect will be issued by BHEL-HPVP.

6.0 TAXES AND DUTIES:

The price shall be inclusive of all taxes, duties, cess, levies etc such as central sales tax, Excise duty, VAT on works contract tax/ works contract tax, Octroi, Entry tax (if applicable) on construction equipments, machinery tools & tackles, cess, Educational cess etc., but excluding service tax and education cess there on.

Service tax and educational cess shall be reimbursed against proof of payment and submission of documents as per prevailing act.

VAT / WCT, if payable, at for site works is to be paid by the contractor to concerned authority and documents are to be submitted to BHEL-HPVP for records. If contractor fails to pay the required taxes, BHEL- HPVP will recover the same from the contractor bills.

7.0 LAW GOVERNING CONTRACT AND COURT JURISDICTION:

The contract shall be governed by the law in force in the Republic of India. The Civil court having original civil jurisdiction at Visakhapatnam for HPVP shall alone have exclusive jurisdiction in regard to all claims in respect of the contract. No other civil court shall have jurisdiction in case of any dispute under this contract.

8.0 MATERIAL ACCOUNTING:

The contractor shall fully account all the free issue materials and submit the material reconciliation statement which will be verified and certified by Resident Engineer, BHEL-HPVP. The store clearance has to be taken by the contractor and to be submitted along with final bill for processing final bill.

The surplus materials as well as the scrap after the material accounting shall be returned to BHEL by the contractor.

9.0 PERFORMANCE GUARANTEE:

The contractor will be responsible for quality of the workmanship and shall guarantee the work done for a period of 18 (Eighteen) months from the date of mechanical completion or 12 (Twelve) months from the date of commissioning whichever is earlier.

10.0 LIQUIDATED DAMAGES:

In the event of any delay in completion of work or part thereof as per the contractual completion period due to the reasons attributable to contractor, BHEL - HPVP shall have the right to impose Liquidated Damage at the rate of 0.5% of the contract value for every complete week of delay or part thereof subject to a maximum of 10% of the contract value.

11.0 OVER RUN COMPENSATION (ORC) /IDLE CHARGES:

The contractor shall not be entitled to claim and the company shall not be liable to pay any amount on account of over run compensation and idle charges, the over run/ idling may be for whatsoever reasons.

12.0 PRICE VARIATION COMPENSATION (PVC):

The contractor shall be paid only at contract rate/ rates for the work executed and the contractor shall not be entitled to claim or receive any extra amount on account of any price escalations either in materials, labor, taxes / duties etc., or for any reasons whatsoever and the contract rates are firm and fixed till the completion of the work in all respects.

13.0 PATENTS:

M/s BHEL - HPVP warrant on their part that any design instructions given by BHEL-HPVP shall not be such, as will cause contractor to infringe any letters of patents, registered designs, trademarks, copy right or other protected right valid in India the performance of work. Subject to this, contractor has to indemnify BHEL-HPVP against any claim for infringement by Contractor or any letters of patent, registered designs, registered trademarks or copy right or other protected right valid in India in performance of contract.

ANNEXURE-I

Ref: OPS/OS/WC/2016-17/40/053

Date: 13.12.2016

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14.0 SECURITY:

All the drawings, designs, specifications and other documents and information contained herein and any instruction given by BHEL-HPVP in the performance of contract, whether parenthetic or pardonable or not shall always remain the exclusive property of M/s BHEL-HPVP and contractor at no time shall question or dispute such right of M/s BHEL - HPVP. Such documents are given on loan by M/s BHEL - HPVP to contractor for the limited purpose of execution of work and shall be returned to M/s BHEL - HPVP in whole on completion of work. Contractor shall not publish or cause to be published any information on project, contract work covered by contract or contractor's participation in it without the prior written concerned of M/s BHEL - HPVP. The provisions of this article shall survive expiry or earlier termination/suspension of contract.

15.0 SITE OFFICE / STORES SHED:

Contractor has to make his own arrangements for temporary shed for office & store. However, required land will be provided by BHEL-HPVP/ EIL / IOCL as per rules & regulations prevalent in IOCL. Required stores shed is to be constructed by the contractor for storing the small loose items like Pipe fittings, Fasteners, Paints, Sight Doors, Access doors, Burners, FD Fans & accessories, Expansion joints, Dampers etc. recd. from BHEL-HPVP and BHEL-HPVP vendors. All the materials required like GI sheets, Scaffolding pipes & clamps etc. are to be arranged by contractor at his own cost.

16.0 SAFETY:

Contractor shall adhere to safe construction practices and shall comply with the safety rules of M/s BHEL - HPVP / EIL /IOCL HALDIA in vogue at site and as per HSE & OHSAS in Chapter IX of Special Conditions of Contract.

- a) Qualified Safety Engineer approved by BHEL-HPVP/ EIL/IOCL has to be deployed exclusively by the contractor.
- b) Contractor and his employees shall follow all fire and safety, security regulations of customer.
- c) Before starting any work contractor shall apply & obtain well in advance not less than a day safety permit/hot permit etc., for execution of work. Liaisoning with BHEL-HPVP / EIL / IOCL HALDIA for obtaining the above permits is to be taken care by contractor.
- d) All the safety gears required for the employees of the contractor to execute the work should be provided by the contractor within his quoted rates. The tentative list of such items but not limited to as listed under.
 - i) Safety Helmets, Safety Belts, Safety Shoes, Safety gloves etc.
 - ii) Welders Gloves, Apron etc.,
 - iii) Gas cutters Goggles, Grinders mask etc.,
 - iv) Safety Cloths when needed.
 - v) Electrical safety devices etc.

During the fabrication, the contractor at all times shall keep the work and storage area free from accumulation of waste materials, rubbish etc.

e) The contractor shall do necessary housekeeping to keep the area free of scrap materials, Electrode butts etc.

f) Contractor has to deploy an exclusive vehicle as AMBULANCE to cater to any emergency requirements during the execution of site works. Penalty, as applicable, will be levied towards Non-deployment of the same.

ANNEXURE-I

Ref: OPS/OS/WC/2016-17/40/053

Date: 13.12.2016

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17.0 SITE ORGANISATION:

The Contractor shall deploy qualified and experienced Engineers for execution of site works. However, deployment of one Qualified Resident Engineer / Site Incharge to organise all the site activities, One Lead Engineer, One qualified quality engineer, One planning engineer and one Qualified Safety Engineer exclusively for the job along with all supporting engineers / Supervisors is mandatory.

Also contractor has to deploy all necessary skilled / semiskilled / unskilled labour including highly skilled workmen.

All responsibilities of the contractor towards Labour, Supervisory staff etc., as mentioned in Special Conditions and General Conditions of the Contract are to be strictly complied with.

18.0 SITE MOBILISATION:

The contractor has to commence the work as per time indicated in Letter of Intent from BHEL and shall proceed with the same with due expedition without delay.

19.0 PLANNING & EXECUTION:

The contractor should submit each item wise schedule to complete in the stipulated time in the form of PERT chart / MS Project to complete all the activities along with Resource mobilization indicating category wise manpower and machinery deployment in different phases of the Project.

The contractor has to prepare Monthly Plan, Weekly Plan, Daily plan as per the mutually decided and approved Overall Construction schedule and shall submit Daily reports, Weekly Reports & Monthly Reports based on the plans as per formats approved by BHEL-HPVP / EIL.

20.0 The contractor has to liaison with local unions / local bodies during engagement of labourers and all necessary norms / regulations prevalent in IOCL-Haldia site for engaging the local labour has to be adhered to.

Sub :Mechanical Contract for Unloading, Fabrication, Erection, Testing, Painting of Heater Components and Its Auxiliaries and Providing Assistance for Pre-commissioning and Commissioning of Heater Package and Auxiliaries at M/s. IOCL - Haldia, West Bengal - Reg.

Tender Enquiry No : OPS/OS/WC/2016-17/40/053, Dated : 13.12.2016

SCHEDULE OF QUANTITIES AND RATES (SOQR)

ITEM No.	ITEM DESCRIPTION	UOM	QTY	Unit Rate in ₹	Amount in ₹
A	Receipt and recording of all materials at IOCL-Haldia site including arranging entry permission of vehicles at IOCL-Haldia gate, liasoning with CISF for entry of vehicles with materials, unloading of raw materials & BOC's from trucks/trailer at site & storage yard, stacking them properly. Contractor shall arrange suitable cranes/handling facilities for safe unloading of materials at designated places and provide sleepers wherever required. The materials unloaded are to be stacked properly inside the covered stores or in the open fenced areas as per directions of BHEL-HPVP Engineer, shifting of items from stores/storage yard to erection site for placing in position . All activities required for Physical verification & certification of the material for preparing IMIR and release for erection by BHEL/ EIL is included in the scope of the item.	MT	901	1,544	1,391,144
B	MHC HEATER (103-F-001)				
1	ERECTION OF FABRICATED STRUCTURAL STEEL : Erection of fabricated steel structures like Heater supporting columns, platform, ladders, stairways, handrails of operating platforms for radiant section, Convection section, Ducts, ducts supporting columns & structures etc.. Assembly, Alignment, bolting, fixing, welding of prefabricated structures, labor supervision, tools and tackles. cleaning the surfaces and application of paints as per specification and instructions of engineer in-charge, and completing the work in all respects as per drawings, EIL specifications / Standards and instructions of BHEL - HPVP/EIL. Paint to be applied after completion of job in all respects vide clause 13.0 of Part A of Annexure -I. Paints will be free issue by BHEL. Suitable crane is to be arranged by the contractor and cost of the same to be included in price.	MT	24	19,216	461,184
2	ERECTION OF PLATFORM GRATINGS: Erection, fixing & welding/ clamping of Electroforged gratings and Stepthreads which will be supplied to site in finished condition. Minor modifications , if any , to suit are to be carried out by contractor within the quoted price. All consumables, labour, tools and tackles, supervision are in the scope of contractor. After completing the work in all respects as per drawings, specifications and instruction of BHEL - HPVP/EIL Paint to be applied after completion of job in all respects vide clause 13.0 of Part A of Annexure -I.. Paints will be Free Issue by BHEL. Suitable crane is to be arranged by the contractor and cost of the same to be included in price.	MT	8	11,690	93,520

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SCHEDULE OF QUANTITIES AND RATES (SOQR)

ITEM No.	ITEM DESCRIPTION	UOM	QTY	Unit Rate in ₹	Amount in ₹
3	<p>RADIANT SECTION: Radiant section will despatched to site in prefabricated condition in Three Modules as detailed in Annexure I of NIT with 4 meter width and with vertical joints. Erection, alignment, welding of in situ joints of these segments are to carried out at site. Heater supporting Columns, Bottom plate and Arch plate etc., shall be despatched to site in pre-fabricated conditions . The Openings for the sight doors, observation doors, access doors , spigot pipes, burners and the holes for fixing of sight / observation doors are to be provided at site. The SS Retainer plates wherever applicable are to be fixed around these openings.</p> <p>Erection of heater supporting columns, Radiant section segments, alignment, welding, NDT, fixing with foundation bolts, alignment and grouting of the base plates with all the consumables including Supply of Non-Shrink grouting material of approved brand, welding consumables, labour, tools and tackles, supervision and completing the work in all respects as per drawings, specifications and instructions of BHEL - HPVP/EIL. Removal of temporary structure after erection. Paint to be applied after completion of job in all respects vide clause 13.0 of Part A of Annexure -I. Paints will be Free Issue by BHEL.</p> <p>Suitable crane is to be arranged by the contractor and cost of the same to be included in price.</p>	MT	17	24,632	418,744

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SCHEDULE OF QUANTITIES AND RATES (SOQR)

ITEM No.	ITEM DESCRIPTION	UOM	QTY	Unit Rate in ₹	Amount in ₹
4	<p>PRESSURE PARTS: Erection of Radiant Coil work : Radiant Coil will be supplied to site in Four banjos along with temporary structure with stiffners for maintaining the profile. The site joints along with attachments like Spigot pipes shall be welded, applicable NDT carried out, and Hydro tested. Erection of Radiant coil banjos and wall tube hangers along with temporary structure, Insertion/ Installation of 4 Nos. of Banjos in radiant section, assembly of coils including erection of Tube hanger supports and bolting to radiant shell, Fit up, Alignment, preheating, welding (inlusve of purging with Argon if required) , NDT including DP checks, 100% radiography and repeat radiography if required, hydrostatic testing and any other test required for completion of coil assembly complete with spigots pipes installation, bolting, Gaskets, welding of auxiliary connections etc., Flushing out and blanking of the coil work, providing all labour, tools, tackles, consumables including Argon, & completing the work in all respects as per drawings/specifications and instructions of BHEL - HPVP/EIL . Removal of temporary structure after erection. Radiography of the bottom bends is to be taken to ensure no presence of foreign material. Welding of 16 Nos. of spigot pipe to pad joints.</p> <p>No.of Radiant coil site joints : 10 Nos. OD 168.3, 6 Nos. OD 141.3 Material Specification: A312TP321 Suitable crane is to be arranged by the contractor and cost of the same to be included in price.</p>	MT	15	28,390	425,850
	<p>Welding of site joints including radiography</p>				
5	<p>Erection of Convection Modules: The Convection Section will be supplied in TWO Modules including coils and refractory lining. Erection/ Instalation, assembly, alignment, bolting with Temp. bolts and in-situ welding of TWO modules providing all labour, tools, tackles, consumables, & completing the work in all respects as per drawings/specifications and instructions of BHEL - HPVP/EIL. Final coat of paint to be applied after completion of job in all respects. Paints will be Free Issue by BHEL. No of site joints for cross over/jump over piping. : [14 Nos. OD 141.3] Material Specification: A312TP 321 Suitable crane is to be arranged by the contractor and cost of the same to be included in price.</p>				
5.1	<p>Module –I & II will be supplied to site with all the Convection coils duly installed, refractory lined, all the tapping points like PI etc. duly welded and assembly of header box to be done at site. Erection of Modules in position, alinment, supporting, welding, NDT including erection & assembly of of cross over / jump over piping, pressure & temperature tapping, observation/sight doors etc. welding, radiography as per drawings and specification.. Paint to be applied after completion of job in all respects vide clause 13.0 of Part A of Annexure -I.</p>	MT	28	18,370	514,360

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SCHEDULE OF QUANTITIES AND RATES (SOQR)

ITEM No.	ITEM DESCRIPTION	UOM	QTY	Unit Rate in ₹	Amount in ₹
	Welding of site joints including radiography	inch dia	70	1,070	74,900
6	<p>Flue Gas ducts: The Flue Gas Ducts will be supplied in fabricated condition in 3 to 4 sections duly lined with refractory, provision of tapping points etc. Erection of Flue Gas ducts, assembly, alignment, bolting of Flange joints and seal welding of the flange joints providing all labour, tools, tackles, consumables, & completing the work in all respects as per drawings/specifications and instructions of BHEL - HPVP/EIL . The assembly of these ducts with the damper is also included in the scope of the contractor. Paint to be applied after completion of job in all respects vide clause 13.0 of Part A of Annexure -I. Paints will be Free Issue by BHEL. Suitable crane is to be arranged by the contractor and cost of the same to be included in price.</p>	MT	14.118	14,696	207,478
7	<p>BOUGHT OUT COMPONENTS: (BOCs) Unloading, Stacking, Proper storing, Transportation of the following BOCs from storage point to work site, cleaning, assembly, installation/erection, providing all labour, consumables, supervision, tools and tackles etc. including fixing of bolts, nuts, gaskets/packing, washers, welding etc. if any, grouting, system testing, providing skilled personnel during trial runs and including attending minor rectification, if any and completing the work in all respects as per drawings, specifications and instruction of BHEL - HPVP/EIL. Suitable crane is to be arranged by the contractor and cost of the same to be included in price.</p>				
7.1	<p>Burners: Erection of Burners, Burner blocks & ignition equipments including control panels and completing the work in all respects as per drawings, specifications and instructions of BHEL - HPVP/EIL. Total Burners : 5 Nos.</p>	NOS	5	31,730	158,650
7.2	<p>FABRICATED SIGHT DOORS Assembly and erection of Fabricated sight door assembly including Ceramic Fibre vacuum formed board, SS 310 retainers and holding plates, bolts, nuts, washers, gaskets etc., wherever required and completing the work in all respects as per drawings, specifications and instructions of BHEL - HPVP/EIL.</p>	NOS.	10	46,760	467,600
7.3	<p>DAMPERS (Pneumatic/Manual actuated as per Spec.) Assembly & installation of dampers and it's control panel at stack/platform, winch cable arrangement and pneumatic/electrical contacts etc. and completing the work in all respects as per drawings, specifications and instructions of BHEL - HPVP/EIL.</p>	NOS	2	23,380	46,760
7.4	<p>Skin Thermocuples: Erection, assembly & welding of Skin Point Thermocuples on the tube / coil surfaces including heat treatment and completing the work in all respects as per drawings, specifications and instructions of BHEL - HPVP/EIL.</p>	NOS.	10	20,040	200,400

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SCHEDULE OF QUANTITIES AND RATES (SOQR)

ITEM No.	ITEM DESCRIPTION	UOM	QTY	Unit Rate in ₹	Amount in ₹
8	Valves: Fitup & welding of SS valves a) 40.. NB SS Valve (located on coil) Suitable crane is to be arranged by the contractor and cost of the same to be included in price.	NOS	2	2,505	5,010
C	ATM DISTILATION HEATER (103-F-002)				
1	ERECTION OF FABRICATED STRUCTURAL STEEL : Erection of fabricated steel structures like Heater supporting columns, platform, ladders, stairways, handrails of operating platforms for radiant section, Convection section, Ducts, ducts supporting columns & structures etc.. Assembly, Alignment, bolting, fixing, welding of prefabricated structures, labor supervision, tools and tackles. cleaning the surfaces and application of paints as per specification and instructions of engineer in-charge, and completing the work in all respects as per drawings, EIL specifications / Standards and instructions of BHEL - HPVP/EIL. Paint to be applied after completion of job in all respects vide clause 13.0 of Part A of Annexure -I. Paints will be free issue by BHEL. Suitable crane is to be arranged by the contractor and cost of the same to be included in price.	MT	22	19,216	422,752
2	ERECTION OF PLATFORM GRATINGS: Erection, fixing & welding/ clamping of Electroforged gratings and Stepthreads which will be supplied to site in finished condition. Minor modifications , if any , to suit at site are to be carried out by contractor within the quoted price. All consumables, labour, tools and tackles, supervision are in the scope of contractor. After completing the work in all respects as per drawings, specifications and instruction of BHEL - HPVP/EILPaint to be applied after completion of job in all respects vide clause 13.0 of Part A of Annexure -I. Paints will be Free Issue by BHEL. Suitable crane is to be arranged by the contractor and cost of the same to be included in price.	MT	8	11,690	93,520

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SCHEDULE OF QUANTITIES AND RATES (SOQR)

ITEM No.	ITEM DESCRIPTION	UOM	QTY	Unit Rate in ₹	Amount in ₹
3	<p>RADIANT SECTION: Radiant section will despatched to site in prefabricated condition in Three Modules as detailed in Annexure I of NIT with 4 meter width and with vertical joints. Erection, alignment, welding of in situ joints of these segments are to carried out at site. Heater supporting Columns, Bottom plate and Arch plate etc., shall be despatched to site in pre-fabricated conditions . The Openings for the sight doors, observation doors, access doors , spigot pipes, burners and the holes for fixing of sight / observation doors are to be provided at site. The SS Retainer plates wherever applicable are to be fixed around these openings.</p> <p>Erection of heater supporting columns, Radiant section segments, alignment, welding, NDT, fixing with foundation bolts, alignment and grouting of the base plates with all the consumables including Supply of Non-Shrink grouting material of approved brand, welding consumables, labour, tools and tackles, supervision and completing the work in all respects as per drawings, specifications and instructions of BHEL - HPVP/EIL. Removal of temporary structure after erection. Paint to be applied after completion of job in all respects vide clause 13.0 of Part A of Annexure -I. Paints will be Free Issue by BHEL. Suitable crane is to be arranged by the contractor and cost of the same to be included in price.</p>	MT	17.3	24,632	426,134
4	<p>PRESSURE PARTS: Erection of Radiant Coil work : Radiant Coil will be supplied to site in Four banjos with temporary structure with stiffeners for maintaining the profile. The site joints along with attachments like Spigot pipes will be welded, NDT carried out, and Hydro tested. Erection of Radiant coil banjos and wall tube hangers along with temporary structure, Insertion/ Installation of 4 Nos. of Banjos in radiant section, assembly of coils including erection of Tube hanger supports and bolting to radinat shell, Fit up, Alignment, preheating, welding (inclusive of purging with Argon if required), NDT including DP checks, 100% radiography and repeat radiography if required, hydrostatic testing and any other test required for completion of coil assembly complete with spigots and installation, bolting, Gaskets, welding of auxiliary connections etc., Flushing out and blanking of the coil work, providing all labour, tools, tackles, consumables including Argon, & completing the work in all respects as per drawings/specifications and instructions of BHEL - HPVP/EIL . Removal of temporary structure after erection. Radiography of the bottom bends is to be taken to ensure no presence of foreign material. Welding of 28 Nos. of spigot pipe to pad joints.</p> <p>No. Radiant coil site joints : 20 Nos. OD 114.3 LAS HC Coil. Material Specification: A335 Gr P9 (HC Services) Suitable crane is to be arranged by the contractor and cost of the same to be included in price.</p>	MT	7	28,390	198,730
	Welding of site joints including radiography	inch dia	80	825	66,000

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SCHEDULE OF QUANTITIES AND RATES (SOQR)

ITEM No.	ITEM DESCRIPTION	UOM	QTY	Unit Rate in ₹	Amount in ₹
5	<p>Erection of Convection Modules:</p> <p>The Convection Section will be supplied in THREE Modules including coils and refractory lining.</p> <p>Unloading, Erection/ Instalation, assembly, alignment, bolting with Temp. bolts and welding of TWO modules providing all labour, tools, tackles, consumables, & completing the work in all respects as per drawings/specifications and instructions of BHEL - HPVP/EIL. Final coat of paint to be applied after completion of job in all respects. Paints will be Free Issue by BHEL.</p> <p style="text-align: center;">No of site joints for cross over piping : 8 Nos. OD 114.3-(LAS Matl.)] for HC coil & [12 Nos. OD 114.3] for IBR coil (LAS Matl.)</p> <p>Material Specification : A335 Gr P9 (HC) and A213 Gr T5 (SSH Services)</p> <p>Suitable crane is to be arranged by the contractor and cost of the same to be included in price.</p> <p>All liasioning work including drawing approval & erection of coil works in the purview of IBR is to be done by the contractor, the same to be included in the quoted price.</p>				
5.1	Module -I, II & III will be supplied to site with all the Convection coils duly installed, refractory lined, all the tapping points like PI etc. duly welded and assembly of header box to be done at site. Erection of Modules in position, alinment, supporting, welding, NDT including erection & assembly of of cross over / jump over piping, pressure & temperature tapping, observation/sight doors etc. welding, radiography as per drawings and specification.. Paint to be applied after completion of job in all respects vide clause 13.0 of Part A of Annexure -I.	MT	43.5	18,370	799,095
	Welding of site joints including radiography	inch dia	80	825	66,000
6	<p>Flue Gas ducts:</p> <p>The Flue Gas Ducts will be supplied in fabricated condition in 3 to 4 sections duly lined with refractory, provision of tapping points etc.</p> <p>Erection of three sections of Flue Gas ducts, assembly, alignment, bolting of Flange joints and seal welding of the flange joints providing all labour, tools, tackles, consumables, & completing the work in all respects as per drawings/specifications and instructions of BHEL - HPVP/EIL . The assembly of these offtake ducts with the damper is also included in the scope of the contractor. Final coat of paint to be applied after completion of job in all respects. Paints will be Free Issue by BHEL.</p> <p>Suitable crane is to be arranged by the contractor and cost of the same to be included in price.</p>	MT	3.258	14,696	47,880

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SCHEDULE OF QUANTITIES AND RATES (SOQR)

ITEM No.	ITEM DESCRIPTION	UOM	QTY	Unit Rate in ₹	Amount in ₹
7	BOUGHT OUT COMPONENTS: (BOCs) Unloading, Stacking, Proper storing, Transportation of the following BOCs from storage point to work site, cleaning, assembly, installation/erection, providing all labour, consumables, supervision, tools and tackles etc. including fixing of bolts, nuts, gaskets/packing, washers, welding etc. if any, grouting, system testing, providing skilled personnel during trial runs and including attending minor rectification, if any and completing the work in all respects as per drawings, specifications and instruction of BHEL - HPVP/EIL. Suitable crane is to be arranged by the contractor and cost of the same to be included in price.				
7.1	Burners: Erection of Burners, Burner blocks & ignition equipments including control panels and completing the work in all respects as per drawings, specifications and instructions of BHEL - HPVP/EIL. Total Burners : 5 Nos.	NOS	5	31,730	158,650
7.2	FABRICATED SIGHT DOORS/OBSERVATION DOOR Assembly and erection of Fabricated sight door assembly including Ceramic Fibre vacuum formed board, SS 310 retainers and holding plates, bolts, nuts, washers, gaskets etc., wherever required and completing the work in all respects as per drawings, specifications and instructions of BHEL - HPVP/EIL.	NOS.	10	46,760	467,600
7.3	DAMPERS (Pneumatic/Manual actuated as per Spec.) Assembly & installation of damper and it's control panel at stack/platform, winch cable arrangement and pneumatic/electrical contacts etc. and completing the work in all respects as per drawings, specifications and instructions of BHEL - HPVP/EIL.	NOS.	2	23,380	46,760
7.4	Skin Thermocouples: Erection, assembly & welding of Skin Point Thermocuples on the tube / coil surfaces including heat treatment and completing the work in all respects as per drawings, specifications and instructions of BHEL - HPVP/EIL.	NOS.	10	20,040	200,400
8	Valves: Fitup & welding of LAS valves a) 40 NB LAS Valve SW (located on coil) Suitable crane is to be arranged by the contractor and cost of the same to be included in price.	NOS.	2	2,505	5,010

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ITEM No.	ITEM DESCRIPTION	UOM	QTY	Unit Rate in ₹	Amount in ₹
D	HDT REACTOR HEATER (103-F-003)				
1	<p>ERECTION OF FABRICATED STRUCTURAL STEEL : Erection of fabricated steel structures like Heater supporting columns, platform, ladders, stairways, handrails of operating platforms for radiant section, Convection section, Ducts, ducts supporting columns & structures etc.. Assembly, Alignment, bolting, fixing, welding of prefabricated structures, labor supervision, tools and tackles. cleaning the surfaces and application of paints as per specification and instructions of engineer in-charge, and completing the work in all respects as per drawings, EIL specifications / Standards and instructions of BHEL - HPVP/EIL. Paint to be applied after completion of job in all respects vide clause 13.0 of Part A of Annexure -I. Paints will be free issue by BHEL. Suitable crane is to be arranged by the contractor and cost of the same to be included in price.</p>	MT	170	19,216	3,266,720
2	<p>ERECTION OF PLATFORM GRATINGS: Erection, fixing & welding/ clamping of Electroforged gratings and Stepthreads which will be supplied to site in finished condition. Minor modifications , if any , to suit are to be carried out by contractor within the quoted price. All consumables, labour, tools and tackles, supervision are in the scope of contractor. After completing the work in all respects as per drawings, specifications and instruction of BHEL - HPVP/EILPaint to be applied after completion of job in all respects vide clause 13.0 of Part A of Annexure -I. Paints will be Free Issue by BHEL. Suitable crane is to be arranged by the contractor and cost of the same to be included in price.</p>	MT	40	11,690	467,600
3	<p>RADIANT SECTION: Radiant section will despatched to site in prefabricated condition in Five Modules as detailed in Annexure I of NIT with 4 meter width and with vertical joints. Erection, alignment, welding of in situ joints of these segments are to carried out at site. Heater supporting Columns, Bottom plate and Arch plate etc., shall be despatched to site in pre-fabricated condition. The Openings for the sight doors, observation doors, access doors , spigot pipes, burners and the holes for fixing of sight / observation doors are to be provided at site. The SS Retainer plates wherever applicable are to be fixed around these openings. Erection of heater supporting columns, Radiant section segments, alignment, welding, NDT, fixing with foundation bolts, alignment and grouting of the base plates with all the consumables including Supply of Non-Shrink grouting material of approved brand, welding consumables, labour, tools and tackles, supervision and completing the work in all respects as per drawings, specifications and instructions of BHEL - HPVP/EIL. Removal of temporary structure after erection. Paint to be applied after completion of job in all respects vide clause 13.0 of Part A of Annexure -I.Paints will be Free Issue by BHEL. Suitable crane is to be arranged by the contractor and cost of the same to be included in price.</p>	MT	52	24,632	1,280,864

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SCHEDULE OF QUANTITIES AND RATES (SOQR)

ITEM No.	ITEM DESCRIPTION	UOM	QTY	Unit Rate in ₹	Amount in ₹
4	<p>PRESSURE PARTS: Erection of Radiant Coil work : Radiant Coil will be supplied to site in 8 (Eight) banjos with temporary structure with stiffeners for maintaining the profile. The site joints along with attachments like Spigot pipes will be welded, NDT carried out, and Hydro tested. Unloading of Radiant coil banjos and wall tube hangers along with temporary structure and stacking. Insertion/ Installation of 8 Nos. of Banjos in radiant section, assembly of coils including erection of Tube hanger supports and bolting to radinat shell, Fit up, Alignment, preheating, welding (inclusive of Purging with Argon if required) , NDT including DP checks, 100% radiography and repeat radiography, hydrostatic testing and any other test required for completion of coil assembly complete with spigots and installation, bolting, Gaskets, welding of auxiliary connections etc., Flushing out and blanking of the coil work, providing all labour, tools, tackles, consumables including Argon, & completing the work in all respects as per drawings/specifications and instructions of BHEL - HPVP/EIL . Removal of temporary structure after erection. Radiography of the bottom bends is to be taken to ensure no presence of foreign material.Welding of 76 Nos. of spigot pipe to pad joints. No. Radiant coil site joints : 30 Nos. OD 141.3 Material Specification: A312 TP 321 Suitable crane is to be arranged by the contractor and cost of the same to be included in price.</p>	MT	47	28,390	1,334,330
	<p>Welding of site joints including radiography</p>	inch dia	150	1,070	160,500
5	<p>Erection of Convection Modules: The Convection Section will be supplied in TWO Modules including coils and refractory lining. Unloading, Erection, assembly, alignment, bolting with Temp. bolts and welding of TWO modules providing all labour, tools, tackles, consumables, & completing the work in all respects as per drawings/specifications and instructions of BHEL - HPVP/EIL. Paint to be applied after completion of job in all respects vide clause 13.0 of Part A of Annexure -I. Paints will be Free Issue by BHEL. No. of site Joints for Crossover coil : 32 Nos. OD 141.3 Material Specification: A312 TP 321 Suitable crane is to be arranged by the contractor and cost of the same to be included in price.</p>				
5.1	<p>Module –I & II will be supplied to site with all the Convection coils duly installed, refractory lined, all the tapping points like PI etc. duly welded and assembly of header box to be done at site. Erection of Modules in position, alinment, supporting, welding, NDT including erection & assembly of of cross over / jump over piping, pressure & temperature tapping, observation/sight doors etc. welding, radiography as per drawings and specification.</p>	MT	67.85	18,370	1,246,405
	<p>Welding of site joints including radiography</p>	inch dia	160	1,070	171,200

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ITEM No.	ITEM DESCRIPTION	UOM	QTY	Unit Rate in ₹	Amount in ₹
6	<p>Erection of Cast Tube Air Pre-heater. The Cast Tube Air Pre-heater modules will be supplied in Fabricated Condition in FIVE Modules. Erection, assembly, alignment, bolting with Temp. bolts and welding of casing plates providing all labour, tools, tackles, consumables, & completing the work in all respects as per drawings/specifications and instructions of BHEL - HPVP/EIL. Final coat of paint to be applied after completion of job in all respects. Paints will be Free Issue by BHEL. Suitable crane is to be arranged by the contractor and cost of the same to be included in price.</p>	MT	65	18,370	1,194,050
7	<p>Erection of Cold Air & Hot Air Ducts, By-pass ducts: The Cold Air Ducts, Hot Air Ducts & By-pass ducts shall be supplied in fabricated condition in various pieces with flange joints. Erection of Cold Air & Hot Air duct pieces, assembly, alignment, bolting of Flange joints and seal welding of the flange joints, supporting providing all labour, tools, tackles, consumables, & completing the work in all respects as per drawings/specifications and instructions of BHEL - HPVP/EIL . The assembly of these offtake ducts with the damper is also included in the scope of the contractor. Paint to be applied after completion of job in all respects vide clause 13.0 of Part A of Annexure -I. Paints will be Free Issue by BHEL. Suitable crane is to be arranged by the contractor and cost of the same to be included in price.</p>	MT	47.162	14,696	693,093
8	<p>Flue Gas ducts: The Flue Gas Ducts will be supplied in fabricated condition in 3 (Three) sections duly lined with refractory, provision of tapping points etc. Erection of three sections of Flue Gas ducts, assembly, alignment, bolting of Flange joints and seal welding of the flange joints providing all labour, tools, tackles, consumables, & completing the work in all respects as per drawings/specifications and instructions of BHEL - HPVP/EIL . The assembly of these offtake ducts with the damper is also included in the scope of the contractor. Final coat of paint to be applied after completion of job in all respects. Paints will be Free Issue by BHEL. Suitable crane is to be arranged by the contractor and cost of the same to be included in price.</p>	MT	66.77	14,696	981,252
9	<p>Stack: The Stack will be supplied in fabricated condition in 4 (Four) sections duly lined with refractory and with flange joints. Erection of stack sections, assembly, alignment, bolting of Flange joints and welding of the flange joints from inside and outside seal welding, providing all labour, tools, tackles, consumables, & completing the work in all respects as per drawings/specifications and instructions of BHEL - HPVP/EIL . Paint to be applied after completion of job in all respects vide clause 13.0 of Part A of Annexure -I. Paints will be Free Issue by BHEL. Suitable crane is to be arranged by the contractor and cost of the same to be included in price.</p>	MT	82.75	11,690	967,348

Sub :Mechanical Contract for Unloading, Fabrication, Erection, Testing, Painting of Heater Components and Its Auxiliaries and Providing Assistance for Pre-commissioning and Commissioning of Heater Package and Auxiliaries at M/s. IOCL - Haldia, West Bengal - Reg.

Tender Enquiry No : OPS/OS/WC/2016-17/40/053, Dated : 13.12.2016

SCHEDULE OF QUANTITIES AND RATES (SOQR)

ITEM No.	ITEM DESCRIPTION	UOM	QTY	Unit Rate in ₹	Amount in ₹
10	<p>BOUGHT OUT COMPONENTS: (BOCs) Unloading, Stacking, Proper storing, Transportation of the following BOCs from storage point to work site, cleaning, assembly, installation/erection, providing all labour, consumables, supervision, tools and tackles etc. including fixing of bolts, nuts, gaskets/packing, washers, welding etc. if any, grouting, system testing, providing skilled personnel during trial runs and including attending minor rectification, if any and completing the work in all respects as per drawings, specifications and instruction of BHEL - HPVP/EIL. Suitable crane is to be arranged by the contractor and cost of the same to be included in price.</p>				
10.1	<p>FD & ID Fans with motors and its Auxilliaries: Erection, assembly, bolting, alignment, grouting including supply of grouting materials etc., of FD & ID Fans, Motors including Local panels, Venturi complete in all respects as per drawings, EIL specifications & Standards and instructions of BHEL - HPVP/EIL. The scope shall also include installation of panel for Variable Frenquency Drive (VFD) at substation (1 No. per each Fan) [2 No.-FD Fan with Motor,VFD, 1 No.-ID Fan with Motor,VFD] Suitable crane is to be arranged by the contractor and cost of the same to be included in price.</p>	MT	19.5	29,225	569,888
10.2	<p>Burners: Erection of Burners, Burner blocks & ignition equipments including control panels and completing the work in all respects as per drawings, specifications and instructions of BHEL - HPVP/EIL. Total Burners : 8 Nos.</p>	NOS	8	31,730	253,840
10.3	<p>FABRICATED SIGHT DOORS & OBSERVATION DOORS Assembly and erection of Fabricated sight door assembly including Ceramic Fibre vacuum formed board, SS 310 retainers and holding plates, bolts, nuts, washers, gaskets etc., wherever required and completing the work in all respects as per drawings, specifications and instructions of BHEL - HPVP/EIL.</p>	NOS.	16	46,760	748,160
10.4	<p>DAMPERS (Pneumatic/Manual actuated as per Spec.) Assembly & installation of damper and it's control panel at stack/platform, winch cable arrangement and pneumatic/electrical contacts etc. and completing the work in all respects as per drawings, specifications and instructions of BHEL - HPVP/EIL.</p>	NOS	8	23,380	187,040
10.5	<p>EXPANSION JOINTS Erection, Assembly, alignment, bolting/welding etc. and completing the work in all respects as per drawings, specifications and instructions of BHEL - HPVP/EIL.</p>	NOS	17	13,360	227,120
10.6	<p>Skin Thermocuples: Erection, assembly & welding of Skin Point Thermocuples on the tube / coil surfaces including heat treatment and completing the work in all respects as per drawings, specifications and instructions of BHEL - HPVP/EIL.</p>	NOS.	18	20,040	360,720

Sub :Mechanical Contract for Unloading, Fabrication, Erection, Testing, Painting of Heater Components and Its Auxiliaries and Providing Assistance for Pre-commissioning and Commissioning of Heater Package and Auxiliaries at M/s. IOCL - Haldia, West Bengal - Reg.

Tender Enquiry No : OPS/OS/WC/2016-17/40/053, Dated : 13.12.2016

SCHEDULE OF QUANTITIES AND RATES (SOQR)

ITEM No.	ITEM DESCRIPTION	UOM	QTY	Unit Rate in ₹	Amount in ₹
11	Valves: Fitup & welding of SS valves a) 40.. NB SW SS Valve (located on coil) Suitable crane is to be arranged by the contractor and cost of the same to be included in price.	NOS	4	2,505	10,020
E	ASSISTANCE DURING COMMISSIONING Assistance during heater final dryout operation, pre commissioning, commissioning by providing skilled , Unskilled manpower including all required tools & tackles, consumables etc. on actual hours basis, as and when required during precommissioning and commissioning activities inclusive of extended hours , Sundays & Holidays (Fitter - 1 No, Rigger-1 No. & Helpers - 2 Nos.).	MAN DAY	360	3,500	1,260,000
F	Manpower for Assisting in Testing of Electrical & Instrumentation items of FD Fans, ID Fans, Burners, Dampers, Skin Thermocouples etc.				
F1	Electrician	Man day	35	700	24,500
F2	Fitter	Man day	20	900	18,000
F3	Helper	Man day	55	450	24,750
	Total amount in ₹				23,007,828
	Discount / Escalation offered by Bidder on above total amount in %				
	Total Offered amount after Discount / Escalation offered by Bidder in ₹				

Sub :Mechanical Contract for Unloading, Fabrication, Erection, Testing, Painting of Heater Components and Its Auxiliaries and Providing Assistance for Pre-commissioning and Commissioning of Heater Package and Auxiliaries at M/s. IOCL - Haldia, West Bengal - Reg.

Tender Enquiry No : OPS/OS/WC/2016-17/40/053, Dated : 13.12.2016

SCHEDULE OF QUANTITIES AND RATES (SOQR)

ITEM No.	ITEM DESCRIPTION	UOM	QTY	Unit Rate in ₹	Amount in ₹
Note:					
1.) The various activities/items mentioned in the SOQR are not exhaustive. Any other activities which may be required to complete the job in all respects even if not mentioned in SOQR description shall be deemed to have been included in the total quoted prices & no extra payment for these items shall be made under any circumstances.					
2) Unit rates for various items shall include loading, transportation, unloading, fabrication, erection, surface preparation, painting including consumables & any wastages etc.					
3) The quantities indicated in SOQ/SOQR are tentative only and may vary +/- 15%. However the rates quoted by the contractor shall be firm & fixed & valid till completion of all works covered under this contract. No cost escalation will be paid on any account throughout the contract period for any item.					
4) The quoted prices shall be inclusive of all applicable taxes & duties as applicable as on date of tender submission except service tax. However, Service Tax as applicable shall be reimbursed on submission of proof of payment.					
5) No over run charges and escalation shall be paid to the contractor under any circumstances.					
6) Suitable cranes required for Unloading, material handling, shifting etc. of all the components of heater are to be deployed by the contractor within the quoted rates during entire tenure of the project. Suitable cranes required for Erection of all the Heater components up to the Radiant section including erection of Radiant coils are to be arranged by the contractor <u>as and when required</u> within the quoted rates. Suitable higher capacity cranes of adequate capacity for the erection of Heavy lifts like Convection Modules, Air Pre-Heater modules, Stack Modules, Ducts etc. at higher elevation to be deployed by the contractor as and when required within the quoted price. To ascertain the capacity of the crane, GAD, Elevation drawings and Modularization Philosophy, SOQR etc., may be referred to. Since the Heater components will be despatched to site in Modules as detailed above, the erection of these modules has to be carried out by contractor by deploying suitable cranes at his own cost. The erection scheme & the rigging procedure for the erection of the Heater components are to be submitted to BHEL-HPVP/ EIL / IOCL HALDIA for review and approval prior to erection.					
7) L1 shall be evaluated on the quoted total amount. However, BHEL reserves the right to negotiate with L1 vendor or go for Reverse Auction.					
8) Offered discount / escalation will be considered for calculation of unit rate & total amount for each item.					

SIGNATURE OF THE BIDDER WITH STAMP

Ref: OPS/OS/WC/2016-17/40/053

Date: 13.12.2016

ANNEXURE - III

GENERAL CONDITIONS OF CONTRACT

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CHAPTER -1**1. GENERAL INSTRUCTION TO TENDERERS****1.1. DESPATCH INSTRUCTION**

- i) The General Conditions of Contract form part of the Tender specifications. **All pages of the tender documents shall be duly signed, stamped and submitted along with the offer in token of complete acceptance thereof.** The information furnished shall be complete by itself. The tenderer is required to furnish all the details and other documents as required in the following pages
- ii) Tenderers are advised to study all the tender documents carefully. Any submission of tender by the tenderer shall be deemed to have been done after careful study and examination of the tender documents and with the full understanding of the implications thereof. Should the tenderers have any doubt about the meaning of any portion of the Tender Specification or find discrepancies or omissions in the drawings or the tender documents issued are incomplete or shall require clarification on any of the technical aspect, the scope of work etc., he shall at once, contact the authority inviting the tender well in time (so as not to affect last date of submission) for clarification before the submission of the tender. Tenderer's request for clarifications shall be with reference to Sections and Clause numbers given in the tender documents. The specifications and terms and conditions shall be deemed to have been accepted by the tenderer in his offer. Noncompliance with any of the requirements and instructions of the tender enquiry may result in the rejection of the tender.

1.2. SUBMISSION OF TENDERS

- 1.2.1 The tenderers must submit their tenders to Officer inviting tender as per instructions in the NIT
- 1.2.2 Tenders submitted by post shall be sent by 'REGISTERED POST ACKNOWLEDGEMENT DUE /by COURIER' and shall be posted with due allowance for any postal/courier delays. BHEL takes no responsibility for delay, loss or non-receipt of tenders sent by post/courier. **The tenders received after the specified time of their submission are treated as 'Late Tenders' and shall not be considered under any circumstances.** Offers received by Fax/Email/Internet shall be considered as per terms of NIT.
- 1.2.3 Tenders shall be opened by authorised Officer of BHEL at his office at the time and date as specified in the NIT, in the presence of such of those tenderers or their authorised representatives who may be present
- 1.2.4 Tenderers whose bids are found techno commercially qualified shall be informed the date and time of opening of the Price Bids and such Tenderers may depute their representatives to witness the opening of the price bids. BHEL's decision in this regard shall be final and binding.
- 1.2.5 Before submission of Offer, the tenderers are advised to inspect the site of work and the environments and be well acquainted with the actual working and other prevalent conditions, facilities available, position of material and labour, means of transport and access to Site, accommodation, etc. No claim will be entertained later on the grounds of lack of knowledge of any of these conditions.

1.3. LANGUAGE

- 1.3.1 The tenderer shall quote the rates in English language and international numerals. These rates shall be entered in figures as well as in words. For the purpose of the tenders, the metric system of units shall be used.
- 1.3.2 All entries in the tender shall either be typed or written legibly in ink. Erasing and over-writing is not permitted and may render such tenders liable for rejection. All cancellations and insertions shall be duly attested by the tenderer.

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1.4.1 Conventional (Manual) Price Bid opening: In the case of price bid opening without resorting to Reverse Auction, if there are differences between the rates given by the tenderer in words and figures or in amount worked out by him, the following procedure for evaluation and award shall be followed:

- i) When there is a difference between the rates in figures and in words, the rates which corresponds to the amounts worked out by the contractor, shall be taken as correct
- ii) When the amount of an item is not worked out by the contractor or it does not correspond with the rate written either in figure or in words, then the rate quoted by the contractor in words shall be taken as correct
- iii) When the rate quoted by the contractor in figures and words tallies but the amount is not worked out correctly, the rate quoted by the contractor shall be taken as correct and not the amount.
- iv) In case of lumpsum price, if there is any difference between the amount in figures and in words, the amount quoted by the bidder in words shall be taken as correct.
- v) In case of omission in quoting any rate for one or more items, the evaluation shall be done considering the highest quoted rate obtained against the respective items by other tenderers for the subject tender. If the tenderer becomes L-1, the notional rates for the omission items shall be the lowest rates quoted for the respective items by the other tenderers against the respective omission items for the subject job and the 'Total quoted price (loaded for omissions)' shall be arrived at. However, the overall price remaining the same as quoted originally, the rates for all the items in the 'Total quoted price (loaded for omissions)' shall be reduced item wise in proportion to the ratio of 'Original' total price and the 'Total quoted price (loaded for omissions)'
- vi) The 'Final Total Amount' shall be arrived at after considering the amounts worked out in line with 'i' to 'iv' above.

1.4.2 Reverse Auction: In case of Reverse Auction, the successful bidder shall undertake to execute the work as per overall price offered by him during the Reverse Auction process. In case of omission of rates, the procedure shall be as per 'Guidelines for Reverse Auction' enclosed.

1.5 QUALIFICATION OF TENDERERS

- i) Only tenderers who have previous experience in the work of the nature and description detailed in the Notice Inviting Tender and/or tender specification are expected to quote for this work duly detailing their experience along with offer.
- ii) Offers from tenderers who do not have proven and established experience in the field shall not be considered
- iii) Offers from tenderers who are under suspension (banned) by any Unit/Region/Division of BHEL shall not be considered.
- iv) Offers from tenderers who do not comply with the latest guidelines of Ministry/Commissions of Govt of India shall not be considered.

1.6. EVALUATION OF BIDS

- i) Technical Bids submitted by the tenderer will be opened first and evaluated for fulfilling the Pre-Qualification criteria and other conditions in NIT/Tender documents, based on documentary evidences submitted along with the offer
- ii) In case the same qualifying experience is claimed by more than one agency, then the agency who has executed the work as per documentary evidence submitted shall only be qualified. Scope of qualifying work should be totally with the agency who has executed and in case it is only labour + consumables without T&P, then the responsibility of execution is assigned to the first agency and not to the agency who has executed only as labour supply contractor. Further, BHEL reserves the right to ask for further proofs including submission of TDS certificates for the said job.

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- iii) In case the qualifying experience is claimed by private organizations based on Work Order and completion certificates from another private organization, BHEL reserves the right to ask for further proofs including submission of TDS certificates for the said job
- iv) Assessing Bidder Capacity for executing the current tender shall be as per Notice Inviting Tender
- v) Price Bids of shortlisted bidders shall only be opened either through the conventional price bid opening or through electronic Reverse Auction, at the discretion of BHEL
- vi) Price Bids of unqualified bidders shall not be opened. Reasons for rejection shall be intimated in due course after issue of LOI/LOA to successful bidder and receipt of unqualified acceptance from the successful bidder

1.7. DATA TO BE ENCLOSED

Full information shall be given by the tenderer in respect of the following. Non-submission of this information may lead to rejection of the offer.

i) INCOME TAX PERMANENT ACCOUNT NUMBER

Certified copies of Permanent Account Numbers as allotted by Income Tax Department for the Company/Firm/Individual Partners, etc. shall be furnished along with tender.

ii) ORGANIZATION CHART

The organization chart of the tenderer's organization, including the names, addresses and contact information of the Directors/Partners shall be furnished along with the offer.

- iii) An attested copy of the Power of Attorney, in case the tender is signed by an individual other than the sole proprietor

iv) IN CASE OF INDIVIDUAL TENDERER:

His / her full name, address and place & nature of business.

v) IN CASE OF PARTNERSHIP FIRM

The names of all the partners and their addresses, A copy of the partnership deed/instrument of partnership duly certified by the Notary Public shall be enclosed.

vi) IN CASE OF COMPANIES:

- a. Date and place of registration including date of commencement certificate in case of Public Companies (certified copies of Memorandum and articles of Association are also to be furnished).
- b. Nature of business carried on by the Company and the provisions of the Memorandum relating thereof.

1.8 AUTHORISATION AND ATTESTATION

Tenders shall be signed by a person duly authorized/empowered to do so. An attested copy of the Power of Attorney, in case the tender is signed by an individual other than the sole proprietor shall be submitted along with the tenders.

1.9 EARNEST MONEY DEPOSIT

A. EMD is to be paid by the tenderers for securing fulfillment of any obligations in terms of the NIT.

B. **Modes of Deposit:** The EMD may be accepted only in the following forms:

- a) Cash Deposit as permissible under the extant Income Tax Act (before tender opening).
- b) Electronic Fund Transfer credited in BHEL account (before tender opening).
- c) Banker's Cheque / Pay Order/ Demand Draft, in favour of BHEL, Visakhapatnam along with offer.

C. **Forfeiture of EMD:** EMD by the tenderer will be forfeited as per NIT conditions, if:

- a) After opening the tender and within the offer validity period, the tenderer revokes his tender or makes any modification in his tender which is not acceptable to BHEL.
- b) The contractor fails to deposit the required security deposit or commence the work within the period as per LOI/ Contract.
- c) EMD by the tenderer shall be withheld in case any action on the tenderer is envisaged under the provisions of extant "Guidelines on Suspension of business dealings with suppliers/ contractors" and forfeited/ released based on the action as determined under these guidelines.

D. EMD given by all unsuccessful tenderers shall be refunded normally within 15 days of award of work.

E. EMD shall not carry any interest

F. EMD of successful tenderer will be retained as part of Security Deposit

1.10 SECURITY DEPOSIT

A. Security deposit means the security provided by the contractor towards fulfillment of any obligations in terms of the provisions of the contract.

B. The total amount of the security deposit will be **5% of the contract value**. EMD of the successful tenderer shall be converted and adjusted towards the required amount of Security deposit.

C. **Modes of Deposit:**

The balance amount to make up the required Security Deposit of 5% of the contract value may be accepted in the following forms:

- a) Cash (as permissible under the extant Income Tax Act)
- b) Local cheques of Scheduled Banks (subject to realization)/ Pay Order/ Demand Draft/ Electronic Fund Transfer in favour of BHEL.
- c) Bank Guarantee from Scheduled Banks/ Public Financial Institutions as defined in the companies act. The bank guarantee format should have the approval of BHEL.
- d) Fixed Deposit Receipt issued by Scheduled Banks/ Public Financial Institutions as defined in the companies act (FDR should be in the name of the contractor, a/c BHEL.
- e) Securities available from Indian Post offices such as National Savings Certificates, Kisan Vikas Patras etc. (held in the name of Contractor furnishing the security and duly endorsed/ hypothecated/ pledged, as applicable, in favour of BHEL)

(Note: BHEL will not be liable or responsible in any manner for the collection of interest or renewal of the documents or in any other matter connected therewith)

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At least 50% of the required security deposit, including the EMD, should be submitted before start of the work. Balance security deposit can be collected by deducting 10% of the gross amount progressively from each of the running bills of the contractor till the total amount of the required security deposit is collected.

E. Security deposit shall be released to the contractor upon fulfillment of contractual obligations as per the terms of the contract.

F. The security deposit shall not carry any interest.

1.10.4 In case the value of work exceeds / reduces from the awarded / accepted value, the Security Deposit shall be correspondingly enhanced / reduced as given below:

- i) The enhanced part of the Security Deposit shall be immediately deposited by the Contractor or adjusted against payments due to the Contractor.
- ii) There will be no reduction in Security Deposit value in case of variation in contract value upto the lower limit specified in Quantity variation clause. In case of reduction of contract value beyond the lower limit specified in Quantity Variation clause, then the Security Deposit shall be re adjusted in proportion.
- iii) In case of reduction, the reduced Contract value shall be certified by BHEL Construction Manager after ascertaining / freezing of BOQ / Drawings from the Design / Engineering Centre. The reduced Security Deposit value can only be considered after taking into account the adequacy of the securities held by BHEL to meet the liabilities of the contractor for the contract, and the performance of the contract in general.

In such cases, the revised value of Security Deposit shall be worked out only after execution of not less than the lower limit of the revised scope of work/contract value as per quantity variation clause, and as certified by Construction Manager. This reduction in value of Security Deposit shall not entitle the contractor to any amendment of Contract and shall be operated at the discretion of BHEL

iv) Void.

1.10.5 The validity of Bank Guarantees towards Security Deposit shall be initially upto the completion period as stipulated in the Letter of Intent/Award + 3 months, and the same shall be kept valid by proper renewal till the acceptance of Final Bills of the Contractor, by BHEL

1.10.7 BHEL reserves the right of forfeiture of Security Deposit in addition to other claims and penalties in the event of the Contractor's failure to fulfill any of the contractual obligations or in the event of termination of contract as per terms and conditions of contract. BHEL reserves the right to set off the Security Deposit against any claims of other contracts with BHEL.

1.11 RETURN OF SECURITY DEPOSIT

Security Deposit shall be refunded/Bank Guarantee(s) released to the Contractor along with the 'Final Bill' after deducting all expenses / other amounts due to BHEL under the contract / other contracts entered into with them by BHEL.

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1.12 BANK GUARANTEES

Where ever Bank Guarantees are to be furnished/submitted by the contractor, the following shall be complied with

- i) Bank Guarantees shall be from Scheduled Banks / Public Financial Institutions as defined in the Companies Act.
- ii) The Bank Guarantees shall be as per prescribed formats.
- iii) It is the responsibility of the bidder to get the Bank Guarantees revalidated/extended for the required period (subject to a minimum period of six months), as per the advice of BHEL Site Engineer / Construction Manager. BHEL shall not be liable for issue of any reminders regarding expiry of the Bank Guarantees.
- iv) In case extension/further extensions of any Bank Guarantees are not required, the bidders shall ensure that the same is explicitly endorsed by the Construction Manager and submitted to the Regional HQ issuing the LOI/LOA.
- v) In case the Bank Guarantees are not extended before the expiry date, BHEL reserves the right to invoke the same by informing the concerned Bank in writing, without any advance notice/ communication to the concerned bidder
- vi) Bidders to note that any corrections to Bank Guarantees shall be done by the issuing Bank, only through an amendment in an appropriate non judicial stamp paper.
- vii) The Original Bank Guarantee shall be sent directly by the Bank to BHEL under Registered Post (Acknowledgement Due), addressed to the Subcontracting Department of the respective Region.

1.13 VALIDITY OF OFFER

The rates in the Tender shall be kept open for acceptance for a minimum period of **SIX MONTHS** from latest due date of offer submission (including extension, if any) . In case BHEL (Bharat Heavy Electricals Ltd) calls for negotiations, such negotiations shall not amount to cancellation or withdrawal of the original offer which shall be binding on the tenderers.

1.14 EXECUTION OF CONTRACT AGREEMENT

The successful tenderer's responsibility under this contract commences from the date of issue of the Letter of Intent by Bharat Heavy Electricals Limited. The Tenderer shall submit an unqualified acceptance to the Letter of Intent/Award within the period stipulated therein.

The successful tenderer shall be required to execute an agreement in the prescribed form, with BHEL, within a reasonable time after the acceptance of the Letter of Intent/Award, and in any case before releasing the first running bill. The contract agreement shall be signed by a person duly authorized/ empowered by the tenderer. The expenses for preparation of agreement document shall be borne by BHEL

1.15 REJECTION OF TENDER AND OTHER CONDITIONS

1.15.1 The acceptance of tender will rest with BHEL which does not bind itself to accept the lowest tender or any tender and reserves to itself full rights for the following without assigning any reasons whatsoever:-

- a. To reject any or all of the tenders.
- b. To split up the work amongst two or more tenderers as per NIT
- c. To award the work in part if specified in NIT
- d. In case of either of the contingencies stated in (b) and (c) above, the time for completion as stipulated in the tender shall be applicable.

ANNEXURE - III

- 1.15.2 Conditional tenders, unsolicited tenders, tender which are incomplete or not in the form specified or defective or have been materially altered or not in accordance with the tender conditions, specifications etc., are liable to be rejected.
- 1.15.3 Tenders are liable to be rejected in case of unsatisfactory performance of the tenderer with BHEL, or tenderer under suspension (hold/banning /delisted) by any unit / region / division of BHEL or tenderers who do not comply with the latest guidelines of Ministry/Commissions of Govt. of India. BHEL reserves the right to reject a bidder in case it is observed that they are overloaded and may not be in a position to execute this job as per the required schedule. The decision of BHEL will be final in this regard.
- 1.15.4 If a tenderer who is a proprietor expires after the submission of his tender or after the acceptance of his tender, BHEL may at their discretion, cancel such tender. If a partner of a firm expires after the submission of tender or after the acceptance of the tender, BHEL may then cancel such tender at their discretion, unless the firm retains its character.
- 1.15.5 BHEL will not be bound by any Power of Attorney granted by changes in the composition of the firm made subsequent to the execution of the contract. They may, however, recognize such power of Attorney and changes after obtaining proper legal advice, the cost of which will be chargeable to the contractor concerned.
- 1.15.6 If the tenderer deliberately gives wrong information in his tender, BHEL reserves the right to reject such tender at any stage or to cancel the contract if awarded and forfeit the Earnest Money/Security Deposit/any other money due.
- 1.15.7 Canvassing in any form in connection with the tenders submitted by the Tenderer shall make his offer liable to rejection.
- 1.15.8 In case the Proprietor, Partner or Director of the Company/Firm submitting the Tender, has any relative or relation employed in BHEL, the authority inviting the Tender shall be informed of the fact as per specified format, along with the Offer. Failing to do so, BHEL may, at its sole discretion, reject the tender or cancel the contract and forfeit the Earnest Money/Security Deposit.
- 1.15.9 The successful tenderer should not sub-contract part or complete work detailed in the tender specification undertaken by him without written permission of BHEL's Construction Manager/Site In-charge. The tenderer is solely responsible to BHEL for the work awarded to him.
- 1.15.10 The Tender submitted by a techno commercially qualified tenderer shall become the property of BHEL who shall be under no obligation to return the same to the bidder. However unopened price bids and late tenders shall be returned to the bidders
- 1.15.11 Unsolicited discount received after the due date and time of Bid Submission shall not be considered for evaluation. However, if the party who has submitted the unsolicited discount/rebate becomes the L-1 party, then the awarded price i.e contract value shall be worked out after considering the discount so offered.
- 1.15.12 BHEL shall not be liable for any expenses incurred by the bidder in the preparation of the tender irrespective of whether the tender is accepted or not.

CHAPTER-2

2.1 DEFINITION: The following terms shall have the meaning hereby assigned to them except where the context otherwise requires.

- i) BHEL shall mean Bharat Heavy Electricals Limited (of the respective Power Sector Region inviting the Tender), a company registered under Indian Companies Act 1956, with its Registered Office at BHEL HOUSE, SIRI FORT, NEW DELHI – 110 049, or its Power Sector Regional Offices or its Authorized Officers or its Site Engineers or other employees authorized to deal with any matters with which these persons are concerned on its behalf.
- ii) "EXECUTIVE DIRECTOR" or 'GROUP GENERAL MANAGER' or "GENERAL MANAGER (In charge)" or "GENERAL MANAGER" shall mean the Officer in Administrative charge of the respective Power Sector Region.
- iii) "COMPETENT AUTHORITY" shall mean Executive Director or Group General Manager or General Manager (In charge) or General Manager or BHEL Officers who are empowered to act on behalf of the Executive Director or General Manager (In charge) or General Manager of BHEL.
- iv) "ENGINEER" or "ENGINEER IN CHARGE" shall mean an Officer of BHEL as may be duly appointed and authorized by BHEL to act as "Engineer" on his behalf for the purpose of the Contract, to perform the duty set forth in this General Conditions of Contract and other Contract documents. The term also includes 'CONSTRUCTION MANAGER' or 'SITE INCHARGE' as well as Officers at Site or at the Headquarters of the respective Power Sector Regions.
- v) "SITE" shall mean the places or place at which the plants / equipment are to be erected and services are to be performed as per the specification of this Tender.
- vi) "CLIENT OF BHEL" or "CUSTOMER" shall mean the project authorities with whom BHEL has entered into a contract for supply of equipments or provision of services.
- vii) "CONTRACTOR" shall mean the successful Bidder/Tenderer who is awarded the Contract and shall include the Contractor's successors, heirs, executors, administrators and permitted assigns.
- viii) "CONTRACT" or "CONTRACT DOCUMENT" shall mean and include the Agreement of Work Order, the accepted appendices of Rates, Schedules, Quantities if any, General Conditions of Contract, Special Conditions of Contract, Technical conditions and scope of work, Instructions to the Tenderers, Drawings, Technical Specifications, the Special Specifications if any, the Tender documents, subsequent amendments mutually agreed upon and the Letter of Intent/Acceptance issued by BHEL. Any conditions or terms stipulated by the contractor in the tender documents or subsequent letters shall not form part of the contract unless, specifically accepted in writing by BHEL in the Letter of Intent/Award and incorporated in the agreement.
- ix) "GENERAL CONDITIONS OF CONTRACT" shall mean the 'Instructions to Tenderers' and 'General Conditions of Contract' pertaining to the work for which above tenders have been called for.
- x) "TENDER SPECIFICATION" or "TENDER" or "TENDER DOCUMENTS" shall mean General Conditions, Common Conditions, Special Conditions, Technical conditions and scope of works, Price Bid, Rate Schedule, Technical Specifications, Appendices, Annexures, Corrigendums, Amendments, Forms, procedures, Site information, etc and drawings/documents pertaining to the work for which the tenderers are required to submit their offers. Individual specification number will be assigned to each Tender Specification.
- xi) "LETTER OF INTENT" shall mean the intimation by a Letter/Fax/email to the tenderer that the tender has been accepted in accordance with provisions contained in the letter. The responsibility of the contractor commences from the date of issue of this letter and all terms and conditions of the contract are applicable from this date.

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- xii) "COMPLETION TIME" shall mean the period by 'date/month' specified in the 'Letter of Intent/Award' or date mutually agreed upon for handing over of the intended scope of work, the erected equipment/plant which are found acceptable by the Engineer, being of required standard and conforming to the specifications of the Contract.
- xiii) "PLANT" shall mean and connote the entire assembly of the plant and equipment covered by the contract.
- xiv) "EQUIPMENT" shall mean equipment, machineries, materials, structural, electrical and other components of the plant covered by the contract.
- xv) "TESTS" shall mean and include such test or tests to be carried out on the part of the contractor as are prescribed in the contract or considered necessary by BHEL, in order to ascertain the quality, workmanship, performance and efficiency of the contractor or part thereof.
- xxvi) "APPROVED", "DIRECTED" or "INSTRUCTED" shall mean approved, directed or instructed by BHEL.
- xxvii) "WORK or CONTRACT WORK" shall mean and include supply of all categories of labour, specified consumables, tools and tackles and Plants required for complete and satisfactory site transportation, handling, stacking, storing, erecting, testing and commissioning of the equipments to the entire satisfaction of BHEL.
- xxviii) "SINGULAR AND PLURALS ETC" words carrying singular number shall also include plural and vice versa, where the context so requires. Words imparting the masculine Gender shall be taken to include the feminine Gender and words imparting persons shall include any Company or Associations or Body of Individuals, whether incorporated or not.
- xix) "HEADING" – The heading in these General Conditions are solely for the purpose of facilitating reference and shall not be deemed to be part thereof or be taken as instructions thereof or of the contract.
- xx) "MONTH" shall mean calendar month unless otherwise specified in the Tender.
- xxi) Day' or 'Days' unless herein otherwise expressly defined shall mean calendar day or days of twenty four (24) hours each. A week shall mean continuous period of seven (7) days.
- xxii) "COMMISSIONING" shall mean the synchronization testing and achieving functional operation of the Equipment with associated system after all initial adjustments, trials, cleaning, re- assembly required at site if any, have been completed and Equipment with associated system is ready for taking into service.
- xxiii) "WRITING" shall include any manuscript type written or hand written or printed statement or electronically transmitted messages, under the signature or seal or transmittal of BHEL.
- xxiv) "TEMPORARY WORK" shall mean all temporary works for every kind required in or for the execution, completion, maintenance of the work.
- xxv) 'CONTRACT PRICE' or 'CONTRACT VALUE' shall mean the sum mentioned in the LOI/LOA/Contract Agreement subject to such additions thereto or deductions there from as may be made under provisions hereinafter contained.
- xxvi) "COMMENCEMENT DATE" or "START DATE" shall mean the commencement/start of work at Site as per terms defined in the Tenderl.
- xxvii) "SHORT CLOSING" or "FORE CLOSING" of Contract shall mean the premature closing of Contract, for reasons not attributable to the contractor and mutually agreed between BHEL and the contractor.
- xxviii) "TERMINATION" of Contract shall mean the pre mature closing of contract due to reasons as mentioned in the contract
- xxix) "DE MOBILISATION" shall mean the temporary winding up of Site establishment by Contractor leading to suspension of works temporarily for reasons not attributable to the contractor.
- xxx) "RE MOBILISATION" shall mean the resumption of work with all resources required for the work after demobilization.

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- 2.2 LAW GOVERNING THE CONTRACT AND COURT JURISDICTION:** Please refer Clause No. 7, Page 14 of Annexure – I of NIT.
- 2.3 ISSUE OF NOTICE**
- 2.3.1 Service of notice on contractor**
Any notice to be given to the Contractor under the terms of the contract shall be served by sending the same **by Registered Post / Speed Post** to or leaving the same at the Contractor's last known address of the principal place of business (or in the event of the contractor being a company, to or at its Registered Office). In case of change of address, the notice shall be served at changed address as notified in writing by the Contractor to BHEL. Such posting or leaving of the notice shall be deemed to be good service of such notice and the time mentioned to the condition for doing any act after notice shall be reckoned from the date so mentioned in such notice.
- 2.3.2 Service of notice on BHEL**
Any notice to be given to BHEL in-charge/Region under the terms of the Contract shall be served by sending the same by post to or leaving the same at BHEL address or changed address as notified in writing by BHEL to the Contractor.
- 2.4 USE OF LAND**
No land belonging to BHEL or their Customer under temporary possession of BHEL shall be occupied by the contractor without written permission of BHEL.
- 2.5 COMMENCEMENT OF WORK**
- 2.5.1** The contractor shall commence the work as per the time indicated in the Letter of Intent from BHEL and shall proceed with the same with due expedition without delay.
- 2.5.2** If the contractor fails to start the work within stipulated time as per LOI or as intimated by BHEL, then BHEL at its sole discretion will have the right to cancel the contract. The Earnest Money and/or Security Deposit with BHEL will stand forfeited without any further reference to him without prejudice to any and all of BHEL's other rights and remedies in this regard.
- 2.5.3** All the work shall be carried out under the direction and to the satisfaction of BHEL.
- 2.6 MEASUREMENT OF WORK AND MODE OF PAYMENT:**
- 2.6.1** All payments due to the contractors shall be made by e mode only.
- 2.6.2** For progress running bill payments: - The Contractor shall present detailed measurement sheets in triplicate, duly indicating all relevant details based on technical documents and connected drawings for work done during the month/period under various categories in line with terms of payment as per contract. The basis of arriving at the quantities, weights shall be relevant documents and drawings released by BHEL. These measurement sheets shall be prepared jointly with BHEL Engineers and signed by both the parties.
- 2.6.3** These measurement sheets will be checked by BHEL Engineer and quantities and percentage eligible for payment under various groups shall be decided by BHEL Engineer. The abstract of quantities and percentage so arrived at based on the terms of payment shall be entered in Measurement sheets and signed by both the parties.
- 2.6.4** Based on the above quantities, contractor shall prepare the bills in prescribed format and work out the financial value. Payment shall be made by BHEL after effecting the recoveries due from the contractor.

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- 2.6.5 All recoveries due from the contractor for the month/period shall be effected in full from the corresponding running bills unless specific approval from the competent authorities is obtained to the contrary.
- 2.6.6 Measurement shall be restricted to that portion of work for which it is required to ascertain the financial liability of BHEL under this contract.
- 2.6.7 The measurement shall be taken jointly by persons duly authorized on the part of BHEL and by the Contractor.
- 2.6.8 The Contractor shall bear the expenditure involved if any, in making the measurements and testing of materials to be used/used in the work. The contractor shall, without extra charges, provide all the assistance with appliances and other things necessary for measurement.
- 2.6.9 If at any time due to any reason whatsoever, it becomes necessary to re-measure the work done in full or in part, the expenses towards such re measurements shall be borne by the contractor unless such re measurements are warranted solely for reasons not attributable to contractor.
- 2.6.10 Passing of bills covered by such measurements does not amount to acceptance of the completion of the work measured. Any left out work has to be completed, if pointed out at a later date by BHEL.
- 2.6.11 Final measurement bill shall be prepared in the final bill format prescribed for the purpose based on the certificate issued by BHEL Engineer that entire works as stipulated in tender specification has been completed in all respects to the entire satisfaction of BHEL. Contractor shall give unqualified "No Claim" Certificate. All the tools and tackles loaned to him should be returned in satisfactory condition to BHEL. The Final Bill shall be prepared and paid within a reasonable time after completion of work.
- 2.7 RIGHTS OF BHEL**
- BHEL reserves the following rights in respect of this contract during the original contract period or its extensions if any, as per the provisions of the contract, without entitling the contractor for any compensation.
- 2.7.1 To withdraw any portion of work and/or to restrict/alter quantum of work as indicated in the contract during the progress of work and get it done through other agencies to suit BHEL's commitment to its customer or in case BHEL decides to advance the date of completion due to other emergent reasons/ BHEL's obligation to its customer.
- 2.7.2 To terminate the contract or get any part of the work done through other agency or deploy BHEL's own/hired/otherwise arranged resources, at the risk and cost of the contractor after due notice of a period of two weeks by BHEL, in the event of:-
- i) Contractor's continued poor progress
 - ii) Withdrawal from or abandonment of the work before completion of the work
 - iii) Contractor's inability to progress the work for completion as stipulated in the contract
 - iv) Poor quality of work
 - v) Corrupt act of Contractor
 - vi) Insolvency of the Contractor
 - vii) Persistent disregard to the instructions of BHEL
 - viii) Assignment, transfer, sub-letting of contract without BHEL's written permission
 - ix) Non fulfillment of any contractual obligations
 - x) In the opinion of BHEL, the contractor is overloaded and is not in a position to execute the job as per required schedule.

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- 2.7.3 To meet the expenses including BHEL overheads on the differential cost at 5%, over and above the Liquidated damages/penalties arising out of "Risk & Cost" as explained above under Sl.No.
2.7.2. BHEL shall recover the amount from any money due from Contractor, or from any money due to the Contractor including Security Deposit, or by forfeiting any T&P or material of the contractor under this contract or any other contract of BHEL or by any other means or any combination thereof
- 2.7.4 To terminate the contract or to restrict the quantum of work and pay for the portion of work executed in case BHEL's contract with their customer are terminated for any reason, as per mutual agreement.
- 2.7.5 To effect recovery from any amounts due to the contractor under this or any other contract or in any other form, the moneys BHEL is statutorily forced to pay to anybody, due to contractor's failure to fulfill any of his obligations. BHEL shall levy overheads of 5% on all such payments along with interest as defined elsewhere in the GCC.
- 2.7.6 While every endeavour will be made by BHEL to this end, they cannot guarantee uninterrupted work due to conditions beyond their control. The Contractor will not be normally entitled for any compensation/extra payment on this account unless otherwise specified elsewhere in the contract.
- 2.7.7 In case the execution of works comes to a complete halt or reaches a stage wherein worthwhile works cannot be executed and there is no possibility of commencement of work for a period of not less than two months, due to reasons not attributable to the contractor and other than Force Majeure conditions, BHEL may consider permitting the contractor to de mobilize forthwith and re mobilize at an agreed future date. Cost of such demobilization/remobilization shall be mutually agreed. The duration of contract/time extension shall accordingly get modified suitably. In case of any conflict, BHEL decision in this regard shall be final and binding on the contractor.
- 2.7.8 In the unforeseen event of inordinate delay in receipt of materials, drawings, fronts, etc., due to which inordinate discontinuity of work is anticipated, BHEL at its discretion may consider contractor's request to short close the contract in following cases:
- a) The balance works (including but not limited to Trial Operation, PG Test, etc.) are minor vis a vis the scope of work envisaged as per the contract.
 - b) There has been no significant work in past 6 months OR no significant work is expected in next 6 months (example in Hydro projects or in projects where work has stopped due to reasons beyond the control of BHEL)
 - c) The balance works cannot be done within a reasonable period of time as they are dependent on unit shutdown or on other facilities of customer or any other reasons not attributable to the contractor
- At the point of requesting for short closure, contractor shall establish that he has completed all works possible of completion and he is not able to proceed with the balance works due to constraints beyond his control. In such a case, the estimated value of the unexecuted portion of work (or estimated value of services to be provided for carrying out milestone/stage payments like Trial Operation/PG Test, etc) as mutually agreed, shall however be reduced from the final contract value.
- 2.7.9 **LIQUIDATED DAMAGES/PENALTY:** Please refer Clause No. 10 (PART-C), Page 16 of Annexure – I of NIT.

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2.8 RESPONSIBILITIES OF THE CONTRACTOR IN RESPECT OF LOCAL LAWS, EMPLOYMENT OF WORKERS ETC.

The following are the responsibilities of the contractor in respect of observance of local laws, employment of personnel, payment of taxes etc. The subcontractor shall fully indemnify BHEL against any claims of whatsoever nature arising due to the failure of the contractor in discharging any of his responsibilities hereunder:

- 2.8.1 As far as possible, Unskilled Workers shall be engaged from the local areas in which the work is being executed.
- 2.8.2 The contractor at all times during the continuance of this contract shall, in all his dealings with local labour for the time being employed on or in connection with the work, have due regard to all local festivals and religious and other customs.
- 2.8.3 The contractor shall comply with all applicable State and Central Laws, Statutory Rules, Regulations etc. such as Payment of Wages Act, Minimum Wages Act, Workmen Compensation Act, Employer's Liability Act, Industrial Disputes Act, Employers Provident Act, Employees State Insurance Scheme, Contract Labour (Regulation and Abolition) Act 1970, Payment of Bonus & Gratuity Act and other Acts, Rules and Regulations for labour as may be enacted by the Government during the tenure of the Contract and having force or jurisdiction at Site. The Contractor shall also give to the local Governing Body, Police and other relevant Authorities all such notices as may be required by the Law.
- 2.8.4 The contractor shall obtain independent License under the Contract Labour (Regulations and Abolition Act, 1970)as required from the concerned Authorities based on the certificate (Form-V) issued by the Principal Employer/Customer
- 2.8.5 The contractor shall pay all taxes, fees, license charges, deposits, duties, tolls, royalties, commission or other charges which may be leviable on account of his operations in executing the contract.
- 2.8.6 While BHEL would pay the inspection fees and Registration fees of Boiler/Electrical Inspectorate, all other arrangements for site visits periodically by the Inspectorate to site, Inspection certificate etc. will have to be made by contractor. However, BHEL will not make any payment to the Inspectorate in connection with contractor's Welders/Electricians qualification tests etc.
- 2.8.7 Contractor shall be responsible for provision of Health and Sanitary arrangements (more particularly described in Contract Labour Regulation & Abolition Act), Safety precautions etc. as may be required for safe and satisfactory execution of contract.
- 2.8.8 The contractor shall be responsible for proper accommodation including adequate medical facilities for personnel employed by him.
- 2.8.9 The contractor shall be responsible for the proper behavior and observance of all regulations by the staff employed by him.
- 2.8.10 The contractor shall ensure that no damage is caused to any person/property of other parties working at site. If any such damage is caused, it is responsibility of the contractor to make good the losses or compensate for the same.
- 2.8.11 All the properties/equipment/components of BHEL/their Client loaned with or without deposit to the contractor in connection with the contract shall remain properties of BHEL/their Client.

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- 2.8.12 The contractor shall use such properties for the purpose of execution of this contract. All such properties/equipment/components shall be deemed to be in good condition when received by the contractor unless he notifies within 48 hours to the contrary. The contractor shall return them in good condition as and when required by BHEL/their Client. In case of non-return, loss, damage, repairs etc, the cost thereof as may be fixed by BHEL Engineer will be recovered from the contractor
- 2.8.13 In case the contractor is required to undertake any work outside the scope of this contract, the rates payable shall be those mutually agreed upon if the item rates are not mentioned in existing contract.
- 2.8.14 Any delay in completion of works/or non-achievement of periodical targets due to the reasons attributable to the contractor, the same may have to be compensated by the contractor either by increasing manpower and resources or by working extra hours and/or by working more than one shift. All these are to be carried out by the contractor at no extra cost.
- 2.8.15 The contractor shall arrange, coordinate his work in such a manner as to cause no hindrance to other agencies working in the same premises.
- 2.8.16 All safety rules and codes applied by the Client/BHEL at site shall be observed by the contractor without exception. The contractor shall be responsible for the safety of the equipment/material and works to be performed by him and shall maintain all light, fencing guards, slings etc. or other protection necessary for the purpose. Contractor shall also take such additional precautions as may be indicated from time to time by the Engineer with a view to prevent pilferage, accidents, fire hazards. Due precautions shall be taken against fire hazards and atmospheric conditions. Suitable number of Clerical staff, watch and ward, store keepers to take care of equipment/materials and construction tools and tackles shall be posted at site by the contractor till the completion of work under this contract.
The contractor shall arrange for such safety devices as are necessary for such type of work and carry out the requisite site tests of handling equipment, lifting tools, tackles etc. as per prescribed standards and practices. Contractor has to ensure the implementation of Health, Safety and Environment (HSE) requirements as per directions given by BHEL/Customer. The contractor has to assist in HSE audit by BHEL/Customer and submit compliance Report. The contractor has to generate and submit record/reports as per HSE plan/activities as per instruction of BHEL/Customer
- 2.8.17 The contractor will be directly responsible for payment of wages to his workmen. A pay roll sheet giving all the payments given to the workers and duly signed by the contractor's representative should be furnished to BHEL site for record purpose, if so called for.
- 2.8.18 In case of any class of work for which there is no such specification as laid down in the contract, such work shall be carried out in accordance with the instructions and requirements of the Engineer.
- 2.8.19 Also, no idle charges will be admissible in the event of any stoppage caused in the work resulting in contractor's labour and Tools & Plants being rendered idle due to any reason at any time.
- 2.8.20 The contractor shall take all reasonable care to protect the materials and work till such time the plant/equipment has been taken over by BHEL or their Client whichever is earlier.
- 2.8.21 The contractor shall not stop the work or abandon the site for whatsoever reason of dispute, excepting force majeure conditions. All such problems/disputes shall be separately discussed and settled without affecting the progress of work. Such stoppage or abandonment shall be treated as breach of contract and dealt with accordingly

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2.8.22 The contractor shall keep the area of work clean and shall remove the debris etc. while executing day-to-day work. Upon completion of work, the contractor shall remove from the vicinity of work, all scrap, packing materials, rubbish, unused and other materials and deposit them in places specified by the Engineer. The contractor will also demolish all the hutments, sheds, offices, etc. constructed and used by him and shall clean the debris. In the event of his failure to do so, the same will be arranged to be done by the Engineer and the expenses recovered from the contractor.

2.8.23 The contractor shall execute the work in the most substantial and workman like manner in the stipulated time. Accuracy of work and timely execution shall be the essence of this contract. The contractor shall be responsible to ensure that the quality, assembly and workmanship conform to the dimensions and clearance given in the drawings and/ or as per the instructions of the Engineer.

2.8.24 The Contractor to note that some of BHEL's T&Ps/MMDs may not be insured. The Contractor will take necessary precautions and due care to protect the same while in his custody from any damage/ loss till the same is handed over back to BHEL. In case the damage / loss is due to carelessness/ negligence on the part of the contractor, the Contractor is liable to get them repair/ replaced immediately and in case of his failure to do so within a reasonable time, BHEL will reserve the right to recover the loss from the contractor.

2.9 PROGRESS MONITORING, MONTHLY REVIEW AND PERFORMANCE EVALUATION

2.9.1 A detailed plan/program for completion of the contractual scope of work as per the time schedule given in the contract shall be jointly agreed between BHEL and Contractor, before commencement of work. The above program shall be supported by month wise deployment of resources viz. Manpower, T&P, Consumables, etc. Progress will be reviewed periodically (Daily/Weekly/Monthly) vis a vis this jointly agreed program. The Contractor shall submit periodical progress reports (Daily/Weekly/Monthly) and other reports/information including manpower, consumables, T&P mobilization etc as desired by BHEL.

2.9.2 Monthly progress review between BHEL and Contractor shall be based on the agreed programme as above, availability of inputs/fronts etc., and constraints if any, as per prescribed formats. Manpower, T&P and consumable reports as per prescribed formats shall be submitted by contractor every month. Release of RA Bills shall be contingent upon certification by BHEL Site Engineer of the availability of the above prescribed formats duly filled in and signed.

2.9.3 The burden of proof that the causes leading to any shortfall is not due to any reasons attributable to the contractor is on the contractor himself. The monthly progress review shall record shortfalls attributable to (i) Contractor, (ii) Force Majeure Conditions, and (iii) BHEL

2.9.4 Performance of the Contractor shall be assessed as per prescribed formats and shall form the basis for 'Annual/Overall Performance Evaluation' of the Contractor and also for 'Assessment of Capacity of Bidder' for Tenders where the Contractor is a bidder. BHEL reserves the right to revise the evaluation formats during the course of execution of the works

2.10 TIME OF COMPLETION

2.10.1 The time schedule shall be as prescribed in the Contract. The time for completion shall be reckoned from the date of commencement of work at Site as certified by BHEL Engineers.

2.10.2 The entire work shall be completed by the contractor within the time schedule or within such extended periods of time as may be allowed by BHEL under clause 2.11

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2.11 EXTENSION OF TIME FOR COMPLETION

- 2.11.1 If the completion of work as detailed in the scope of work gets delayed beyond the contract period, the contractor shall request for an extension of the contract and BHEL at its discretion may extend the Contract.
- 2.11.2 Based on the monthly reviews jointly signed, the works balance at the end of original contract period less the backlog attributable to the contractor shall be quantified, and the number of months of 'Time extension' required for completion of the same shall be jointly worked out. Within this period of 'Time extension', the contractor is bound to complete the portion of backlog attributable to the contractor. Any further 'Time extension' or 'Time extensions' at the end of the previous extension shall be worked out similarly.
- 2.11.3 However if any 'Time extension' is granted to the contractor to facilitate continuation of work and completion of contract, due to backlog attributable to the contractor alone, then it shall be without prejudice to the rights of BHEL to impose penalty/LD for the delays attributable to the contractor, in addition to any other actions BHEL may wish to take at the risk and cost of contractor.
- 2.11.4 A joint programme shall be drawn for the balance amount of work to be completed during the period of 'Time Extension', along with matching resources (with weightages) to be deployed by the contractor as per specified format. Review of the programme and record of shortfall shall be done every month of the 'Time extension' period in the same manner as is done for the regular contract period.
- 2.11.5 During the period of 'Time extension', contractor shall maintain their resources as per mutually agreed program
- 2.11.6 At the end of total work completion as certified by BHEL Engineer, and upon analysis of the total delay, the portion of time extensions attributable to (i) Contractor, (ii) Force majeure conditions, and (iii) BHEL, shall be worked out and shall be considered to be exhausted in the same order. The total period of time extensions shall be the sum of (i), (ii) and (iii) above and shall be equal to period between the scheduled date of completion and the actual date of completion of contract. LD shall be imposed/levied for the portion of time extensions attributable to contractor and recoverable from the dues payable to the contractor.

2.12 OVERRUN COMPENSATION: Please refer Clause No. 11 (PART-C) of Annexure – I of NIT.

2.13 INTEREST BEARING RECOVERABLE ADVANCES

- 2.13.1 Normally no advance is payable to the contractor. However, advance payment in exceptional circumstances shall be interest bearing and secured through a Bank Guarantee and shall be limited to a maximum of 5% of contract value. This 'Interest Bearing Recoverable Advance' shall be payable in not less than two installments with any of the installment not exceeding 60% of the total eligible advance.
- 2.13.2 In exceptional circumstances, with due justification, Competent Authority of BHEL is empowered to approve proposals for payment of additional interim interest bearing advance against Bank Guarantee, for resource augmentation towards expediting work for project implementation.
- 2.13.3 Bank Guarantee towards 'Interest Bearing Recoverable Advance' shall be at least 110% of the advance so as to enable recovery of not only principle amount but also the interest portion, if so required.
- 2.13.4 Contractor shall establish the utilization of advance drawn before the release of next installment.
- 2.13.5 Payment and recovery of Interest Bearing Recoverable advance shall be at the sole discretion of BHEL and shall not be a subject matter of arbitration.

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- 2.13.6 The rate of interest applicable for the above advances shall be the prime lending rate of State Bank of India prevailing at the time of disbursement of the advance + 2%, and such rate will remain fixed till the total advance amount is recovered
- 2.13.7 Unadjusted amount of advances paid shall not exceed 5% of the total contract value at any point of time. Recovery of advances shall be made progressively from each Running Bill such that the advance amounts paid along with the interest is fully recovered by the time the contractor's billing reaches 80% of contract value.
- 2.13.8 Recovery rate per month shall be the sum of:
- Not less than 10% of Running Bill amount
 - Simple interest up to the date of RA Bill on the outstanding Principle amount/amounts
- 2.13.9 Contractor to submit Bank Guarantee as per prescribed formats for each of the advance and shall be valid for at least one year or the recovery duration or the balance contract period which ever is later. In case the recovery of dues does not get completed within the aforesaid BG period, the contractor shall renew the BG or submit fresh BG for the outstanding amount and the remaining recovery period.
- 2.13.10 BHEL is entitled to make recovery of the entire outstanding amount in case the contractor fails to comply with the BG requirement
- 2.14 QUANTITY VARIATION**
- 2.14.1 The quoted rates shall remain firm irrespective of any variations in the individual quantities. No compensation becomes payable in case the variation of the final executed contract value is within the limits of Plus (+) or Minus (-) 15% of awarded contract value.
- 2.14.2 Compensation due to variation of final executed value in excess of the limits defined in clause above, shall be as follows:
- In case the finally executed contract value reduces below the lower limit of Contract Value due to quantity variation specified above, the contractor will be eligible for compensation @ 15% of the difference between the lower limit of the contract value and the actual executed value.
 - In case the finally executed contract value increases above the upper limit of Contract Value due to quantity variation specified above, there will be no revision in the rates within the contract period.
- 2.15 EXTRA WORKS**
- 2.15.1 All rectifications/modifications, revamping, and reworks required for any reasons not due to the fault of the contractor, or needed due to any change in deviation from drawings and design of equipment, operation/maintenance requirements, mismatching, or due to damages in transit, storage and erection/commissioning, and other allied works which are not very specifically indicated in the drawings, but are found essential for satisfactory completion of the work, will be considered as extra works.
- 2.15.2 Extra works arising on account of the contractor's fault, irrespective of time consumed in rectification of the damage/loss, will have to be carried out by the contractor free of cost. Under such circumstances, any material and consumable required for this purpose will also have to be arranged by the contractor at his cost.
- 2.15.3 All the extra work should be carried out by a separately identifiable gang, without affecting routine activities. Daily log sheets in the pro-forma prescribed by BHEL should be maintained and shall be signed by the contractor's representative and BHEL engineer. No claim for extra work will be considered/ entertained in the absence of the said supporting documents i.e. daily log sheets. Signing of log sheets by BHEL engineer does not necessarily mean the acceptance of such works as extra works.

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- 2.15.4 BHEL retains the right to award or not to award any of the major repair/ rework/ modification/ rectification/ fabrication works to the contractor, at their discretion without assigning any reason for the same
- 2.15.5 After eligibility of extra works is established and finally accepted by BHEL engineer/designer, payment will be released on competent authority's approval at the following rate.

MAN-HOUR RATE FOR ELIGIBLE EXTRA WORKS: Single composite average labour man-hour rate, including overtime if any, supervision, use of tools and tackles and other site expenses and incidentals, consumables for carrying out any major rework/ repairs/ rectification/ modification/ fabrication as certified by site as may arise during the course of erection, testing, commissioning or extra works arising out of transit, storage and erection damages, payment, if found due will be at Rs 60/- per man hour.

- 2.15.6 The above composite labour man hour rate towards extra works shall remain firm and not subject to any variation during execution of the work.
- 2.15.7 **Extra Works for Civil Packages** shall be regulated as follows
Rates for Extra Works arising due to (1) non availability of BOQ (Rate Schedule), OR (2) change in Specifications of materials/works (3) rectification/modification/dismantling & re erecting etc due to no fault of Contractor, shall be in the order of the following:
- Item rates are to be derived from similar nature of items in the BOQ (Rate Schedule) with applicable escalation derived from All India Consumer Price Index for Whole Sale Commodities.
 - As per CPWD-DSR-2007 (or latest edition) with applicable escalation derived from All India Consumer price Index for Whole Sale Commodities, OR, Notification issued by the office of CPWD for 'Cost Index' in that Region where the project is being executed, whichever is less
 - Item rates are to be worked out on the basis of prevailing market rates mutually agreed between BHEL and Contractor, plus 15% towards Contractor's overheads and profit.

2.16 SUPPLEMENTARY ITEMS

2.16.1 For NON Civil Works

Supplementary items are items/works required for completion of entire work but not specified in the scope of work. Subject to certification of such items/works as supplementary items by BHEL Engineer, rates shall be derived on the basis of any one of the following on mutual agreement:

- Based on percentage breakup/rates indicated for similar/nearby items.
- In case (i) above does not exist, then BHEL/site may derive the percentage breakup/rates to suit the type of work

2.16.2 For Civil Works

- Rates for Supplementary Works/Additional Works arising out due to additions/alterations in the original scope of works as per contract subject to certification of BHEL Engineer shall be worked out as under:
 - Item rates which are available in existing BOQ (Rate Schedule) shall be operated with applicable escalation derived from All India Consumer Price Index for Whole Sale Commodities
 - Items of works which are not available in existing BOQ shall be operated as an 'Extra Works' and rate shall be derived as per clause no 2.15.7
- Execution of Supplementary Works/Additional Works through the Contractor shall be at the sole discretion of BHEL, and shall be considered as part of executed contract value for the purpose of Quantity Variation as per clause 2.14
- BHEL Engineer's decision regarding fixing the rate as above is final and binding on the contractor.
- PVC & ORC will not be applicable for (I) above.

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- 2.17 PRICE VARIATION COMPENSATION:** Please refer Clause No. 12 (PART-C), of Annexure – I of NIT.
- 2.18 INSURANCE**
- 2.18.1 BHEL/their customer shall arrange for insuring the materials/properties of BHEL/customer covering the risks during transit, storage, erection and commissioning.
- 2.18.2 It is the sole responsibility of the contractor to insure his materials, equipment, workmen, etc. against accidents and injury while at work and to pay compensation, if any, to workmen as per Workmen's compensation Act. The work will be carried out in a protected area and all the rules and regulations of the client /BHEL in the area of project which are in force from time to time will have to be followed by the contractor.
- 2.18.3 If due to negligence and or non-observation of safety and other precautions by the contractors, any accident/injury occurs to the property / manpower belong to third party, the contractor shall have to pay necessary compensation and other expense, if so decided by the appropriate authorities.
- 2.18.4 The contractor will take necessary precautions and due care to protect the material, while in his custody from any damage/ loss due to theft or otherwise till the same is taken over by BHEL or customer. For lodging / processing of insurance claim the contractor will submit necessary documents. BHEL will recover the loss including the deductible franchise from the contractor, in case the damage / loss is due to carelessness / negligence on the part of the contractor. In case of any theft of material under contractor's custody, matter shall be reported to police by the contractor immediately and copy of FIR and subsequently police investigation report shall be submitted to BHEL for taking up with insurance. However, this will not relieve the contractor of his contractual obligation for the material in his custody.
- 2.19 STRIKES & LOCKOUT**
- 2.19.1 The contractor will be fully responsible for all disputes and other issues connected with his labour. In the event of the contractor's labour resorting to strike or the Contractor resorting to lockout and if the strike or lockout declared is not settled within a period of one month, BHEL shall have the right to get the work executed through any other agencies and the cost so incurred by BHEL shall be deducted from the Contractor's bills.
- 2.19.2 For all purposes whatsoever, the employees of the contractor shall not be deemed to be in the employment of BHEL
- 2.20 FORCE MAJEURE**
- The following shall amount to Force Majeure:-
- 2.20.1 Acts of God, act of any Government, War, Sabotage, Riots, Civil commotion, Police action, Revolution, Flood, Fire, Cyclones, Earth quake and Epidemic and other similar causes over which the contractor has no control.
- 2.20.2 If the contractor suffers delay in the due execution of the contractual obligation due to delays caused by force majeure as defined above, the agreed time of completion of the job covered by this contract or the obligations of the contractor shall be extended by a period of time equal to period of delay, provided that on the occurrence of any such contingency, the contractor immediately reports to BHEL in writing the causes of delay and the contractor shall not be eligible for any compensation.

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2.21 ARBITRATION & RECONCILIATION

In case amicable settlement is not reached in the event of any dispute or difference arising out of the execution of the Contract or the respective rights and liabilities of the parties or in relation to interpretation of any provision by the Contractor in any manner touching upon the Contract, such dispute or difference shall (except as to any matters, the decision of which is specifically provided for therein) be referred to the sole arbitration of the arbitrator appointed by BHEL/In charge(Region/Unit).

The award of the Arbitrator shall be binding upon the parties to the dispute

Subject as aforesaid, the provisions of Arbitration and Reconciliation Act 1996 (India) or statutory modifications or reenactments thereof and the rules made there under and for the time being in force shall apply to the arbitration proceedings under this clause. The venue of the arbitration shall be the place from which the contract is issued or such other place as the Arbitrator at his discretion may determine

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

In the event of any dispute or difference relating to the interpretation and application of the provisions of the Contract, such dispute or difference shall be referred to by either party to the arbitration of one of the arbitrators in the department of public enterprises. The award of the arbitrator shall be binding upon the parties to the dispute, provided, however, any party aggrieved by such award may make further reference for setting aside or revision of the award to the Law Secretary, Department of Legal Affairs, Ministry of Law and Justice, Government of India. Upon such reference the dispute shall be decided by the Law Secretary or the Special Secretary or Additional Secretary when so authorized by the Law Secretary, whose decision shall bind the parties hereto finally and conclusively.

2.21.3 The cost of arbitration shall be borne equally by the parties.

2.21.4 Work under the contract shall be continued during the arbitration proceedings.

2.22 RETENTION AMOUNT

2.22.1 Retention Amount shall be 10% of executed contract value and shall be recovered at the rate of 10% from each Running Bill admitted.

2.22.2 Refund of Retention Amount shall be as follows:

- i) The retention amount shall be retained towards 'Performance Guarantee for Workmanship' and shall become refundable after expiry of Guarantee period, provided all the defects noticed during the guarantee period has been rectified to the satisfaction of BHEL Site Engineer/BHEL Construction Manager, and after deducting all expenses/other amounts due to BHEL under the contract/other contracts entered into by BHEL with them. This retention amount can be released on commencement of the Guarantee period, on submission of equivalent Bank Guarantee.

2.23 PAYMENTS

Payments to Contractors are made in any one of the following forms

2.23.1 Running Account Bills (RA Bills)

- i) These are for interim payments when the contracts are in progress. The bills for such interim payments are to be prepared by Contractor in prescribed formats (RA Bill forms).
- ii) Payments shall be made according to the extent of work done as per measurements taken up to the end of the calendar month and in line with the terms of payments described in the Tender documents
- iii) Recoveries on account of electricity, water, statutory deductions, etc are made as per terms of contract

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- iv) Full rates for the work done shall be allowed only if the quantum of work has been done as per the specifications stipulated in the contract. If the work is not executed as per the stipulated specifications, BHEL may ask the contractor to re do the work according to the required specifications, without any extra cost. However, where this is not considered necessary 'OR' where the part work is done due to factors like non-availability of material to be supplied by BHEL 'OR' non availability of fronts 'OR' non availability of drawings, fraction payment against full rate, as is considered reasonable, may be allowed with due regard for the work remaining to be done. BHEL decision in this regard will be final and binding on the contractor
- v) In order to facilitate part payment, BHEL Site Engineer at his discretion may further split the contracted rates/percentages to suit site conditions, cash flow requirements according to the progress of work.

2.23.2 Final Bill

Final Bill' is used for final payment on closing of Running Account for works or for single payment after completion of works. 'Final Bill' shall be submitted as per prescribed format after completion of works as per scope and upon material reconciliation, along with the following.

- i) 'No Claim Certificate' by contractor
- ii) Clearance certificates where ever applicable viz Clearance Certificates from Customer, various Statutory Authorities like Labour department, PF Authorities, Commercial Tax Department, etc.
- iii) Indemnity bond as per prescribed format

BHEL shall settle the final bills after deducting all liabilities of Contractor to BHEL

2.24 PERFORMANCE GUARANTEE FOR WORKMANSHIP

2.24.1 Even though the work will be carried out under the supervision of BHEL Engineers the Contractor will be responsible for the quality of the workmanship and shall guarantee the work done for a period of twelve months from the date of commencement of guarantee period for good workmanship and shall rectify free of cost all defects due to faulty erection detected during the guarantee period. In the event of the Contractor failing to repair the defective works within the time specified by the Engineer, BHEL may proceed to undertake the repairs of such defective works at the Contractor's risk and cost, without prejudice to any other rights and recover the same from the Guarantee money.

2.24.2 BHEL shall release the guarantee money subject to the following

- i) Contractor has submitted 'Final Bill'
- ii) Guarantee period as per contract has expired or against submission of Bank Guarantee for equivalent amount.
- iii) Contractor has furnished 'No Claim Certificate' in specified format
- iv) BHEL Site Engineer/Construction Manager has furnished the 'No Demand Certificate' in specified format
- v) Contractor has carried out the works required to be carried out by him during the period of Guarantee and all expenses incurred by BHEL on carrying out such works is included for adjustment from the Guarantee money refundable.

2.25 CLOSING OF CONTRACTS

The Contract shall be considered completed and closed upon completion of all contractual obligations and settlement of Final Bill or completion of Guarantee period whichever is later. Upon closing of Contract, BHEL shall issue a completion certificate as per standard format, based on specific request of Contractor.

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2.26 REVERSE AUCTION:

BHEL reserves the right to go for Reverse Auction for Price Bid Opening by BHEL appointed service provider, instead of opening the submitted sealed price bid in the conventional way. The Business Rules for Reverse Auction shall be as per BHEL guidelines issued from time to time.

2.27 SUSPENSION OF BUSINESS DEALINGS

BHEL reserves the right to take action against Contractors who either fail to perform or Tenderers/Contractor who indulge in malpractices, by suspending business dealings with them in line with BHEL guidelines issued from time to time.

2.28 OTHER ISSUES

- 2.28.1 Value of Non judicial Stamp Paper for Bank Guarantees and for Contract Agreement shall be not less than Rs 100/- unless otherwise required under relevant statutes.
- 2.28.2 In case of any conflict between the General Conditions of Contract and Special Conditions of Contract, provisions contained in the Special Conditions of Contract shall prevail.
- 2.28.3 Unless otherwise specified in NIT, offers from consortium/JVs shall not be considered.
- 2.28.4 BHEL may not insist for signing of Contract Agreements in respect of low value and short time period contracts.

2.29 MSE suppliers can avail the intended benefits only if they submit along with the offer, attested copies of either EM II certificate having deemed validity (five years from the date of issue of acknowledgement in EM II) or valid NSIC certificate or EM II certificate along with attested copy of a CA certificate (Format enclosed at annexure-A where deemed validity of EM II certificate of five years has expired) applicable for the relevant financial year (latest audited). Date to be reckoned for determining the deemed validity will be the date of bid opening (Part 1 in case of two part bid). Non submission of such documents will lead to consideration of their bid at par with other bidders. No benefits shall be applicable for this enquiry if any deficiency in the above required documents are not submitted before price bid opening. Documents should be notarized or attested by a Gazetted officer”.

2.30 Fraud Prevention Policy:

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

2.31 In addition to existing taxes, any new taxes imposed by Central/ State Govt. shall be payable by the contractor and same shall be reimbursed on submission of relevant documents.

2.32 In case, any new tax is imposed instead of existing tax, difference of the amount shall be reimbursed/ recovered on submission of documentary evidence.

2.33 All corrigenda, addenda, amendments, time extensions, clarifications etc. to the tender will be hosted on our our websites <http://www.bhelviz.co.in> & <http://www.bhel.com> only. Bidders should regularly visit website to keep themselves updated

ANNEXURE – IV

SPECIAL CONDITIONS OF CONTRACT (SCC)

Contents

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2	General Services to be rendered by the Bidder	Chapter-II	
3	General Technical Requirements (Codes and Standards)	Chapter-III	
4	Obligations of Contractor (In respect of Tools, Tackles, Consumables, etc employment of supervisory staff and workmen)	Chapter-IV	
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6	Material Handling, Storage, Preservation, etc	Chapter-VI	
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SPECIAL CONDITIONS OF CONTRACT (SCC)

Chapter - I : General Intent of Specifications

1.0	INTENT OF THE SPECIFICATION
1.1	The intent of this erection specification is to provide services for execution of the project according to most modern and proven techniques and codes. The omission of specific reference to any method, equipment or material necessary for the proper and efficient services towards installation of the plant shall not relieve the contractor of the responsibility of providing such services / facilities to complete the work or portion of work awarded to him. The quoted / accepted rates / price shall deem to be inclusive of all such contingencies.
1.2	The work shall conform to dimensions and tolerances given in various drawings and documents that will be provided during erection. If any portion of works is found to be defective in workmanship and not conforming to drawings / documents or other stipulations, the contractor shall dismantle and re-do the work duly replacing the defective materials at their own cost, failing which recoveries, as determined by BHEL, shall be effected from contractor's bills.
1.3	It is not the intent of this specification to specify herein all the details of erection and commissioning. However, the system shall conform in all respects to high standards of quality and workmanship for performing the required duties in a manner acceptable to purchaser who will interpret the meaning of drawings and specifications and shall be entitled to reject any work or material, which in his judgments is not in full accordance herewith.
1.4	The omission of specific reference to any fabrication / erection or other method, equipment or material necessary for proper and efficient working of the plant shall not relieve the tenderer of the responsibility of providing such facilities to complete the work at quoted rates. Any mismatch/ defect found due to mistake in fabrication / erection shall have to be rectified by the vendor free of cost. Inspection by BHEL/Customer does not relieve vendor of his responsibility of executing quality erection.
1.5	The work covered under this specification is of highly sophisticated nature, requiring the best quality workmanship, supervision, engineering and construction management. The contractor should ensure proper planning and successful and timely completion of the work to meet the overall project schedule. The contractor must deploy adequate quantity of tools & plants, modern / latest construction aids etc. He must also deploy adequate trained, qualified and experienced supervisory staff and skilled personnel.
1.6	Contractor shall erect and commission all the equipments and auxiliaries as per the sequence & methodology prescribed by BHEL depending upon the technical requirements. Availability of materials and fronts will decide this. BHEL Engineer's decision regarding correctness of the work and method of working shall be final and binding on the contractor. No claims for extra payment from the contractor will be entertained on the ground of deviation from the methods / sequence adopted in erection of similar sets elsewhere.

SPECIAL CONDITIONS OF CONTRACT (SCC)

Chapter - I : General Intent of Specifications

1.7	Following shall be the minimum responsibility of contractor and have to be provided within finally accepted rates / prices:
1.7.1	Provision as required of all types of labour, supervisors, engineers, watch and ward, tools & tackles, calibrated MMEs (Monitoring and Measuring Equipment) as specified and otherwise required for the work, consumables for erection, testing and commissioning including material handling.
1.7.2	Achieving Proper out-turn / Turn-over as per BHEL plan and commitment.
1.7.3	Completion of work as per BHEL Schedule.
1.7.4	Good quality and accurate workmanship for proper performance of the equipment
1.7.5	Repair and rectification
1.7.6	Preservation / Re-conservation of all components during storage / erection / commissioning till handing over.

SPECIAL CONDITIONS OF CONTRACT (SCC)**Chapter - II : General Services to be rendered by the Bidder**

2.0	GENERAL SERVICES TO BE RENDERED BY THE BIDDER
2.1	Services for construction, fabrication, equipment erection, testing as well as trial run & commissioning of various equipment and accessories under the contract shall include but not be limited to the following:
2.2	Issuing materials from store/open yard from time to time for erection as per the construction programme. The Contractor shall be the custodian of all the materials issued till the plant/equipment is officially taken over by the owner / BHEL after complete erection and successful trial run & commissioning.
2.3	Transport of material to their respective places of erection and erection of the complete plant & equipment as supplied under this specification.
2.4	Trial run and commissioning of individual equipment / sub-systems to the satisfaction of Owner/BHEL.
2.5	Deployment of all skilled and unskilled manpower required for erection, supervision of erection, watch & ward, commissioning and other services to be rendered under this specification.
2.6	Deployment of all erection tools & tackle, construction machinery, transportation vehicles and all other implements in adequate number and size, appropriate for the erection work to be handled under scope of this specification except otherwise specified.
2.7	Supply of all consumables, eg welding electrodes, gases, grinding/cutting wheels, cleaning agents, diesel oil, lubricant etc as well as materials required for temporary supports, scaffolding etc as necessary for such erection work, unless specified other wise.
2.8	Providing support services for the contractor's erection staff eg construction of site offices, temporary stores, residential accommodation and transport to work site for erection personnel, watch and ward for security and safety of the materials under the Contractor's custody etc. as required.
2.9	Maintaining proper documentation of all the site activities undertaken by the Contractor as per the proforma mutually agreed with BHEL, Submission of monthly progress reports and any such document as and when desired by BHEL/owner, taking approval of all statutory authorities i.e Boiler Inspector, Factory Inspector, Inspector of Explosives etc , as applicable for respective portions of work fall under the jurisdiction of such statutes of laws.
2.10	Any other service, although not specifically called for but required for a contract of the size and nature indicated in the specification.

SPECIAL CONDITIONS OF CONTRACT (SCC)

Chapter - III : General Technical Requirements (Codes and Standards)

3.0	GENERAL TECHNICAL REQUIREMENTS (CODES AND STANDARDS)
3.1	Except where otherwise specified, the plant/equipment shall comply with the appropriate Indian Standard or an agreed internationally accepted Standard Specification as mentioned elsewhere in contract specifications, each incorporating the latest revisions at the time of tendering. Where no internationally accepted standard is applicable, the Bidder shall give all particulars and details as necessary, to enable BHEL to identify all of the plant/equipment in the same detail as would be possible had there been a Standard Specification.
3.2	Where the Bidder proposes alternative codes or standards he shall include in his tender one copy (in English) of each Standard Specification to which materials offered shall comply. In such case, the adopted alternative standard shall be equivalent or superior to the standards mentioned in the specification.
3.3	In the event of any conflict between the codes and standards referred above, and the requirements of this specification, the requirements which are more stringent shall govern.
3.4	Tools used during erection and commissioning shall not be accepted except with the specific approval of the Engineer.

SPECIAL CONDITIONS OF CONTRACT (SCC)

Chapter - IV : Obligations of Contractor

4.0	OBLIGATIONS OF CONTRACTOR
4.1	CONSUMABLES & OTHER ITEMS
4.1.1	The contractor shall provide within finally accepted price / rates, all consumables (except those indicated in BHEL scope) like welding electrodes (including alloy steel and stainless steel), filler wires, TIG filler wires, gases (inert, welding, cutting), soldering material, dye penetrants, radiography films, etc. Other erection consumables such as tapes, jointing compound, grease, mobile oil, M-seal, Araldite, petrol, CTC / other cleaning agents, grinding and cutting wheels are to be provided by the contractor. Steel, packers, shims, wooden planks, scaffolding materials hardware items etc. required for temporary works such as supports, scaffoldings are to be arranged by the contractor. Sealing compounds, gaskets, gland packing, wooden/concrete sleepers, for temporary work, required for completion of work except those which are specifically supplied by manufacturing unit are also to be arranged by the contractor.
4.1.2	All the shims, gaskets and packing, which are required for erection and alignment of equipments shall be supplied by contractor free of cost.
4.1.3	It shall be the responsibility of the contractor to plan the activities and store sufficient quantity of consumables. Non-availability of any consumable materials or equivalent suggested by BHEL cannot be considered as reason for not attaining the required progress or for additional claim.
4.1.4	Void.
4.1.5	It shall be the responsibility of the contractor to obtain prior approval of BHEL, regarding suppliers, type of electrodes etc. before procurement of welding electrodes. On receipt of electrodes at site these shall be subjected to inspection and approval by BHEL. The contractor shall inform BHEL details regarding type of electrodes, batch number, date of expiry etc. and produce test certificate for each lot / batch with correlation of batch / lot number with respective test certificate. No electrode without a valid test certificate will be used.
4.1.6	BHEL reserves the right to reject the use of any consumable including electrodes, gases, lubricants / special consumables if it is not found to be of the required standard / make / purity or when shelf life has expired. Contractor shall ensure display of shelf life on consumable wherever required and records maintained.
4.1.7	Storage of all consumables including welding electrodes shall be done as per requirement / instruction of the Engineer by the contractor at his cost.
4.1.8	In case of improper arrangement for procurement of any consumable, BHEL reserves the right to procure the same from any source and recover the cost from the Contractor's first subsequent bill at market value plus the departmental charges of BHEL from time to time. Postponement of such recovery is normally not permitted. The decision of Engineer in this regard shall be final and binding on the Contractor.
4.1.9	All lubricants and chemicals required for pre-commissioning, commissioning, testing, preservation and lubricants for trial runs of the equipment shall be supplied by BHEL / BHEL's client. All services including labour and T&P will be provided by the contractor for handling, filling, emptying, refilling etc. The consumption of lubricants / chemicals shall be properly accounted for. Surplus material if any shall be properly stacked/tagged and returned to BHEL/ CUSTOMER stores at no extra cost to BHEL. BHEL reserves the right to recover costs for wastage by the contractor.

SPECIAL CONDITIONS OF CONTRACT (SCC)

Chapter - IV : Obligations of Contractor

4.1.10	Transportation of oil drums from stores, filling of oil for flushing, first filling, subsequent changeover if any, topping/making up till the unit is fully commissioned and handed over to customer is included in scope of this contract. The contractor shall have to return all the empty drums to BHEL / BHEL's client store at no extra cost. Any loss / damage to above drums shall be to contractor's account.
4.1.11	All charges on account of Octroi, terminal or sales tax and other duties on materials obtained from any source for carrying out the works in the scope of the contractor shall be borne by the contractor.
4.2	TOOLS AND PLANTS / MONITORING AND MEASURING EQUIPMENT (MMEs)
4.2.1	T&Ps and MMEs to be provided by Contractor
4.2.1.1	All T&Ps and MMEs excepting those specifically indicated in BHEL scope are to be provided by the Contractor. Contractor has to make his own arrangement at his cost for completing the formalities (including arrangement of Road permits, if any) if required with Sales Tax/VAT authorities, for bringing their materials, plants and equipments at site for the execution of work under this contract.
4.2.1.2	All suitable cranes for erection of equipments, pipe lines, structural, unloading & loading and material handling, lifting and transport equipments for material handling at stores/yard/siding of BHEL/ Customer are included in contractor's scope. BHEL's cranes will not be available for this purpose unless otherwise specifically permitted as per contract conditions
4.2.1.3	All T&Ps to be deployed by the contractor shall have the approval of BHEL Engineer with regard to brand, quality and specification.
4.2.1.4	Indicative list of Major T&Ps in the scope of Contractor are given in the Technical Conditions of Contract. Bidders to note that these are only indicative and as such all other T&P necessary for timely and satisfactory completion of work in scope shall be mobilized by Contractor
4.2.1.5	Timely deployment of adequate T&Ps is the responsibility of the contractor. The contractor shall be prepared to augment the T&P at short notice to match the planned programme and to achieve the milestones.
4.2.1.6	Contractor shall maintain and operate his tools and plants in such a way that major breakdowns are avoided. In the event of major breakdown, contractor shall make alternative arrangements expeditiously so that the progress of work is not hampered.
4.2.1.7	In the event of contractor failing to arrange the required tools, plants, machinery, equipment, material or non-availability of the same owing to breakdown, BHEL will make alternative arrangement at the risk and cost of the contractor. Decision of BHEL shall be final and binding on the contractor
4.2.1.8	The T&P to be arranged by the contractor shall be in proper working condition and their operation shall not lead to unsafe condition. The movements of cranes, and other equipment should be such that no damage / breakage occurs to foundations, other equipments, material, property and men. All arrangements for the movement of the T&P etc shall be the contractor's responsibility

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Chapter - IV : Obligations of Contractor

4.2.1.9	Use of welding generators / rectifiers only shall be permitted for welding. Use of welding transformers will be subject to specific approval of BHEL engineer.
4.2.1.10	The contractor at his cost shall carry out periodical testing of his construction equipments. Test certificates shall be furnished to BHEL.
4.2.1.11	Contractor shall ensure deployment of serviced and healthy T&Ps including cranes, lifting tackles, wire ropes, manila ropes, winches and slings etc. History card and maintenance records for major T&Ps will be maintained by the contractor and will be made available to BHEL Engineer for inspection as and when required. Fitness certificate / Test Certificates of T&P shall have to be submitted before it is put in use. Identification for such T&Ps will be done as per BHEL Engineer's advice. BHEL reserves the right to permit only new slings up to 20 mm and lifting tackles up to 3 MT capacities.
4.2.1.12	Contractor shall ensure deployment of reliable and calibrated MMEs (Inspection measuring and Monitoring equipment). The MMEs shall have test / calibration certificates from authorized / Government approved / accredited agencies traceable to National / International standards. Each MME shall have a label indicating calibration status i.e. date of calibration, calibration agency and due date for calibration. A list of such instruments deployed by contractor at site with its calibration status is to be submitted to BHEL Engineer for control.
4.2.1.13	Re-testing / re-calibration shall also be arranged at regular intervals during the period of use as advised by BHEL Engineer within the contract price. The contractor will also have alternate arrangements for such MME so that work does not suffer when the particular instrument is sent for calibration. If any MMEs not found fit for use, BHEL shall have the right to stop the use of such item. It will be necessary for the contractor to deploy proper item. Any readings taken by the defective instrument will be recalled and repeat the readings taken by that instrument with a proper one. In case he fails to do so, BHEL may deploy MMEs and retake the readings at contractor's cost.
4.2.1.14	BHEL shall have lien on all T&P, MMEs and other equipment of the contractor brought to the site for the purpose of erection, testing and commissioning. BHEL shall continue to hold the lien on all such items throughout the period of contract / extended period. The contractor and / or his sub-contractors, without the prior written approval of the Engineer, shall remove no material brought to the site.
4.2.1.15	The month wise T&P deployment plan to execute the work is to be submitted as per relevant format as per the instruction of BHEL. It shall be the contractor's responsibility to deploy the required T&P, for timely and successful completion of the job, to any extent.
4.2.2	Obligations in respect of T&Ps and MMEs if provided by BHEL
4.2.2.1	T&P / MMEs being provided by BHEL to sub- contractor free of hire charges shall be shared by other subcontractors working for BHEL at site and the allotment done by BHEL Engineer shall be final and binding.
4.2.2.2	BHEL T&P will be issued in basic assembled condition. Additional loose components / sub-assemblies / attachments as and when necessary, will be issued by BHEL. Assembly of such additional loose components/sub-assemblies/ attachments is in contractor's scope.

SPECIAL CONDITIONS OF CONTRACT (SCC)

Chapter - IV : Obligations of Contractor

4.2.2.3	In case of non-availability of the T&Ps to be provided by BHEL due to breakdown, major overhauls, distribution pattern or any other reason, the contractor shall plan / amend / alter his activities to meet erection / commissioning targets in consultation with BHEL.
4.2.2.4	void
4.2.2.5	The contractor shall engage trained and experienced operators for the operation of BHEL's T&Ps. Their skill / performance will be checked by BHEL Engineer before they are allowed to operate the same. However checking of skills by BHEL does not absolve the contractor of his responsibilities for proper and safe handling of equipment, consistent good performance of operators and regular performance evaluation of operators.
4.2.2.6	void
4.2.2.7	Void
4.2.2.8	Increasing / shortening of the crane boom to suit work requirements shall have to be arranged by the indenting contractor at his cost including restoration to a state as directed by BHEL. All necessary manpower tools, support, consumables, illumination etc. will have to be arranged by contractor at his cost. If required,
4.2.2.9	The area and infrastructure development of the area to be carried out by the customer. However, in construction projects of this magnitude it is possible that all the areas / approaches may not be ready. In such cases backfilling of approaches where ever necessary, consolidation of ground and arrangement of sleepers / sand bag filling etc., for safe operation / movement of equipment including cranes / trailers etc., shall be the responsibility of the contractor at his cost. No compensation on this account shall be payable.
4.2.2.10	Void
4.2.2.11	Void
4.2.2.12	Void
4.2.2.13	Void
4.2.2.14	Void
4.2.2.15	Void
4.2.2.17	Void.

SPECIAL CONDITIONS OF CONTRACT (SCC)**Chapter – V : Responsibilities of Contractor in respect of Labour,
Supervisory Staff, etc.**

5.0	RESPONSIBILITIES OF CONTRACTOR IN RESPECT OF LABOUR, SUPERVISORY STAFF, ETC.
5.1	Refer relevant clauses of General Conditions of Contract (GCC) also in this regard
5.2	The contractor shall deploy all the necessary skilled, semiskilled, unskilled labour including highly skilled workmen etc. These workmen should have previous experience on similar job. They shall hold valid certificates wherever necessary. BHEL reserves the right to insist on removal of any employee of the contractor at any time if he is found to be unsuitable and the contractor shall forthwith remove him.
5.3	Contractor shall also comply with the requirements of local authorities/ project authorities calling for police verification of antecedents of the workmen, staff etc.
5.4	It is the responsibility of the contractor to engage his workmen in shifts and or on overtime basis for achieving the targets set by BHEL. This target may be set to suit BHEL's commitments to its customer or to advance date of completion of events or due to other reasons. The decision of BHEL in regard to setting the erection and commissioning targets will be final and binding on the contractor.
5.5	Contractor shall provide at different elevation suitable arrangement for urinal and drinking water facility with necessary plumbing & disposal arrangement including construction of septic tank. These installations shall be maintained in hygienic condition at all times.
5.6	The Contractor in the event of engaging 20 or more workmen, shall obtain Independent license under the Contract labour (Regulation and Abolition) Act 1970 from the concerned authorities based on Form-V issued by the Principal Employer/Customer. In order to issue Form-V by Customer, Contractor shall fulfill all Statutory requirements like Insurance Policy, PF Code/PF Account number etc as per the requirement of BHEL/Customer.
5.7	Contractor shall deduct the necessary amount towards Provident Fund and contribute equal amount as per Government of India laws. This amount will be deposited regularly to the provident Fund Commissioner. BHEL/Customer may insist for submission of the account code duly certified by PF Commissioner.
5.8	Contractor may also be required to comply with provisions of ESI Act in vogue if applicable and submit evidence to BHEL.
5.9	BHEL / customer may insist for witnessing the regular payment to the labour. They may also like to verify the relevant records for compliance with statutory requirements. Contractor shall enable such facilities to BHEL / Customer.
5.10	Contractor shall deploy only qualified and experienced engineers/ supervisors. They shall have professional approach in executing the work.
5.11	The contractor's supervisory staff shall execute the work in the most professional manner in the stipulated time. Accuracy of work and aesthetic finish are essential part of this contract. They shall be responsible to ensure that the assembly and workmanship conform to dimensions and tolerances given in the drawings / instructions given by BHEL engineer from time to time.

SPECIAL CONDITIONS OF CONTRACT (SCC)

Chapter – V : Responsibilities of Contractor in respect of Labour,
Supervisory Staff, etc.

5.12	The supervisory staff employed by the contractor shall ensure proper outturn of work and discipline on the part of the labour put on the job by the contractor. Also in general they should see that the works are carried out in a safe and proper manner and in coordination with other labour and staff employed directly by BHEL or other contractors of BHEL or BHEL's client.
5.13	It is the responsibility of the contractor to arrange gate pass for all his employees, T&P etc for entering the project premises. Necessary coordination with customer officials is the responsibility of the contractor. Contractor to follow all the procedures laid down by the customer for making gate passes. Where permitted, by customer / BHEL, to work beyond normal working hours, the contractor shall arrange necessary work permits for working beyond normal working hours.
5.14	The actual deployment of Labour and Engineer/supervision staff shall be so as to satisfy the erection and commissioning targets set by BHEL. If at any time, it is found that the contractor is not in a position to deploy the required engineers/supervisors/workmen due to any reason, BHEL shall have the option to make alternate arrangements at the contractor's risk and cost. The expenditure incurred along with BHEL overheads thereon shall be recovered from the contractor
5.15	Contractor shall not deploy women labour at night.

SPECIAL CONDITIONS OF CONTRACT (SCC)

Chapter – VI: Material Handling, Storage & preservation

6.0	MATERIAL HANDLING, STORAGE AND PRESERVATION ETC
6.1	MATERIAL HANDLING AND STORAGE
6.1.1	All the equipments/materials furnished under this contract shall be received from the project stores, sheds / storage yards and transported to pre assembly area / erection site and stored in the storage spaces in a manner so that they are easily retrievable till the contractor erects them. While drawing/lifting material from BHEL / customer stores, the contractor shall ensure that the balance / other materials are stacked back immediately. No claim is admissible on this account
6.1.2	While BHEL will endeavor to store / stack / identify materials properly in their open / close / semi closed / tarpaulins covered storage yard / shed, it shall be contractor's responsibility to assist BHEL in identifying materials well in time for erection. They should take the delivery of the same, following the procedure indicated by BHEL, and transport the material safely to pre-assembly yard / erection site in time, according to program.
6.1.3	The contractor shall take delivery of components, equipment / consumables from storage area after getting the approval of BHEL Engineer on standard indent forms.
6.1.4	The contractor shall identify and deploy necessary Engineers / supervisors / workmen for the above work in sufficient number as may be needed by BHEL, for areas covering their scope.
6.1.5	All the equipment shall be handled very carefully to prevent any damage or loss. No untested wire ropes / slings etc. shall be used for unloading / handling. The equipment shall be properly protected to prevent damage either to the equipment or to the floor where they are stored. The equipment from the stores shall be moved to the actual location at the appropriate time so as to avoid damage of such equipment at site.
6.1.6	Contractor shall ensure that while lifting slings shall be put over the points indicated on the equipment or as indicated in the manufacturer's drawings. Slings / shackles of proper size shall be used for all lifting and rigging purposes. All care shall be taken to safe guard the equipment against any damage. Dragging of piping / valves should be avoided. In case of any damage the cost shall be covered from the contractor.
6.1.7	Approach road conditions from the stores / yards to the erection site may not be equipped and ideal for smooth transportation of the equipment. Contractor may have to be adequately prepared to transport the materials under the above circumstances without any extra cost. . The contractor may familiar himself with soil conditions at site.
6.1.8	Contractor shall be responsible for examining all the plant and materials issued to him and notify the Engineer immediately of any damage, shortage, discrepancy etc., before they are moved out of the stores / storage area. The contractor shall be solely responsible for any shortages or damages in transit, handling, storage and erection of the equipment once received by him. As the erection work will be spread in different areas / locations of the project, contractor has to arrange sufficient number of watch / ward personal to avoid any pilferage of material.
6.1.9	The contractor shall maintain an accurate and exhaustive record-detailing out the list of all equipment received by him for the purpose of erection and keep such record open for the inspection of the engineer at any time.

SPECIAL CONDITIONS OF CONTRACT (SCC)**Chapter – VI: Material Handling, Storage & preservation**

6.1.10	All the material in the custody of contractor and stored in the open or dusty locations must be covered with suitable weather proof / fire retardant covering material wherever applicable and shall be blocked up on raised level above ground. All covering materials including blocks and sleeper shall be arranged by the contractor at his cost.
6.1.11	If the material belonging to the contractor are stored in area other than those earmarked for his operation the engineer will have the right to get it moved to the area earmarked for the contractor at the contractors risk and cost.
6.1.12	The contractor shall be responsible for making suitable indoor storage facilities to store all equipment (drawn by the contractor from BHEL / customer stores), which require indoor storage till the time of their installation. The Engineer will direct the contractor in this regard, which item in his opinion will require indoor storage, and the contractor shall comply with Engineer's decision.
6.1.13	The contractor shall ensure that all surplus / damaged / scrap / unused material, packing wood / containers/ special transporting frames etc are returned to BHEL at a place in project area identified by the Engineer. The contractor will maintain an account for all items received and returned to BHEL. Any shortage in returning such items shall be chargeable to the contractor except allowable wastage for packing wood only.
6.1.14	The contractor shall hand over all parts / materials remaining extra over the normal requirement with proper identification tags to the stores as directed by the concerned BHEL engineer.
6.1.15	The contractor shall ensure that all the packing materials and protective devices installed on equipment during transit and storage are removed before installation.
6.1.16	It shall be the responsibility of the contractor to keep the work / storage areas in neat, tidy and working conditions. All surplus/unusable packing and other materials shall be removed and deposited at location(s) specified by BHEL within the project premises. If required weighing of the same within the project premises will have to be carried out.
6.2	PRESERVATION OF COMPONENTS
6.2.1	After taking delivery from BHEL / customer's stores, plant materials storage shall be subjected to the following protection besides other provisions indicated in these specifications elsewhere.
6.2.1.1	Items stored outdoors shall be stacked up at least six inches (6") off the ground. Items should not be stored in a low lying area where water logging is a possibility. Contractor should have sufficient numbers of wooden / concrete / steel sleepers for the job.
6.2.1.2	Motors, valves, electrical equipment, control equipment and instruments, and special or precision items requiring special care, etc shall be stored indoors. Motor windings shall be kept dry by use of external heat or space heaters.
6.2.1.3	Bearings and other wearing surfaces of plant materials shall be protected against corrosion and kept clean and should be regularly monitored.
6.2.1.4	Insulation materials shall be stored indoors or otherwise protected against getting wet/damaged, using suitable measures and should be protected from direct rain.

SPECIAL CONDITIONS OF CONTRACT (SCC)

Chapter – VI: Material Handling, Storage & preservation

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6.2.1.3	Bearings and other wearing surfaces of plant materials shall be protected against corrosion and kept clean and should be regularly monitored.
6.2.1.4	Insulation materials shall be stored indoors or otherwise protected against getting wet/damaged, using suitable measures and should be protected from direct rain.
6.2.2	It shall be the responsibility of the contractor to apply preservatives / touch up paints (primer) on equipment handled and erected by him till such time of final painting. It shall be contractor's responsibility to arrange for required paints (primer), thinners, labour, scaffolding materials, cleaning materials like wire brush, emery sheets, etc, cleaning of surface and provide one coat of preservatives / paints (primer) from time to time as decided by BHEL engineer. The accepted rate shall include this work also. It is to be noted that such painting may have to be done as and when required till such time the final painting is carried out.
6.2.3	The contractor shall effectively protect the finished work from action of weather and from damage or defacement and shall cover the finished parts then and there for their protection.
6.2.4	Any failure on the part of contractor to carry out works according to above clauses will entail BHEL to carry out the job from any other party and recover the cost from contractor.

SPECIAL CONDITIONS OF CONTRACT (SCC)

Chapter – VII: Drawings and documents

7.0	DRAWINGS AND DOCUMENTS
7.1	The detailed drawings, specifications available with BHEL engineers will be made available to the contractor during execution of work at site. The contractor will also ensure availability of all drawings / documents at work place.
7.2	Necessary drawings to carry out the erection work will be furnished to the contractor by BHEL on loan, which shall be returned to BHEL Engineer at site after completion of work. Contractor shall ensure safe storage and quick retrieval of these documents.
7.3	The contractor shall maintain a record of all drawings and documents available with him in a register as per format given by BHEL Engineer. Contractor shall ensure use of pertinent drawings / data / documents and removal of obsolete ones from work place and returning to BHEL.
7.4	The data furnished in various annexure enclosed with this tender specification are only approximate and for guidance. However, the change in the design and in the quantity may occur as is usual in any such large scale of work. The contractors quoted rates shall be inclusive of the above factor
7.5	Should any error or ambiguity be discovered in the specification or information the contractor shall forthwith bring the same to the notice of BHEL before commencement of work. BHEL's interpretation in such cases shall be final and binding on the contractor.
7.6	Deviation from design dimensions should not exceed permissible limit. The contractor shall not correct or alter any dimension / details, without specific approval of BHEL.

SPECIAL CONDITIONS OF CONTRACT (SCC)**Chapter – VIII: Inspection and Quality**

8.0	INSPECTION AND QUALITY
8.1	Inspection, Quality Assurance, Quality Control
8.1.1	Preparation of quality assurance log sheets and protocols with customer/consultants/statutory authority, welding logs, NDE records, testing & calibration records and other quality control and quality assurance documentation as per BHEL engineer's instructions, is within the scope of work/specification. These records shall be submitted to BHEL/customer for approval from time to time.
8.1.2	The protocols between contractor and customer/ BHEL shall be made prior to installation for correctness of foundations, materials, procedures, at each stage of installation, generally as per the requirement of customer/ BHEL. This is necessary to ensure elimination of errors or keeping them within tolerable limits and to avoid accumulation and multiplication of errors.
8.1.3	A daily log book should be maintained by every supervisor/engineer of contractor on the job in duplicate (one for BHEL and one for contractor) for detailing and incorporating alignment/clearance / centering / leveling readings and inspection details of various equipments etc. High pressure welding details like serial number of weld joints, welders name, date of welding, details of repair, heat treatment etc. will be documented in welding log as per BHEL Engineer's instructions. Record of radiography containing details like serial number of weld joints, date of radiography, repairs, if any, re-shots etc shall also be maintained as per BHEL Engineer's instructions. Record of heat treatments performed shall be maintained as prescribed by BHEL
8.1.4	The performance of welders will be reviewed from time to time as per the BHEL standards. Welders' performance record shall be periodically furnished for scrutiny of BHEL's Engineer. Corrective action as informed by BHEL shall be taken in respect of those welders not conforming to these standards. This may include removal/ discontinuance of concerned welder(s). Contractor shall arrange for the alternate welders immediately
8.1.5	All the welders shall carry identity cards as per the proforma prescribed by BHEL/ Customer/Consultant. Only welders duly authorized by BHEL/customer/consultant shall be engaged on the work.
8.1.6	Contractor shall provide all the Measuring Monitoring Equipments (MMEs) required for completion of the work satisfactorily. These MMEs shall be of brand, quality and accuracy specified by BHEL Engineer and should have necessary calibration and other certificates as per the requirement of BHEL Engineer. Decision of BHEL Engineer regarding acceptance or otherwise of the measuring instruments/gauges/tools for the work under this specification, is final and binding on the contractor. BHEL may give an indicative list of MMEs required for this work and to be made available by the contractor. The list will be reviewed by BHEL and the contractor shall meet any augmentation needed wherever required.

SPECIAL CONDITIONS OF CONTRACT (SCC)

Chapter – VIII: Inspection and Quality

8.1.7	It is the responsibility of the contractor to prove the accuracy of the testing/measuring/calibrating equipments brought by him based on the periodicity of calibration as called for in the BHEL's quality assurance standards/BHEL Engineer's instructions.
8.1.8	Any re-laying or re-termination of cables/re-erection of instruments/ recalibration of instruments etc. required due to contractor's mistake or design requirement and found at any stage inspection, shall be carried out by the contractor at no extra cost.
8.1.9	BHEL have already been accredited with ISO 9001 certification and as such this work is subject to various audits to meet ISO 9001 requirements. One particular aspect which needs special mention is about arrangement of calibration of instruments by the contractor. Contractor shall ensure deployment of reliable and calibrated MMEs (Measuring and Monitoring Equipments). The MMEs shall have test / calibration certificates from authorised / Government approved / Accredited agencies traceable to National / International Standards. Re-testing / re- calibration shall also be arranged at regular intervals during the period of use as advised by BHEL Engineer within the contract price. The contractor will also have alternate arrangements for such MMEs so that work does not suffer when the particular equipment / instrument is sent for calibration. Also if any MMEs not found fit for use, BHEL shall have the right to stop the use of such item and instruct the contractor to deploy proper item and recall ie repeat the readings taken by that instrument, failing which BHEL may deploy MME and retake the readings at Contractor's cost.
8.1.10	Re-work necessitated on account of use of invalid MMEs shall be entirely to the contractor's account. He shall be responsible to take all corrective actions, including resource augmentation if any, as specified by BHEL to make-up for the loss of time.
8.1.11	In the courses of erection, it may become necessary to carry repeated checks of the work with instruments recently calibrated, re-calibrated. BHEL may counter/ finally check the measurements with their own MMEs. Contractor shall render all assistance in conduct of such counter/final measurements.
8.1.12	Total Quality is the watchword of the work and Contractor shall strive to achieve the Quality Standards, procedures laid down by BHEL. He shall follow all the instructions as per BHEL drawings and Quality Standards.
8.2	Stage Inspection By FES/QA Engineers
8.2.1	Apart from day-to-day inspection by BHEL Engineers stationed at Site and Customer's Engineers, stage inspection of equipments under erection and commissioning at various stages shall also be conducted by teams of Engineers from Field Engineering Services of BHEL's Manufacturing Units, Quality Assurance teams from Field Quality Assurance, Unit/Factory Quality Assurance and Commissioning Engineers from Technical Services etc. Contractor shall arrange all labour, tools and tackles etc along with proper access for such stage inspections free of cost.
8.2.2	Any modifications suggested by BHEL FES and QA Engineers' team shall be carried out by contractor.

SPECIAL CONDITIONS OF CONTRACT (SCC)

Chapter – VIII: Inspection and Quality

8.3	Statutory Inspection of Work
8.3.1	<p>The work to be executed under these specifications has to be offered for inspection, at appropriate stages of work completion, to various statutory authorities for compliance with applicable regulations. The work related statutory inspections, though not limited to, are as under:</p> <ol style="list-style-type: none"> 1) Inspectorate of Steam Boilers and Smoke Nuisance 2) Electrical Inspector 3) Factory Inspector, Labour Commissioner, PF Commissioner and other authority connected to this project work <p>The scope includes getting the approvals from the statutory authorities, which includes arranging for inspection visits of statutory authority periodically as per BHEL Engineer's instructions, arranging materials for ground inspection, taking rub outs for the pressure parts to be offered for inspection, submitting co-related inspection reports, documents, radiographs etc and following up the matter with them. Contractor shall also make all arrangements for offering the Products / Systems for inspection at location, as applicable, to the concerned authority.</p>
8.3.2	<p>Contractor should be qualified to execute pressure parts & piping work coming under the purview of IBR, for which he should register himself with CIB of state concerned. contractor also should be aware of the latest IBR regulations and Electricity Act, including the amendments thereof.</p>
8.3.3	<p>Contractor shall comply with 'Qualification Tests for welders engaged in welding of Boilers and Steam Pipes under Construction, Erection and Fabrication at Site in India and in repairing Boilers and steam pipes by welding' in line with Chapter XIII of Indian Boiler Regulations-1950, for testing his welders / men / workers, including all associated fees, procedures, required instruments and equipment and their calibration thereof. shall be contractor's responsibility to obtain approval of Statutory Authorities, wherever applicable, for the conducting of any work which comes under the purview of these authorities, at his cost.</p>
8.3.4	<p>The following fees shall be excluded from scope of Contractor:</p> <ol style="list-style-type: none"> 1. Registration Fee as per Regulation 385 of Chapter IX of Indian Boiler Regulations-1950 2. Fees for inspection of Boiler at the site of Construction as per Regulation 395 A, sl no 4 of Chapter IX of Indian Boiler Regulations-1950 <p>However all other fees like visit fees charged by the Boiler Inspector and other arrangements for his visit or visits till satisfactory completion of work, shall be included in scope of Contractor</p>

SPECIAL CONDITIONS OF CONTRACT (SCC)

Chapter – VIII: Inspection and Quality

8.4	The Quality Management System of BHEL- HPVP have already been certified and accredited under ISO 9002 standards in this regard. The basic philosophy of the Quality Management System is to define the organizational responsibility, work as per documented procedures, verify the output with respect to acceptance norms, identify the non-conforming product/ procedure and take corrective action for removal of non-conformance specifying the steps for avoiding recurrence of such non-conformities, & maintain the relevant quality records. The non-conformities are to be identified through the conduct of periodical audit of implementation of quality systems at various locations/stages of work. Suppliers/vendors of various products/services contributing in the work are also considered as part of the quality management system. .as such the contractor is expected not only to conform to the quality management system of BHEL but also it is desirable that they themselves are accredited under any quality management system standard.
8.5	Field Quality Assurance
8.5.1	Contractor shall carry out all activities conforming to the approved Field Quality Plan (FQP) as revised from time to time. Total quality shall be the watchword of the work and contractor shall strive to achieve the quality standards, procedures laid down by BHEL. He shall follow all the instructions as per BHEL drawings and quality standards. Contractor shall provide the services of quality assurance engineer as per the relevant clauses.

SPECIAL CONDITIONS OF CONTRACT (SCC)
Chapter-IX:HSE & OHSAS

9.0	<p>OCCUPATIONAL HEALTH, SAFETY & ENVIRONMENT MANAGEMENT/</p> <p>QUALITY ASSURANCE PROGRAMME : BHEL, HPVP is certified for ISO 9001. Quality of work to customer's satisfaction and fulfillment of system requirements are the essence of ISO 9001 certification. BHEL, have HSE certification (ISO 14001 & OHSAS 18001) and therefore Contractor also shall organise/ plan/ perform all their activities to meet with the applicable requirements of these standards.</p>
9.1	<p>HSE (Health, safety & Environment): Contractor will comply with HSE (Health, safety & Environment) requirements of BHEL. HSE requirements in brief, are given below :-</p>
9.1.1	<p>Contractor will nominate one of their qualified and experienced employees as Safety Officer, who will be responsible for all HSE related issues of contractor's work area. Safety Officer will have authority to stop any activity, in case he observes that the activity is not being carried out in safe manner. He will conduct surprise inspection as well as periodic inspection/drill (at least once in a month) and submit such reports to BHEL. He will conduct periodic meetings with supervisors of different working groups and explain HSE issues and use of PPEs to them. Reports of such meetings will be submitted to BHEL. Contractor will develop suitable work procedures based upon HSE guidelines and OCPs and implement it. Such work procedures will consist of Area of work, T&P Details, Work Procedure, PPE requirements etc. Please refer Schedule VIII of BOCW Rules for number of safety officers, qualification, duties etc. Contractor should highlight the requirement of safety to staff and labor through daily tool box meeting before start of the day's job. Contractor to also submit monthly safety reports as per the format/procedure of BHEL.</p>
9.1.2	<p>The contractor shall arrange induction and regular health check of their employees as per schedule VII of BOCW rules by a registered medical practitioner. The contractor shall take special care of the employees affected with occupational diseases under rule 230 and schedule II of BOCW Rules. The employees not meeting the fitness requirement should not be engaged for such job</p>
9.1.3	<p>Following personnel protective equipments (PPEs), in adequate numbers, will be made available at site & their regular use by all concerned will be ensured :-</p> <ul style="list-style-type: none"> - HELMET - SAFETY GOGGLES & WELDING FACE SHIELDS - SAFETY BELTS AND PROTECTIVE NET FOR WORKING AT HEIGHT - SAFETY SHOES - EAR PLUG - ANY OTHER SAFETY EQUIPMENT REQUIRED FOR SAFE COMPLETION OF THE WORK <p>Contractor to also submit monthly reports on above as per the format/procedure of BHEL/ Consultant / customer.</p>
9.1.4	<p>Providing appropriate First Aid facilities for prompt treatment of injuries and illness at work place. Arranging training to contractor workmen/ employees for giving first aid.</p>
9.1.5	<p>Arranging ambulance in case of any emergency situation .</p>
9.1.6	<p>Identification of nearest hospital and health check-up of workmen/employees</p>
9.1.7	<p>Providing filtered drinking water at work place in cool container.</p>

SPECIAL CONDITIONS OF CONTRACT (SCC)**Chapter-IX:HSE & OHSAS**

9.1.8	Providing Canteen, Rest Room, Washing facilities to the contracted employees as per provisions of Contract Labour Regulation Act 1970 (Chapter V).
9.1.9	Providing appropriate firefighting equipment at designated work place and nominate a fire officer/warden adequately trained for his job.
9.1.10	Identification of nearest fire station and display contact telephone nos. / person's name around work places for cases of emergencies .
9.1.11	Providing adequate no. of 24 V sources and ensure that no hand lamps are operating at voltage level above 24 Volts.
9.1.12	Fulfilling safety requirements at all power tapping points.
9.1.13	Red & White caution tape of proper width(1.5 to 2 inch) to be used for cordoning unsafe area such as open trench, excavation area etc.
9.1.14	Providing contractors company logo on cloths /uniform/ proper identity cards with photographs, for correct identification of people working at project site .
9.1.15	High/ Low pressure welders to be identified with separate colour clothings. No welders will be deployed without passing appropriate tests and holding valid welding certificates. Approved welding procedure should be displayed at work place.
9.1.16	Displaying safe handling procedures for all chemicals such as lube oil, acid, alkali, sealing compounds etc , at work place.
9.1.17	All scaffolding/ platforms should be made from materials of appropriate quality/grade so that these are safe for use. It should be certified/declared safe for use by an experienced contractor person, before any scaffolding/platform is used. Please refer IS:3696 part 1&2 and 4014 part 1 & 2
9.1.18	All T&Ps/ MMEs should be of reputed brand/appropriate quality & must have valid test/calibration certificates bearing endorsement from competent authority of BHEL.. Contractor to also submit monthly reports of T&Ps deployed and validity test certificates to BHEL safety Officer as per the format/procedure of BHEL.
9.1.19	Ensure that the regulatory requirement of excessive weight limit (to carry/lift/ move weights beyond prescribed limits) for male and female workers are complied with.
9.1.20	Safety slogan, Safety/ Caution boards , wherever required to be displayed in consultation with BHEL.
9.1.21	Take suitable measures for waste management and environment related laws/legislation as a part of normal construction activities. Compliance with the legal requirements on storage/ disposal of paint drums (including the empty ones), Lubricant containers, Chemical Containers, and transportation and storage of hazardous chemicals will be strictly maintained. Ensure proper cleanliness of work place, housekeeping and waste management (including proper waste disposal) on daily basis.
9.1.22	It is imperative on the part of the contractor to join and effectively contribute in joint measures such as tree plantation, environment protection, contributing towards social upliftment, conversion of packing woods to school furniture, keeping good relation with local populace etc.
9.1.23	The contractor shall carry out periodic air and water quality check and illumination level checking in his area of work place and take suitable control measure.

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9.1.24	The Contractor is required to provide proper safety net systems (IS-11057) where ever the hazard of fall from height is present as per instruction of BHEL Engineer. The safety nets shall be fire resistant, duly tested and shall be of ISI Mark and the nets shall be located as per site requirements to arrest or to reduce the consequences of a possible fall of persons working at different heights.
9.1.25	Void..
9.2.	SAFETY AND CLEANLINESS : The contractor shall take all necessary safety precautions and arrange for appropriate appliances as per discretion of BHEL or its authorised officials (Site Construction Manager) to prevent loss of human lives, injuries, to personnel engaged and damage to property. Before commencing the work, the contractor shall submit a “Safety Plan” to the above authorised BHEL official and obtain approval on the same. The safety plan shall indicate in detail the measures that would be taken by the contractor to ensure safety of men, equipment, materials and environment during execution of the work. This will also include an organization structure, role and responsibilities of the concerned key personnel, the safety practices that will be followed, PPEs deployed, plan for handling critical activities and emergencies.
9.3	If the contractor fails to take appropriate safety precautions or to provide necessary safety devices and equipment or to carry out instructions issued by the authorised BHEL official, BHEL shall have the right to take corrective steps at the risk and cost of the contractor.
9.4	During the course of construction, alternation or repairs, scrap with protruding nail, sharp edge etc and all other debris shall be kept clean from working areas, passage, ways and stairs in and around site.
9.5	Combustible scrap and debris shall be removed at regular intervals during the course of execution. Safe means shall be provided to facilitate such removal. The combustible scrap should be stored in safe place away from the plant materials to avoid fire accidents. The area shall be chosen in consultation with the Engineer and to be cordoned off.
9.6	Rigging equipment for materials handling shall be inspected prior to use in each shift and as necessary during its use to ensure that it is safe. Defective rigging equipment will be removed from service.
9.7	Rigging equipment shall not be loaded in excess of its recommended safe working load. Rigging equipment, when not in use, shall be removed from the original work area so as not to present a hazard to employees.
9.8	Contractor shall notify the engineer, of his intention to bring on to site any equipment or any container, with liquid or gaseous fuel or other substance which may create a hazard. The Engineer shall have the right to prescribe the condition under which such equipment or container may be handled and used during the performance of the works and the contractor shall strictly adhere to such instructions. The Engineer shall have the right to inspect any construction tool and to forbid its use, if in his opinion it is unsafe. No claim due to such prohibition will be entertained.
9.9	Where it is necessary to provide and/or store petroleum products or petroleum mixture & explosives, the contractor shall be responsible for carrying out such provision / storage in accordance with the rules & regulations laid down in the relevant petroleum act, explosive act and petroleum and carbide of calcium manual, published by the chief inspector of explosives of India. All such storage shall have prior approval if necessary from the chief inspector of explosives or any other statutory authority. The contractor shall be responsible for obtaining the same.

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9.10	Cylinders shall be moved by tilting and rolling them on their bottom edges. They shall not be intentionally dragged, struck or permitted to strike each other violently.
9.11	When cylinders are transported by powered vehicle they shall be secured in a vertical position.
9.12	All workmen of the contractor working on construction area shall wear safety shoes, hand gloves, safety helmets and safety belt as applicable. The contractor shall provide to its workforce and ensure the use of following personnel protective equipment as found necessary and as directed by BHEL.
9.12.1	Safety Helmets conforming to IS-2925 : 1984
9.12.2	Safety Belts conforming to IS-3521:1983
9.12.3	Safety Shoes conforming to IS-1989 : 1978
9.12.4	Eye and face protection devices conforming to IS – 1179:1967, IS 5983:1980, IS 8521 Part 1:1977, IS 8521 Part 2: 1994.
9.12.5	Hand and body protection devices conforming to IS 4770:1991 and IS- 6994 : Part 1: 1973, IS – 8619 : 1977
9.12.6	Ear protection IS-9167:1979
9.12.7	Respiratory Protective Devices as per IS-9473:2002, i4746:1999 and 14166:1994
9.13	The contractor shall insure his workmen against all accidents and the policy shall be presented to BHEL Engineer on demand. Otherwise, BHEL will arrange the same and the expenditure towards this will be debited to the contractor. In case of a fatal or disabling injury accident to any person at construction site due to lapses by the contractor, the victim and/or his/her dependents shall be compensated by the contractor as per statutory requirements. However, if considered necessary BHEL shall have the right to impose appropriate financial penalty on contractor and recover the same from payments due to the contractor for suitably compensating the victim and/or his/her dependence before imposing any such penalty. Appropriate enquiry shall be held by BHEL giving opportunity to the contractor for presenting his case. Above safety conditions are not exhaustive but give an idea for the contractor and contractor shall adhere to all safety precaution given by the Engineer at site.
9.14	The contractor shall arrange at his cost adequate lighting facilities e.g. flood lighting, hand lamps, area lighting etc. at various levels for safe and proper working operations during night hours at the work spot as well as at the pre-assembly area.
9.15	The contractor shall be responsible for provision of all the safety notices and safety equipment as enjoined on him by the application of relevant statutory regulation / provisions and/or as called upon by BHEL from time to time. He shall be held responsible for any violation of statutory regulations (local, state or central) and BHEL instruction that may endanger safety of men, equipment and material.
9.16	The contractor shall provide temporary fencing wherever required as a safety measure against accident and damage to properties. Suitable caution notices shall be displayed where access to any part is found to be unsafe and hazardous.

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9.17	Contractor shall ensure safety of all the workmen, material and equipment either belonging to him or to others working at site. He shall observe safety rules and codes applied by BHEL without exception.
9.18	It will be the responsibility of the contractor to ensure safe lifting of the equipment, taking due precaution to avoid any accident and damage to other equipment and personnel. All requisite tests and inspection of handling equipment, tools & tackle shall be periodically done by the contractor by engaging only the COMPETENT PERSONS as per law. Defective equipment or uncertified shall be removed from service. Any equipment shall not be loaded in excess of its recommended safe working load.
9.19	The contractor shall provide necessary first aid facilities as per schedule III. In addition, ambulance facilities, OHC and CMO as per schedule IV, V, X and XI of BOCW Rules as applicable for all his employees, representatives and workmen at site and BHEL shall have no obligation in this regard. The first aid boxes should be placed at various elevations so as to make them available within the reach and at the quickest possible time. The contractor should conduct periodical first –aid classes to keep his supervisor and Engineers properly trained for attending to any emergency.
9.20	Training
9.20.1	The contractor shall arrange induction safety training for all employees before assigning work. In addition, awareness programme, mock drill at regular intervals and daily tool box meetings shall be arranged. Monthly report of the above to be given to BHEL safety Officer as per prescribed BHEL formats.
9.20.2	All the contractor’s supervisory personnel and sufficient number of workers shall be trained for fire protection systems. Enough number of such trained personnel must be available during the tenure of contract. Contractor should nominate his supervisor to coordinate and implement the safety measures.
9.21	Contractor shall provide enough fire protecting equipment of the types and numbers at his office, stores, temporary structure in labour colony etc. Such fire protection equipment shall be easy and kept open at all times. The fire extinguishers shall be properly refilled and kept ready which should be certified at periodic intervals. The date of changing should be marked on the Cylinders. All other fire safety measures as laid down in the “codes for fire safety at construction site” issued by safety coordinator of BHEL shall be followed. Non-compliance of the above requirement under fire protection shall in no way relieve the contractor of any of his responsibility and liabilities to fire accident occurring either to his materials or equipment or those of others. Emergency contacts nos must be displayed at prominent locations.
9.22	The contractor shall at his cost, remove from vicinity of work at least once each day all combustible waste, scrap, panting materials, rubbish, unused or other materials and deposit them in places specified by BHEL to keep the work site clear and tidy. Use of undercoated canvas paper, corrugated paper, fabricated carton, plastic or other flammable materials shall be restricted to the minimum and promptly removed.
9.23	The contractor shall not use any hand lamp energized by Electric power with supply voltage of more than 24 volts in confined spaces like inside water boxes, turbine casings, condensers etc.

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9.24	All portable electric tools used by the contractor shall have safe plugging system to source of power and be appropriately earthed. Only electricians licensed by appropriate statutory authority shall be employed by the contractor to carry out all types of electrical works. Details of earth resource and their test date to be given to BHEL safety officer as per the prescribed formats of BHEL.
9.25	In case of any delay in completion of a job due to mishaps attributable to lapses by the contractor, BHEL shall have the right to recover cost of such delay from the payments due to the contractor, after notifying the contractor suitably.
9.26	Valve protection caps shall be kept in place and secured.
9.27	The contractor shall be responsible for the safe storage and handling of his radio-active sources as per BARC rules and regulations.
9.28	Tarpaulin being inflammable should not be used (instead, only non infusible covering materials shall be used) as protective cover while preheating, welding, stress relieving etc. at site.
9.29	If the contractor fails to improve the standards of safety in its operation to the satisfaction of BHEL after being given reasonable opportunity to do so and/or if the contractor fails to take appropriate safety precautions or to provide necessary safety devices and equipment or to carry out instruction regarding safety issued by BHEL, BHEL shall have the right to take corrective steps at the risk and cost of the contractor after giving a notice of not less than 7 days indicating the steps that would be taken by BHEL.
9.30	If the contractor succeeds in carrying out its job in time with out any fatal or disabling injury accident and without any damage to property BHEL may, at its sole discretion, favorably consider to reward the contractor suitably for the performance.
9.31	The contractor shall carefully follow the safety requirement of BHEL/ the purchaser with the regard to voltages used in critical areas.
9.32	The contractor shall use only properly insulated and armored cables which conform to the requirement of Indian Electricity Act and Rules for all wiring, electrical applications at site. BHEL reserves the right to replace any unsafe electrical installations, wiring, cabling etc. at the cost of the contractor. All electrical appliances used in the work shall be in good working condition and shall be properly earthed. No maintenance work shall be carried out on live equipment. The contractor shall maintain adequate number of qualified electricians to maintain his temporary electrical installations. Area wise Electrical safety inspection is to be carried out on monthly basis as per "Electrical Safety Inspection checklist" and the report is to be submitted to BHEL safety officer.
9.33	The contractor shall arrange adequate number of persons specifically for clearing any debris and for housekeeping of the erection area including restacking of components in the erection areas. Housekeeping to be carried out as per BHEL's check list and report is to be submitted to BHEL safety officer.
9.34	In case of any damage to property due to lapses by the contractor, BHEL shall have the right to recover the cost of such damages from the contractor after holding an appropriate enquiry.

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9.35	The contractor shall submit report of all accidents, fires and property damage etc. to the Engineer immediately after such occurrence, but in any case not later than 24 hours of the occurrence. Such reports shall be furnished in the manner prescribed by BHEL. In addition, periodic reports on safety shall also be submitted by the contractor to BHEL from time to time as prescribed by the Engineer. Compiled monthly reports of all kinds of accidents, fires and property damage to be submitted to BHEL safety officer as per prescribed formats
9.36	Before commencing the work, the contractor shall appoint / nominate a responsible person to supervise implementation of all safety measures and liaison with his counterpart of BHEL.
9.37	Suitable scaffolds shall be provided for workman for all works that cannot safely be done from the ground, or from solid construction except in the case of short duration of work which can be done safely from ladders. When a ladder is used, it shall be of rigid construction made of steel. The steps shall have a minimum width of 45 cm and a maximum rise of 30 cm. Suitable handholds of good quality wood or steel shall be provided and the ladder shall be given an inclination not steeper than ¼ horizontal and 1 vertical.
9.38	Scaffolding or staging more than 3.6 m above the ground floor, swung or suspended from an overhead support or erected with stationery support shall have a guard rail properly bolted, braced or otherwise secured, at least 90 cm above the floor or platform of such scaffolding or staging and extending along the entire length of the outside and ends thereof with only such openings as may be necessary for the delivery of materials. Such scaffolding or staging shall be so fastened as to prevent it from savor, from swaying, from the building or structure.
9.39	Working platforms, gangways and stairways shall be so constructed that they do not sag unduly or unequally and if the height of the platform gangways provided is more than 3.6 m above ground level or floor level, they shall be closely boarded and shall have adequate width which shall not be less than 750 mm and be suitably fenced as described above.
9.40	Every opening in the floor or a building or in a working platform shall be provided with suitable means to prevent the fall of persons or materials by providing suitable fencing or railing whose minimum height shall be 90 cm.
9.41	Wherever there are open excavation in ground, they shall be fenced off by suitable railing and danger signals installed at night so as to prevent persons slipping into the excavations.
9.42	Safe means of access shall be provided to all working places. Every ladder shall be securely fixed. No portable single ladder shall be over 9 m in the length while the width between side rails in rung ladder shall in no case be less than app. 29.2 cm for ladder up to and including 3 m in length. For longer ladders this width shall be increased at least ¼” for each additional foot of length.
9.43	A sketch of the ladders and scaffolds proposed to be used shall be prepared and approval of the Engineer obtained prior to Construction.
9.44	All personnel of the Contactor working within the plant site shall be provided with safety helmets. All welders shall wear welding goggles while doing welding work and all metal worker shall be provided with safety gloves. Persons employed on metal cutting and grinding shall wear safety glasses.

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9.45	Adequate precautions shall be taken to prevent danger for electrical equipment. No materials on any of the sites of work shall be so stacked or placed as to cause danger or inconvenience to any person or the public.
9.46	All trenches, four feet or more in depth, shall at all times be supplied with at least one ladder for each 30 m in length or fraction thereof. The ladder shall be extended from bottom of the trench to at least 90 cm above the surface of the ground. Sides of the trenches which are 1.50 m or more in depth shall be stepped back to give suitable slope or securely held by timer bracing, so as to avoid the danger of sides collapsing. The excavated materials shall not be placed within 1.5 m of the edges of the trench or half of the depth of the trench whichever is more. Cutting shall be done from top to bottom. Under no circumstances undermining or undercutting shall be done.
9.47.1	The contractor shall take permission of BHEL prior to risky jobs such as working at height, hot work, liftig activities, etc through permits. No job should be started without permits.
9.47.2	The Contactor shall take all measures at the sites of the work to protect all persons from accidents and shall be bound to bear the expenses of defense of every suit, action or other proceeding at law that may be brought by any persons for injury sustained or death owing to neglect of the above precautions and to pay any such persons such compensation or which may with the consent of the Contractor be paid to compromise any claim by any such person should such claim proceeding be filed against BHEL, the Contractor hereby agrees to indemnify BHEL against the same.
9.48	Before any demolition work is commenced and also during the process of the work the following shall be ensured:
9.48.1	All roads and open areas adjacent to the work site shall either be closed or suitably protected.
9.48.2	No electric cable or apparatus which is liable to be a source of danger nor a cable or an apparatus used by the operator shall remain electrically charged.
9.48.3	All practical steps shall be taken to prevent danger to persons employed from the risks of fire or explosion or flooding. No floor, roof or other part of the building shall be so overloaded with debris or materials as to render them unsafe.
9.49	All necessary personnel safety equipment as considered adequate by the Engineer should be kept available for the use of the persons employed in the Site and maintained in a condition suitable for immediate use and the Contactor should take adequate steps to ensure proper use of equipment by those concerned.
9.49.1	Workers employed on mixing asphalted materials, cement and lime mortars shall be provided with protective foot wear and protective goggles.
9.49.2	Those engaged in white washing and mixing or stacking of cement bags or any materials which is injurious to the eyes shall be provided with protective goggles.
9.49.3	Those engaged in welding works shall be provided with welder's protective eyesight lids
9.49.4	Stone breakers shall be provided with protective goggles and protective clothing and seated sufficient to safe intervals.

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9.49.5	Where workers are employed in sewers and manholes, which are in use, the Contractor shall ensure that the manhole covers are opened and ventilated at least for an hour before the workers are allowed to get into manhole, and the manholes so opened shall be cordoned off with suitable railing and provided with warning signals or boards to prevent accident to the public.
9.49.6	The Contractor shall not employ men below the age of 18 years and women on the work of painting with products containing lead in any form. Wherever men above the age of 18 are employed on the work of lead painting, the following precautions should be taken.
9.49.6.1	No paint containing lead or lead products shall be used except in the form of paste or ready made paint.
9.49.6.2	Suitable face masks should be supplied for use by the workers where paints are applied in the form of spray or a surface having lead paint dry rubbed and crapped.
9.49.6.3	Overalls shall be supplied by the Contractor to the workmen and adequate facilities shall be provided to enable the working painters to wash during the cessation of work.
9.50	When the work is being done near any place where there is risk of drowning all necessary equipment should be provided and kept ready for use and all necessary steps taken for prompt rescue of any person in danger and adequate provision should be made for prompt first aid treatment of all injuries likely to be sustained during the course of the work.
9.51	Motors, gearing, transmission, electric wiring and other dangerous parts of hoisting appliances should be provided with efficient safe guards. Hoisting appliance should be provided with such means as will reduce to the minimum the risk of any part of a suspended load becoming accidentally displaced. When workers employed on electrical installations which are already energized, insulating mats, wearing apparel, such as gloves, sleeves and boots as may be necessary should be provided. The worker should not wear any rings, watches and carry keys or other materials which are good conductor of electricity.
9.52	All scaffolds, ladders and other safety devices mentioned or described herein shall be maintained in safe condition and no scaffold, ladder or equipment shall be altered or removed while it is in use. Adequate washing facilities should be provided at or near the places of work.
9.53	The contractor shall maintain and ensure necessary safety measures as required for inspection and tests HV test, Pneumatic test, Hydraulic test, Spring test, Bend test etc as applicable, to enable inspection Agency for performing Inspection. If any test equipment is found not complying with proper safety requirements then the Inspection Agency may withhold inspection, till such time the desired safety requirements are met.
9.54	The Contractor shall notify BHEL of his intention to bring to site any equipment or material which may create hazard. BHEL shall have the right to prescribe the conditions under which such equipment or materials may be handled and the contractor shall adhere to such instructions. BHEL may prohibit the use of any construction machinery, which according to him is unsafe. No claim for compensation due to such prohibition will be entertained by BHEL.

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9.55	All safety precautions shall be taken for welding and cutting operations as per IS-818. All safety precautions shall be taken for foundation and other excavation marks as per IS-3764.
9.56	All gas cylinders shall be stored in upright position. Suitable trolley shall be used. There shall be flash-back arrestors conforming to IS-11006 at both cylinder and burner ends. Damaged tube and regulators must be immediately replaced. No of cylinders shall not exceed the specified quantity as per OCP
9.57	These safety provisions should be brought to the notice of all concerned by display on a notice board at a prominent, place at work spot. The persons responsible for compliance of the safety code shall be named therein by the Contractor
9.58	To ensure effective enforcement of the rules and regulations relating to safety precautions the arrangement made by the contract shall be open to inspection by the Engineer of the Engineer's Representative.
9.59	Keeping the work area clean/ free from debris, removed scaffoldings, scraps, insulation/sheeting wastage /cut pieces, temporary structures, packing woods etc. will be in the scope of the contractor. Such cleanings has to be done by contractor within quoted rate, on daily basis by an identified group. If such activity is not carried out by contractor / BHEL is not satisfied, then BHEL may get it done by other agency and actual cost along with BHEL overheads will be deducted from contractor's bill. Such decisions of BHEL shall be binding on the contractor.
9.60	Notwithstanding the above clauses there is nothing to exit the Contractor from the operations of any other Act or Rule in force in area of work in this respect. Provided always that all safety measures apart from those specifically provided in this agreement which are brought to the notice of the Contractor from time to time by the Engineer shall be complied by the Contractor. Provided further that all consequences, damages, or losses arising by reason of any safety code shall be met with by the Contractor.

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9.61	<u>NON COMPLIANCE:-</u>		
	NONCONFORMITY OF SAFETY RULES AND SAFETY APPLIANCES WILL BE VIEWED SERIOUSLY AND BHEL HAS RIGHT TO IMPOSE FINES ON THE CONTRACTOR AS UNDER <u>for every instance of violation noticed:</u>		
	SN	Violation of Safety Norms	Fine (in Rs)
	1	Not Wearing Safety Helmet	50/- *
	2	Not wearing Safety Belt or not anchoring life line	100/-*
	3	Not wearing safety shoe	100/-*
	4	Not keeping gas cylinders vertically	100/-
	5	Not using flash back arrestors	50/-
	6	Not wearing gloves	50/- *
	7	Grinding Without Goggles	50/- *
	8	Not using 24 V Supply For Internal Work	500/-
	9	Electrical Plugs Not used for hand Machine	100/-
	10	Not Slinging property	200/-
	11	Using Damaged Sling	200/-
	12	Lifting Cylinders Without Cage	500/-
	13	Not Using Proper Welding Cable With Lot of JointsAnd Not Insulated Property.	200/-
	14	Not Removing Small Scrap From Platforms	200/-
	15	Gas Cutting Without Taking Not Using Sheet Below Gas Cutting	200/-
	16	Not Maintaining Electric Operated Dangerously	500/-
	17	Improper Earthing Of Electrical T&P	500/-
	18	No or improper barricading	500/-
	19	Activity carried out without Safety work permit (Height work, Lifting activity, Hot work-each person/case)	1000/-
	20	Accident Resulting in Partial Loss in Earning Capacity	25,000/- per victim
21	Fatal Accident/Accidents Resulting in total loss in Earning Capacity	1,00,000/per victim #	

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	<p>Legend: -*: per head, #: or as deducted by Customer whichever is higher. Any other non-conformity noticed not listed above will also be fined as deemed fit by BHEL. The decision of BHEL engineer is final on the above. The amount will be deducted from running bills of the contractor. The amount collected above will be utilized for giving award to the employees who could avoid accident by following safety rules. Also the amount will be spent for purchasing the safety appliances and supporting the safety activity at site.</p>
<p>9.61</p>	<p><u>CITATION:</u>-If safety record of the contractor in execution of the awarded job is to the satisfaction of safety department of BHEL, issue of an appropriate certificate to recognize the safety performance of the contractor may be considered by BHEL after completion of the job.</p>
<p>9.62</p>	<p><u>MEMORANDUM OF UNDERSTANDING</u> After Award Of Work, Contractors Are Required To Enter Into A Memorandum Of Understanding As Given Below:</p> <p style="text-align: center;"><u>Memorandum of Understanding</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> BHEL, Power Sector _____ Region is committed to Health, Safety and Environment Policy (EHS Policy). <input type="checkbox"/> M/s _____ do hereby also commit to the same EHS Policy while executing the Contract Number _____ <input type="checkbox"/> M/s _____ shall ensure that safe work practices not limited to the above are followed by all construction workers and supervisors. Spirit and content therein shall be reached to all workers and supervisors for compliance. <input type="checkbox"/> BHEL will be carrying out EHS audits twice a year and M/s _____ shall ensure to close any non-conformity observed / reported within fifteen days. <p>Signed by authorized representative of M/s -----</p> <p>Name</p> <p>Place & Date</p>

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Chapter-X: RA Bill Payments

10.0	RA Bill Payments
10.1	The contractor shall submit his monthly RA bills with all the details required by BHEL-HPVP on specified date every month covering progress of work in all respects and areas for the previous calendar month.
10.2	Mode of payment and measurement of work completed shall be as per relevant clauses of General Conditions of Contract
10.3	Release of payment in each running bill will be restricted to 90% of the value of work admitted as per stages of progressive pro rata payments.
10.4	The 10% thus remaining shall be treated as 'Retention Amount' and shall be released as per terms specified in the General Conditions of Contract.
10.5	The payment for running bills will normally be released from BHE_HPVP Head Office at Visakhapatnam within 30 days of submission of running bill complete in all respects with all documents. It is the responsibility of the contractor to make his own arrangements for making timely payments towards labour wages, statutory payments, outstanding dues etc and other dues in the meanwhile.
10.6	BHEL shall release payment through Electronic Fund Transfer (EFT)/RTGS from Head Office. In order to implement this system, Contractor to furnish details pertaining to his Bank Accounts where proceeds will be transferred through BHEL's banker, as per prescribed formats: Note: BHEL may also choose to release payment by other alternative modes as Applicable
10.7	Void

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Chapter-XI : Performance Monitoring

11.0	Performance Monitoring
11.1	Performance of the contractor is monitored through various reports/reviews and shall be jointly evaluated every month for unit wise identified packages as per prescribed formats. Based on the net weighted scores obtained, Contractors shall be rated 'Good' or 'Satisfactory' or 'Unsatisfactory'.
11.2	In case of any dispute on performance rating and the contractor refuses to sign on the performance rating given by BHEL package In-charge, the same shall be reviewed by BHEL site In-charge/Construction Manager and his decision shall be final.
11.3	Void.
11.4	Performance of the contractor will be taken into consideration for assessing the capacity of the bidder to execute future jobs under tender, as detailed in the Notice Inviting Tender. Risk of non-evaluation or non-availability of the Monthly performance evaluation reports is to be borne by the Bidder.
11.5	In case of 'Unsatisfactory performance' for a continuous period of three or more months for a package or packages, BHEL has the right to get the balance works executed at the risk and cost of the contractor.
11.6	In case of 'Unsatisfactory performance' in a financial year, BHEL reserves the right to put on hold such Contractors for a period of six months for similar package or similar packages

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Chapter-XII: Suspension of Business Dealings

12.0	Suspension of Business dealings
12.1	BHEL reserves the right to take action against contractors who fail to perform or indulge in malpractices, by suspending business dealings with them.
12.2	Suspension could be in the form of 'Hold', 'De-listing' or 'Banning' a contractor.
12.3	<p>A bidder may be put on HOLD for a period of 6 months, for future tenders for specific works on the basis of one or more of the following reasons:</p> <ol style="list-style-type: none"> Bidder does not honour his own offer or any of its conditions within the validity period. Bidder fails to respond against three consecutive enquires of BHEL. After placement of order, Bidder fails to execute a contract. Bidder fails to settle sundry debt account, for which he is legitimately liable, within one year of its occurrence. Bidder's performance rating falls below 60% in specific category (more fully described in chapter 'Performance Monitoring') Bidder works are under strike/ lockout for a long period.
12.4	<p>A Bidder may be de-listed from the list of registered Bidders of the region for a period of 1 year on the basis of one or more of the following reasons:-</p> <ol style="list-style-type: none"> Bidder tampers with tendering procedure affecting ordering process or commits any misconduct which is contrary to business ethics. Bidder has substituted, damaged, failed to return, short returned or unauthorizedly disposed off materials/ documents/ drawings/ tools etc., of BHEL. Bidder no longer has the technical staff, equipment, financial resources etc. required to execute the orders/ contracts.
12.5	<p>A Bidder can be banned from doing any business with all Units of BHEL for a period of 3 years on the basis of one or more of the following reasons:</p> <ol style="list-style-type: none"> Bidder is found to be responsible for submitting fake/ false/ forged documents, certificates, or information prejudicial to BHEL's interest. In spite of warnings, the Bidder persistently violates or circumvents the provisions of labour laws/ regulations/ rules and other statutory requirements. Bidder is found to be involved in cartel formation The Bidder has indulged in malpractices or misconduct such as bribery, corruption and fraud, pilferage etc which are contrary to business ethics. The Bidder is found guilty by any court of law for criminal activity/ offences involving moral turpitude in relation to business dealings. The Bidder is declared bankrupt, insolvent, has wound up or been dissolved; i.e ceases to exist for all practical purposes. Bidder is found to have obtained Official Company information/ documentation by questionable means. Communication is received from the administrative Ministry of BHEL to ban the Bidder from business dealings.

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Chapter-XII: Suspension of Business Dealings

12.6	Contracts already entered with a contractor before the date of issue of order of 'HOLD' or 'DE-LISTING' shall not be affected.
12.7	All existing contracts with a 'BANNED' contractor shall normally be short closed.
12.8	Once the order for suspension is passed, existing offers/new offers of the contractor shall not be entertained.
12.9	The above guidelines are not exhaustive but enunciate broad principles governing action against contractors

COLOUR SHADES SHALL BE AS PER CLIENT'S PHILOSOPHY FOR THE PAINTING, TO BE OBTAINED FROM SITE.

BHARAT HEAVY ELECTRICALS LIMITED, HPVP UNIT, VISAKHAPATNAM
PAINTING SCHEDULE FOR CGOT AISHWARYA PROJECT (IOCL-HALDIA)

DOCUMENT NO:4-7794-PAINT-SCH--001, REV:A

S NO	DESCRIPTION	SURFACE PREPARATION & SURFACE PROFILE	PRIMER COAT		FINISH PAINT		Total DFT
			PAINT	NO OF COATS/DFT	PAINT	NO OF COATS/DFT	
1	External surfaces of Heater casing/stack/flue gas duct, structural members in contact with hot surfaces	SA2 1/2 Blast cleaning to near white metal SSPC-SP-10	F-9 Two pack air drying self curing solvent based inorganic zinc silicate coating with minimum 80% zinc on dry fill and suitable to 250 degree centigrade	1 coat 65 -75 µ DFT/coat	F-12 Heat resistant silicon aluminium paint to IS13183 gr I suitable up to 250 degrees centigrade.	2 coat 20µ DFT/coat (2x20 µ)	105-115 µ
2	Heater inside surfaces in contact with ceramic fibre blanket	SA2 1/2 Blast cleaning to near white metal SSPC-SP-10	P6: One coat of self priming Epoxy phenolic primer.	1 coats 75 µ DFT/coat	Two coats of epoxy phenolic coating.	2 coats 75 µ DFT/coat	225 µ
3	All other steel works						
a)	Ladders, Rungs, Railing & Vertical posts	Power tool cleaning	F-9 Two component inorganic zinc silicate coating with minimum 80% zinc on dry film and suitable to 400 degree centigrade +	1 coat 65 -75 µ DFT/coat	F6A: Two coats of epoxy high build paint. + F2: 1 coat of Acrylic Polyurethane finish paint	2 coats 100 µ DFT/coat + 1 coat 40 µ DFT/coat	345-355 µ
b)	Hand rail, middle rail, Toe plate, Ladder	Signal Red	P6: One coat of Epoxy zinc phosphate primer.	1 coats 40 µ DFT/coat			
c)	Steel columns, brackets, duct outside, beams, bracings	Dark admiralty gray	SA2 1/2 Blast cleaning to near white metal SSPC-SP-10				
4)	Cold duct (In side)	SA2 1/2 Blast cleaning to near white metal SSPC-SP-10	F9: One coat of inorganic zinc silicate primer	1 coat 65 -75 µ DFT/coat	F6A: 1coat of poly amine cured high build epoxy paint + F2: 1 coat of Acrylic Polyurethane finish paint	1 coats 100 µ DFT/coat + 1 coat 50 µ DFT/coat	215-225 µ

Notes: 1) All external insulated surfaces to be provided with primer coats only suitable for 400 degrees centigrade.

2) For fabricated box sections & construction of similar nature, primer coat shall be given inside the surface before fabrication.

3) ** SL No:2: Paint is in Refractory vendor scope. [REF EIL DOC.: A609-103-78-41-4108 & 6-79-0020]

Prepared by

CODE - R

Checked by

Approved by

DEPLYMENT SCHEDULE OF CONSTRUCTION EQUIPMENT
(Bidder to Specify the Equipments)

S.No.	Description of Equipment	Capacity	Deployment Schedule															
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	

SIGNATURE OF THE BIDDER : _____

NAME OF THE BIDDER : _____

COMPANY SEAL : _____

DETAILS OF PROPOSED ORGANISATION

The Bidder shall submit herein details of Head Office and Project/Site Organisation proposed to be deployed for execution of work. Bidder shall also furnish the bio-data of Site-in-Charge and key personnel to be deployed meeting the minimum criteria specified in the SCC.

Bidder understand that the said proposal represents the minimum deployment and the Bidder acknowledges that the said deployment may have to be augmented with additional number and/or categories, if required if directed by Engineer-in-Charge in order to complete the work within the completion schedule and quoted lumpsum price.

SIGNATURE OF BIDDER : _____

NAME OF BIDDER : _____

DEPLOYMENT SCHEDULE OF SUPERVISORY PERSONNEL

S.No.	Description of Equipment	Capacity	Deployment Schedule																
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		

(STAMP & SIGNATURE OF BIDDER)

GENERAL TERMS AND CONDITIONS OF RA (REVERSE AUCTION)

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.

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.”

Against this enquiry for the subject item/ system with detailed scope of supply as per enquiry specifications, BHEL may resort to “REVERSE AUCTION PROCEDURE” i.e., ON LINE BIDDING (THROUGH A SERVICE PROVIDER). The philosophy followed for reverse auction shall be English Reverse (No ties).

1. For the proposed reverse auction, technically and commercially acceptable bidders only shall be eligible to participate.
2. Those bidders who have given their acceptance for Reverse Auction (quoted against this tender enquiry) will have to necessarily submit „online sealed bid“ in the Reverse Auction. Non-submission of „online sealed bid“ by the bidder for any of the eligible items for which techno-commercially qualified, will be considered as tampering of the tender process and will invite action by BHEL as per extant guidelines in vogue.
3. BHEL will engage the services of a service provider who will provide all necessary training and assistance before commencement of on line bidding on internet.
4. In case of reverse auction, BHEL will inform the bidders the details of Service Provider to enable them to contact & get trained.
5. Business rules like event date, time, bid decrement, extension etc. also will be communicated through service provider for compliance.
6. Bidders have to fax the Compliance form (annexure IV) before start of Reverse auction. Without this, the bidder will not be eligible to participate in the event.
7. In line with the NIT terms, BHEL will provide the calculation sheet (e.g., EXCEL sheet) which will help to arrive at “Total Cost to BHEL” like Packing & forwarding charges, Taxes and Duties, Freight charges, Insurance, Service Tax for Services and loading factors (for non-compliance to BHEL standard Commercial terms & conditions) for each of the bidder to enable them to fill-in the price and keep it ready for keying in during the Auction.
8. Reverse auction will be conducted on scheduled date & time.
9. At the end of Reverse Auction event, the lowest bidder value will be known on auction portal.

Ref: OPS/OS/WC/2016-17/40/053

Date: 13.12.2016

GENERAL TERMS AND CONDITIONS OF RA (REVERSE AUCTION)

10. The lowest bidder has to fax/e-mail the duly signed and filled-in prescribed format for price breakup including that of line items, if required, (Annexure VII) as provided on case-to-case basis to Service provider within two working days of Auction without fail.
11. In case BHEL decides not to go for Reverse Auction procedure for this tender enquiry, the Price bids and price impacts, if any, already submitted and available with BHEL shall be opened as per BHEL"s standard practice.
12. Bidders shall be required to read the "Terms and Conditions" section of the auctions site of Service provider, using the Login IDs and passwords given to them by the service provider before reverse auction event. Bidders should acquaint themselves of the „Business Rules of Reverse Auction“, which will be communicated before the Reverse Auction.
13. If the Bidder or any of his representatives are found to be involved in Price manipulation/ cartel formation of any kind, directly or indirectly by communicating with other bidders, action *as per extant BHEL guidelines*, shall be initiated by BHEL and the results of the RA scrapped/ aborted.
14. The Bidder shall not divulge either his Bids or any other exclusive details of BHEL to any other party.
15. In case BHEL decides to go for reverse auction, the H1 bidder(s) (whose quote is highest in online sealed bid) may not be allowed to participate in further RA process.

SIGNATURE OF THE BIDDER WITH STAMP

* * *

Ref: OPS/OS/WC/2016-17/40/053

Date: 13.12.2016

ACCEPTANCE TO TENDER TERMS & CONDITIONS

Sub: Mechanical Contract for Unloading, Fabrication, Erection, Testing, Painting of Heater Components and Its Auxiliaries and Providing Assistance for Pre-commissioning and Commissioning of Heater Package and Auxiliaries at M/s. IOCL - Haldia, West Bengal

I / We hereby confirm that the Tender documents, all annexures etc. have been studied in detail and we have fully understood the scope of work.

I / We accept to all the Terms and Conditions of the Tender Enquiry and the prices quoted are in accordance with the same.

I / We accept to offer valid for a period of **6 months** from the last date for tender submission.

I / We give our acceptance to participate in Reverse Auction in case BHEL decides to go for reverse auction for this tender.

Tender documents duly signed on all the pages by the Owner / authorized representative of the bidder are attached herewith.

SIGNATURE OF THE BIDDER WITH STAMP

MINIMUM WAGES AS PER CENTRAL LABOUR DEPARTMENT

w.e.f 01.10.2016

All values are in ₹

SL. No	DESCRIPTION	Unskilled	Semi-Skilled	Skilled
1	Minimum Wage	312.00	353.00	414.00
2	PF @ 13.6%	42.46	48.04	56.34
3	ESI @ 4.75%	14.82	16.76	19.66
4	Bonus @ 8.33%	25.98	29.40	34.48
5	Leave Wages (18 days / Year)	18.00	20.36	23.88
6	Terminal Benefit for (15 days / year)	15.00	16.97	19.90
7	Holidays for 10 days	10.00	11.31	13.26
	TOTAL	438.26	495.84	581.52

SIGNATURE OF THE BIDDER WITH STAMP

CONTRACTOR INFORMATION

SI.No.	Particulars	To be Filled by Bidder
01.	Name of the Contractor	
02.	Nature of Firm / Concern (Proprietor/Partnership/Pvt. Limited/Public Ltd.) Note: In case of partnership concern, please enclose photo copies of the partnership deed	
03.	Full address	
04.	Name of the Proprietor/Partner	
05.	Name of the Person(s) and designation authorized for signing the contract/dealing with BHEL	
06.	Telephone No. of the firm	
07.	Fax No.	
08.	Mobile No.	
09.	E-mail ID	
09.	Organizational structure with name and designation	

CHECK LIST

Sl. No.	Particulars	Document Enclosed (Yes / No)	Document No
01.	Name of the Contractor		
02.	Tender Document Signed & Stamped		
03.	Earnest Money Deposit (EMD) @ ₹ 4,60,000/-		
04.	PF Registration Certificate		
05.	ESI Registration Certificate		
06.	Service Tax Registration Certificate		
07.	PAN Number		
08.	Income Tax Returns for last 3 years		
09.	Profit & Loss account and Balance Sheet certified by the Practicing Chartered Accountant for the last 3 years		
10.	Work orders & Job Completion Certificates in similar works as mentioned in eligibility criteria.		
11.	MSE Registration Documents, if applicable EM II certificate having deemed validity (5 years from date of issue of acknowledgement in EM II) or valid NSIC certificate or EM II certificate along with attested copy of a CA certificate (Format enclosed at annexure-A where deemed validity of EM II certificate of five years has expired)		

Certificate by Chartered Accountant on letter head

This is to certify that M/S
 (hereinafter referred to as 'company') having its registered office at
 is registered under MSMED Act 2006,
 (Entrepreneur Memorandum No (part-II)dated
, Category: (Micro/small). (Copy enclosed).

Further verified from the Books of Accounts that the investment of the company as per the latest audited financial year as per MSMED Act 2006 is as follows:

1. **For Manufacturing Enterprises:** Investment in plant and machinery (i.e. original cost excluding land and building and the items specified by the Ministry of small scale industries vide its notification No.S.O.1722(E) dated October 5, 2006:

₹.....Lakhs

2. **For Service Enterprises:** Investment in equipment (original cost excluding land and building and Furniture, fittings and other items not directly related to the service rendered or as may be notified under the MSMED Act, 2006:

₹.....Lakhs

(Strike off whichever is not applicable)

The above investment of ₹.....Lakhs is within permissible limit of ₹.....Lakhs forMicro/ Small (strike off which is not applicable) Category under MSMED Act 2006.

Or

The company has been graduated from its original category (Micro/ Small) (Strike off which is not applicable) and the date of graduation of such enterprise from its original category is (dd/mm/yyyy) Which is within the period of 3 year from the date of graduation of such enterprise from its original category as notified vide S.O. No. 3322(E) dated 01.11.2013 published in the gazette notification dated 04.11.2013 by Ministry of MSME.

Date:

(Signature)

Name -

Membership number –

Seal of Charatered Accountant

ACCEPTANCE FOR ELECTRONIC FUND TRANSFER / RTGS / NEFT TRANSFER

01	NAME & ADDRESS OF THE SUPPLIER / SUBCONTRACTOR	
02	VENDOR CODE ASSIGNED BY BHEL, HPVP LTD	

DETAILS OF BANK ACCOUNT

03	NAME & ADDRESS OF THE BANK	
04	NAME OF THE BRANCH	
05	BRANCH CODE	
06	MICR CODE	
07	ACCOUNT NUMBER	
08	TYPE OF ACCOUNT	
09	BENEFICIARY'S NAME	
10	IFSC CODE OF THE BRANCH	
11	EMAIL ID	
12	TELEPHONE / MOBILE NUMBER	

CERTIFICATE

I / We here by agree to receive the payments due from M/s Bharat Heavy Electricals Ltd., by the National Electronic Fund Transfer / or RTGS Transfer mode by credit to my / our above mentioned Bank account. I / We also agree that payments made to the above mentioned account are a valid discharge of the liability of M/s Bharat Heavy Electricals Ltd. I / We also agree to bear the applicable Bank charges for the above mode of transfer. A copy of the cheque leaf/ cancelled cheque leaf of the above account is sent herewith.

(Authorized Signatories with name & seal)

BANKER'S CERTIFICATION

We confirm that we are enabled for receiving RTGS and NEFT credits and we further confirm that the account number of _____ (name of account holder), the signature of authorized signatory and the MICR and IFSC codes of our branch mentioned above are correct.

Place:
Date:
seal

Bank Manager / Officer
Signature with Bank stamp and name

FORWARDED TO ACCOUNTS DEPARTMENT / CASH SECTION

We confirm the above details are verified with the records available with us

Signature of BHEL Official with name & seal
Operating the contract / Services

FORMS & PROCEDURES

Form No: F- 01 (Rev 00)

OFFER FORWARDING LETTER / TENDER SUBMISSION LETTER

(To be typed and submitted in the Letter Head of the Company/Firm of Bidder)

Offer Reference No.:

Date:

To,

(Write Name & Address of Officer of BHEL inviting the Tender)

Dear Sir,

Sub : Submission of Offer against Tender Specification No:

I/We hereby offer to carry out the work detailed in the Tender Specification issued by Bharat Heavy Electricals Limited, HPVP, Visakhapatnam, in accordance with the terms and conditions thereof. I/We have carefully perused the following listed documents connected with the above work and agree to abide by the same.

1. Amendments/Clarifications/Corrigenda/Errata/etc issued in respect of the Tender document sby BHEL.
2. Notice Inviting Tender (NIT)
3. Price Bid
4. Technical Conditions of Contract
5. Special Conditions of Contract
6. General Conditions of Contract
7. Forms and Procedures

Should our Offer be accepted by BHEL for Award, I/we further agree to furnish 'Security Deposit' for the work as provided for in the Tender Conditions within the stipulated time as may be indicated by BHEL. I/We further agree to execute all the works referred to in the said Tender documents upon the terms and conditions contained or referred to therein and as detailed in the appendices annexed thereto.

I/We have deposited/depositing herewith the requisite Earnest Money Deposit (EMD) as per details furnished in the Check List.

Authorised Representative of Bidder

Signature :

Name :

Address :

Place:

Date:

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FORMS & PROCEDURES

Form No: F-02 (Rev 00)

DECLARATION BY AUTHORISED SIGNATORY OF BIDDER

(To be typed and submitted in the Letter Head of the Company/Firm of Bidder)

To,

(Write Name & Address of Officer of BHEL inviting the Tender)

Dear Sir,

Sub : **Declaration by Authorised Signatory**

Ref : 1) NIT/Tender Specification No:,
2) All other pertinent issues till date

I/We, hereby certify that all the information and data furnished by me with regard to the above Tender Specification are true and complete to the best of my knowledge. I have gone through the specifications, conditions, stipulations and all other pertinent issues till date, and agree to comply with the requirements and Intent of the specification.

I further certify that I am authorised to represent on behalf of my Company/Firm for the above mentioned tender and a valid Power of Attorney to this effect is also enclosed.

Yours faithfully,

(Signature, Date & Seal of Authorized
Signatory of the Bidder)

Date:

Enclosed : Power of Attorney

Page-2

Form No: F-03 (Rev 00)

FORMS & PROCEDURES

NO DEVIATION CERTIFICATE

(To be typed and submitted in the Letter Head of the Company/Firm of Bidder)

To,

(Write Name & Address of Officer of BHEL inviting the Tender)

Dear Sir,

Sub : **No Deviation Certificate**

Ref : 1) NIT/Tender Specification No:,
2) All other pertinent issues till date

We hereby confirm that we have not changed/ modified/materially altered any of the tender documents as downloaded from the website/ issued by BHEL and in case of such observance at any stage, it shall be treated as null and void.

We also hereby confirm that we have neither set any Terms and Conditions and nor have we taken any deviation from the Tender conditions together with other references applicable for the above referred NIT/Tender Specification.

We further confirm our unqualified acceptance to all Terms and Conditions, unqualified compliance to Tender Conditions, Integrity Pact (if applicable) and acceptance to Reverse Auctioning process.

We confirm to have submitted offer in accordance with tender instructions and as per aforesaid references.

Thanking you,

Yours faithfully,

(Signature, date & seal of authorized representative of the bidder)

FORMS & PROCEDURES

Form No: F-04 (Rev 00)

DECLARATION CONFIRMING KNOWLEDGE ABOUT SITE CONDITIONS

(To be typed and submitted in the Letter Head of the Company/Firm of Bidder)

To,

(Write Name & Address of Officer of BHEL inviting the Tender)

Dear Sir,

Sub : **Declaration confirming knowledge about Site conditions**

Ref : 1) NIT/Tender Specification No:,
2) All other pertinent issues till date

I/We, _____ hereby declare and confirm that we have visited the Project Site as referred in BHEL Tender Specifications and acquired full knowledge and information about the Site conditions including Wage structure, Industrial Climate, the Law & Order and other conditions prevalent at and around the Site. We further confirm that the above information is true and correct and we shall not raise any claim of any nature due to lack of knowledge of Site conditions.

I/We, hereby offer to carry out work as detailed in above mentioned Tender Specification, in accordance with Terms & Conditions thereof.

Yours faithfully,

(Signature, Date & Seal of Authorized Representative of the Bidder)

Date :

Place:

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FORMS & PROCEDURES

CONTRACT AGREEMENT

THIS AGREEMENT MADE THIS _____ DAY OF _____ between BHARAT HEAVY ELECTRICALS LIMITED (A Government of India Enterprise) a Company incorporated under the Companies Act, 1956, having its Registered Office at BHEL House, Siri Fort New Delhi- 110049 (herein after called BHEL) of the ONE PART.

AND

M/S _____
_____ (hereinafter called the 'Contractor') of the SECOND PART.

Whereas M/s. _____ state that they have acquired and possess extensive experience in the field of _____

And whereas in response to an invitation to Tender No. _____ issued by BHEL for execution of _____, the contractor submitted their offer no. _____, and whereas BHEL has accepted the offer _____ of the contractor on terms and conditions specified in the Letter of Intent No. _____, Dated: _____
Read with the references _____.

THIS AGREEMENT WITNESSES AND it is hereby agreed by and between the parties as follows:

1. That the contractor shall execute the work of _____ and more particularly described in Tender Specification No _____ including Drawings and Specifications (hereinafter called the said works) in accordance with and subject to terms and conditions contained in these presents, instructions to Tenderers, General Conditions of Contract, Special Conditions, Annexures, Letter of Intent dated _____ and such other instructions, Drawings, Specifications given to him from time to time by BHEL.
2. The Contractor is required to furnish to BHEL Security deposit in the form of cash/ approved securities/ Bank Guarantee valid upto _____ for a sum of Rs. _____ towards satisfactory performance and completion of the Contract.
3. The Contractor has furnished a Bank Guarantee bearing no. _____ dated _____ For a sum of Rs _____ executed by _____ in favour of BHEL towards Security Deposit valid upto _____

OR

The Contractor has furnished to BHEL an initial Security Deposit of Rs. _____ in the form of cash/ approved Securities/ B. G. No. _____, Dated: for Rs. _____ executed by _____ in favour of BHEL valid upto _____ and has agreed for recovery of the balance security deposit by BHEL @10% of the value of the work done from each running bill till the entire Security Deposit is recovered.

OR

FORMS & PROCEDURES

The contractor has furnished to BHEL an initial Security Deposit of Rs. _____ (Rupees _____) vide Bank draft No. _____ dated: _____ and by adjusting EMD of Rs. _____ submitted vide Bank draft No. _____ Dated: _____ and has agreed for recovery of balance Security Deposit by BHEL @ 10% of the value of work done from each running bill till the entire security deposit is recovered.

4. The Contractor hereby agrees to extend the validity of the Bank Guarantee for such further period or periods as may be required by BHEL and if the Contractor fails to obtain such extension(s) from the Bank, the Contractor, shall pay forthwith or accept recovery of Rs.----- from the bills in one installment and the contractor further agrees that failure to extend the validity of the Bank Guarantee or failure to pay the aforesaid amount in the manner specified above shall constitute breach of contract. In addition to above, BHEL shall be entitled to take such action as deemed fit and proper for recovering the said sum of Rs.------

OR

In case the contractor furnishes the bank guarantee at a later date the contractor hereby agrees to extend the validity of bank guarantee for such further period or periods as may be required by BHEL and if the contractor fails to obtain such extension(s) from the bank, the contractor shall pay forthwith or accept recovery of the amount of bank guarantee given in lieu of security deposit from the bills in one installment and the contractor further agrees that failure to extend the validity of bank guarantee or failure to pay the aforesaid amount in the manner specified above shall constitute breach of contract. In addition to above, BHEL shall be entitled to take such action as deemed fit and proper for recovering the said sum.

5. That in consideration of the payments to be made to the Contractor by BHEL in accordance with this Agreement the Contractor hereby covenants and undertakes with BHEL that they shall execute, construct, complete the works in conformity, in all respects, with the terms and conditions specified in this Agreement and the documents governing the same.
6. That the Contractor shall be deemed to have carefully examined this Agreement and the documents governing the same and also to have satisfied himself as to the nature and character of the Works to be executed by him.
7. That the Contractor shall carry out and complete the execution of the said works to the entire satisfaction of the Engineer or such other officer authorised by BHEL, within the agreed time schedule, the time of completion being the essence of the Contract.
8. That BHEL shall, after proper scrutiny of the bills submitted by the Contractor, pay to him during the progress of the said works such sum as determined by BHEL in accordance with this Agreement.
9. That this Agreement shall be deemed to have come into force from _____ the date on which the letter of intent has been issued to the Contractor.

FORMS & PROCEDURES

10. That whenever under this contract or otherwise, any sum of money shall be recoverable from or payable by the Contractor, the same may be deducted in the manner as set out in the General Conditions of Contract or other conditions governing this Agreement.
11. That all charges on account of Octroi, Terminal and other taxes including sales tax or other duties on material obtained for execution of the said works shall be borne and paid by the Contractor.
12. That BHEL shall be entitled to deduct from the Contractor's running bills or otherwise Income Tax under Section 194 (C) of the Income Tax Act, 1961.
13. That BHEL shall be further entitled to recover from the running bills of the Contractor or otherwise such sum as may be determined by BHEL from time to time in respect of consumables supplied by BHEL, hire charges for tools and plants issued (Where applicable) and any other dues owed by the Contractor.
14. That it is hereby agreed by and between the parties that non- exercise, forbearance or omission of any of the powers conferred on BHEL and /or any of its authorities will not in any manner constitute waiver of the conditions hereto contained in these presents and the liability of the Contractor with respect to compensation payable to BHEL or Contractor's obligations shall remain unaffected.
15. It is clearly understood by and between the parties that in the event of any conflict between the Letter of Intent and other documents governing this Agreement, the provisions in the Letter of Intent shall prevail.
16. The following documents
 1. Invitation to Tender No. _____ and the documents specified therein.
 2. Contractor's Offer No _____ Dated: _____
 3. _____
 4. _____
 5. _____
 6. Letter of Intent No _____ dated: _____
 7. _____shall also form part of and govern this Agreement.

IN WITNESS HEREOF, the parties hereto have respectively set their signatures in the presence of

FORMS & PROCEDURES

WITNESS

(CONTRACTOR)

1.

(To be signed by a person holding
a valid Power of Attorney)

2.

WITNESS

(For and on behalf of BHEL)

1.

2.

FORMS & PROCEDURES

BANK GUARANTEE FOR SECURITY DEPOSIT

Form No: F-11 (Rev 00)

B.G. No...

Date:

This deed of Guarantee made this ----- day of -----two thousand ---- by _____ (Name and Address of Bank) hereinafter called the "The Guarantor" (which expression shall unless repugnant to the context or meaning thereof be deemed to include its successors and assigns) in favour of M/s Bharat Heavy Electrical Limited (A Govt. of India Undertaking) a company incorporated under the Companies Act, 1956, having its registered office at BHEL House, Siri Fort, Asiad, New Delhi –110049 through its unit at Bharat Heavy Electricals Limited – HPVP, Visakhapatnam -530012, hereinafter called "The Company" (which expression shall unless repugnant to the context or meaning thereof be deemed to include its successors and assigns)

WHEREA < Contractor's Name and Address > (hereinafter referred to as the Contractor) have entered into a contract arising out of Letter of Intent no. < LOI REF & Date > (hereinafter referred to as "the contract") for < Name of Work > with the company.

AND WHEREAS the contract inter-alia provides that the contractor shall furnish to the company a sum of Rs.----- (Rupees-----) towards security deposit for due and faithful performance of the contract in the form and manner specified therein.

AND WHEREAS the contractor has approached the Guarantor and in consideration of the arrangement arrived at between the contractor and the Guarantor, the Guarantor has agreed to give the Guarantee as hereinafter mentioned in favour of the company.

The Guarantor do hereby guarantee to the company the due and faithful performance, observance or discharge of the Contract by the contractor and further unconditionally and irrevocably undertake to pay to the Company without demur and merely on a demand, to the extent of Rs.----- (Rupees-----) against any claim by the company on them for any loss, damage, costs, charges and expenses caused to or suffered by the company by reasons of the contractor making any default in the performance, observance or discharge of the terms, conditions, stipulations or undertakings or any of them as contained in the contract.

FORMS & PROCEDURES

The decision of the company whether any default has occurred or has been committed by the contractor in the performance, observance or discharge of any of the terms, conditions, stipulations or undertakings or any one of them as contained in the contract and / or as to the extent of loss, damage, costs, charges and expenses caused to or suffered by the company by reason of the contractor making any default in the performance, observance or discharge of any of the terms, conditions, stipulations or undertakings or any one of them shall be conclusive and binding on the Guarantor irrespective of the fact whether the contractor admits or denies the default or questions the correctness of any demand made by the company in any Court, Tribunal or Arbitration proceedings or before any other Authority.

The company shall have the fullest liberty without affecting in any way the liability of the Guarantor under this Guarantee, from time to time to vary any of the terms and conditions of the contract or extend time of performance by the contractor or to postpone for any time and from time to time any of the powers exercisable by it against the contractor and either enforce or forebear from enforcing any of the terms and conditions governing the contract or securities available to the company and the Guarantor shall not be released from its liability under these presents by any exercise by the company of the liberty with reference to the matters aforesaid or by reasons of time being given to the contractor or any other forbearance, act or commission on the part of the company or any indulgence by the company to the contractor or any other matter or thing whatsoever which under the law relating to sureties would, but for this provision have the effect of so releasing the Guarantor from its liability under this guarantee.

The Guarantor further agrees that the Guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the contract and its claim satisfied or discharged and till the company certifies that the terms and conditions of the contract have been fully and properly carried out by the contractor and accordingly discharges this Guarantee, subject however, that the company shall have no claim under this Guarantee after ----
----- i.e. (the present date of validity of Bank Guarantee unless the date of validity of this Bank Guarantee is further extended from time to time, as the case may be) unless a notice of the claim under this Guarantee has been served on the Guarantor before the expiry of the said period in which case the same shall be enforceable against the Guarantor notwithstanding the fact that the same is enforced after the expiry of the said period.

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The Guarantor undertakes not to revoke this Guarantee during the period it is in force except with the previous consent of the Company in writing and agrees that any liquidation or winding up or insolvency or dissolution or any change in the constitution of the contractor or the Guarantor shall not discharge the Guarantor's liability hereunder.

It shall not be necessary for the company to proceed against the contractor before proceeding against the Guarantor and the Guarantee herein contained shall be enforceable against them notwithstanding any security which the Company may have obtained or obtain from the Contractor shall at the time when proceedings are taken against the Guarantor hereunder be outstanding or unrealized.

Notwithstanding anything contained herein before, our liability under the Guarantee is restricted to Rs. ----- (Rupees-----). Our guarantee shall remain in force until -----, i.e. (the present date of validity of Bank Guarantee unless the date of validity of this Bank Guarantee is further extended from time to time) unless a claim or demand under this guarantee is made against us on or before ----- we shall be discharged from our liabilities under this Guarantee thereafter.

Any claim or dispute arising under the terms of this documents shall only be enforced or settled in the courts of at Nagpur only.

The Guarantor hereby declares that it has power to execute this guarantee and the executant has full powers to do so on behalf of the Guarantor.

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IN WITNESS whereof the ----- (Bank) has hereunto set and subscribed its hand the day, month and year first, above written.

(Name of the Bank)

Signed for and on behalf of the Bank

(Designation of the Authorized Person Signing the Guarantee)

(Signatory No. -----)

DATED:

SEAL

=====

Notes :

1. The BG shall be executed on non-judicial stamp papers of adequate value procured in the name of the Bank in the State where the Bank is located.
2. The BG is required to be sent by the executing Bank directly to BHEL at the address where tender is submitted / accepted under sealed cover.

FORMS & PROCEDURES

Form No.F-21(Rev-00)

INDEMNITY BOND

(To be executed on a Non Judicial Stamp Paper of the requisite value as per Stamp Duty prevalent in the respective State)

This Indemnity Bond executed by <name of company> having their Registered Office at _____ in favour of M/s Bharat Heavy Electricals Limited, a Company incorporated under the Companies Act, 1956, having its Registered Office at BHEL House, Siri Fort, Asiad, New Delhi - 110049 through its Unit at Power Sector _____ Region, _____ State. (Hereinafter referred to as the Company)

And whereas the Company has entered into a Contract with M/s xxxxxxxxxxxxxxxxxxxx, the executants of this Deed (hereinafter referred to as the Contractor) as its contractor in respect of the work of "xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx".

AND WHEREAS under the provisions of GCC further stipulates that the Contractor shall indemnify the Company against all claims of whatever nature arising during the course of execution of Contract including defects liability period of <xx Months > i.e till <xx xx xxxx>

Now this deed witness that in case the Company is made liable by any Authority including Court to pay any claim or compensation etc. in respect of all labourers or other matters at any stage under or relating to the Contract with the Contractor, the Contractor hereby covenants and agrees with the Company that they shall indemnify and reimburse the Company to the extent of such payments and for any fee, including litigation charges, lawyers' fees, etc, penalty or damages claimed against the Company by reason of the Contractor falling to comply with Central/States Laws, Rules etc, or his failure to comply with Contract (including all expenses and charges incurred by the Company).

The Contractor further indemnifies the Company for the amount which the Company may be liable to pay by way of penalty for not making deductions from the Bills of the Contractor towards such amount and depositing the same in the Government Treasury.

The Contractor further agree that the Company shall be entitled to with hold and adjust the

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Security Deposit and/or with hold and adjust payment of Bills of Contractor pertaining to this Contract against any payment which the Company has made or is required to make for which the Contractor is liable under the Contract and that such amount can be withheld, adjusted by the Company till satisfactory and final settlement of all pending matters and the Contractor hereby gives his consent for the same.

The Contractor further agrees that the terms of indemnity shall survive the termination or completion of this contract.

The contractor further agrees that the liability of the contractor shall be extended on actual basis notwithstanding the limitations of liability clause, in respect of :

1. breach of terms of contract by the contractor
2. breach of laws by the contractor
3. breach of Intellectual property rights by the contractor
4. breach of confidentiality by the contractor

Nothing contained in this deed, shall be construed as absolving or limiting the liability of the Contractor under said Contract between the Company and the Contractor. That this Indemnity Bond is irrevocable and the condition of the bond is that the Contractor shall duly and punctually comply with the terms and the conditions of this deed and contractual provisions to the satisfaction of the Company.

In witness where of M/s xxxxxxxxxxxxxx these presents on the day, month and year first, above written at xxxxxxxx by the hand of its signatory Mr. xxxxxxxxxxxx.

Signed for and on behalf of
M/s xxxxxxxxxxxxxxxxxxxx

Witness:

- 1.
- 2.

FORMS & PROCEDURES

Form No: F-25 (Rev 00)

POWER OF ATTORNEY for SUBMISSION OF TENDER/SIGNING CONTRACT AGREEMENT

(To be typed on non judicial Stamp Papers of appropriate value as applicable and Notarised)

KNOW ALL MEN BY THESE PRESENTS, that I/We do hereby make, nominate, constitute and appoint Mr , whose signature given below herewith to be true and lawful Attorney of M/s..... hereinafter called 'Company', for submitting Tender/entering into Contract and inter alia, sign, execute all papers and to do necessary lawful acts on behalf of Company with M/s Bharat Heavy Electricals Ltd, Power Sector _____Region, _____, in connection with_____

vide Tender Specification No.: _____, Dated: _____

And the Company do hereby agree to ratify and confirm all acts, deeds, things or proceedings as may be lawfully done by the said attorney and by or on behalf of the company and in the name of the company, by virtue of the powers conferred herein and the same shall be binding on the company and shall have full force and effect.

IN WITNESS WHEREOF the common seal of the company has been hereunto affixed in the manner hereinafter appearing on the document.

Dated at _____, this _____ day of _____

Director/CMD/Partner/Proprietor

Signature of Mr.....(Attorney)

Attested by: Director/CMD/Partner/Proprietor

Witness

Notary Public