

# **Bharat Heavy Electricals Limited**

(High Pressure Boiler Plant)
Tiruchirappalli – 620014, TAMIL NADU, INDIA
MATERIALS MANAGEMENT

TITLE Phone: +91 431 2574205 / 2574206

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**Supply of Stainless Steel Sheets and Plates** 

Email: saruna@bheltry.co.in

| Reference Number:<br>Enquiry | Enquiry Date: | Due date for submission of quotation: 14.05.10 |
|------------------------------|---------------|--|
| MM/OS/ATP/001                | 26.03.10      | -  |

You are requested to quote the Enquiry number date and due date in all your correspondences. This is only a request for quotation and not an order

BHEL/Trichy is looking for empanelment of new vendors for supply of "Stainless steel Sheets and Plates"

BHEL commercial terms & conditions with Price Bid formats and all annexure can be downloaded from BHEL web site <a href="http://www.bhel.com">http://www.bhel.com</a> or from the Government tender website <a href="http://tenders.gov.in">http://tenders.gov.in</a> (public sector units) Bharath Heavy Electricals Limited) under enquiry reference "MM/OS/ATP/001"

Tenders should reach us before 14:00 hours on the due date Technical bid will be opened at 14:30 hours on the due date Tenders would be opened in presence of the tenderers who have submitted their offers and who may like to be present.

Yours faithfully,

For Bharath Heavy Electricals Limited

MANAGER / MM / OS / TRICHY

# BHARAT HEAVY ELECTRICALS LIMITED Purchase / Outsourcing

Ref: MM/OS/ATP/001

# **ANNEXURE-A**

Date: 26.03.2010

# ENQUIRY TERMS & CONDITIONS for SUPPLY OF STAINLESS STEEL SHEETS/PLATES.

Following are in addition to the General Terms and Conditions given in the Annexure.

# 1. Material specification, size & quantity:

Supply of Stainless steel sheets and plates to material designation no. 1.4550 according to DIN / EN10028-7; 2008-2 Edition and as per BHEL TDC:D131: 003 Rev.00 with third party inspection.

| Item No | Description                     | Weight ( Kg) |
|---------|---------------------------------|--------------|
| 10      | Sheet 2 x 1250 x 6000 - 46 Nos  | 5520.00      |
| 20      | Sheet 3 x 1600 x 4000 - 281 Nos | 43161.60     |
| 30      | Plate 4 x 1250 x 5000 - 44 Nos  | 8800.00      |
| 40      | Plate 6 x 500 x 2100 - 3 Nos    | 151.20       |
| 50      | Plate 5 x 1000 x 1800 - 6 Nos   | 432.00       |
| 60      | Plate 20 x 1250 x 2500 - 16 Nos | 8000.00      |
| 70      | Plate 30 x 1500 x 3000 - 8 Nos  | 8640.00      |

Total weight =

74704.80

TDC clause 3.2 and 3.3 is not applicable.

- 2. Submit your clear offer indicating the specification referred and any deviations against specification and TDC shall be indicated in the offer itself point by point.
- 3. <u>Invoicing</u> Invoicing on theoretical weight basis calculated as per size indicated against respective item numbers with density factor of 8.00 gm/cc.

#### 4. Inspection and testing:

- a) Third party inspection is to be done by any approved agency. All inspection charges to your account only.
- b) Original Test Certificates are to be sent along with supply.
- C) Five sets of additional Dialects (documents) containing Test Certificate, copies of the approved procedures, DCR(Design Change Report), Drawings etc., apart from contractual requirements are required.
- d) The actual production of materials is permitted only after review / approval of Manufacturing / Testing / Inspection Drawing / Documents and Quality Assurance Plans (QAP) by BHEL / Trichy.14.
- 5. Liquidated Damages: In case of delayed delivery, LD clause will be operated as per the existing procedure (0.5% per week of delay of value of undelivered goods up to a maximum of 15%). Confirm.
- 6. Confirm acceptance for Performance Bank Guarantee and Risk Purchase clause.

#### 7. Rates:

- a) For indigenous supplies, quote your firm rate per MT basis with inclusive of all charges like inspection, UT charges etc. Price variation at the time of ordering is not acceptable. Freight rate is to be quoted separately without fail. Any other extra charges like ED, CST/VAT etc are to be indicated.
- b) For import supplies, submit your competitive offer in FOB and CFR-Chennai basis. Offers not confirming to this requirement shall be rejected. Extra charges other than sea Freight are totally unacceptable.
- 8. Service charges, commission charges and any other incidentals will NOT be paid extra.

9. Agency commission, if any should be clearly given in the offer ( % on FOB , % on CFR Chennal inclusive).

#### 10. Payment terms:

- a) For import supplies, CAD payment is preferred. Otherwise LC will be opened one month prior to material readiness indicated by the mill. LC confirmation charges to beneficiary account only.
- b) For indigenous supplies, our payment term is 60 days after receipt and acceptance of material at our stores ONLY. LC and other mode of payment like 90% through bank and balance 10% after acceptance of material are not acceptable and offer shall be rejected.

## 11. Delivery:

Our delivery requirement is 30.06.10. Delivery period for the above items from the date of Purchase order is required.

- 12. Only manufacturers (import or indigenous) need to respond this enquiry. Also exclusive Indian agent can represent ONLY one foreign principal. The offer shall be rejected in case of deviation.
- 13. Offers from traders will be rejected.
- 14. Offers for goods originating in or exported from China PR are not acceptable.
- 15. End use certificates for usage of material will not be furnished by BHEL under no circumstances.
- 16. Port of shipment / Station of dispatch to be indicated in the offer.
- 17. Country of origin to be indicated in the offer.
- 18. In case if you are a new supplier (not registered sofar in our BHEL-Trichy supplier directory), then you have to fulfill New-Supplier-Registration formalities. This is mandatory to consider your offer for technical suitability. Non compliance to our registration requirements will be lead to disqualification of your offer. Dun & Bradstreet report is required for new import suppliers. Performance bank guarantee is required.
- 19. Furnish your principal's (manufacturer) supply details made to other customers in India for the above specifications.
- 20. Offer is to be submitted in TWO part bid system. Technical bid with commercial terms and conditions and Priced bid each in separate sealed covers. Enquiry reference and due date to be indicated on the envelope for both Technical & Priced bid.
- 21. Offer will be evaluated on Package basis only (ie) for all the enquired items. All the enquired items are to be quoted without fail. Otherwise the offer shall be rejected.
- 22. Only after technical evaluation and found suitable, priced bid will be opened for further process.
- 23. Offer validity of 45 days is required after priced bid opening in case you are qualified.
- 24. Submit your competitive offer (Technical & Priced bid) to the following address on or before 14.05.10 14.30hrs:

TO:

Manager /MM/OUTSOURCING FIRST FLOOR, 79 BLDG, BHEL, TRICHY, INDIA PIN: 620014

Tel: 0431-2574205

E-mail: saruna@bheltrv.co.in

- 25. BHEL reserves the right to reject any or all the offers either in full or part thereof or short close the tender at our discretion without assigning any reasons.
- 26. Enclosed:
  - (i) TDC: 131/003 Rev.00
  - (ii) Terms and conditions as applicable.

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# STAINLESS STEEL SHEETS & PLATES FOR STEAM GENERATOR APPLICATION

TDC: D131: 003 Rev: 00 Effective E

Effective Date. 27.01.2010

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## 10 SCOPE:

This specification establishes the technical requirements for the material, manufacture, inspection, examination, testing and supply of stainless steel plates of material designation no 1.4550 according to DIN / EN10028 – 7; 2008 –2 Edition. The requirements stated herein are additional technical requirements over EN 10028-7; 2008-2 Edition. All other applicable standards shall be as per latest edition during the time of procurement.

# 2.0 Steel Melting

The steel shall be melted in an electric furnace, vacuum degassed and fully killed

#### 3.0 Supply Condition

- 3.1 All sheets & Plates shall be supplied in 1D condition . ie Hot Rolled , Solution annealed heat treatment , Pickled conforming to DIN EN 10028-7.
- 3.2 All flats shall be supplied in 2R condition : Cold Rolled bright solution annealed and 2G condition : Ground both sides .
- 3.3 The flats shall be ground smoothly to a surface finish of Ra ≤ 0.8 µm. The external surface shall be clean and free from any type of contamination or impurity. The flats shall be free from ferritic and other surface impurities. No breakages and tears are allowed.
- 3.4 Flats shall be solution annealed, ground, pickeld and passivated.

#### 4.0 Chemical Composition

- 4.1 Both ladle and product analysis shall meet the requirements of the standard EN 10028 -7 as applicable.
- 4.2 The cobalt content in 30 mm Plate shall be 0.03% max.

## 5.0 Mechanical Properties

5.1 Mechanical tests at ambient temperature and high temperature tensile test at 350° C shall be carried out from each heat treated batch and shall conform to the requirements of the standard EN 10028 -7.

#### 6.0 Corrosion Test

6.1 Inter granular corrosion test shall be carried out as per ASTM. A - 262 Practice E with preceding sensitisation heat treatment at 650° C for 30 minutes.

## 7.0 Ferrite Content

- The ferrite content in the molten metal shall be determined for each melt and for each heat treatment batch. The ferrite content thus determined shall be within 5 to 10%. No net like arrangement is acceptable.
  - 8.1 The melting of the base metal for this purpose shall be carried out using a TIG torch with current applicable for 4.0 mm or more.

@ D131



# **Quality Assurance**

# Technical Delivery Condition



# STAINLESS STEEL SHEETS & PLATES FOR STEAM GENERATOR APPLICATION

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# 9 0 <u>Dimensional check and visual examination</u>

9.1 Each material shall be visually examined and checked for dimensional requirements and the tolerances. The flats are to be straight without any warping ,twisting bow and waviness and shall be dimensionally checked for conforming with the Fig. I.

# 10.0 Non Destructive Examination

#### 11.0 Ultrasonic Examination:

11.1 All the plates shall be ultrasonically examined in accordance with the product specification and the extend of test shall cover 100% of the volume in transverse direction and on both sides of the plate. Both angle beam and straight beam scanning may be employed as per the standard.

## 12.0 Liquid Penetrant Inspection:

- 12.1 All products in finished shape shall be examined by liquid Penetrant method in accordance with ASTM-E-165 with following additional requirements.
- 12.2 Penetrant, developers and cleaning agents containing more than 25 ppm each of sulphur and Halogens shall not be used.
- 12.3 Application of Penetrant and developer from aerosol type of spray cans is preferred.
- 12.4 The temperature of the area examined shall not be lower than 10°C.
- 12.5 All traces of Penetrant and developer shall be removed after completion of the examination.
- 12.6 Acceptance standard: Indications of any shape and size are unacceptable

### 13.0 Mix-up Test

13.1 Every material shall be tested to detect any inadvertent mix-up.

#### 14.0 Repairs.

- 14.1 Repairing the surface defects of the flats is not permitted
- Repairing of the surface defects of the plates and sheets may be permitted to an extend for slight surface defects. This type of surface defects shall be smoothly ground and blended without impairing the minimum wall thickness. No other repairs shall be carried out without prior approval of the Purchaser.
- 14.3 Repairs involving welding are prohibited for all products Sheet/Plate/Flat
- 14.4 All non conformity shall be recorded and reported to the purchaser for their disposal.



## Quality Assurance

# **Technical Delivery Condition**



# STAINLESS STEEL SHEETS & PLATES FOR STEAM GENERATOR APPLICATION

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# 15.0 Test Reports/ Certificates

- Five (5) copies of all test reports/certificates shall be sent to the purchaser immediately after completion of tests/inspection, prior to the shipment of the material. One set of test reports/certificates shall be dispatched along with the material. Following reports shall be submitted:
- 15.2 Chemical Analysis (Ladle and Product)
- 15.3 Heat Treatment details (heat treatment charts shall be sent after completion of the contract).
- 15.4 Results of mechanical properties.
- 15.5 Inter granular corrosion test report.
- 15.6 Delta Ferrite measurement.
- 15.7 Visual and dimensional test report.
- 15.8 Result of micrograph and grain size.
- 15.9 Hardness values.
- 15.10 Ultrasonic examination and liquid penetrate examination.
- 16.0 Marking and Identification: Each product shall be marked with the following information:
  - 16.1 Heat number.
  - 16.2 Direction of rolling for plates / Maximum Metal Direction for Forgings
  - 16.3 Material designation,
  - 16.4 Supply condition.
  - 16.5 Manufacturers name.
  - 16.6 Inspection agency/ Purchaser's seal.
  - 16.7 Purchase order number.

#### 17.0 Quality surveillance:

17.1 All material shall be subjected to quality surveillance by the Purchaser or his authorized agency during manufacture. The material shall not be supplied until the shipping release is given by the Purchaser or his authorized agency.



## **Quality Assurance**

# **Technical Delivery Condition**



STAINLESS STEEL SHEETS & PLATES FOR STEAM GENERATOR APPLICATION

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# 18.0 PACKING AND SHIPMENT:

The materials shall be packed suitably with adequate bracing and blocking to withstand transshipment and tropical storage for two years. The packages shall be released for shipment only after inspection and issue of "Shipping release" by the purchaser or his authorized agency. Each box shall contain the test certificates in respect of the material contained. Details of items packed including material specification, Purchase order number and destination shall be clearly marked on the Packages.

| Prepared               | Reviewed & Approved | Approved |
|------------------------|---------------------|----------|
| (BHEL)                 | (BHEL)              | (NPCIL)  |
| K.Krishnamoorthi /M/QA | M Ponnusamy/ DGM/QA |          |



# TERMS AND CONDITIONS (Indigitions)

- 1. QUOTATIONS: Each tender should be sent in double cover, inner cover should be scaled with tenderer's distinctive scal and super scribed with correct tender no. Item of supply and due date of opening the outer cover should only bear the address of this office and should not have any indication that a tender is within. Tow or more quotation should not be sent in one cover but the quotation against each tender should be sent separately to avoid confusion. Tender should not be addressed to any individual's name but only by designation.
- b) Tenders should be free from CORRECTION AND ERASURES. Corrections if any must be attested; all amounts shall be indicated both in words as well as in figures. Where there is difference between amount quoted in words and figures, amount quoted in words shall prevail.
- c) Price should be nott F.O.R. dispatching station inclusive of risk in transit and remain valid for 60 days from the due date
- d) If any sales tax is payable as extra to the quoted price is should be specifically stated in quotations along with CST &TNGST no falling which the purchaser will not be liable for payment of sales tax. Our T.N.G.S.T no 3560005 DT. 01.04.1995 CST no 239383 DT, 11.06.1991
- e) No revision of prices will be entertained after tenders are opened.
- f) Manufacturer's name trademark or patent no if any should be specified. Blustrative leaflets giving technical particulars are required along with quotation wherever necessary.
- g) Products with LS.I certification marks will be preferred.
- h) The purchaser shall be under no obligation to accept the lowest or any other tender and shall be entitled to accept or full without assigning any reason whatsoever.
- 2. <u>SAMPLES</u>: Wherever possible sample should be submitted separately whether specifically requested or not so as to reach the purchaser on or before the due date of the enquiry. They should be clearly marked with the enquiry no and the date on the outside cover to facilitate identification.
- 3. PACKING AND MARKING: The supplier shall arrange for securely protecting and packing the stores to avoid loss or damages during transic
- 4. TERMS OF PAYMENT: Payment will be made within 30 days of satisfactory receipt of materials at site. Wherever required by the purchaser, the successful tenderer must send the Operation and Maintenance manuals, Test Certificates, drawings, etc., for the materials ordered. These should be sent immediately after dispatch of the materials and a statement to that effect should be made in the invoice. Failure to comply with this provision will result in delay in payment of the bills. Goods dispatched either by V.P.P or by the document presented through bank will not be accepted unless agreed to by the purchaser.

The duplicate copy of the invoice neart for the transporters should accompany the material as stip lated under C.E. rules 52a and 173 c (or) 57gg. A Photostat copy of the above invoice for each Delivery Chelan should be submitted along with the original bills routed through bank or submitted directly to BHEL finance department.

5. <u>SECURITY DEPOSIT</u>: For purchases over Rs. 5000/- the successful tenderers may be requested to furnish a Bank Guarantee, Security deposit for an appropriate value as may be determined by BHEL

# 6. LIQUIDATED DAMAGES PENALTY AND INTEREST ON ADVANCES FOR DELAY IN DELIVERY:

If the supplier fails to deliver the raw material equipment components within the period specified in the contract the purchaser shall deduct fiquidated damages a sum equivalent to 0.5% of the price for each week of delay up to maximum of 15% of the price of the delayed undelivered goods. In addition to the recovery of interest at normal cash credit rate plus 2% for the unadjusted portion of the advances. If the delay in delivery of a part contributes to delay in execution of total system, LD and interest on advances will be recovered on the total contract price total advance paid.

- 7. RISK PURCHASE: Alternatively the purchaser at his option will be entitled to terminate the contract and to purchase elsewhere at the risk and cost of the seller either the whole of the goods or any part which the supplier has failed to deliver or dispatch within the time stipulated as aforesaid or if the same were not available, the best and the nearest available substitutes therefore. The supplier shall be liable for any loss, which the purchaser may sustain by reason of such risk purchases in addition to penalty at the rate mentioned in clause 6 above.
- 8. PREFERENTIAL DELIVERY: It should be noted if a contract is placed on a higher tenderer as a result of this incitation to tender in preference to the lowest acceptable offer in consideration of the earlier delivery, the seller will be liable to pay to the purchaser the difference between the contract rate and that of the lowest acceptable tender on the basis of final price F.O.R destination, including all eliminates of freights. Sales tax, duties and other incidents, incidental in case of failure to complete suppliers in terms of such contract within the date of delivery specified in the tender and incorporated in the contract.
- 9. MODVAT CREDIT: If any Excise Duty is payable, the chapter head / Sub -head reference and the rate of the duty should be quoted. If the tender is availing MODVAT credit for this input material, the effect of Preformed credit should be passed on to the purchaser. Tenderer under "MODVAT" shall be preferred.
- 10. PURCHASE: Preference will be given to CPSUS as per. Government guidelines.

11. GENERAL: The purchaser reserves the right to split up the tender and place order for individual terms with different tenderers and also increase or decrease the quantity.

Any other conditions which might have been quoted by the seller and are in contravention to the terms prescribed in the order and which have not been specifically accepted in by purchaser will not be applicable to the contract.

# TERMS AND CONDITIONS (IMPORT)

#### 1. OFFER:

Offer in ENGLISH LANGUAGE AND IN TRIPLICATE in a SEALED COVER SUPERSCRIBING the enquiry number ad the due date shall be submitted addressed to:

THE MANAGER / PURCHASE / FB

BHARAT HEAVY ELECTRICALS LIMIT ED

HIGH PRESSURE BOILER PLANT

THIRUCHIRAPPALLI - 620 014

TAMIL NADU

INDIA

Offers should be firm for net FOB Nearest Sea Port price and C&F chennal port, indicating the shipping specifications and the earliest delivery inrespectof offers from overseas suppliers. Offers from indigenous sources shall be firm for FOR TIRUCHIRAPPALL!

#### 2. DOCUMENTS:

(1) Offers should be accompanied by detailed technical literature, catalogue and detailed dimensional drawings in ENGLISH and in TRIPLICATE, or otherwise, the offers will not be considered.

(2) Incase overseas suppliers route their offer through their accredited selling agents, a letter of authority should be furnished mentioning

The name and address of their selling agents, who are authorized to bid, negotiate and conclude a contract on their behalf.

#### 3. AGENCY COMMISSION:

- (1) In respect of offers from overseas suppliers, agency commission, if any, payable to their agents in India, shall invariable be shown separately in the Performa invoice and this will be paid by us in India, in Indian rupees, on satisfactory completion of the contract.
- (2) It overseas principal has any til- up with any third party in respect of agency commission it should be declared while submitting offers.
- (3) Copies of current agency agreement / authorization letter in respect of agency commission shall be furnished along with offer, if not made available earlier.
  - (4) For calculation of rupee equivalent of agency commission, exchange rate as prevailing on the date of order will be taken

#### 4. SPARES:

The tendered should quote separately for spares that are required for two years trouble free operation. The spares offer should accompany the offer of main equipment; otherwise the quotations will be overlooked.

#### 5. VALIDITY:

The offers for main equipment and spares shall be kept open for acceptance for 120 days (one hundred and twenty days) from the date of opening of the tender.

# 6. TEST CERTIFICATES, OPERATING AND MAINTENANCE MANUALS:

The tenderer shall clearly mention in their offer, that test certificates and operation and maintenance manuals, etc., as called for in the technical specification, in the required number of copies will be provided at no extra cost. If any amount is payable as extra, the same shall be indicated separately in the offer

#### 7. TERMS OF PAYMENT:

In the event of and order the purchaser will arrange for and irrevocable letter of credit against presentation of documents. Under no circumstances confirmed and irrevocable latter of credit will be established by the purchaser.

#### 8. GENERAL:

- (1) Preference will be given to suitable indigenous or ex-stock in ported offers, failing which imported offers from incoming consignment against the indigenous supplies "stock and license" will be accepted, if "stock and sale license" is not available with the indigenous suppliers, the same shall be indicated in their offer.
- (2) Bank guarantee: the supplier in the event of an order, should furnish a bank guarantee from an approved bank at no extra cost in a Performa which will be supplied to the supplier, along with the order, for an amount equivalent to 10% of the value of the contract. The bank guarantee should remain in full force and effect during the period that would be taken for successful completion of the contract and shall continue to be enforceable till 12 months from the date of receipt of consignment at purchaser's site or 18 months from the date of last shipment at the port of delivery whichever is earlier.

# 9. LD/ PENALTY AND INTEREST ON ADVANCES FOR DELAY IN DELIVERY:

"If the supplier fails to delivery the raw materials / equipment / components within the period specified in the contract the purchaser shall deduct liquidated damages a sum equivalent to 0.5% of the price for each week of delay upto a maximum of 15% of the price of the delayed / price / total advance paid" goods, in addition to the recovery of interest at normal cash credit rate plus 2% for the unadjusted portion of the advance If the delay in undelivered delivery of a part contributes to delay in execution of total system, LD and interest on advances will be recovered on the total contract