



**ENQUIRY**  
(INDIGENOUS)

# BHARAT HEAVY ELECTRICALS LIMITED

( A Government of India Undertaking )  
HIGH PRESSURE BOILER PLANT  
PURCHASE DEPARTMENT - FOSSIL BOILERS  
THIRUCHIRAPALLI - 620014  
TAMILNADU (INDIA)

PHONE : 2577629  
GRAMS : BHARATELEC  
FAX NO: 2520719  
E-mail: tsraj@bheltry.co.in  
Web:

Page  
1/2

Enquiry No	Enquiry Date	Due Date for Quotation
2610800110	14.07.2008	09.09.2008
Please quote Enquiry No, Date and due date in all correspondences. This is only a request for quotation and not an order		

Item	Description	Unit	Quantity	Delivery Quantity	Schedule Date
10	54213132DNP ENiCrFe3 Inconel covered Electrodes Dia 3.2 mm as per Specification WCPS-804.Batch testing at Supplier's works.	KG	500.000	500.00	30.09.08
20	54213140DNP ENiCrFe3 Inconel covered Electrodes Dia 4.0 mm as per Specification WCPS-804.Batch testing at Supplier's works.	KG	11000.000	11,000.00	30.09.08
30	54213150DNP ENiCrFe3 Inconel covered Electrodes Dia 5.0 mm as per Specification WCPS-804.Batch testing at Supplier's works.	KG	3000.000	3,000.00	30.09.08

## General Note:

I) Test Certificate, Guarantee Certificate and Third Party Inspection Certificate as per WCPS-804 (copy enclosed) should be provided.

## II. COMMERCIAL TERMS AND CONDITIONS

### 1.,QUOTATIONS

The Bidders shall submit the offer in TWO INNER ENVELOPES as indicated below which shall be sealed in one outer envelope.

Envelope I This sealed envelope should contain all the copies of technical bid together with un-priced commercial bid. This envelope should be clearly marked "Part I - Technical and commercial bid", indicating Enquiry No., Due Date and Address & Reference of the Bidder.

Envelope II This sealed envelope should contain price details. This envelope should be clearly marked "Part II - Price bid", indicating Enquiry No., Due Date and Address & Reference of the Bidder.

Both the envelopes ( Part I & II) shall be put in one cover, duly sealed, superscribing as Part I and Part II of Enquiry No., due date of opening and the address and reference of the Bidder.

The above offer should reach this office on or before the due date by

The offers should reach us before the time of opening of tenders.  
The offers will be opened at 14:30 hours on the due date in the presence of the tenderers who may like to be present.  
Late tenders are liable to be rejected.

Yours faithfully,  
For **BHARAT HEAVY ELECTRICALS LIMITED**

**T.SELVARAJ**  
Deputy General Manager  
Capital Purchase,

BHEL, Thiruchirappalli-620 014.

MANAGER / PURCHASE  
(FOSSIL BOILERS)



# BHARAT HEAVY ELECTRICALS LIMITED

( A Government of India Undertaking )  
HIGH PRESSURE BOILER PLANT  
PURCHASE DEPARTMENT - FOSSIL BOILERS  
THIRUCHIRAPALLI - 620014  
TAMILNADU (INDIA)

PHONE : 2577629  
GRAMS : BHARATELEC  
FAX NO: 2520719  
E-mail: tsraj@bheltry.co.in  
Web:

Page  
2/2

2610800110 / 14.07.2008

17770

14.00 Hrs (IST). Late offers will not be considered.

2. POINT TO POINT CONFIRMATION TO BHEL'S SPECIFICATION AND COMMERCIAL TERMS AND CONDITIONS SHOULD BE PROVIDED IN THE ENCLOSED SHEET.

3. DETAILED CATALOGUE AND DRAWINGS SHOULD BE SENT ALONG WITH YOUR TECHNICAL OFFER.

Enclosures:

"LD clause has to be confirmed without fail."

"Payment to vendors will be made only thro E-Payment mode"

The offers should reach us before the time of opening of tenders.  
The offers will be opened at 14:30 hours on the due date in the presence of the tenderers who may like to be present.  
Late tenders are liable to be rejected.

Yours faithfully,  
For BHARAT HEAVY ELECTRICALS LIMITED

**T. SELVARAJ**  
Deputy General Manager  
Capital Purchase

MANAGER / PURCHASE  
(FOSSIL BOILERS)  
Yours faithfully,

BHEL, Thiruchirappalli-620 014.

**1.0 SCOPE**

- 1.1 This specification prescribes the requirements for inconel covered electrodes for cladding by shielded metal arc welding process.

**2.0 GENERAL REQUIREMENTS**

- 2.1 The proposed electrode should have the TUV approval for use on 20 Mn Mo Ni 55 material.
- 2.2 The technical delivery conditions shall be as per DIN 1736.
- 2.3 The electrode should be manufactured and controlled according to VdTUV 1753 latest issue and ASME Section III NB Div I & ASME Sec II Part C Latest Edition.
- 2.4 The electrode shall be certified according to DIN 50049-3.1B.
- 2.5 The total quantity delivered shall be in the least possible number of batches. Each batch shall be of largest possible size, subject to the limitations of latest issue of VdTUV 1753.

**3.0 CHEMICAL COMPOSITION**

- 3.1 The chemical composition of the weld deposit shall conform to:

Specification : DIN 1736 Part 1 (Latest Edition / Rev )

Classification : S Ni Cr 19 Nb Material No.2.4648.

With the following restrictions:

C < 0.05% ( Preferably 0.04 max )

Si < 0.5%

P < 0.015%

Nb Min 4 x Si%

Co < 0.03%

Co + Ta < 0.08%

% of Al to be analysed and reported.

**4.0 CORE WIRES AND COVERINGS**

- 4.1 Core wires and coverings shall be free of defects which would interfere with uniform performance of the electrodes.
- 4.2 The covering on the electrode shall be concentric to the extent that the maximum core-plus-one covering dimension shall not exceed the minimum core plus one covering dimension by more than 7% of the mean dimension in size 2 mm and 2.4 mm, 5% of the mean dimension in sizes 3.2mm and 4 mm and 4% of the mean dimension in sizes 4.8 mm and larger. The concentricity may be measured by any suitable means.
- 4.3 The diameter of core wire shall not vary more than  $\pm 0.05$  mm from size specified. The length shall not vary more than  $\pm 6.4$  mm from that specified.

**5.0 EXPOSED CORE**

- 5.1 One end of each electrode shall be bare for a distance of 20 mm but not more than 30 mm to provide for electrical contact with the holder.
- 5.2 The other end of each electrode shall be sufficiently bare and the covering tapered to permit easy striking of the arc. The length of the bare portion of the arc end of electrode shall not exceed 1.6 mm or one half of the diameter of the core wire whichever is less.

**6.0 CHEMICAL AND MECHANICAL TESTS**

- 6.1 The electrodes shall be subjected to mechanical tests as called for in VdTUV 1753, latest issue.
- 6.2 The following are the acceptance limits:

Tensile strength (at Room Temp.)	: 620 - 690 N/mm <sup>2</sup>
Yield strength (0.2% proof strength at RT)	: 390 N/mm <sup>2</sup> minimum
% Elongation (L = 5d)	: 30% min.
% Reduction in Area	: To be quoted and reported subsequently.
Minimum absorbed energy (Charpy - V at 20° C)	: 79 Joules



6.3 The chemical composition of the weld metal at 5 mm and 6 mm above the base metal when deposited as weld cladding, shall meet the requirements of 3.0.

6.4 The electrodes shall be subjected to hot crack test as per Thomas Schaffler. The tests shall indicate absence of sensitivity to hot cracking.

6.5 All the above tests 6.1 to 6.4 shall be carried out for each batch of the electrodes.

#### 7.0 MARKING

7.1 Each package shall be legibly marked on outside with the following information:

1. Electrode specification and classification numbers.
2. Suppliers name, Trade name of electrode.
3. Electrode size, numbers and net weight.
4. Lot, control, heat and batch number.

#### 8.0 ELECTRODE IDENTIFICATION

8.1 All electrodes shall be identified in accordance with the following.

1. Atleast one legible imprint of the electrode classification and trade name shall be applied to the electrode covering as near as practical to the grip end of the electrode and within 65 mm of that grip end.
2. The numbers and letters of the imprint shall be of bold block type of a sufficient size to be easily readable.
3. The ink used for imprinting shall provide sufficient contrast with the electrode coverings in order that the numbers and letters shall be readable before and after baking at user's works and after normal welding applications.

#### 9.0 PACKAGING

Electrodes shall be suitably packaged to insure against injury during shipment and storage under tropical conditions. The package weight shall be as agreed upon by the supplier and the purchaser.

**CAPITAL PURCHASE**  
**COMMERCIAL TERMS AND CONDITIONS**

**1.0 QUOTATIONS**

The Bidders shall submit the offer in **TWO INNER ENVELOPES** as indicated below which shall be sealed in one outer envelope.

**Envelope I** This sealed envelope should contain all the copies of technical bid together with un-priced commercial bid. This envelope should be clearly marked **"Part I - Technical and commercial bid"**, indicating Enquiry No., Due Date and Address & Reference of the Bidder.

**Envelope II** This sealed envelope should contain **price details**. This envelope should be clearly marked **"Part II - Price bid"**, indicating Enquiry No., Due Date and Address & Reference of the Bidder.

Both the envelopes ( Part I & II) shall be put in one cover, duly sealed, superscribing as Part I and Part II of Enquiry No., due date of opening and the address and reference of the Bidder.

The above offer should reach this office on or before the due date by 14.00 Hrs (IST). Late offers will not be considered.

Tender should not be addressed to any Individual's name but only by designation to:

**DEPUTY GENERAL MANAGER / SP & WC  
BHARAT HEAVY ELECTRICALS LIMITED  
HIGH PRESSURE BOILER PLANT  
TIRUCHIRAPALLI - 620 014  
TAMIL NADU, INDIA**

Tenders should be free from **CORRECTION AND ERASURES**, Corrections if any, must be attested. All amount 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.

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

**2.0 PART I (TECHNICAL & COMMERCIAL BID)**

**2.1 Technical**

This part shall include / indicate the following :

- 2.1.1. Offer should contain complete scope of supply with all technical details, specifications, delivery and other commercial terms and conditions.
- 2.1.2. Point by point confirmation for the Technical Specification enclosed to be provided. if there are any deviation, the same should be clearly specified. Offers received without confirmation to our specification will be rejected.
- 2.1.3. Relevant catalogues to be attached
- 2.1.4. Information on shipping weight and cubage (length, width & height) to be provided.
- 2.1.5. Incase of foreign bidder offer, the Principal's technical offer should be enclosed.

## 2.2 Commercial

This part shall include / indicate the following :

- 2.2.1. Port of shipment / Station of despatch
- 2.2.2. Terms of payment
- 2.2.3. Taxes & duties applicable.
- 2.2.4. Delivery Schedule
- 2.2.5. Offer validity
- 2.2.6. Country of origin
- 2.2.7. Percentage of agency commission if any along with a copy of Agency agreement.
- 2.2.8. A copy of "Un-Priced Part II" i.e., a copy of the Price Bid **without the price details** to be enclosed

## 3.0 PART II (PRICE- BID)

This part should contain the schedule of price particulars and to be co-related to the technical details provided in Part I.

## 4.0 OPENING OF TENDERS

The Part I - Technical & commercial bid alone would be opened on the Tender opening date.  
The Part II - Price bid of Technically suitable Bidders alone would be opened. The Technically suitable Bidders would be informed about the tender opening date.  
Clarifications if any required by BHEL for Technical evaluation would be sought from Bidders before opening of Part II - price bid.

## 5.0 GENERAL

- 5.1. Incomplete offers will not be considered.
- 5.2. **Fixed price:** Prices quoted by the bidder shall be fixed and not subject to any escalation whatsoever during the period of bid validity and execution of the Purchase Order. A bid submitted with an adjustable price will be treated as non - responsive and rejected. Prices shall be written in words and figures. In the event of difference, the price in words shall be valid and binding. Unit prices shall be considered correct in the event of any discrepancy with regard to total price.
- 5.3. **Bid currency:** Indian bidders should submit the prices only in Indian Rupees. Foreign bidders may submit their bid in their home currency.
- 5.4. **Terms of Delivery:** Bidders are required to quote their best delivery period. Foreign Bidders should submit their offer for net **FOB Nearest Sea / Air Port**. Indian Bidders should submit their offer for **FOR Despatching station**.
- 5.5. **Taxes and Duties :** All Taxes and Duties payable as extra to the quoted price should be specifically stated in offers along with CST & TNGST No / Tariff No. etc., failing which the purchaser will not be liable for payment of such Taxes and Duties. Our T.N.G.S.T No. 356005 Dt. 04-04-1995, C.S.T. No. 239383 dt. 11-06-1991.
- 5.6. **Validity :** The offers shall be kept open for acceptance for **120 days (one hundred and twenty days)** from the date of opening of the tender (Part I).
- 5.7. **Terms of Payment :**
  - 5.7.1. **Indian Bidders**
    - 5.7.1.1. The preferred payment terms are indicated below :

5.7.1.3. 100% payment, within 45 to 90 days, after receipt / acceptance / commissioning of equipment at BHEL, Tiruchi.

**5.7.2. Foreign Bidders**

An Irrevocable Letter of Credit shall be established for 90% of the value of the goods. Balance 10% shall be paid on receipt / acceptance / commissioning of the goods at BHEL. All bank charges outside India are to Vendor's account.

- 5.8. **Liquidated damages** : It is clearly understood among the parties to the contract the “**Time is the essence of the contract**”. Therefore, the delivery of the goods specified in the purchase order should be made within the time prescribed. Where the seller supplies or despatches the goods, beyond the delivery period specified the purchaser will have no obligation to accept the goods. If accepted liquidated damages at the rate of 1/2% of the value of goods delayed for each week of delay subject to a maximum of 15% of the order value will be levied.
- 5.9. **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 despatch within the time stipulated as aforesaid or if the same were not available, the best and the nearest available substitute therefor. The supplier shall be liable for any loss which the Purchaser may sustain by reason of such risk purchases.
- 5.10. **Agency commission** : In case of Foreign Bidders, agency commission if any, payable to their Indian Agents, shall shown separately in the Offer. This will be paid by us in India, in Indian Rupees, on satisfactory completion of the Contract. Copies of current Agency Agreement / Authorization Letter in respect of Agency Commission shall be furnished alongwith offer. For calculation of Rupee equivalent of Agency Commission, exchange rate as prevailing on the date of offer will be taken.
- 5.11. **Test certificates / Operating and Maintenance manuals** : The Bidders shall clearly mention in their offer, that Test Certificates and Operating Maintenance Manuals, etc., as called for in the Technical Specification, in the required number of copies will be provided at no extra cost.
- 5.12. **Modvat credit** : (for Indian Bidders only) 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 his input materials, the effect of proforma credit should be passed on to the purchaser.
- 5.13. **Packing and marking** : The Supplier shall arrange for securely protecting and packing the stores to avoid loss or damages during transit.
- 5.14. **Indian agents representing Foreign Manufacturer**: Indian agents representing foreign manufacturer should enclose with their offer the letter from their Principal authorising the Indian agent to submit the offer on the Principal's behalf. However the original offer should be directly from the Principal. In case the Indian agent submits offer on their Letter head then a cover letter (in original) from the Principal should be enclosed, clearly mentioning that they are bound by the offer submitted by the Indian agent on their behalf.
- 5.15. Purchase preference will be given to CPSUs as per Government guidelines.
- 5.16. BHEL shall be at liberty to reject or accept any tender, part or in full, at their own discretion and any such action is not liable for any question or claim against BHEL.

For any queries / clarifications the bidders may contact us through our FAX NO. +91 431 2520719 or through e-mail [tsraj@bheltry.co.in](mailto:tsraj@bheltry.co.in) (or) [psivasub@bheltry.co.in](mailto:psivasub@bheltry.co.in)



As on 1<sup>st</sup> January 2007.

## INSPECTING AUTHORITIES

<u>NAME OF THE AUTHORITY</u>	<u>AREA OF OPERATION</u>
1. Chief Inspector of Boilers Assam	Assam
2. Chief Inspector of Boilers West Bengal.	West Bengal
3. Chief Inspector of Boilers Bihar.	Bihar
4. Director of Boilers, Maharashtra.	Maharashtra
5. Chief Inspector of Boilers, Gujarat.	Gujarat, Daman & Diu and Dadra & Nagar Haveli
6. Chief Inspector of Boilers, Delhi.	N.C.T.D.
7. Chief Inspector of Boilers, Tamil Nadu.	Tamil Nadu
8. Director of Boilers, Madhya Pradesh.	Madhya Pradesh
9. Director of Boilers, Punjab.	Punjab
10. Chief Inspector of Boilers, Orissa.	Orissa
11. Director of Boilers, Uttar Pradesh.	Uttar Pradesh
12. Director of Boilers, Andhra Pradesh.	Andhra Pradesh
13. Chief Inspector of Boilers, Karnataka.	Karnataka
14. Chief Inspector of Boilers, Rajasthan.	Rajasthan
15. Chief Inspector of Boilers, Kerala.	Kerala
16. Chief Inspector of Boilers, Haryana.	Haryana & Chandigarh
17. Dy. Chief Inspector of Boilers, Pondicherry Administration, Pondicherry.	Pondicherry
18. Chief Inspector of Boilers, Himachal Pradesh.	Himachal Pradesh

CBF-113664

CBF-113427

CBF-113427

19. Chief Inspector of Boilers,  
Goa.
20. Chief Inspector of Boilers,  
Chhatisgarh
21. Deputy Director of Factories & Boilers,  
Uttanchal.
22. Chief Inspector of Boilers  
Jharkhand
23. The Hartford Steam Boiler Inspection and Insurance  
Company of Connecticut,  
Code Services, One State Street,  
P.O. Box 299, Hartford,  
CT 06141-0299 USA.
24. M/s. TÜV Nord (RWTUV)  
Langemarcstrasse 20,  
451141 Essen,  
GERMANY.
25. M/s. Royal & Sunalliance Engineering,  
17, York Street, Manchester,  
M2 3RS, ENGLAND
26. M/s. Japan Inspection Company Limited,  
No10-7, 1-Chome,  
Hatchobori chuō-ku, Tokyo-104-0032,  
JAPAN.
27. M/s. S.G.S. Korea Company Limited,  
Industrial Division,  
Yoochang Building,  
25-2, 4-Ka, Jungang-Doong Jung-Gu,  
Busan, KOREA.
28. M/s. Bureau Veritas,  
17 bis, Place des Reflets,  
La Defense 2,  
92400 Courbevoie,  
FRANCE
29. M/s. Lloyds Register of Verification Limited,  
71, Fenchurch Street,  
London EC3M 4BS,  
U.K.
30. M/s. Technischer Überwachungs Verein  
Saarland e.V.  
Saarbrucker Straße 8,  
66280 Sülzbach, GERMANY
31. M/s. Verical Certification Bureau Ltd,  
318a Kings Road, Clifton House,  
Reading, RG1 4RT,  
United Kingdom

Goa

Chhatisgarh

Uttanchal

Jharkhand

In whole of world except India

All countries except India

In whole of world except India

Japan

Korea/Japan

All countries except India.

All countries except India.

Europe

All countries except India

CBF113664

CBF113427

33. M/s. Velost Certification Bureau Ltd.,  
318a Kings Road, Clifton House  
Reading, Berkshire, RG1 4JG,  
United Kingdom
34. M/s ABSG Consulting Inc.  
16855, North Chase Drive,  
Houston, Texas 77060-6008, U.S.A.
35. M/s Moody International Ltd.,  
Cuckfield House, High Street,  
Cuckfield, West Sussex,  
RH17 5EL, U.K.
36. M/s TUV Rheinland,  
Berlin-Brandenburg, Am  
Grauen Stein - 51195 Klon,  
Germany.
37. M/s OOO "Tekhnologicheskoe Energostime",  
1, Kalinina St. Belgorod, 308001,  
RUSSIA.
38. M/s Det Norske Veritas,  
Veritasveien 1, P.O. box 300,  
N-1322. Hovik,  
NORWAY.
39. M/s National Test House,  
11/1, Judges Court Road,  
Alipore, Calcutta - 700027.

CBF 11364

CBF 113427

CBF 113427

BHEL Commercial Terms and Conditions for Import Supplies	Vendor's Confirmation / Comments
Technical confirmation to BHEL's Specification as called for in BHEL Format shall be furnished. If needed additional sheets shall be used.	
Prices shall be quoted item wise only as per the model format enclosed.	
Prices shall be quoted on "FIRM PRICE" basis only. The prices should be only on FOB/FCA basis inclusive of Packing & Forwarding charges if any	
Validity of offer shall be for a minimum period of 120 days from the date of Tender opening	
Delivery period from the date of Letter of Intent shall be clearly mentioned in the offer.	
Liquidated damages @ ½% per week subject to a maximum of 15% of the order value shall be applicable for delay in deliveries.	
Following Risk Purchase clause shall be applicable: 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 or if the same were not available, the best and the nearest available substitute therefore. The supplier shall be liable for any loss, which the Purchaser may sustain by reason of such risk purchases.	
Payment terms for Foreign vendor (Principal): 90% value of the goods will be paid through an irrevocable Letter of Credit established by our bankers. Balance 10% will be paid against acceptance of goods for which supplementary invoice 10% of total Purchase order value shall be submitted. All bank charges outside India are to vendor's account only.	
Payment terms for Indian Agent: Indian Agency commission, if any, shall be clearly specified in the offer and the same will be paid in Indian Rupees against acceptance of the materials.	
Part Shipment or Transshipment is not permissible	
Any warranty replacement during warranty period shall be supplied free of charge on FOR BHEL, Trichy basis.	
Materials will be inspected and proved at vendor's works prior to dispatch. However final inspection and acceptance of equipment will be after installation at BHEL, Trichy.	
Offers should be submitted only in sealed cover super-scribing clearly the Enquiry reference and due date.	

**NOTE:-**

- It is confirmed that all the terms and conditions stipulated in the Enquiry have been fully understood by us and all clarifications & details have been obtained.
- The prices are to be offered only on FOB/FCA basis, inclusive of Packing & Forwarding charges if any.
- Your specific acceptance to our Payment terms, LD, Risk Purchase Clause are essential for consideration of your offer. Other wise your offer is liable for rejection.

Signature &amp; Office Seal of the vendor

BHEL ENQUIRY NO & DATE

VNDOR OFFER REF NO & DTAE

**MODEL PRICE BID FORMAT FOR FOREIGN VENDORS**

S.No.	Description of Item	Unit	Qty	Rate	Value
-------	---------------------	------	-----	------	-------

Ex-work Value	:
Packing & Forwarding Charges, If any	:
FOB /FCA Charges, if any	:
FOB Value	:
Approximate Freight Charges	:
Approximate Transit Insurance Charges	:
Approximate Gross Weight, Net. Weight & Dimensions of the Consignment	:

Signature & Seal of Vendor

**NOTE: The Price bid should submitted strictly in line with the above FORMAT.**

CBF113427