



ENQUIRY

VALVES

Bharat Heavy Electricals Limited
(A Government of India undertaking)
HIGH PRESSURE BOILER PLANT
PURCHASE DEPARTMENT/VALVES
TIRUCHIRAPPALLI-620 014.

Phone:09442220035 & 0431-2577305
FAX : 0431-2520383
Email:
pr@bheltry.co.in
dcm@bheltry.co.in

ENQUIRY NO.

DATE

DUE DATE FOR
QUOTATION

EN-VAL-OT-1004

30.10.2012

11.12.2012

Please quote Enquiry No., and due date in correspondences
This is only a request for quotation and not an order.

SL.NO.	MATERAIAL CODE DESCRIPTION DRAWING NO TDC NO.	UNIT	QUANTITY	DELIVERY SCHEDULE	
				QUANTITY	DATE
	<p>PROOF MACHINED TOA HIGHPRESSURE VALVE BODY FORGING SA182 F91- Attest as per TDC 0.404/REV 09 along with Annexure to TDC 404/REV 09. & Drawing 3-V-WC33-21831P/00</p> <p><u>Date , Time & Venue of tender opening :</u></p> <p>11.12.2012 at 14.30 Hrs. at Valves Purchase Conference Hall , Building No 24, BHEL, Tiruchirappalli-620 014, Tamil Nadu State, India.</p>				
		<p>Scope of supply Sealed offers are invited for supply of PROOF MACHINED TOA HIGHPRESSURE VALVE BODY FORGINGs SA182 F91 (Attest) Attest as per TDC 0.404/REV 09 along with Annexure to TDC 404/REV 09.for Bharat Heavy Electricals Limited, Tiruchirappalli - 620014.</p> <p>- Bill Of Quantities Refer Annexure -A.</p> <p>- Required delivery and for other terms and conditions - Refer</p> <p>a) Special terms and Conditions, Annexure-D b) Annexure - Enquiry Instructions for Proof Machined Forging</p>			

The rate of Excise Duty and Sales Tax, Prevalent on the date of quotation, should be clearly indicated in the quotation itself. If these particulars are not provided, the quotation is liable for rejection.

Please, submit your lowest quotation in duplicate subject to our terms and conditions , for the above materials, so as to reach us on or before the due date by 14.30 Hrs. (IST)

Quotation will be opened at 14.30 Hrs. (IST) on the due date in the presence of tenderers who may like to be present.

Late tenders are liable to be rejected.

Yours faithfully,

For Bharat Heavy Electricals Ltd
D.Chandramohan
Senior Manager
(Valves / Purchase)

BILL OF QUANTITIES

Enq. SI No	Material Description	Spec.	Material Code	Drawing no	Tender qty	Component weight (kg)
0010	BODY FORGING 22"-3000SPL	A182 F91 ATTEST	921534420000	3-V-WC33-21831P	10	6470

Ref: **EN-VAL-OT-1004**

Date: 25.10.2012

SUPPLIERS REQUIRED

BHEL, Tiruchirappalli invites offers from suitable sources for supply of

“Proof Machined TOA High Pressure Valve Body Forgings SA182 F91 Attest Material Specifications”.

Full details can be downloaded from BHEL’s website <http://www.bhel.com> (Tender Notifications page > NIT _) or from the Govt. Tenders website <http://tenders.gov.in> (Public Sector Units > Bharat Heavy Electricals Limited page against Ref. No. NIT _). Interested parties may submit their offers to the following address.

D.Chandramohan
SM / Purchase Valves
4th FLOOR, BLDG.24,
Bharat Heavy Electricals Ltd.,
HIGH PRESSURE BOILER PLANT,
TIRUCHIRAPPALLI - 620 014
TAMILNADU, INDIA.
Ph: (0431) 2577500
E-Mail: dcm@bheltry.co.in



Bharat Heavy Electricals Ltd.
(A Govt. of India Undertaking)

VALVES PURCHASE,
TIRUCHIRAPPALLI- 620 014. INDIA



PHONE: 91-0431-257 7836, 2577123

EMAIL: psraj@bheltrv.co.in

FAX: 91-0431-2520 383

INDIGENOUS ENQUIRY

TERMS AND CONDITIONS

1. QUOTATIONS:

- a. Each tender should be sent in double cover, should be sealed 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. Two or more quotations 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 figures. Where there is difference between amount quoted in words and figures, amount quoted in words shall prevail.
- c. Price should be F.O.R. dispatching station inclusive of risk in transit and remain valid for 120 days from. the due date.
- d. If any Sales Tax is payable as extra to the quoted price, it should be specifically stated in quotation along with CST & T.N.G.S.T No. failing which the purchaser will not be liable for payment of Sales Tax. Our T.N.G.S.T No. 3550005 Dated 01-04-1995 C.S.T. No. 259383 Dt. 11.06.1991.
- e. No revision of prices will be entertained after tenders are opened.
- f. Manufacturer's name, Trade Mark or Patent No. if any should be specified. Illustrative leaflets giving technical particulars are required along with quotation wherever necessary.
- g. Products with I.S.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 reject any tender in part or full without assigning any reason whatsoever.

2 SAMPLES :

Wherever possible samples should be submitted separately whether specifically requested or not so as to reach the purchaser on or before its 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 lose or damages during transit.

Continued .. 2

4 TERMS OF PAYMENT :

Payment will be made 45-90 days after accepting of materials at our stores. Where required by the purchaser, the successful tenderer must send the operation and maintenance manuals, test certificates, drawings, etc., for the materials 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 thro' document presented through bank will not be accepted unless agreed to by the Purchaser.

The Original Excise Duty Gate Pass or certified extract form Excise Duty Ledger should accompany the material. A Photostat copy of the above gate pass for each delivery challan should be submitted along with the original bills routed through bank or submitted directly to BHEL Department.

5 LIQUIDATED DAMAGES:

It is clearly understood among the parties to the contract that '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 ½ % of the value of goods delayed for each week of delay or part thereof (upto max of 10%) will be levied without prejudice to any other relief of compensation due to the purchaser under any other condition of this contract.

6 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 substitute therefore. The supplier shall be liable for any loss, which the purchaser may sustain by reason for such risk purchases in addition to penalty at the rate mentioned in clause 6 above.

7 PREFERENTIAL DELIVERY :

It should be noted if a contract is placed on a higher tender as a result of this invitation 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 elements of freights, sales tax, duties and other incidents, incidental in case of failure to complete supplies in terms of such contract within the date of delivery specified in the tender and incorporated in the contract.

8 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 his input materials, the effect of proforma invoice should be passed on to the purchaser, Tenderer under MODVAT shall be preferred.

9 GENERAL :

The Purchaser reserves the right to split up the tender and place order for individual items with different tenders 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.

File : Anx-enq-ind-txt



Bharat Heavy Electricals Ltd.

(A Govt. of India Undertaking)

**Valves purchase,
Tiruchirappalli - 620 014. India**

PHONE: 91-0431-257 7025,
FAX: 91-0431-2520 383

EMAIL: dcm@bheltry.co.in

IMPORT ENQUIRY TERMS AND CONDITIONS

I OFFER

Offer in ENGLISH LANGUAGE AND IN TRIPLICATE in a SEALED COVER SUPERSCRIBING the Enquiry Number and the due date shall be submitted addressed to

THE SR. MANAGER
PURCHASE VALVES
BHARAT HEAVY ELECTRICALS LIMITED
HIGH PRESSURE BOILER PLANT
TIRUCHIRAPPALLI - 620 014
TAMIL NADU, INDIA

Offers should be firm for CFR Chennai Port price, indicating the shipping specifications and the earliest delivery in respect of offers from overseas suppliers

II: DOCUMENTS

- (i) 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.
- (ii) In case 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 authorised to bid, negotiate and conclude a Contract on their behalf.

III AGENCY COMMISSION:

- (i) In respect of offers from overseas suppliers, agency commission, if any, payable to their agents in India, shall invariably be shown separately in the proforma invoice and this will be paid by us in India, in Indian Rupees, on satisfactory completion of the Contract.
- (ii) If Overseas Principal has any tie up with any third party in respect of Agency Commission it should be declared while submitting the offers.
- (iii) Copies of current Agency Agreement / Authorization Letter in respect of Agency Commission shall be furnished along with order, if not made available earlier.
- (iv) For calculation of Rupee equivalent of Agency Commission, exchange rate as prevailing on the date of order will be taken.

Continued .. 2

IV SPARES:

The tenderer 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 quotation will be overlooked.

V 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.

VI TEST CERTIFICATES, OPERATING AND MAINTENANCE MANUALS:

The tenderer shall clearly mention in their offer, that the Test Certificate and Operating 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.

VII TERMS OF PAYMENT :

Payment of 100% cash against documents will be made 45-90 days after acceptance of materials at our stores. Where required by the purchaser, the successful tendered must send the operation and maintenance manuals, test certificates, drawings, etc., for the materials 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 thro' document presented through bank will not be accepted unless agreed to by the Purchaser.

The Original Excise Duty Gate Pass or certified extract form Excise Duty Ledger should accompany the material. A Photostat copy of the above gate pass for each delivery challan should be submitted along with the original bills routed through bank or submitted directly to BHEL Department.

VIII GENERAL:

- (i) Preference will be given to suitable indigenous or ex-stock imported offers failing which imported offers from incoming consignment against the indigenous supplies "Stock and sale licence" will be accepted. If "stock and sale licence" is not available with the indigenous suppliers, the same shall be indicated in their offer.
- (ii) **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 proforma 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 18months from the date of last shipment at the Port of Delivery whichever is earlier.

IX LD / PENALTY AND INTEREST ON ADVANCES FOR DELAY IN DELIVERY:

"If the supplier fails to deliver 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 10% 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"

ANNEXURE D



Bharat Heavy Electricals Ltd

(A.Govt.of India Undertaking)

Valves Purchase,Tiruchirappalli- 620 014. INDIA

Phone : 91- 0431-2577136 &2577025

e-mail : dcm@bheltry.co.in

psraj@bheltry.co.in

FAX : 91- 0431-2520383

SPECIAL CONDITIONS OF ENQUIRY

1. Material shall be supplied as per the applicable latest Technical Delivery Conditions (TDC), Drawing and other special requirements as given in PO
 2. Wherever the drawings call for proof machining, the same shall be executed and no extra charges shall be paid by BHEL for proof machining
 3. Kindly quote your rate in **Rupees** as **FOR (BHEL-Trichy)** or in **USD** or **EURO** as **CFR (Chennai Sea Port)** for **indigenous and import** vendors respectively with the offer validity of minimum **120 days** from the date of tender opening
 4. Heat number, Specification of material and supplier's Emblem / Logo are to be hard stamped on all materials
 5. Confirmation is to be given, that the conditions specified in the respective TDC shall be strictly followed for the manufacture and supply of the material (copy of TDCs is enclosed for your study and reference)
 6. **Offer:** The offer is invited in **two parts**.ie Techno Commercial as one part and Priced bid as second part.
 - a. **Techno Commercial bid** covering Technical Conditions, Delivery conditions, acceptance of all our commercial conditions and a copy of un- priced price bid. (Please submit a separate envelope super-scribing the enquiry number and name of bid for techno commercial bid)
 - b. **Priced bid** covering only price for each enquiry serial number (Please submit a Separate envelope super-scribing the enquiry number and name of bid for price bid)
- Tender will be finalized thru either **Priced bid Opening** or **Reverse Auction**. A typical copy of "Business Rules and Conditions" of Reverse Auction is enclosed here with for information and reference.
7. Techno Commercial bid will be opened first. Only technically suitable Vendors will be eligible for Priced bid Opening or Reverse Auction.
 8. **MODVAT Credit:** If any Excise Duty payable, the chapter head /Sub-head reference and the rate of the duty should be quoted. ED, CST, and any other taxes, should be specified separately. (It is applicable for Indian vendors only).
 9. **Delivery Terms:** Delivery of enquired items shall be **16 weeks** from the date of release of purchase order or LOI. However, Non conformation to our delivery requirement may lead to rejection of the bid
 10. Confirmation for compliance is to be given in the offer for all the conditions specified in the respective Technical Delivery Condition / Standard specifications, these special conditions and standard conditions enclosed along with this enquiry.
 11. Fumigation and Phyto Certificates are required for wooden cases.

ANNEXURE D

12. L1 rates will be counter offered to L2 vendor. The distribution of orders will be in the ratio of 60:40 to L1 and L2 subjected to the acceptance of counter offering by L2 Vendor.
13. **Liquidated damage clause:** In case of delay in delivery, beyond the end delivery dates given in the Purchase Order, Liquidated Damage Clause will be applicable at the rate of 0.5 % per week and subject to a maximum of 10% of undelivered portion of the item value
14. **Terms of payment:** As per terms and conditions, payment will be made 45-90 days after acceptance of materials in stores or at the place as required by the purchaser for Indian vendors and 100% cash against documents for import vendors. The successful bidder must send the Test Certificates, for the materials ordered. These should be sent along with the dispatch of the materials and a statement to the effect should be made in the invoice. Failure to comply with this provision will result in delay in payment of the bills. The original transporter's Excise Duty gate pass or certified extract from Excise Duty Ledger should accompany the material
15. In order to ease our processing of this tendering, the formats as per the **annexure G & H (Techno-commercial & Priced Bid)** enclosed should be used to furnish the mandatory information as called for. The offers through some other formats may get rejected. Further additional soft copy of this offer to be forwarded to us after the date of tender opening will be well appreciated. The information to be furnished and not covered in the formats as per the annexure has to be indicated separately
16. BHEL reserves the right to reject the forgings that are found to be defective during machining / assembly / hydraulic testing notwithstanding the earlier acceptance. The entire cost of such forgings shall be deducted from any one of the running bills or otherwise
17. Vendors shall make their own arrangement for collection of rejected material within 30 days from valve forging stores and shall give authorization letters to their transport carriers for arranging collection of rejected forging from BHEL, Stores Department. Necessary recoveries for the above rejected forging will be made by BHEL's accounts department after returning the same.

Test & Certificates

18. For Indian vendors, forging shops that are not certified as "Well Known Forge" shall make their own arrangements for inspection for IBR where ever applicable as per TDC / drawings / PO.
19. For import vendors, Original mill test certificate issued by manufacturer's inspection authority should be countersigned by inspection agency ie authorized inspecting authorities approved by IBR. The name of inspecting authorities approved by IBR is enclosed.
20. Import vendors have to submit FORM -III-F & FORM IV-A - Test Certificate (Certificate of Manufacturer and test of Boiler mountings-Regulation -269) to meet Indian Boiler Regulations.
21. All the forgings shall be subjected to chemical, Mechanical Properties tests etc. as per TDC and the relevant test certificate shall accompany the consignment. All forgings shall also be subjected to tensile & impact test etc. as called for in the TDC and the testing charges shall be borne by the vendor. All the forgings shall be subjected to thorough quality checks at vendor's works by vendor's inspectors. BHEL may arrange third party / BHEL inspection at forging place itself as and when necessary with prior intimation to the vendor.
22. Separate charges shall not be paid for Third Party inspection, Test bar / Test Specimen and Test certificate supplied by vendors. Test bar / Test Specimen (Integral test Specimen) for Tensile and Impact test for audit check shall be supplied by vendors free of cost whenever required by BHEL.
23. **Guarantee clause:** The vendor shall give a guarantee of eighteen months for undertaking repair of any defect observed during machining or testing or during service. In case the defect is beyond repair the forging shall be returned to the supplier and cost shall be recovered from their pending bills.

ANNEXURE D

24. **Risk purchase clause:** BHEL shall be entitled to terminate the contract and to purchase elsewhere at the risk and cost of the supplier, either the whole of the goods or any part thereof which the supplier has failed to deliver or dispatch within the time stipulated as aforesaid. The supplier shall be liable for the losses, which BHEL may sustain by way of such risk purchase in addition to aforesaid penalty for delayed delivery
25. **Disputes:** In the event of any dispute and/or difference arising between the Vendor and BHEL as to interpretation and/or execution of the contract and/or the respective rights and liabilities of the parties, such disputes and/or differences shall be referred to the sole arbitrator nominated by BHEL. The provisions of the Indian Arbitration Act and the rules there under shall apply to such arbitration. The award passed by the arbitrator shall be final and conclusively binding on all the parties
26. **Jurisdiction:** The court of the place from where the purchase order is issued during the contractual period shall alone have jurisdiction to decide any dispute arising out of or in connection with the purchase order
27. In addition to all the above conditions, BHEL standard terms and conditions given as a separate Annexure also be applicable for all orders to the extent they are not superseded by above conditions.

(TO BE STAMPED IN ACCORDANCE WITH STAMP ACT AND THE EXPIRY DATE OF BG MUST BE AFTER 60 DAYS FROM THE DATE OF COMPLETION OF WARRANTY PERIOD)

PERFORMANCE BANK GUARANTEE

In accordance of M/s. Bharat Heavy Electricals Limited (A Government of India undertaking, a company incorporated under the Companies Act 1956 having its Registered Office at "BHEL House", SIRI Fort, New Delhi 110 049) through its High Pressure Boiler Plant Division located at Tiruverumbur, Tiruchirapalli- 620 014 (hereinafter called „the Company’) having entered into a contract withhereinafter called „ the said contractor ,, which term includes „suppliers’ for the purpose of this Bond and under the terms and conditions of the contract No..... Dt Between BHEL, Trichy and as per the contract, the contractor / supplier is to furnish a performance Bank guarantee for Rs. for the due performance of the equipment to be supplied under the above referred contract and for the fulfillment of all the terms and conditions of the contract, We(indicate the name of the bank) (herein after referred to as the bank) at the request of (Contractor(s)) do here by undertake to pay the company an amount not exceeding Rs.....against any loss or damage caused to or suffered or would be caused to or suffered by the company by reason of any breach by the said contractor (s) of any of the terms and conditions contained in the said agreement.

2. We(indicate the name of the bank with full address), do hereby undertake to pay the amounts due and payable under this guarantee without any demur, merely on a demand from the Company stating that the amount claimed is due by way of loss or damage caused to or would be caused to or suffered by the Company by reason of breach by the said Contractor(s) of any of the terms and conditions contained in the said Agreement or by the reason of the contractor(s) „failure to perform’ the said agreement. Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs. _____.

3. We undertake to pay unconditionally to the Company any money so demanded notwithstanding any dispute(s) raised by the Contractor in any suit, or proceedings pending before any Court or Tribunal or Arbitration or before any other authority relating thereto our liability under this present being absolute and unequivocal. The payment under this guarantee would not wait till the disputes have been decided by any Court or Tribunal or in the arbitration proceedings or by any other authority. The payment so made by us under this Bond shall be a valid discharge of liability for payment thereunder and the Contractor(s) shall have no claim against us for making such payment.

4. We.....(indicate the name of Bank), further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said Agreement and that it shall continue to be enforceable till all the dues of the Company under or by virtue of the said Agreement have been fully paid and its claims satisfied or discharged or till _____ Office / Department/ Division of the Company certifies that the terms and conditions of the said Agreement have been fully and properly carried out by the said Contractor(s) and accordingly discharges this guarantee.

5. (I) Unless a demand or claim under this guarantee is made on us in writing on or before the _____ we shall be discharged from all the liability under this guarantee thereafter. But where such claim or demand has been preferred by the Company with the Bank before the expiry of the said date, the claim shall be enforceable notwithstanding the fact that the said enforcement is effected after the said date.
- (ii) For the purpose of this clause, any letter making demand on the Bank by M/s. BHEL dispatched by Registered Post with Ack.Due or by Telegram or by any Electronic media addressed to the above mentioned address of the Bank shall be deemed to be the claim / demand in writing referred to above irrespective of the fact as to whether and when the said letter reaches the Bank, as also any letter containing the said demand or claim is lodged with the bank personally.
6. We(indicate the name of Bank), further agree with the company that the Company shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said agreement or to extend time of performance by the said Contractor (s) from time to time or to postpone for any time or from time to time any of the powers exercisable by the Company against the said Contractor(s) and to forbear or enforce any of the terms and conditions relating to the said Agreement and we shall not be relieved from our liability by any reason of any such variation or extension being granted to the said Contractor(s) or for any forbearance, act or omission on the part of the company or any indulgence by the company to the said Contractor(s) or by any such matter or thing whatsoever which under the law relating would, but for this provision, have effect of not so relieving us.
7. This guarantee will not be discharged due to the change in the constitution of the Bank or the Contractor(s).
8. It shall not be necessary for the company to proceed against the contractor before proceeding against the guarantor-bank 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.
9. Any claim or dispute arising under the terms of this document shall only be enforced or settled in the Courts at Tiruchirapalli, Tamilnadu, India.
10. The guarantor hereby declare that it has power to execute this guarantee and the executant has full powers to do so on its behalf under the proper authorities granted to him/them by the guarantor.
11. We (Indicate the name of Bank) lastly undertake not to revoke this guarantee during its currency except with the previous consent of the company in writing.

In witness whereof we (Indicate the name of Bank) have hereunto setout Bank Seal the _____ day _____ month 200
 BANK E-MAIL ID :
 BANK PHONE NO :
 BANK FAX NO :

GENERAL TERMS AND CONDITIONS OF RA

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 ON INTERNET.

- a. For the proposed reverse auction, technically and commercially acceptable bidders only shall be eligible to participate.
- b. 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.
- c. BHEL will inform the vendor in writing in case of reverse auction, the details of Service Provider to enable them to contact & get trained.
- d. Business rules like event date, time, Start price, bid decrement, extensions etc. also will be communicated through service provider for compliance.
- e. Vendors have to fax the Compliance form in the prescribed format (provided by Service provider) before start of Reverse auction. Without this, the vendor will not be eligible to participate in the event.
- f. 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 vendor to enable them to fill-in the price and keep it ready for keying in during the Auction.
- g. Reverse auction will be conducted on scheduled date & time.
- h. At the end of Reverse Auction event, the lowest bidder value will be known on the network.
- i. The lowest bidder has to Fax the duly signed Filled-in prescribed format as provided on case-to-case basis to BHEL through Service provider within 24 hours of Auction without fail.
- j. Any variation between the on-line bid value and the signed document will be considered as sabotaging the tender process and will invite disqualification of vendor to conduct business with BHEL as per prevailing procedure.

TECHNO-COMMERCIAL BID

Enq. SI No	Material Description	Spec.	Material Code	Drawing no	Tender qty	Component weight (kg)	" CFR (Chennai)/ FOR BHEL Trichy" Quoted/Not Quoted **
0010	BODY FORGING 22"-3000SPL	A182 F91 ATTEST	921534420000	3-V-WC33-21831P	10	6470	

PRICED BID

Enq. SI No	Material Description	Spec.	Material Code	Drawing no	Tender qty	Component weight (kg)	Unit Price " CFR (Chennai)/ FOR BHEL Trichy" **
0010	BODY FORGING 22"-3000SPL	A182 F91 ATTEST	921534420000	3-V-WC33-21831P	10	6470	

1/14

All communication should be addressed to the Secretary to the Government of India, Ministry of Industry, by title, NOT by name

Fax : 011-2306 2628

संख्या /No. 20/29/2009 -Boilers
भारत सरकार
वाणिज्य और उद्योग मंत्रालय
(औद्योगिक नीति एवं संवर्धन विभाग)
उद्योग भवन, नई दिल्ली - 110107
GOVERNMENT OF INDIA
MINISTRY OF COMMERCE AND INDUSTRY
(DEPTT. OF INDUSTRIAL POLICY & PROMOTION)
UDYOG BHAWAN, NEW DELHI-110107,
दिनांक/ Dated, the 2nd April, 2012

To

1. All the members of the Central Boilers Board
2. All the Inspecting Authorities

Subject: List of recognised Inspecting/Competent Authorities, Well Known Steel Makers, Foundries/Forgings units, Tube/Pipe Makers, Material Testing Laboratories and Remnant Life Assessment Organizations under Indian Boiler Regulations as on 31st March, 2012.

Sir,

I am to forward herewith a copy each of the list of recognised Inspecting/Competent Authorities, Well Known Steel Makers, Foundries/Forgings units, Tube/Pipe Makers, Material Testing Laboratories and Remnant Life Assessment Organizations under Indian Boiler Regulations, 1950, as on 31st March, 2012 for your reference and record.

Thanking you,

Yours faithfully,


(S. K. Jain)

Development Officer &
Assistant Secretary, Central Boilers Board
Tel.No.011-23063321/3318

Encl: "As above"

Mr. SSK
Mr. RK
2
7/16

2/14

(As on 31/03/2012)

INSPECTING AUTHORITIES

NAME OF THE AUTHORITY

AREA OF OPERATION

1. Director of Boilers, Andhra Pradesh	Andhra Pradesh
2. Chief Inspector of Boilers, Arunachal Pradesh	Arunachal Pradesh
3. Chief Inspector of Boilers Assam	Assam
4. Chief Inspector of Boilers Bihar	Bihar
5. Chief Inspector of Boilers Chhattisgarh	Chhattisgarh
6. Chief Inspector of Boilers, Delhi	N.C.T.D.
7. Chief Inspector of Boilers, Goa.	Goa
8. Director of Boilers, Gujarat.	Gujarat, Daman & Diu and Dadra & Nagar Haveli
9. Chief Inspector of Boilers, Haryana.	Haryana & Chandigarh
10. Chief Inspector of Boilers, Himachal Pradesh.	Himachal Pradesh
11. Chief Inspector of Boilers,, Jharkhand.	Jharkhand
12. Director of Boilers, Karnataka.	Karnataka
13. Director of Boilers, Kerala.	Kerala
14. Director of Boilers, Madhya Pradesh.	Madhya Pradesh
15. Director of Boilers, Maharashtra.	Maharashtra
16. Chief Inspector of Boilers, Meghalaya	Meghalaya
17. Chief Inspector of Boilers, Manipur	Manipur

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- | | |
|---|---|
| 18. Chief Inspector of Boilers,
Mizoram | Mizoram |
| 19. Chief Inspector of Boilers,
Nagaland | Nagaland |
| 20. Director of Boilers,
Orissa | Orissa |
| 21. Director of Boilers,
Punjab | Punjab |
| 22. Chief Inspector of Boilers,
Labour Department,
Government of Puducherry,
Puducherry | Puducherry |
| 23. Chief Inspector of Boilers,
Rajasthan. | Rajasthan |
| 24. Director of Boilers
Tamil Nadu | Tamil Nadu |
| 25. Chief Inspector of Boilers,
Tripura | Tripura |
| 26. Director of Boilers,
Uttar Pradesh | Uttar Pradesh |
| 27. Deputy Director of Factories & Boilers
Uttarakhand | Uttarakhand |
| 28. Chief Inspector of Boilers,
West Bengal | West Bengal |
| 29. M/s. Lloyd's Register Asia
63-64, Kalpataru Square, 6 th Floor,
Kondivita Lane, Off. Andheri-Kurla Road,
Mumbai-400 059 | Tamilnadu, Maharashtra
Gujarat, Haryana & Punjab |
| 30. M/s. TUV Nord Systems GmbH Co.KG.
Langemarckstr 20
451141 Essen
GERMANY. | Europe. Brazil, China, Korea
and Thailand |
| 31. M/s RSA
(Formerly Royal & Sun Alliance plc)
17 York Street,
Manchester, M2 3RS,
United Kingdom | Europe |

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32. M/s. Japan Inspection Company Limited,
No.10-7, 1-Chome, hatchobori, Chou-ku,
Tokyo, 104-0032, Japan All countries except India
33. M/s. S.G.S. Korea Company Limited,
Industrial Division,
647-2, Sinpyeong-dong,
Saha-gu, Busan,
KOREA (604-030). Korea & Japan
34. M/s Bureau Veritas,
67-71, Boulevard du Chateau,
92200 Neuilly-sur-Seine,
FRANCE All countries except India.
35. M/s. Lloyds Register Verification Ltd.,
71, Fenchurch Street,
London EC 3M, U.K. All countries except India.
36. M/s. Velosi Certification Bureau Ltd.,
Unit 1 Woodside Business Park,
Whitley Wood Lane,
Reading, Berkshire, RG2 8LW
United Kingdom Europe, Middle East
Countries, China, Malaysia
Singapore & USA
37. M/s TUV Rheinland Brandenburg P falz e.V.,
Am Grauen stein, D-51105 Klon,
Germany Europe, Japan, China &
Korea
38. Technischer Uberwachungs-Verein Saarland e.V.,
Am Tuev 1,
66280 Sulzbach,
Germany Europe
39. M/s OOO "TekhnoLogicheskieEnergositime"
1. Kalinia St. Belgorod, 308001
Russia Russia, China, Ukraine, USA
& Germany
40. M/s Engineering Bureau Franke
International,
55, Amurskaya St.,
Dnepropetrovsk
49108, Ukraine Ukraine, Russia, Belarus, China,
Uzbekistan, Poland, Belgium, Romania,
& Czech Republic
41. M/s. ARISE Boiler Inspection &
Insurance Company Risk Retention Group,
Grand Bay 1, 7000 South Edgerton Road,
Suite 100, Breeksville,
OH 44141 USA USA & Canada
42. Tata Projects Limited,
"Mithona Towers-I", 1-7-80 to 87,
Opp. Wesley Co-Ed. Jr. College,
Prenderghast Road,
Secunderabad- 500 003, (India) All countries except India

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43. M/s TUV SUD Industrie Service GmbH, All countries except India
Wstendstr. 199,
80686 Munich,
Germany
44. M/s Germanischer Lloyd Industrial Services GmbH, All countries except India
Steinhoeft 9,
20459 Hamburg,
Germany
45. M/s. TUV Thuringen e.V., Europe
Business Division Steam and Pressure Technology,
Melchendorfer Str. 64,
99096 Erfurt,
Germany
46. M/s. SGS-CSTC Standards Technical Services Co. Ltd. China
9th Building, No. 69,
KangQiao Industrial Park, Block 1159,
KangQiao East Road, Pudong District,
Shanghai-201 319
China
47. M/s Moody International Limited, All countries except India
Hayworthe House, Market Place,
Haywards Heath, West Sussex,
United Kingdom

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(As on 31/03/2012)

COMPETENT AUTHORITIES

NAME OF THE AUTHORITY

1. Director of Boilers,
Andhra Pradesh
2. Chief Inspector of Boilers,
Arunachal Pradesh
3. Chief Inspector of Boilers
Assam
4. Chief Inspector of Boilers
Bihar.
5. Chief Inspector of Boilers
Chhattisgarh
6. Chief Inspector of Boilers,
Delhi.
7. Chief Inspector of Boilers,
Goa.
8. Director of Boilers,
Gujarat.
9. Chief Inspector of Boilers,
Haryana.
10. Chief Inspector of Boilers,
Himachal Pradesh.
11. Chief Inspector of Boilers,,
Jharkhand.
12. Director of Boilers,
Karnataka.
13. Director of Boilers,
Kerala.
14. Director of Boilers,
Madhya Pradesh.
15. Director of Boilers,
Maharashtra.
16. Chief Inspector of Boilers,
Meghalaya
17. Chief Inspector of Boilers,
Manipur

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18. Chief Inspector of Boilers,
Mizoram
19. Chief Inspector of Boilers,
Nagaland
20. Director of Boilers,
Orissa
21. Director of Boilers,
Punjab
22. Chief Inspector of Boilers,
Labour Department,
Government of Puducherry,
Puducherry
23. Chief Inspector of Boilers,
Rajasthan.
24. Director of Boilers
Tamil Nadu
25. Chief Inspector of Boilers,
Tripura
26. Director of Boilers,
Uttar Pradesh
27. Deputy Director of Factories & Boilers
Uttarakhand
28. Chief Inspector of Boilers,
West Bengal
29. M/s. National Test House,
Plot No.F-10, M.I.D.C.,
Marol, Andheri (E),
MUMBAI - 400 093.
30. Welding Research Institute,
Bharat Heavy Electricals limited,
Tiruchirapalli - 620014.
31. M/s RSA Europe
(Formerly Royal & Sun Alliance plc)
17 York Street,
Manchester, M2 3RS,
United Kingdom
32. M/s. TUV Nord Systems GmbH Co.KG. Europe, Brazil, China, Korea
and Thailand
Langemarckstr 20
451141 Essen
GERMANY.

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33. M/s. Hartford Steam Boiler Inspection and Insurance Company of Connecticut,
Code Services, One State Street,
P.P.Box 299, Hartford, CT 06141-0299
U.S.A.
34. M/s. Japan Inspection Company Limited,
No.10-7, 1-Chome, hatchobori, Chou-ku,
Tokyo, 104-0032, Japan
35. M/s. S.G.S. Korea Company Limited, Korea and Japan
Industrial Division,
647-2, Sinpyeong-dong,
Saha-gu, Busan,
KOREA (604-030).
36. M/s Bureau Veritas,
67-71, Boulevard du Chateau,
92200 Neuilly-sur-Seine,
FRANCE
37. M/s. Lloyds Register Verification Limited, All countries except India
71, Fenchurch Street,
London EC3M 4BS,
UNITED KINGDOM
38. M/s. Velosi Certification Bureau Ltd., Europe, Middle East
Countries, China, Malaysia
& USA
Unit 1 Woodside Business Park,
Whitley Wood Lane,
Reading, Berkshire, RG2 8LW
United Kingdom
39. Technischer Uberwachungs-Verein Saarland e.V., Europe
Am Tuev 1,
66280 Sulzbach,
Germany
40. M/s. OOO "TekhnoLogicheskieEnergostime", Russia, China, Ukraine, USA
& Germany
1, Kalinia St. Belgorod, 308001,
Russia.
41. M/s. National Test House,
11/1, Judges Court Road
Alipore, Calcutta - 700027
42. M/s. ARISE Boiler Inspection & Insurance Company USA & Canada
Risk Retention Group,
Grand Bay 1, 7000 South Edgerton Road,
Suite 100, Brecksville,
OH 44141 USA
43. M/s TUV Rheinland Brandenburg Pfalz e.V.,
Am Grauen Stein, D-51105 Klon,
Germany

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44. M/s National Test House,
Kamla Nehru Nagar,
Ghaziabad- 201 002
Uttar Pradesh

45. M/s TUV SUD Industrie Service GmbH, All countries except India
Wstendstr. 199,
80686 Munich,
Germany

46. M/s Germanischer Lloyd Industrial Services GmbH, All countries except India
Steinhoeft 9,
20459 Hamburg,
Germany

47. M/s. TUV Thuringen e.V., Europe
Business Division Steam and Pressure Technology,
Melchendorfer Str. 64,
99096 Erfurt,
Germany

48. M/s. SGS-CSTC Standards Technical Services Co. Ltd. China
9th Building, No. 69,
KangQiao Industrial Park, Block 1159,
KangQiao East Road, Pudong District,
Shanghai-201 319
China

49. M/s Moody International Limited, All countries except India
Hayworthe House, Market Place,
Haywards Heath, West Sussex,
United Kingdom

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(As on 31/032012)

WELL-KNOWN FORGES

1. M/s. M.M. Forgings Limited, Plant I,
Singampunari-630502.
Singampunari District,
TAMILNADU.
2. M/s. Sadhu Forgings (P) Ltd.,
Plot No.140, Sector 24,
FARIDABAD-121 005
3. M/s. Unity Forge Limited,
D-10, Maraimalai Nagar-603 209.
Kancheepuram Distt
TAMIL NADU.
4. M/s. Vishnu Forge Industries Limited,
C-01/C-02 and A-24,
HMT Industrial Estate,
BANGALORE - 560031.
5. M/s. LGB Forge Limited,
(Formerly: M/s L.G. Balakrishnan & Bros.),
Plot No. 80 & 81, 5th Mile K.R.S. Road,
Metagalli Post,
MYSORE-570 016.
6. M/s Chaudhary & Sons(Forgings) Pvt. Limited,
Plot No. 4, Lal Kuan,
G. T. Road ,
Ghaziabad- 201 009
Uttar Pradesh
7. M/s. C.D. Engineering Company,
C-199, Bulandshahr Road,
Industrial Estate,
GHAZIABAD-201 009
8. M/s. Steel & Industrial Forgings Limited,
Athani P.O. Mulankunnathukavu,
Thrissur Distt. Pin-680 771.
Kerala
9. M/s. MM Forgings Limited Plant 2,
Erasanayakanpatti,
Fathimanagar Post,
Viralimalai,
Pudukottai Distt.-621 316.
TAMILNADU
10. M/s Echjay Industries Private Limited,
Echjay Steel Division,
Lalpari Lake Road,
RAJKOT - 360 003.

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11. M/s Ghaziabad Ispat Udyog Pvt. Ltd.,
C-89, Industrial Area,
Bulandshar Road, GHAZIABAD - 201 001.
12. M/s. CHW Forge Pvt. Limited,
Village Achheja, P.O. Dujana, G.T. Road,
Greater NOIDA-203207,
Distt. Gautam Budh Nagar,
UTTAR PRADESH
13. M/s Bharat Heavy Electricals Limited,
Heavy Electrical Equipment Plant,
Ranipur
HARDWAR-249 403
14. M/s ACME Forgings Pvt. Ltd.,
Rajkot-Gondal Highway,
P.O. T.B. Hospital,
RAJKOT-360002.
15. M/s Vikrant Forge Ltd.,
Maity Para,
Delhi Road, P.O. Dunkuni- 711 224,
Distt. Hoogly,
West Bengal.
16. M/s Vinir Engineering Pvt. Ltd.,
102-104, Bammasandra Industrial Area,
Bangalore - 560 099.
17. M/s. CD Industries,
Plot No.3, South of G.T. Road,
Industrial Area, Bulandshahr Road,
GHAZIABAD - 201 001.
18. M/s Hi-Tech Forgings (Bangalore) Pvt. Ltd.,
V-1(A), 3rd Cross,
Behind B-167/B-168, Peenya 1st Stage,
Peenya Industrial area,
Bangalore-560058.
19. M/s. The Punjab Steel Works,
B-38, Mayapuri Industrial Area-Phase I,
New Delhi-110064.
20. M/s. Kissan Steels (P) Ltd.,
B-12, Industrial Area No. 1,
Bulandshahr Road, Ghaziabad
U.P. - 201001.
21. M/s. Thillai Engineering Works,
161, SIDCO Industrial Estate,
Ambattur,
Chennai - 600 098.

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22. M/s Anandmayee Forgings Pvt. Ltd.,
5A, Industrial Area,
Site-4, Sahibabad,
Distt. Ghaziabad – 201 010 (U.P.).
23. M/s. Ommi Forge Private Limited,
No.2, Visveswaraiyah Industrial Area,
BANGALORE – 560 048.
24. M/s AMW-AGM Forgings Pvt. Ltd.,
(Formerly: M/s MGM Forgings Pvt. Ltd)
Plant II, 82-84, 5th Mile, Metagalli Post,
Mysore - 570016.
25. M/s. Fivebros Forgings Pvt. Ltd.,
145-A, G.I.D.C. Industrial Estate,
Ankleshwar – 393 002
Gujarat.
26. M/s Bharat Heavy Electricals Limited,
Central Foundry Forge Plant,
Ranipur, Haridwar-249 403
Uttarakhand
- 27 M/s Alka Forgings,
C-20, Bulandshar Road Industrial Area,
Ghaziabad
Uttar Pradesh
- 28 M/s Hindon Forge (P) Lilited,
C-173, Bulandshahar Road Industrial Area,
Ghaziabad-201 001
Uttar Pradesh
29. M/s Metal Forgings Private Limited,
B 1, Mayapuri Industrial Area Phase I
New Delhi- 110064
- 30 M/s R.D.Forge,
(A Unit of R. D. Chemicals Pvt. Ltd.)
C-114, Bulandshar Road Industrial Area,
Ghaziabad- 201 009
Uttar Pradesh
31. M/s Lal Metal Forge Limited,
A-7/1/13, Electro Steel Casting Compound,
South Side of G. T. Road Industrial Area ,
Ghaziabad- 201 009
Uttar Pradesh
32. M/s Good Luck Engineering Co.,
Khasra No. 2839,
Gram Dhoom Manikpur,
G.T.Road, Dadri
Distt. Dautam Budh Nagar (U.P.)

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33. **M/s Bharat Heavy Electricals Limited,
Ramachandrapuram,
Hyderabad-502 031
Andhra Pradesh**

34. **M/s Utsah Engineering Private Limited,
Khasra No. 605 to 612,615 & 618
Village-Khera, Dholana Road
Pilkhuwa, Distt. Ghaziabad
Uttar Pradesh**

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(As on 31/3/2012)

WELL-KNOWN MATERIAL TESTING LABORATORIES

1. M/s. R.K. Inspection & Testing Services,
C-196/2, Mayapuri, Phase-II,
NEW DELHI-110064.
2. M/s National Test House,
11/1, Judges Court Road,
Alipore,
Kolkata-700 027
3. M/s National Test House,
Plot No. F-10, MIDC,
Marol, Andheri (E),
Mumbai-400 093
4. M/s IRC Engineering Services India Pvt. Ltd.,
A-53, Sector 63,
Noida-201 301
5. M/s Spectro Analytical Labs Limited,
E-41, Okhla Industrial Area,
Phase-II,
New Delhi-110 020
6. M/s National Test House,
Kamla Nehru Nagar,
Ghaziabad-201 002
Uttar Pradesh

LIST OF CONSORTIUM BANKS

S no.	BANKS
1	STATE BANK OF INDIA
2	PUNJAB NATIONAL BANK
3	HDFC BANK
4	SYNDICATE BANK
5	CANARA BANK
6	INDIAN BANK
7	ST. BANK OF HYDERABAD
8	ICICI BANK
9	STANDARD CHARTERED BANK
10	UCO BANK
11	KOTAK MAHINDRA
12	ORIENTAL BANK OF COMMERCE
13	STATE BANK OF TRAVANCORE
14	CENTRAL BANK
15	IDBI BANK
16	FEDERAL BANK
17	HSBC LTD
18	DEUTSCHE BANK
19	CORPORATION BANK
20	CITI BANK
21	BANK OF BARODA
22	ABN AMRO BANK
23	UNITED BANK OF INDIA
24	VIJAYA BANK
25	UNION BANK OF INDIA
26	PUNJAB & SIND BANK
27	ANDHRA BANK
28	BANK OF INDIA
29	AXIS BANK

FORM III-F

Certificate of Manufacture and test of castings and forgings
(Regulations 73 to 80 or 81 to 85 as applicable)

Certificate No.

Name of part.....

Maker's name and address.....
.....

Main dimensions.....

Drawing Nos.

Identification Marks.....

Chemical composition.....

Physical test results.....

- (i) Tensile strength.....
- (ii) Transverse bend test.....
- (iii) Elongation.....

Certified that the particulars entered herein by us are correct. This satisfies the requirements of Indian Boiler Regulations, 1950.

Maker's Representative
(Name and signature)

MONOGRAM/
SEAL

MAKERS _____

FORM IV-A
CERTIFICATE OF MANUFACTURE AND RESULTS OF TESTS
IN LIEU OF FORM IV
[Regulation 4 (c) (iv)]

It is hereby certified that original steel Maker's certificate in Form IV contain following information in respect of the material used in the manufacture of boiler or parts thereof bearing Makers Number: Sample and according to Drawing Number:

Part of Boiler	Quantity	Cast/Heat No.	Plate No.	Steel making Process	Specifi-cation	Deoxidation

Name of Steel Maker/ Part Maker	Test piece No.	Certificate No. & Date	Length/Breadth/ O. D. Thickness	Heat Treatment

% Chemical Analysis					
Cr	Mn	P	S	Si	Other alloying elements

Y.S. kg/mm ²	UTS (kg/mm ²)	Mechanical Properties		Bend Test	Remarks
		Elongation % GL			

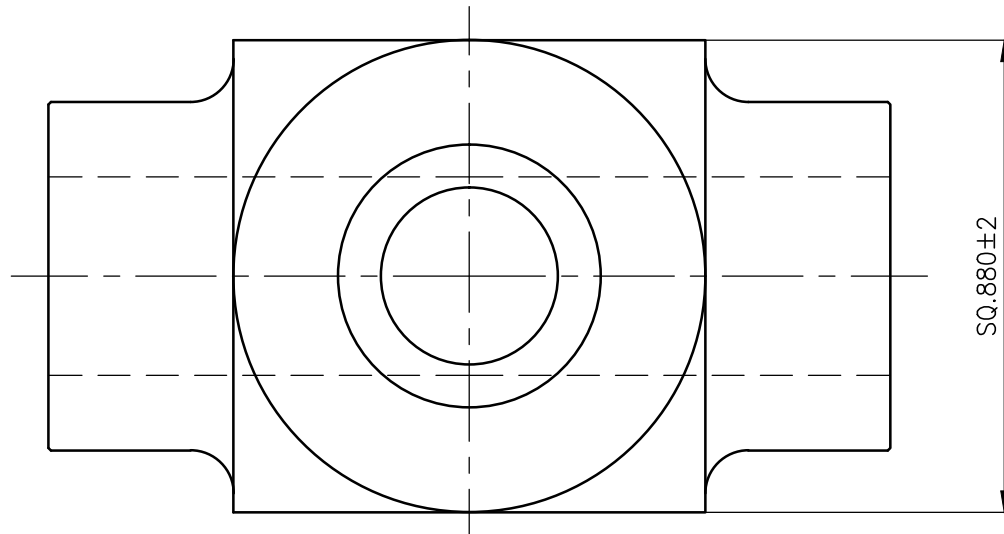
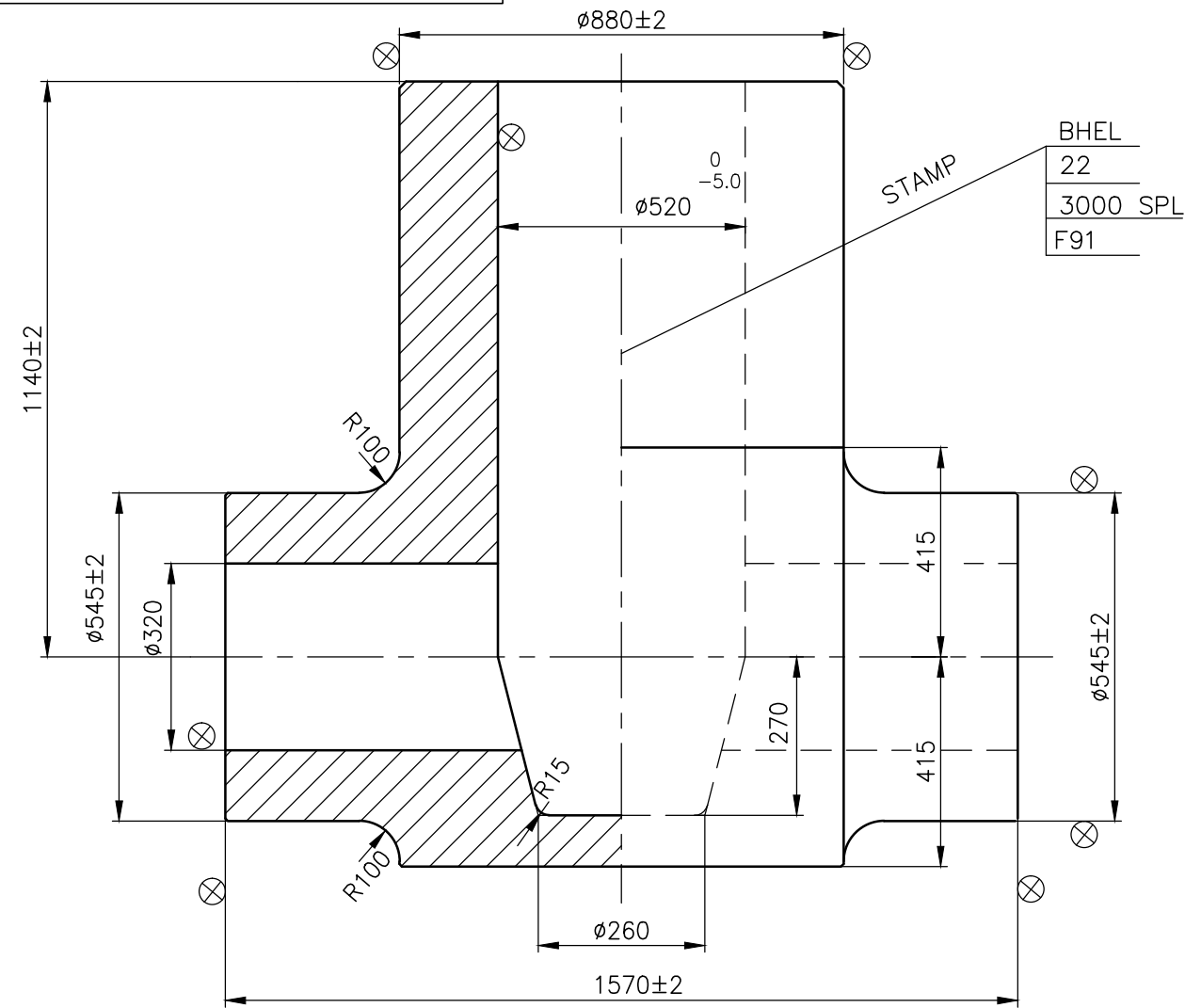
Official Seal

INSPECTING AUTHORITY

Note: Where the steel is manufactured by a maker, who is not recognised as a Well-known Steel Maker, the certificate of test shall be signed by the Inspecting Authority."

DRAWING NO. 3-V-WC33-21831P

12.5 /



NOTES:-

- 01. CHAMFER THE SHARP CORNERS TO 5x45°
- 02. ⊗ INDICATES THE SURFACES WHICH ARE TO BE MACHINED FURTHER.
- 03. FORGING SHALL BE COMPLY WITH REQUIREMENTS OF THE LATEST APPLICABLE QUALITY WORK INSTRUCTIONS.

		921534420000	SA182 F91, ATTEST	NT			6470		
NO OFF	DESCRIPTION	MATL CODE	MATL SPECN	HEAT TREATMENT	SCRAP SORT	NET WT (kg)	GROSS WT (kg)	DRAWING No	ITEM No

TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT

<p>365-121</p>	<p>BHARAT HEAVY ELECTRICALS LTD., UNIT: HIGH PRESSURE BOILER PLANT. TIRUCHIRAPALLI-620014.</p>		DRN	V.BAIRAVAN	SIGN	DATE	NO.OF VAR.
	CHD	K.RAJASEKARAN		04.08.12			
	APPD	M.RAJAKUMAR		04.08.12			

REV	DATE	ALTERED
		CHD & APPD

CAUTION: The information on this document is the property of BHARAT HEAVY ELECTRICALS LTD. It must not be used directly or indirectly in any way detrimental to the interest of the company.

DEPT	VL	SCALE	WEIGHT (KG).	REFERENCE INFORMATION	NO. OF ITEMS
CODE	320	N T S			
TITLE	BODY		CARD CODE	DRAWING NO.	REV
FORGING	22"/3000 CLASS SPL		U 01	3-V-WC33-21831P	

Product: Carbon, Alloy & Stainless Steel Forgings (Boilers And Valves)

Document No.: TDC:0:404

Rev. No.: 09

Effective date: 23/02/2010

Page 1 of 2

Revision Record: Rev:07:AISI 410 forgings added consequent to material rationalization by Engg.Valves.Rev:08:Cl.2.0 modified for clarity. Cl.5.0 modified to include impact test for CS QCNRV & CRHNRV Valves.Cl.6.0 modified for clarity in UT.Rev:09;New materials F23,F92 added in Cl:1.0,Cl:2.0,Cl:4.0 to Cl:6.0.CE marking certification clarity included in Cl:10.0 .

1.0 MATERIAL:

Specification: ASME{Latest on date of Purchase Order (PO)}:

(ASTM also applicable for non pressure parts / Valves)

CARBON STEEL:(CS) : SA 105, SA 350 LF 2

ALLOY STEEL: (AS) : SA 182 F6a Class 3, F12 Class 2, F22 Class 3,

SA 182 F23 (Code Case:2179),SA 182 F91 & F92 (Code Case:2199)

STAINLESS STEEL: (SS) : SA 182 Gr. F 304, 304L, 316, 316L, 316H, 321, 321H, 347 & 347H

AISI 410 for TOA Gland and bushings.

Additional Requirement: As listed below (supplementary to Specification)

Size and Qty.: As per Purchase order & Drawing.

2.0 CHEMICAL COMPOSITION & PROCESS:

- Melting: fully killed. Product analysis per heat:

CS: C<=0.25%. AS: SA182 P23: Si:0.25-0.50% & Cu:0.25 max .

SA182 P92: Si:0.10-0.50%; Ni:0.30max & Cu:0.25max

- Steel for forging for IBR items to be inspected at Mill & test certificate countersigned by IBR approved Authority, if the mill is not approved under IBR as well known steel maker.
- Steel for IBR items of SA 182 F12, F22 from indigenous mills to be from following manufacturers approved under IBR for creep resistant steels: (I) Alloy Steel Plant, Durgapur,(ii) Tata Iron & Steel Company, Jamshedpur & (iii) Mahindra UGINE Steel Company, Bombay.(iv) M/S Mukund Limited Karnataka, (v) M/S Kalyani Steels Karnataka.(vi) Remi Metals Gujarat Limited. Gujarat (vii) ISMT Pune.Steel for IBR items of SS and AS other than above shall be imported.
- Forging: to ensure uniformity of structure & strength with reduction ratio in area:1:4min.from ingot to final forging, close to final size & shape. Flow lines to be parallel to axis of openings.
- Blooms / Billets used for forgings (Dia>= 50mm) shall be UT tested. For Acceptance Norm refer Cl.6.0. For finished bars this can be done at final stage.

3.0 DIMENSIONS AND TOLERANCES:

Tolerances as per Drawing. Untoleranced dimensions for valve components: VL:STDC:023(latest).

4.0 HEAT TREATMENT(HT):

CS: SA 105: Normalised, SA 350 LF 2: Normalised at 880-900 °C & Tempered at 620-640 °C

AS: Normalised and Tempered. For SA182 F91, F92, F23 :Normalizing Temperature: 1050-1080°C

Tempering Temperature: 750°C-780°C. Soaking:1 Hour minimum. Still Air Cooling

AISI 410:Supply in Quenched &Tempered condition as below. Quenching at 955-1010°C in air or water or oil or Polymer.Soaking 30 mts/inch maximum thickness. Tempering at 663°C.min.Soaking :60 mts/inch maximum thickness and Air cool.

5.0 MECHANICAL TESTS:

- Extent of test: for each size/heat/HT batch from sample product or identical test coupon.
- Additional requirements for SA182 F91,F92 and F23:
F91: Yield Strength:(0.2% offset):450MPa min. Tensile Strength: Min:630 MPa,Max:850MPa
Hardness(HB):Min:191.Max:250
F92- Tensile Strength:Min:655 MPa, Max:850 MPa. Hardness(HB):Min:196.Max:250
F23- Tensile Strength: Min:510 MPa, Max:730 MPa. Hardness(HB):Min:150.Max:220
- AISI 410:Hardness 197-235 BHN. No other mechanical test required.
- Additional requirements of tests: (Other than AISI 410 Only.)
- Bend test: Carbon Steel:1 Sample 19mm.Thick(t) x 25.4mm width to be bent 180 deg. around mandrel of radius 6.35 mm. Alloy Steel: Sample 25.4mm width to be bent 180 deg. Around mandrel of radius =1.5 x t.
- Impact test for QCNR Valves & CRHNR Valves: CS and AS: 1 / HT batch.as per ASTM A 370, 2mm. Charpy-U notch,at Room temperature.Acceptance: Avg of 3specimens:36J,Single Min: 24J.
- CE-marking items: Charpy- V impact test at 20 deg.C as per ASTM A 370 for, Acceptance : Avg : 40joules, Min. single value: 27 joules.

6.0 NON DESTRUCTIVE TEST:

- Extent of test: for each product. Stage of test : After heat treatment.
- UT: As per SA 388 Bars of dia. = / > 50mm, Body & yoke of special class valves, all forgings & bars of SA 182 F91, F92, F23. Acceptance: ASME Sec.VIII Div. 2. Cl:3.3.4
- MPI : CS, AS: 100%, As per ASTM E 709, Linear indications like cracks, folds & other injurious defects are unacceptable.
- LPI: for SS: 100%: ASTM E165, No linear indications acceptable.

Product: **Carbon, Alloy & Stainless Steel Forgings (Boilers And Valves)**Document No.: **TDC:0:404**Rev. No.: **09**Effective date: **23/02/2010**Page **2 of 2****7.0 WORKMANSHIP AND FINISH:**

Items to be proof machined as per drawing or shot blasted for CS/AS, Pickled & passivated as per ASTM A 380 for SS, & be free from scales & defects like laps, seams, folds, cracks, etc. Machined items (except SS) to be coated with a layer of transparent rust preventive before despatch.

8.0 REPAIR:

Repairs by fusion welding are prohibited. Surface defects can be removed by mechanical means and defective areas smoothly dressed up with the adjacent surface. Minimum thickness after repair to meet drawing / Specification.

9.0 MARKING AND PACKING:

Details of stamping on each item with low stress stamps: Heat number, Specification & grade, Maker's emblem/code & Inspection Authority's seal. Forgings to be properly packed and despatched to avoid damage during transit.

10.0 INSPECTION AND CERTIFICATION:

(A) The inspection and tests to be witnessed by an IBR approved inspecting agency, in case the Forge shop is not recognised as a "Well known Forger" under IBR. Test certificate countersigned by applicable inspection agency for each product with following details shall accompany the product (in format approved by Boiler inspectorate for IBR items).

1. Purchase Order No.(BHEL), TDC No. & Test certificate number
2. Specification, Grade with applicable year of code, Heat Number, Drawing No., Quantity & Size
3. Melting & forging process, Chemistry including incidental elements - Heat wise.
4. Heat treatment details of the material and test bars.
5. Mechanical test results, NDE test results with reference & acceptance standard.
6. Repair details if any, Certified copy of TC for starting material.

(B) For CE-marking items the TCs with details specified above shall be submitted as per EN-10204 (latest)

1. For pressure parts test certificates of type 3.1 or 3.2 is acceptable.
Type 3.1: Suppliers shall have ISO 9001 certification certified by Notified Body recognized by European community and test certificate certified by suppliers authorized inspection representative.
Type 3.2 – Components inspected and test certificates certified by Notified Body recognized by European community.
2. For non pressure parts test certificates of type 2.2 is acceptable.
Type 2.2 – suppliers test certificates signed by suppliers authorized inspection representative with test results as required by TDC.

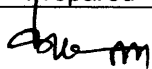
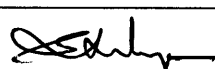
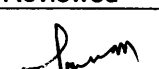
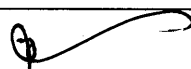
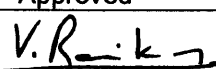
11.0 AUDIT CHECKS AT BHEL

BHEL reserves the right to carry out audit checks for chemistry, HT condition, mechanical test and NDT on representative test bars or job. Supplies found defective during check or subsequent processing at BHEL are liable for rejection.

12.0 END USE

Valve bodies, bonnets, discs, socket ends, body guides etc., Pressure part fittings in boilers & low temperature service like discs, socket weld tees, ells, weld neck flanges & stubs (except drum nozzles) meeting IBR, ASME Section I, ASME B16.34 and API.

Non pressure part items in boilers: For these, requirements on starting material, bend test, and inspection by IBR are not required.

Prepared	Reviewed			Approved
 V.Kalyanaraman	 S.Selvarajan	 T.Jayaraman	 P.Loganathan	 V.Ravi kumar



BHARAT HEAVY ELECTRICALS LIMITED
Tiruchirappalli
Materials Management – Valves

EN-VAL-OT-1004

ENQUIRY INSTRUCTIONS – FOR BODY FORGING

1. The rates shall be quoted only on the basis of unit price **for Proof machined Body Forgings** as per Annexure – A, conforming to the Technical delivery condition/drawings and special terms and conditions.

The quoted rate shall be inclusive of pattern and development cost and all other tender requirements.

The unit price shall be inclusive of all charges and quoted on “**CFR Chennai Sea Port**” or “**FOR - Trichy**” basis in case of import and indigenous vendors respectively.

List of customers to whom same or similar forgings have been supplied along with performance certificates to be enclosed.

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. Offers are invited in two parts.

Part A:

- Techno commercial bid covering technical conditions, delivery conditions, and all commercial conditions except price and a filled up copy of Annexure–G without price, indicating “QUOTED/NOT-QUOTED” for the Bill of Quantities. Further vendor to furnish list of manufacturing and inspection facilities along with the company product catalogues.
- Please submit a separate envelope and indicate the enquiry number with “A” for techno commercial bid

Part B:

- Priced bid covering only price as per Annexure - H
- Please submit a separate envelope and indicate the enquiry number with “B” for priced bid.

The Bidder 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 A- Technical and commercial bid”, indicating Enquiry No., Due Date, Address and Reference of the Bidder.

Envelope II: This sealed envelope should contain price details. This envelope should be clearly marked “Part B - Priced bid” indicating Enquiry No., Due Date, address and Reference of the Bidder. Both the envelopes (Part A & B) shall be put in one cover, duly sealed, super scribing as Part A and Part B of Enquiry No., due date of opening and the address and reference of the Bidder.

The above offer should reach the following office address on or before the due date 11.12.2012 by 14:30 hours.(IST). Late offers will not be considered.

SM/PURCHASE/VALVES
Building – 24, 3rd Floor.
BHARAT HEAVY ELECTRICALS LIMITED
TIRUCHIRAPALLI-620 014
TAMILNADU, INDIA.

3. Opening of Tender: The Part A -Technical & commercial bid alone would be opened on the Tender opening date 11.12.2012 by 14:30hrs (IST).
4. Techno commercial bid will be opened first, after scrutinizing the technical bid, Priced bids of technically and commercially suitable vendors will be opened with prior intimation.
5. BHEL reserves the right to finalise the tender either through price bid open or through Reverse Auction route. General terms and conditions of Reverse auction is enclosed vide Annexure-F for reference.
6. The rates shall be quoted separately for each item in the format as given in the Annexure-H.
7. The forge shops bidding for this tender, should comply with our Technical Delivery Conditions- **TDC 404/09** and requirements as per the annexure to TDC.
8. 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.
9. Evaluation of offers shall be on the basis of delivered cost (Net cash outflow to BHEL).
10. Indian Agent & Agency commission: An Indian Agent can represent only one Foreign Manufacturer against a particular Tender. The CFR price quoted by the Foreign bidder shall include the agency commission however, the agency commission component payable to their Indian Agents shall be shown separately in the Offer. This will be paid by BHEL in Indian Rupees, on satisfactory commissioning & acceptance of the equipment. The bidder shall furnish authenticated copy of the Agency Agreement detailing the precise relationship between them and their mutual interest in the business so as to consider the offer of the Indian Agent for the indigenous portion of the supply. For the main equipment, the offer should be from Principal / Original Equipment Manufacturer. The supplier to furnish original Authorization Letter for the Indian Agent along with the offer. Short shipment / Warranty replacement: In case of any short shipment in the main equipment / spares, customs duty levied on such supplies, shall be borne by the supplier. Any warranty replacement during the warrantee period shall be on FOR, BHEL, Tiruchirappalli, basis.
11. To those vendors who are not in BHEL Product Material Directory (PMD), the following additional conditions are applicable over and above the general condition.

- **Offers without following documents will be rejected:**

- a) **For Indigenous sources:**

- Signed and sealed copies of Enquiry instructions and all annexures.

- Vendors should submit the offers along with duly filled vendor registration forms which can be down loaded from our website www.bhel.com and the relevant supporting documents should be provided.
- All commercial terms.

b) For Import sources:

- Vendors should submit the offers along with duly filled vendor registration forms which can be down loaded from our website www.bhel.com and the relevant supporting documents should be provided.
 - Statement given by reputed third party business rating agency like M/s DUN & Bradstreet statement, Credit reform etc.
 - Signed and sealed copies of Enquiry instructions and all annexures.
 - If any Indian agent is there, then agency agreement and authorization document should be submitted along with the offer.
 - Supplier reference list for various material specifications.
 - Quality manual.
- For indigenous sources, BHEL team will visit the vendor works to enlist them in our vendor directory and then their offer will be technically evaluated.
12. On completion of the final inspection of the forgings by BHEL-QC/ IBR authorized inspection agency, necessary IBR certificate as per IBR Form-III G shall be supplied.
13. BHEL reserves the right
- To negotiate or re-float the tender in case the quoted prices are not acceptable. To counter-offer with vendors other than L1, in order to have broader vendor base for ensuring delivery, however if the quoted rate is 1.5 times the L1 rate, would be considered as H1 and will be rejected.
 - To increase or reduce the tender quantity.
 - To not to order for some or all forgings based on changes in project requirements.
 - To visit vendor works during the execution of the contract, process of manufacture along with the end customer for inspection and testing of the forgings at vendor/ sub-vendor's works.
 - **To reject a tender due to unsatisfactory past performance in the execution of a contract at any of BHEL projects / units.**
14. Point by point technical confirmations of all pages of our technical specifications are required with your signatures along with the techno Commercial offer (Part-A).
15. In addition to all the above conditions, BHEL standard terms and conditions as per Annexure – C and Special terms and conditions conditions Annexure – D (Imports & Indigenous) shall also be applicable for this enquiry.
16. The offers will be processed through Priced bid opening route/ Reverse Auction with prior intimation to technically suitable bidders only.
17. The Drawings and Technical documents given in this enquiry are the sole property of BHEL. This should not be misused in any form.

For Bharat Heavy Electricals Limited
D Chandramohan
SM / Purchase / Valves

Enclosures:

- 1) Annexure- A: Bill of Quantities.
- 2) Annexure- B: Supplier Requirement
- 4) Annexure- C: Standard Terms & Conditions.
(a) INDIGENEOUS
(b) IMPORT
- 3) Annexure- D: Special Terms & Conditions.
- 5) Annexure- E: Performance Bank Guarantee Format.
- 6) Annexure- F: General terms and conditions and Sample Business Rules of Reverse auction.
- 7) Annexure- G: Techno Commercial Bid format.
- 8) Annexure- H: Priced Bid format.
- 9) Annexure- I: List of IBR approved inspection agencies.
- 10) Annexure- J: List of Consortium Banks.
- 11) Annexure- K: Form III F
- 12) Annexure- L: Form IV A
- 13) Annexure- M: Drawing 3-V-WC33-21831P
- 14) Annexure- N: Technical Delivery Conditions (TDC:0:404/Rev 09)
- 15) Annexure to TDC 404/Rev 09.

ANNEXURE TO TDC 404/09

Sub: Procurement of F91 Forgings for Boiler and Valves to be used in valve bodies, bonnets, discs, socket ends, body guides etc meeting IBR, ASME Sect I, ASME B16.34 and API from Indigenous suppliers: Reg

Ref: TDC 404 Rev 09 and Amendment Dt 09/12/2011

TDC 404 Rev 09 is for the procurement of Carbon Steel forgings as per – SA 105, SA 350 LF 2, Alloy Steel forgings as per – SA 182 F6a Class 3, F12 Class 2, F22 Class 3, SA 182 F23, SA 182 F91 & SA182 F92 and Stainless Steel forgings as per – SA 182 Gr. F 304, 304L, 316, 316L, 316H, 321, 321H, 347 & 347H, AISI 410. These forgings shall be used for the manufacture of Boiler and Valve components meeting IBR, ASME Sect I, ASME B16.34 and API.

It may be noted that the existing TDC itself provides provision for indigenous manufacture and supply of F91 forgings from forgers who buy F91 raw material- ingots from import sources.

In the above referred TDC, Clause 2 details on the sourcing of raw material for F91 and Stainless Steel ingots from import suppliers. Any indigenous forger who is not a steel maker – shall import ingots from IBR approved Steel Maker/with inspection by Inspecting Authority of that region and manufacture the final forging. Such indigenous forgers need to demonstrate a 1000 hrs Creep Test certificate as per IBR Regulation 04.

Clause 2 also covers those indigenous manufacturers who are IBR qualified creep resistant steel makers for grades SA 182 F12 and F22. As on date, no indigenous steel maker is qualified for manufacture of Gr 91 steel.

However when an indigenous steel maker completes 10,000 hrs of creep testing and submit the creep data from BHEL R&D or NML, Jamshedpur, supplier shall submit the documents to BHEL for review. Such steel makers shall be included in the TDC with due revision. On inclusion of such indigenous F91 steel makers – all indigenous forgers shall procure ingots from the so included steel maker of F91 material.