



ENQUIRY

VALVES

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

Phone:07418494698 & 0431-2577305
FAX : 0431-2520383
Email:
pr@bheltry.co.in
bpreddy@bheltry.co.in

ENQUIRY NO.

DATE

DUE DATE FOR
QUOTATION

EN-VAL-OT-1003

20.06.2012

20.07.2012

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

SL.NO.	MATERIAAL CODE DESCRIPTION	UNIT	QUANTITY	DELIVERY SCHEDULE	
	DRAWING NO TDC NO.			QUANTITY	DATE
	<p>Supply of Fully Machined TOA High Pressure Valve Body Castings and Soot Blower Castings in WCB/WCC/WC9 & C12A Materials as per TDC:0:412/REV18.</p> <p><u>Date , Time & Venue of tender opening :</u></p> <p>20.07.2012 at 14.30 Hrs. at Valves Purchase Conference Hall , Building No 24, BHEL, Tiruchirappalli-620 014, Tamil Nadu State, India.</p>				
				<p><u>Scope of supply</u></p> <p>Supply of Radiographic Quality Fully Machined TOA High Pressure Valve Body Castings and Soot Blower Castings in WCB/WCC/WC9 & C12A Material as per TDC:0:412/REV18.</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-C b) Enquiry Instructions for Machined Castings</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 15.30 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
B Rajendra Prasad Reddy
Engineer Trainee
(Valves / Purchase)



BHARAT HEAVY ELECTRICALS LIMITED
Tiruchirappalli
Materials Management – Valves

EN-VAL-OT-1003

ENQUIRY INSTRUCTIONS – FOR MACHINED CASTINGS

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

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

The unit price shall be inclusive of Radiographic Testing charges along with Machining Charges and quoted on **“CFR-Cost and Freight Chennai port”** or **“FOR – BHEL Trichy”** basis in case of import and indigenous vendors respectively.

List of customers to whom same or similar castings 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 20.07.2012 by 14:30 hours.(IST). Late offers will not be considered.

AGM/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 20.07.2012 by 15:30hrs.(IST).
4. Techno commercial bid will be opened first, after scrutinising 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. 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.
8. Evaluation of offers shall be on the basis of delivered cost (Net cash outflow to BHEL).
9. 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.
10. ADOPTION OF INTEGRITY PACT: Signed Integrity Pact (IP) should be furnished along with offer. IP should be signed by authorized official of the bidder / vendor / contractor. **Offer without signed IP will not be considered.**

This tender will be monitored by Independent External Monitor (IEM) by Name. Shri D. P. Bagchi, IAS (Retd.).

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.

- The vendors should submit the offers along with duly filled vendor registration forms which can be down loaded from our website www.bhel.com. The offer without the above forms & the relevant supporting documents will not be considered for technical evaluation.
 - 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.
 - The import sources will be enlisted in our vendor directory based on D & B (M/s DUN & Bradstreet) statement and then their offer will be technically evaluated.
12. On completion of the final inspection of the castings by BHEL-QC/ IBR authorized inspection agency, necessary IBR certificate as per IBR Form-IIIG 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 subject to having a minimum of five sources for each category the H1 vendor would be eliminated.
 - To increase or reduce the tender quantity.
 - To not to order for some or all castings 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 castings 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, Special terms and conditions as per Annexure – C and BHEL standard terms and 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

P Raguraman
AGM / Purchase / Valves

Enclosures:

- | | | | |
|-----|------------|----|--|
| 1) | Annexure- | A: | Bill of Quantities. |
| 2) | Annexure- | B: | Technical Delivery conditions (TDC:0:412/Rev 18). |
| 3) | Annexure- | C: | Special Terms & Conditions. |
| 4) | Annexure- | D: | Standard Terms & Conditions.
-IMPORTS
-INDEGENEOUS |
| 5) | Annexure- | E: | Performance Bank Guarantee Format. |
| 6) | Annexure- | F: | General terms and conditions 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: | TDC-Tolerance for Untoleranced dimensions |
| 12) | Annexure- | L: | Integrity Pact |
| 13) | Drawings - | | Casting Drawings
Machining Drawings (1-20 drawings uploaded as Part I)
Machining Drawings (21-35 drawings uploaded as Part II) |

Product : **STEEL CASTINGS.(VALVES)**Document No: **TDC:0:412**Rev No : **18**Effective Date: **25.01.2012**

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Revision record: Rev 16: 27.04.2011 (1) Modified in entirety.

Rev.17 – 1) Cl.7.0 Table-1 NDE requirements, 2) Cl.7.1, Cl.9, Cl.11.0 – Revised. RT zone Sketch added.

Rev.18 – 1) Cl.7.0 Table-1 Wedge NDE changed, 2) Cl.9.0 – PED requirements for welding & NDE added.

1.0 MATERIAL:

Specification : ASME / ASTM {Latest on date of Purchase Order (PO)}:
 CARBON STEEL (CS) : SA / ASTM A216 WCB, WCC & 352 LCB , LCC
 ALLOY STEEL (AS) : SA / ASTM A217 WC6, WC9, C12A.
 STAINLESS STEEL (SS): SA / ASTM A351 CF3M,CF8,CF8C & CF8M.
 Additional Requirement : As listed below(Supplementary to Specification)
 Size, Qty, Grade/Class : As per Purchase order & Drawing / Pattern.

2.0 CHEMICAL COMPOSITION AND PROCESS:

Melting: As per the Specification, Fully Killed.

Carbon= 0.25% maximum : for SA / ASTM A216 WCB only.

Carbon= 0.15% maximum : for SA / ASTM A217 WC6 & WC9 (For the castings used in QCNRV, CRHNRV, TOA Valves & Conventional valves having contours for welding.)

Product Analysis on test bar for each melt including residual elements shall be carried out.

Additional requirements for API-6D materials:

CS: Carbon=0.23% max.(in ladle) and 0.25% max.(in Product analysis)

Carbon Equivalent=0.43 max.(in ladle) and 0.45 max.(in Product analysis)

Carbon Equivalent= $\%C+(\%Mn/6)+(\%Cr+\%Mo+\%V)/5+(\%Ni+\%Cu)/15$

SS: Carbon=0.03% max. except as below.

Carbon=0.08% max.for stabilized steels with Nb >10xC.and

for stabilized steels with Nb and Ta mass of (Nb+Ta)>8xC.

3.0 DIMENSIONS AND TOLERANCES:

Tolerances as per the Drawing.

Non tolerance Dimensions for valve components as per the Drawing:VL:STDC:023 (Latest)

4.0 HEAT TREATMENT :(HT)

CS. Castings of High Pressure Valve.(Cl.1500 & above),QCNRV & CRHNRV: Shall be in Annealed Condition.

AS. Castings: Normalized and Tempered.

Normalizing Temperature: for SA/ASTM A217 WC6, WC9: 920-950 °C and for C12A: 1050-1080 °C.

Tempering temperature (Minimum): SA/ASTM A217 WC6: 680°C; WC9: 720 °C; C12A: 750-780°C

Others: Heat Treated as per the Specification.

5.0 MECHANICAL TESTS:

Test bars to be cast integral with the casting or separately. If cast separately, they shall be cast at the same time as the castings and from the same ladle. A metal strip with heat number stamped shall be fused with the test bar during casting, to maintain traceability. If one(1) casting is made from more than one heat, separate test bars for each cast to be poured & all test bars shall satisfy the requirements. Following tests to be conducted per heat / Heat treatment batch, as per ASTM A370. .

S. NO	TEST	Material specification		
		SA/ASTM A216, 217	SA/ASTM A352	SA/ASTM A 351
1	Tension Test	As per the Specification		
2	Hardness Test	As per the Specification		225 BHN. max.
3	Bend Test Specimen 1" x 3/4"		Angle of Bend	Dia of Pin
		WCB	90°	2t
		WCC	90°	2t
		WC6	120°	3t
		WC9	90°	3t
	C12A	90°	2t	
		Not applicable		S3 of SA703
4	Charpy- U Impact for all QCNRV.CRHNRV BODIES FOR IBR.	As per IBR. at Room temperature. Acceptance: Avg /Single=36J/32J min.		Not applicable
5	Charpy- V Impact for CE Marking-Pressure Equipment Directive (PED) items as Specified in the Purchase Order.	At 20 Deg.C temperature. Acceptance: Avg /Single=40J/27J min.		As per Specification
6	Charpy- V Impact for API -6D items if design temperature below minus 29°C (- 29 °C)	Test Temperature=As per specification Acceptance: Avg/Single=34J/25J		As per Specification
7	Charpy- V Impact for LPBP BODIES	At 20 Deg.C temperature. Acceptance: Avg /Single=27J/21J min.		Not applicable
				Not applicable

6.0 FETTLING, DRESSING & CLEANING:

- Dressing of castings- Free from risers, in gates, notches, undercuts and deep marks etc.
- Fused wires, parting line fins, chills etc. shall be removed by grinding.
- Gas cutting if employed shall be done before Heat treatment.
- Preheat the material to 200 Deg. C. before gas cutting the Alloy steels.
- Castings shall be blast cleaned both inside and outside for the removal of fused sand, scales etc.
- Visual inspection of castings for surface quality as per MSS-SP-55 shall be carried out.

7.0 NON DESTRUCTIVE TESTING (NDT) AFTER HEAT TREATMENT:

The NDE requirements for the castings shall meet the following as shown in Table-1 below. Castings shall be free from surface and internal defects like porosity, shrinkage, sand inclusion, crack, cold shut and other harmful defects. All castings shall be of Radiographic Quality.

Radiographic Testing Procedure: As per ASME B16.34.

Magnetic Particle Inspection (MPI): As per ASTM E709

Liquid Penetrant Inspection (LPI): As per ASTM E165

Table: 1

Product	Components	Charecteristics	Type of NDE Check				
			RT	RT Area	RT Acc. Std	MT \$	MT Area
Conventional Valves (Gate, Globe & Check) and API 6D Gate Valves	Body, Bonnet Pr. part Yoke	< 600Class	10%#	ASME B16.34 (latest) / On critical area as indicated in the Drawing.	As per Table: 2	--	--
	Body, Bonnet, Cover	600Class & above	100%			--	
	Body, Bonnet, Cover	1500Class & above	100%			100%	All accessible surfaces including belly
	Wedge	All Special Class Valves	--			--	--
Safety Valve	Base	All	10%#	Critical Zones as given in the Drawing/ area shown in the sketch in Page-5. The areas where RT cannot be carried out MPI shall be done.	Class-4 of ASTM E446/ E186. For Butt weld ends Table-2	100%	All accessible surfaces .
		Weld ends of All Castings	100%			--	--
Safety Relief Valve	Base & Bonnet	All	10%#			--	--
	SRV Nozzle	All	100%	All area	Class-2 of ASTM E446/ E186	--	--
QC NRV, CRH NRV	Body	150 & 300 Class	10%	Butt Weld Ends,	As per Table: 2	100%	All accessible surfaces including belly
		600Class & above	100%	Critical Zones as given in the Drawing/ area shown in the sketch in Page-6. The areas where RT cannot be carried out MPI shall be done.	As per Table: 2	100%	All accessible surfaces including belly
	Body (Special)	All					
Soot Blower Valve	Body	All	10%#	Critical Zones as given in the Drawing/ area shown in the sketch in Page-5. The areas where RT cannot be carried out MPI shall be done.	As per Table: 2	--	--
CRH Isolating Device	Body	< 600Class	100%	Critical Zones as given in the Drawing/ area shown in the sketch in Page-5. The areas where RT cannot be carried out MPI shall be done.	As per Table: 2	--	All accessible surfaces including belly
		600Class & above				--	
		1500Class & above				100%	
LP Bypass Valve	Body	All	100%	Critical Zones as given in the Drawing/ area shown in the sketch in Page-6. The areas where RT cannot be carried out MPI shall be done.	As per Table: 2	--	--

\$ LPI Can be substituted for MPI in all inaccessible area and for stainless steel castings. **#** Refer CI 7.1

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Table: 2

TYPE OF DISCONTINUITY	ACCEPTANCE LEVEL CATEGORY	< 600 CLASS		≥ 600 CLASS	
		Thickness ≤2"	Thickness >2"	Thickness ≤2"	Thickness >2"
Gas Porosity	A	A2	A3	A1	A2
Sand/Slag inclusion	B	B3	B3	B2	B2
Shrink Type-1	C	CA2	CA3	CA1	CA2
Shrink Type-2	C	CB3	CB3	CB2	CB2
Shrink Type-3	C	CC3	CC3	CC2	CC2
Crack	D	NONE	NONE	NONE	NONE
Hot Tear	E	NONE	NONE	NONE	NONE
Unfused Inserts (Chills/Chaplets)	F	NONE	NONE	NONE	NONE

a. Butt welding ends shall be free of shrinkage, crack & hot tear.
b. For butt weld ends Gas hole/Porosity and sand inclusions to be within level A1 & B1 respectively

7.1 # 10% Sampling shall be done as follows: (Wherever specified):

The vendor shall select 10% the Casting from the lot consisting of same size and type, (along with melt number and Sl.nos of the castings covered in the lot) for Radiography. A lot to be specified as the total number of castings as above, supplied in 4 months period (Jan-Apr, May-Aug, Sep-Dec). The vendor shall radiograph these specified castings and incorporate the lot size and melt no and Sl.no in the RT reports along with the other sl.nos of the other castings covered in the lot. If the identified casting is defective then 2 more castings shall be radiographed.If these 2 castings are defect free then the lot is acceptable.If any one of these castings is defective then all the remaining castings shall be radiographed and all defective areas shall be repaired. BHEL will carry out audit on the lots at the vendor works at any time.

7.2 **Acceptance for MPI & LPI:** ASME B16.34.

(1)Cracks are not permitted.

(2)For linear indications (with length > 3 times width) other than cracks,indications must be separated by a distance greater than the length of an acceptable indication. Maximum allowable length of the indication shall be:

- (a) For thickness (t) up to 13mm= 8mm,
(b) For thickness from 13 to 25mm = 13mm
(c) For thickness above 25mm =18mm.

(3)For rounded indications (circular or elliptical with length < 3 times width), 4 or more indications in a line separated by 1.5 mm or less edge to edge are unacceptable. Maximum allowable diameter of the indication shall be:

- (a)For thickness up to 13mm =8mm, and (b)For thickness above 13mm =13mm

8.0 **Development Stage of Casting:**

- a. During developmental stage, Foundry to ensure, first sample pieces meet dimensional, NDE & Quality requirements in this TDC, before starting bulk production. Sample castings, 3 Castings with nominal bore (NB) ≤100mm. & 1 casting with NB > 100mm for each type of casting shall be inspected for dimension and RT requirements at BHEL/Vendor works. RT shall be carried out on entire area of the casting to the acceptance requirement of Table-1 & 2. In addition 100% MPI on all critical areas like change of sections, riser & in gate portions shall be carried out. Casting to be inspected for dimensions after proof machining wherever necessary. If machining operation is involved the same shall be done and defect free condition shall be ensured. If any defect noticed in RT and machining, the type of defect shall be analysed and accordingly size of gate, runner, riser and pouring methodology to be modified to get defect free casting. Sampling shall be continued till achieving sound casting. After satisfactory development of sampling bulk production shall be started. However weld repaired areas identified in visual examination for doubtful indications to be probed by MPI. Accepted sample castings may be considered for fixing the nominal weight of the castings.
- b. During developmental stage RT on sample castings of yoke, yoke clamp & wedge/disc shall meet Level-3 of ASTM E446/E186/E280
- c. Radiography not required after satisfactory development of casting & production based on established method for following parts: SRV Bonnet,Disc holder,Upper and Lower adjusting rings, Packed cap,Cover plate,Yoke and SRV guide flanges

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9.0 REPAIR:

Castings with unacceptable cracks, hot tears, shrinkage, etc. to be rectified by grinding & if required by welding. Welding to be done by qualified welder and qualified procedure as per ASME Section IX .For IBR items welder shall be qualified as per IBR.

Guidelines for repair of Steel castings shall be as per SIP:VS:17 (latest).for activities like defects require/ not require weld repair, welding, Post weld heat treatment, NDE and surface treatment. All repaired areas after PWHT shall NDE tested and Hardness tested. Hardness shall meet material Specification.

For CE-Marking (PED) casting, permanent joining (welding and weld repair) of components must be carried out by suitably qualified personnel according to suitable operating procedures. Also Non-destructive tests of permanent joints must be carried out by suitable qualified personnel. The procedures and personnel must be approved by a competent third party which, at the manufacturer's discretion, may be:

- a notified body,
- a third-party organization recognized by a Member State of European Community

10.0 SURFACE TREATMENT:

SS castings to be pickled & passivated (after repair & HT if any) as per ASTM A380. Satisfactory passivity of the surface to be checked using SS passivity test kit (Free iron test). After passivation, rinsing & test, the rinsed demineralised water to be checked for chloride with 1% Silver nitride, which shall not exceed 0.5 PPM

11.0 DIMENSIONAL CHECK:

For all QCNRV & CRHNRV Body Castings: Thickness of the body shall be checked throughout the surface on a grid of 100mm x 100mm and recorded & submitted to BHEL.

12.0 MARKING AND PACKING:

Following details to be marked on each casting on a raised pad using low stress stamps and Castings shall be suitably packed to avoid damage during transit.

1. Foundry code, 2.Specification, grade & Melt number, 3.Other details as per drawing.

13.0 INSPECTION AND CERTIFICATION:**13.1: For IBR items**

a) If the Foundry is recognized as "Well known Foundry" under IBR, Items shall be inspected by foundry and works certificate along with IBR *Form III F* shall be issued.

b) If the Foundry is not recognized as "Well known Foundry" under IBR, Items shall be inspected by an Inspecting Authority approved by IBR and work certificate along with IBR *Form III G* shall be issued.

13.2: For CE-marking items, the materials shall be inspected by M/s. LLOYD's/ TUV/ BVQI or any other agency approved for PED of CEmarking, if the foundry is not certified to ISO 9000 by any of the . above organisation.**13.3 For API items, the castings shall be inspected by the foundry and works certificate with details like PSL No., Temperature class rating, size shall be issued.****13.4 Test certificates shall contain the following details.**

- 1.Purchase Order No.(BHEL),TDC No. & Test certificate number
2. Specification and Grade with applicable year of code, Heat Number, Quantity & Size
3. Steel making 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 including HT, if any, Cleaning & Surface treatment details.
7. Any other information like clearance of sample casting.
8. Dimensional Inspection Report where applicable.

14.0 AUDIT CHECKS AT BHEL:

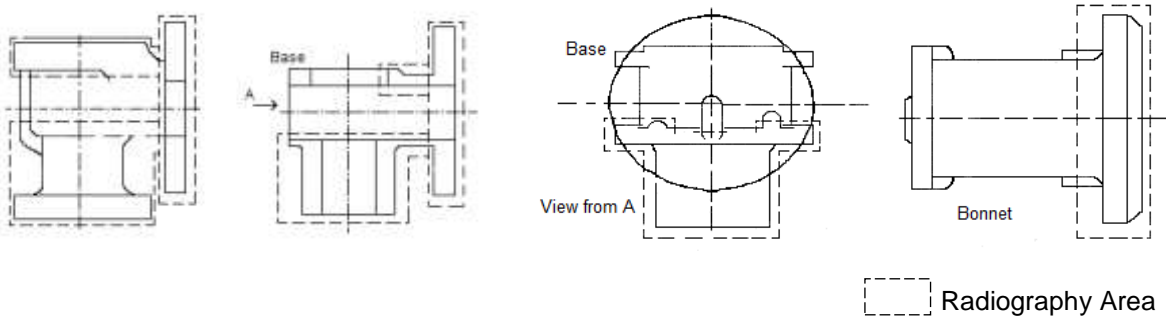
BHEL reserves the right to carry out audit checks for chemistry, HT condition, mechanical test and NDT on representative test bars or job. Items found defective during check or subsequent processing at BHEL are liable for rejection.

15.0 END USE:

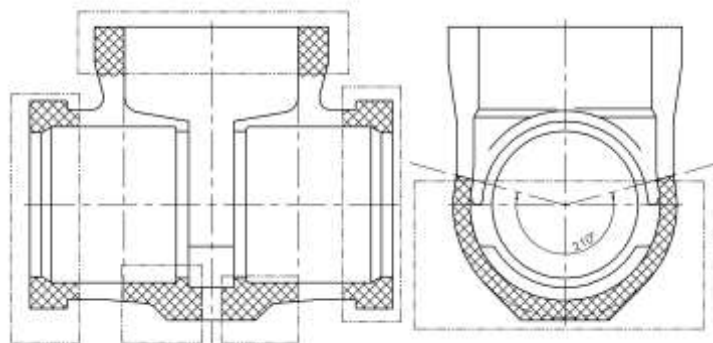
For use in valves and other components like flanges, fittings etc. for high temperature & high pressure applications meeting IBR, ASME Section I, ASME B 16.34, PED and API.

Sketch of zones for RT

SV and SRV Base castings

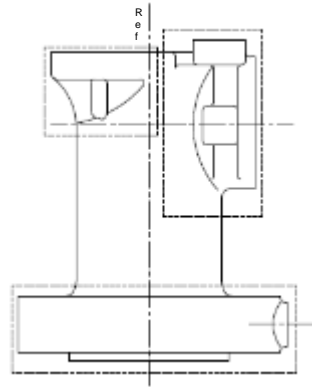


Reheater Isolating Device Body



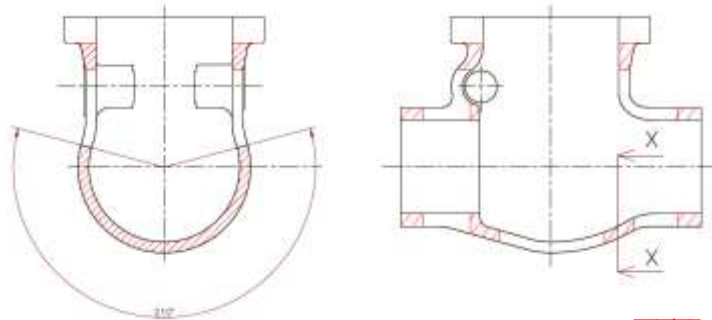
 Radiography Area

Soot Blower Valve Body



 Radiography Area

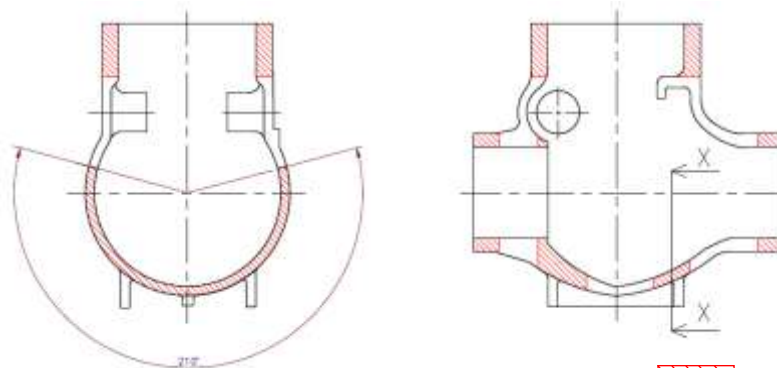
Quick Closing Non Return Valve Body



Section-XX

 Radiography Area

Cold Re Heat Non Return Valve Body



Section-XX

 Radiography Area

Product : **STEEL CASTINGS.(VALVES)**

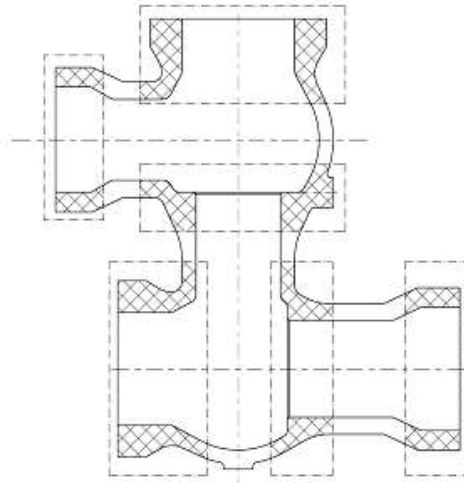
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LP Bypass Stop cum Control Valve Body



 Radiography Area

			
D.SUDHAKARAN QUALITY ASSURANCE	M.RAJAKUMAR ENGG/VALVES	S.SELVARAJAN QUALITY ASSUARANCE	V.RAVIKUMAR QUALITY ASSURANCE
PREPARED BY	REVIEWED BY		APPROVED BY

Special Terms and Conditions

1. Material shall be supplied as per the Technical delivery conditions – TDC:0:412/18, drawing and other special requirements as given in Purchase order.
2. On placement of purchase order, the vendor shall make ready one sample casting in each of the ordered items at one point of time to enable BHEL to depute their Quality personnel/ IBR authorized inspection agency for inspection of the casting and Quality documents. The vendor shall make available RT films, dimensional reports, and other quality documents to BHEL/ IBR authorized Inspection Agency during inspection.

On successful acceptance of the sample by BHEL personnel /IBR authorized inspection agency at Vendors works, the sample can be dispatched to BHEL and the vendor can start the Bulk production of the Castings.

3. In the event of non-clearance of sample/inability of the vendor to develop the castings as per BHEL requirement, BHEL will have the right to cancel the PO without any financial implication to BHEL
4. Any defects found during Machining/Assembly/ Hydro test of the valves, the minor repairs shall be undertaken by BHEL and the entire cost of such repairs shall be borne by the vendor. If the defects are found to be major, such castings will be rejected and in such a case the vendor shall replace all the defective castings on FOR/BHEL Tiruchy-14. To ensure the guarantee of supplies, a Performance Bank Guarantee (PBG) for 10% of order value for a period of 18 months from the date of dispatch with an additional claim period of 2 months as per the format given in Annexure E. The PBG shall be submitted along with payment documents
5. All castings shall be supplied free of defects like shrinkage, hot tears and process variable defects like sand inclusion, slag inclusion, gas entrapment etc. If any casting is found defective, the same shall be upgraded at foundry itself before dispatch to BHEL with necessary documentation.
6. Separate charges shall not be paid for Test bar and Test certificate supplied by vendors. Test bar / Plates for welding procedure qualification as well as for audit check shall be supplied by vendors free of cost whenever required by BHEL.
7. No price variation clause is acceptable, i.e. the price of the component quoted by the vendor shall be firm throughout the period of the contract.
8. Delivery: BHEL Expected Delivery:
 - To develop the samples in each size within 3 months from the date of placement of order.

- On successful acceptance of the samples, the vendor to deliver at least 50% of the castings ordered in each size within 3 months from the date of acceptance of sample castings.
- Balance 50% supplies shall be delivered during the subsequent 3 months.
- Those vendors already having pattern/s and are willing to participate in the tender, the sample development time is restricted to one month.
- **Vendors having BHEL orders for castings would be considered against this tender only if their capacity and delivery are meeting BHEL requirements for the existing orders and the current requirement.**
- Vendor to confirm/quote their delivery schedule/ in “Unpriced bid”, which can be mutually discussed and settled;

9. Radiography :

Radiographic inspection shall be carried out as per **TDC:0:412/18** for the applicable ordered valve Castings.

All the applicable radiography films shall be dispatched to BHEL either before the dispatch of castings or along with the castings.

BHEL may conduct radiography and MPI examination as audit check on any casting at frequent intervals and the castings should satisfy the quality requirements as spelt out in **TDC:0:412/18**.

10. Qualified NDE personnel at vendor's works shall carry out RT and MPI examination on all the ordered castings as per BHEL- Technical delivery conditions – **TDC:0:412/18**.
11. All the castings shall be subjected to chemical, mechanical tests etc., as per **TDC:0:412/18** and the relevant test certificate shall accompany the consignment. All castings shall also be subjected to impact tests as called for in the TDC and the testing charges shall be borne by the vendor.
12. BHEL reserves the right to reject the castings that are found to be defective during machining / assembly / hydraulic testing notwithstanding the earlier acceptance. Such defective castings have to be replaced Free of Cost by the vendor.
13. Liquidated damage clause will be applicable for delayed supplies @ 0.5% per week or part thereof subject to a maximum of 10%.

14. 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
15. Guarantee clause: The vendor shall give a guarantee of eighteen months from the date of acceptance of the castings at BHEL.

16. ADOPTION OF INTEGRITY PACT:

BHEL is committed to fostering the most ethical and corruption free environment and values its relationship with all bidders, contractors and vendors. Conducting business in a transparent, fair and corruption free manner will go in a long way in making the vendors and contractors our partners in progress and to reinforce this belief. BHEL has already signed a memorandum of understanding with transparency India international on adoption of integrity pact for all Major tenders/ contracts. Integrity pact first promoted by transparency international, an NGO, is a tool to ensure that activities and transactions between a company or government department and its Bidders/ Contractors are handled in a fair, transparent and corruption free manner. The integrity pact which is an integral part of this commercial terms and conditions of tender may please be signed and sent to us along with the techno- commercial offer in token of acceptance of the conditions of the pact.

17. FORCE MAJEURE:

If at any time during the continuance of the contract, the performance in which or in any part by either party of any obligations under the contract are prevented or delayed by reason of any war, hostilities, acts of public enemy, civil commotion, sabotage, fires, explosions, epidemics, quarantine restrictions, or acts of God (hereinafter referred to "an events" then provided the notice of happening of any such event is given by either party to the other within 21 days of the occurrence thereof, neither party shall by reason of such event be entitled to terminate the contract nor shall either party have any claim for damages against the other in respect of such non-performance and delay in performance and delivery under the contract shall be resumed as soon as practicable after such event has come to an end or ceased to exist. If the performance in whole or part of any obligation under the contract is prevented or delayed by reason of any such event, claims of extension of time shall be granted for periods considered reasonable by BHEL subject to prior notification by the vendor to BHEL of the particulars of the event and supply to BHEL, if required, of any supporting evidence. Any waiver of time in respect of partial instalment shall not be deemed a waiver of time in respect of remaining deliveries.

18. 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.

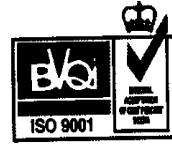
19. JURISDICTION:

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.

In addition to all the above conditions, BHEL Standard Terms & Conditions and the requirements spelt out in the Enquiry covering letter shall also be applicable for the orders to the extent they are not superseded by the above conditions.



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



VALVES PURCHASE,
TIRUCHIRAPPALLI- 620 014. INDIA

**STANDARD TERMS AND CONDITIONS
IMPORTS ENQUIRY**

I OFFER

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

THE AGM.
PURCHASE VALVES
GOVERNMENT OF INDIA
ACCOUNT: BHARAT HEAVY ELECTRICALS LIMITED
UNIT: TIRUVERUMBUR
BOILER PLANT PROJECT
P.O. TIRUCHIRAPPALLI - 620 014
TAMIL NADU, INDIA

Offers should be firm on the basis of "CFR-Cost and Freight" Chennai Port. Shipping specifications and the earliest delivery should be indicated in the offer.

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.

II 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, / Agreemental 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.

III **VALIDITY:**

The offers shall be kept open for acceptance for **90 days** (ninety days) from the date of opening of the tender.

IV **TEST CERTIFICATES:**

The tenderer shall clearly mention in their offer, that the Test Certificate, as called for in the technical specification, in the required number of copies will be provided at no extra cost.

V **TERMS OF PAYMENT:**

100% payment shall be made within 45 to 90 days on receipt and acceptance of castings at BHEL.

Documents Required from vendor for Payment:

- a. Bill of Lading.
- b. Packing list & Invoice
- c. Country of origin Certificate
- d. Test Certificates / Compliance Certificate
- e. A Certificate that :

One copy of Tests / Compliances Certificate with non-negotiable documents, comprising of House Airway Bill, Invoice, Packing list, Country of origin Certificate, applicable drawings and catalogues, duly signed and stamped, have been sent separately to the port Consignee, purchaser

Attn: AGM / Purchase Department/ Valves, BHEL, Tiruchirappalli 620 014, India
and to Senior Manager / Finance, Import Section, BHEL Tiruchirappalli 620 014, India

VI **GENERAL:**

(I) **Bank Guarantee:**

The supplier in the event of an order, should furnish a Bank Guarantee from a consortium 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.

VII **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

VIII **Note to the Beneficiary**

- a. All documents are to be in "**ENGLISH LANGUAGE**" only.
- b. Description of the material is to prefixed by the word "**BOILER COMPONENTS / MACHINERY SPARES**" (if not otherwise required by the contract)
- c. Contract No., L.C. No. and Import License No. are to be inducted in all documents
- d. Invoice should show the description of the goods and the unit rate of each item as in the purchase contract.
- e. Packing list must indicate case identification, case dimension, and case contents, gross and net weight.
- f. Against each item in the invoice and packing list, the serial number of the corresponding item in the purchase contract or as per order acknowledgement should be indicated.
- g. Demurrage charges due to delayed presentation of the original shipping documents for the reason not attributable to the buyer should be borne by the seller
- h. All documents should be submitted in triplicate
- i. Please avoid ODC (Over Dimensional Consignment) to the Air consolidation agent and inform us before packing the material of ODC condition



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



VALVES PURCHASE,
TIRUCHIRAPPALLI- 620 014. INDIA

STANDARD TERMS AND CONDITIONS

INDIGENOUS ENQUIRY

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 90(ninety) 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 within 45 to 90 days after accepting 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.

5 SECURITY DEPOSIT :

~~For purchase over Rs.5000/- the successful tender/s may be requested to furnish a Bank Guarantee/Security Deposit for an appropriate value as may be determined by BHEL.~~

6 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 with in 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 % to 10% of the value of goods delayed for each week of delay or part thereof will be levied without prejudice to any other relief of compensation due to the purchaser under any other condition of this contract.

7 RISK PURCHASE:

Alternatively the purchaser at his option will be entitled to terminate the contract and to purchase elsewhere at the risk and cost of the seller either the whole of the goods or any part which the supplier has failed to deliver or dispatch within the time stipulated as aforesaid or if the same were not available, the best and the nearest available 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.

8 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.

9 MODVAT / CREDIT :

If any Excise Duty is payable, the chapter head/sub-head reference and the rate of the duty should be quoted. If the tender is availing MODVAT credit for his input materials, the effect of proforma invoice should be passed on to the purchaser, Tenderer under MODVAT shall be preferred.

10 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.

(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 :

Annexure-F

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 Format

Enq. SI No	Material Description	Spec.	Raw Material Code	Casting Drawing No	Machining 93 code	Machining drawing	Tender qty	Casting wt KG	" CFR (Chennai)/ FOR BHEL Trichy" Quoted/Not Quoted **
1	VALVE BODY-WCB	WCB	920243870000	12000100190/05	842000125500	12000100010	3000	16	
2	WALL BLOWER BODY	WCB	920057850000	12020100189/05	842020139900	12020100162	2000	27	
3	BODY_WCC_GNV_2.5_1500-G042	WCC	921502930000	2VG04215104R/05	931119438000	2VG04215103/000/04	150	29	
4	BODY_WCC_GNV_2.5_2500-G034	WCC	921502090000	2VG03415084R/02	931119248000	2VG03415100/000/02	100	56	
5	BODY_WCC_GV_2.5_1500-WA26	WCC	921530110000	2VVA2616604R/00	931230788000	2VVA2616603/000/00	30	38	
6	BODY_WCC_GV_3_1500-WA18	WCC	921530030000	2VVA1816602R/00	931230638000	2VVA1816600/000/01	50	54	
7	BODY_WCC_NRV_3_1500-L154	WCC	921510550000	2VL15415298R/00	931134498000	2VL15415319/000/05	100	38	
8	BODY_WCC_GNV_3_1500-G046	WCC	921504760000	2VG04615120R/02	931121208000	2VG04615153/000/05	150	38	
9	BODY_WCC_GNV_3_2500-G146	WCC	921510870000	2VG14615305R/01	931133338000	2VG14615377/000/02	200	70	
10	BODY_WCC_GV_4_1500-WA10	WCC	921525920000	2VVA1016596R/00	931230558000	2VVA1016597/000/00	50	78	
11	BODY_WCC_GNV_4_1500-G005	WCC	921500180000	2VG00515005R/04	931110418000	2VG00515025/000/05	60	68	
12	BODY_WCC_GNV_4_2500-G011	WCC	921500020000	2VG01115003R/04	931112688000	2VG01115036/000/03	100	108	
13	BODY_WCC_GV_4_2500-V242	WCC	921522340000	2VV24216107R/02	931195928000	2VV24216272/000/02	100	102	
14	BODY_WCC_NRV_6_2500-L004	WCC	921500820000	2VL00415000R/01	931117678000	2VL00415058/000/03	100	150	
15	BODY_WCC_GV_6_1500-V082	WCC	921523140000	2VV08216119R/02	931195288000	2VV08216186/000/04	150	172	
16	BODY_WCC_GV_6_2500-W066	WCC	921501850000	2VW06615081R/03	931215928000	2VW24216487/000/01	100	225	
17	BODY_WCC_NRV_8_1500-L362	WCC	921520130000	2VL36216068R/00	931193248000	2VL36216085/000/01	50	244	
18	BODY_WCC_NRV_8_2500-L007	WCC	921500900000	2VL00715001R/00	931118358000	2VL00715035/000/01	30	320	
19	BODY_WCC_GV_8_1500-V106	WCC	921521940000	2VV10616102R/02	931195208000	2VV10616187/000/05	100	283	
20	BODY_WCC_GV_8_2500-V306	WCC	921522660000	2VV30616111R/03	931196088000	2VV30616266/000/01	60	456	
21	BODY-A216-WCC-14-C2500-GV-V362	WCC	921524270000	2VV36216410R/00	931210938000	2VV35416411/000/02	150	1980	
22	BODY_WC9_GNV_2.5_2500-G036	WC9	921502070000	2VG03615084R/02	931119268000	2VG03615100/000/02	100	56	
23	BODY_WC9_GNV_2.5_2500SPL-G040	WC9	921502030000	2VG04015084R/02	931119308000	2VG04015100/000/02	50	56	
24	BODY_WC9_GV_2.5_3500	WC9	922017910000	2VC78514203R/00	932013948000	2VC78514204/000/00	40	138	
25	BODY_WC9_GV_3_3000SPL-V416	WC9	921523040000	2VV41616115R/01	931195508000	2VV41616201/000/04	90	129	
26	BODY_WC9_GNV_3_3500-R144	WC9	921513380000	2VR14415526R/05	931156088000	2VR14415536/000/02	50	100	
27	BODY_WC9_NRV_4_2500-L100	WC9	921509960000	2VL10015228R/00	931126868000	2VL10015325/000/02	50	100	
28	BODY_WC9_GV_4_2850SPL-W784	WC9	921523980000	2VW78416281R/00	931205308000	2VW78416317/000/03	50	119	
29	BODY_WC9_GNV_4_2500-G013	WC9	921500040000	2VG01315003R/04	931112708000	2VG01315036/000/03	120	108	
30	BODY_WC9_GNV_4_2500SPL-G029	WC9	921500080000	2VG02915003R/04	931112748000	2VG02915036/000/03	30	108	
31	BODY_WC9_GNV_6_2500SPL-G026	WC9	921500160000	2VG02615004R/02	931119128000	2VG02615089/000/05	25	270	
32	BODY_C12A_03_3500_GLV_R459	C12A	921530500000	2VR45916650R/02	931232278000	2VR45916649/000/00	10	104	
33	BODY_A217-C12A_3_3500SPL_GLV	C12A	921530510000	2VR46016650R/02	931232398000	2VR46016649/000/00	5	104	
34	BODY_C12A_GV_4_2850SPL	C12A	921533020000	2VWB7116941R/01	931243628000	2VWB7116959/000/03	15	119	
35	BODY -A216-C12A -6-C3500SPL-NRV	C12A	921531530000	2VL41316868R/00	931239258000	2VL41316869/000/01	5	355	
						Total Qty	7470		
	** To indicate Quoted or Not Quoted against each item.								

Enquiry for Valve Casting:
EN-VAL-OT-1003

Annexure-H

Price Bid Format

Enq. SI No	Material Description	Spec.	Raw Material Code	Casting Drawing No	Machining 93 code	Machining drawing	Tender qty	Casting wt KG	Unit Price (CFR Chennai/ For BHEL Trichy) *
1	VALVE BODY-WCB	WCB	920243870000	12000100190/05	842000125500	12000100010	3000	16	
2	WALL BLOWER BODY	WCB	920057850000	12020100189/05	842020139900	12020100162	2000	27	
3	BODY_WCC_GNV_2.5_1500-G042	WCC	921502930000	2VG04215104R/05	931119438000	2VG04215103/000/04	150	29	
4	BODY_WCC_GNV_2.5_2500-G034	WCC	921502090000	2VG03415084R/02	931119248000	2VG03415100/000/02	100	56	
5	BODY WCC_GV_2.5 1500-WA26	WCC	921530110000	2VVA2616604R/00	931230788000	2VVA2616603/000/00	30	38	
6	BODY_WCC_GV_3_1500-WA18	WCC	921530030000	2VVA1816602R/00	931230638000	2VVA1816600/000/01	50	54	
7	BODY_WCC_NRV_3_1500-L154	WCC	921510550000	2VL15415298R/00	931134498000	2VL15415319/000/05	100	38	
8	BODY_WCC_GNV_3_1500-G046	WCC	921504760000	2VG04615120R/02	931121208000	2VG04615153/000/05	150	38	
9	BODY_WCC_GNV_3_2500-G146	WCC	921510870000	2VG14615305R/01	931133338000	2VG14615377/000/02	200	70	
10	BODY_WCC_GV_4_1500-WA10	WCC	921525920000	2VVA1016596R/00	931230558000	2VVA1016597/000/00	50	78	
11	BODY_WCC_GNV_4_1500-G005	WCC	921500180000	2VG00515005R/04	931110418000	2VG00515025/000/05	60	68	
12	BODY_WCC_GNV_4_2500-G011	WCC	921500020000	2VG01115003R/04	931112688000	2VG01115036/000/03	100	108	
13	BODY_WCC_GV_4_2500-V242	WCC	921522340000	2VV24216107R/02	931195928000	2VV24216272/000/02	100	102	
14	BODY_WCC_NRV_6_2500-L004	WCC	921500820000	2VL00415000R/01	931117678000	2VL00415058/000/03	100	150	
15	BODY_WCC_GV_6_1500-V082	WCC	921523140000	2VV08216119R/02	931195288000	2VV08216186/000/04	150	172	
16	BODY_WCC_GV_6_2500-W066	WCC	921501850000	2VW06615081R/03	931215928000	2VW24216487/000/01	100	225	
17	BODY_WCC_NRV_8_1500-L362	WCC	921520130000	2VL36216068R/00	931193248000	2VL36216085/000/01	50	244	
18	BODY_WCC_NRV_8_2500-L007	WCC	921500900000	2VL00715001R/00	931118358000	2VL00715035/000/01	30	320	
19	BODY_WCC_GV_8_1500-V106	WCC	921521940000	2VV10616102R/02	931195208000	2VV10616187/000/05	100	283	
20	BODY_WCC_GV_8_2500-V306	WCC	921522660000	2VV30616111R/03	931196088000	2VV30616266/000/01	60	456	
21	BODY-A216-WCC-14-C2500-GV-V362	WCC	921524270000	2VV36216410R/00	931210938000	2VV35416411/000/02	150	1980	
22	BODY_WC9_GNV_2.5_2500-G036	WC9	921502070000	2VG03615084R/02	931119268000	2VG03615100/000/02	100	56	
23	BODY_WC9_GNV_2.5_2500SPL-G040	WC9	921502030000	2VG04015084R/02	931119308000	2VG04015100/000/02	50	56	
24	BODY_WC9_GV_2.5_3500	WC9	922017910000	2VC78514203R/00	932013948000	2VC78514204/000/00	40	138	
25	BODY_WC9_GV_3_3000SPL-V416	WC9	921523040000	2VV41616115R/01	931195508000	2VV41616201/000/04	90	129	
26	BODY_WC9_GNV_3_3500-R144	WC9	921513380000	2VR14415526R/05	931156088000	2VR14415536/000/02	50	100	
27	BODY_WC9_NRV_4_2500-L100	WC9	921509960000	2VL10015228R/00	931126868000	2VL10015325/000/02	50	100	
28	BODY_WC9_GV_4_2850SPL-W784	WC9	921523980000	2VW78416281R/00	931205308000	2VW78416317/000/03	50	119	
29	BODY_WC9_GNV_4_2500-G013	WC9	921500040000	2VG01315003R/04	931112708000	2VG01315036/000/03	120	108	
30	BODY_WC9_GNV_4_2500SPL-G029	WC9	921500080000	2VG02915003R/04	931112748000	2VG02915036/000/03	30	108	
31	BODY_WC9_GNV_6_2500SPL-G026	WC9	921500160000	2VG02615004R/02	931119128000	2VG02615089/000/05	25	270	
32	BODY_C12A_03_3500_GLV_R459	C12A	921530500000	2VR45916650R/02	931232278000	2VR45916649/000/00	10	104	
33	BODY_A217-C12A_3_3500SPL_GLV	C12A	921530510000	2VR46016650R/02	931232398000	2VR46016649/000/00	5	104	
34	BODY_C12A_GV_4_2850SPL	C12A	921533020000	2VWB7116941R/01	931243628000	2VWB7116959/000/03	15	119	
35	BODY -A216-C12A -6-C3500SPL-NRV	C12A	921531530000	2VL41316868R/00	931239258000	2VL41316869/000/01	5	355	
						Total Qty	7470		

* All inclusive prices as per point no. 1 of Enquiry Instructions for Machined Castings.
CFR Chennai - for import
FOR BHEL Trichy - for indigenous

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

Fax : 011-2306 2626

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 8th April, 2011

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, 2011.

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, 2011 for your reference and record.

Thanking you,

Yours faithfully,

(S. K. Jain)

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

Encl: "As above"

Sri Pandurang
Pl take copies & circulate to
the appropriate agencies
J.K.

original to
well known file

→ Sri Civi

kindly arrange for

scanning & place it

in folder with

title "2011 well known"
list

V.R. Singh

INSPECTING AUTHORITIES (As on 31/3/2011)

<u>NAME OF THE AUTHORITY</u>	<u>AREA OF OPERATION</u>
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 Chattisgarh	Chattisgarh
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

- | | |
|--|----------------------------|
| 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. TUV Nord Systems GmbH Co.KG.
Langemarckstr 20
451141 Essen
GERMANY. | All countries except India |
| 30. M/s. Royal & Sunalliance Engineering,
17, York Street, Manchester,
M2 3RS, ENGLAND | All countries except India |
| 31. M/s. Japan Inspection Company Limited,
No.10-7, 1-Chome, hatchobori, Chou-ku,
Tokyo, 104-0032, Japan | All countries except India |
| 32. M/s. S.G.S. Korea Company Limited,
Industrial Division,
16 th FL, KT Pusan IT Center,
830-29, Beomil 2-Dong, Jung-Gu,
Pusan, KOREA (601-706). | Korea & Japan |

33. M/s Bureau Veritas,
67-71, Boulevard du Chateau,
92200 Neuilly-sur-Seine,
FRANCE All countries except India.
34. M/s. Lloyds Register of Verification Ltd.,
71, Fenchurch Street,
London EC 3M, U.K. All countries except India.
35. M/s. Velosi Certificat ion Bureau Ltd.,
318a Kings Road, Clifton House,
Reading Berkshire, RG1 4JG,
United Kingdom All countries except India
36. M/s TUV Rheinland Brandenburg P falz e.V.,
Am Grauen stein, D-51105 Klon,
Germany Europe , Japan, China &
Korea
37. M/s Moody Interna tional Ltd.,
Cuckfield House, High Street,
Cuckfield, West Sussex,
RH 17 5EL, U.K. All countries except India
38. Technischer Uberwachungs-Verein Saarland e.V.,
Am Tuev 1,
66280 Sulzbach,
Germany Europe
39. M/s OOO "TekhnoLogicheskieEnergosistime"
1. Kalinia St. Belgorod,308001
Russia Russia, China, Ukraine & USA
40. M/s. Det Norske Veritas,
Veritasveien 1, P.O. Box 300,
N-1322, Hovik,
NORWAY Argentina, Australia, Austria, Belgium,
Brazil, Denmark, Finland, France,
Germany, Italy, Japan, Netherlands,
Norway, South Korea, Spain, Sweden,
Switzerland, U.K. and U.S.A.
41. M/s. Engi neering Bureau Franke
International,
55, Amurskaya St.,
Ukraine 49108 Ukraine, Russia, Belarus, China ,
Uzbekistan, Poland, Belgium, Romania,
& Czech Republic
42. M/ s. ARISE Boiler Inspection &
Insurance Company Risk Retention Group,
Grand Bay 1, 7000 South Edgerton Road,
Suite 100, Breeksville,
OH 44141 USA Argentina, Austria, Canada, Brazil, France,
Germany, Italy, Malaysia, Netherlands,
Singapore, U.K. and USA
43. 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

S/U

44. M/s TUV SUD Industrie Service GmbH, All countries except India
Wstendstr. 199,
80686 Munich,
Germany
45. M/s Germanischer Lloyd Industrial Services GmbH, All countries except India
Steinhof 9,
20459 Hamburg,
Germany
- 46 M/s. TUV Thuringen e.V., Europe
Business Division Steam and Pressure Technology,
Melchendorfer Str. 64,
99096 Erfurt,
Germany

COMPETENT AUTHORITIES (As on 31/3/2011)**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
Chattisgarh
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

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. Royal & Sunalliance Engineering,
17, York Street,
Manchester,
M2 3RS, ENGLAND.
32. M/s. TUV Nord Systems GnbH Co. KG,
Langemarcestrasse 20,
45841 Essen,
GERMANY

All countries except India

- 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,
Industrial Division,
16th FL, KT Pusan IT Center,
830-29,Beomil 2-Dong ,Jung-Gu,
Pusan, KOREA (601-706).
- 36. M/s Bureau Veritas,
67-71, Boulevard du Chateau,
92200 Neuilly-sur-Seine,
FRANCE
- 37. M/s. Lloyds Register of Verification Limited, All countries except India
71, Fenchurch Street,
London EC3M 4BS,
UNITED KINGDOM
- 38. M/s. Velosi Certification Bureau Ltd.,
318a Kings Road, Clifton House
Reading, Berkshire, RG1 4JG,
United Kingdom
- 39. M/s Moody International Ltd.,
Cuckfield House, High Street,
Cuckfield, West Sussex
RH 17 5 EL, U.K.
- 40. Technischer Uberwachungs-Verein Saarland e.V., Europe
Am Tuev 1,
66280 Sulzbach,
Germany
- 41. M/s. OOO "TekhnoLogicheskieEnergosistime", Russia,China,Ukraine & USA
1, Kalinia St. Belgorod, 308001,
Russia.
- 42. M/s. Det Norske Veritas,
Veritasveien 1, P.O. Box 300,
N-1322, Hovik,
NORWAY.
- 43. M/s. National Test House,
11/1, Judges Court Road
Alipore, Calcutta - 700027

44. M/s. ARISE Boiler Inspection & Insurance Company
Risk Retention Group,
Grand Bay 1, 7000 South Edgerton Road,
Suite 100, Brecksville,
OH 44141 USA
45. M/s TUV Rheinland Brandenburg Pfalz e.V.,
Am Grauen Stein, D-51105 Klon,
Germany
46. M/s National Test House,
Kamla Nehru Nagar,
Ghaziabad- 201 002
Uttar Pradesh
47. M/s Germanischer Lloyd Industrial Services GmbH, All countries except India
Steinhof 9,
20459 Hamburg,
Germany
- 48 M/s. TUV Thuringen e.V., Europe
Business Division Steam and Pressure Technology,
Melchendorfer Str. 64,
99096 Erfurt,
Germany

(As on 31/03/2011)

WELL-KNOWN FOUNDRIES

1. M/s. Samco Metals and Alloys Pvt. Ltd.,
Kaniyambadi-632102,
Vellore Taluk, N.A. Distt.,
TAMIL NADU.
2. M/s. Gujarat Techno-Castings Pvt. Ltd.
Near C.D. High School,
Sajipur-Bogha,
AHMEDABAD.
3. M/s. Ratan Engineering Company Pvt. Ltd.,
F-454 RIICO Industrial Area,
Bhiwadi, Distt ALWAR
RAJASTHAN
4. M/s. Uni Deritend Limited,
Maneck Nagar, Tumsar-4410912
Distt. Bhandara,
MAHARASHTRA.
5. M/s. Malnad Alloy Castings Pvt. Ltd.,
36-A, Shimoga-Bhadravathi Industrial Area,
Machenahalli,
SHIMOGA - 577 222
6. M/s. Auto Shell Casts Pvt. Ltd.,
10, SIDCO Industrial Estate,
COIMBATORE - 641 021
7. M/s. Jsons Foundry Pvt. Ltd.,
Plot No.G/13, MIDC,
Kupwad Block,
Sangli-416 436
MAHARASHTRA.
8. M/s. Veeyes Alloys Pvt. Ltd.,
Door No.3C1-3C4, Athipalayam Pirivu,
Ganapathy,
COIMBATORE-641 006.
9. M/s. Upper India Special Castings Limited,
Dhandari Industrial Area, Focal Point,
LUDHIANA-141 010
10. M/s. A nugraha Valve Castings Limited,
391/2, Sendoda Goudan Pudur,
Arasur Village, Palladam (TK),
COIMBATORE-641 407.
11. M/s. Aruna Alloy Steels Pvt.Ltd.,
Unit - II,
3/1, Olaganeri Village, Uthangudi Post,
MADURAI-625 107.

12. M/s. Oswal Industries Limited,
Bileswarapura,
P.O. Chhatral, Tal Kalol,
Distt. Gandhinagar,
Gujarat - 382 729.
13. M/s. Uni Deritend Limited,
S.V. Road, Manpade,
THANE-400 607
14. M/s. A.V. Valves Limited,
160, Industrial Estate,
Nunhai,
AGRA-282 006.
15. M/s. Veeyes Foundry Pvt. Ltd.,
SF No.302/1 & 4, Kodathur Road,
Kunnathur Pudur (P.O.),
COIMBATORE-641 107.
16. M/s. Madura Steel Industries Pvt. Ltd.,
Chettinaickenpatty,
DINDIGUL-624 004.
17. M/s Creative Castings Limited,
102, G.I.D.C. Phase II,
Dolatpara,
JUNAGARH - 362 003
18. M/s Peekay Steel Castings (P)Ltd.,
(Foundry Division), Nallalam,
KOZHIKODE-673027,
Kerala.
19. M/s PTC Industries Ltd.,
B-480, RIICO Industrial Area,
BHIWADI -301019.
20. M/s The KCP Limited,
Engineering Unit,
Post Box No. 2278,
Tiruvottiyur,
CHENNAI - 600019.
21. M/s. Jayaswal Neco Ltd.,
T-41/42, MIDC Industrial Area,
Hingna Road, NAGPUR-440 016
22. M/s. Saurabh Metals Pvt. Ltd.,
1,22, New Industrial Area,
Mandideep - 462 046,
Bhopal.

23. M/s. Star Wire India Ltd.,
21/4, Mathura Road,
BALLABGARH-121004.
24. M/s. Sanmar Foundries Ltd.,
Foundry Division,
87/1, Vadugapatti Village,
Viralmalai-621316.
TAMILNADU
25. M/s. Sri Ranganaathar Industries Pvt. Ltd.,
12/45, Thadagam Road,
Edayapalayam P.O.,
COIMBATORE - 641025.
26. M/s. Aruna Alloy Steel Pvt.Ltd.,
Unit-I
Super B-6, Industrial Estate,
K. Pudur,
MADURAI - 625007.
27. M/s Hindustan Udyog Limited,
Biren Roy Road,
Ranipur, Maheshtala,
24, Paragana (South), West Bengal.
28. M/s Harihar Alloy Castings Ltd.,
SF No. 421 & 671, Trichi-Thuraiyur Road,
PULIVALAM - 621006.
29. M/s Coimbatore Super Alloy (P) ltd.,
Thelungupalayam Pirivu,
Ellapalayam P.O., Annur (Via),
Pogalur - 641697.
Coimbatore Distt.
30. M/s Ultimate Alloys (P) ltd.,
Kannampalayam Village,
Trichi Road, Sulur,
COIMBATORE - 641402.
31. M/s Kartik Steel Ltd.,
52-53, Sipcot Industrial Complex,
Ranipet - 632403.
N.A. District
32. M/s S.V.E Castings Pvt.Ltd.,
Plot No. 1 & 2, KIADB Indl. Area,
Anantapur Road,
Bellary - 583101.
33. M/s Sueeraa Alloys Global (P) Ltd.,
315/2 Kandampalayam,
Sembiyanallur Village,
Avanashi - 641654.
Coimbatore.

34. M/s. Shiva Sai Cast Pvt. Ltd.
(Formerly: M/s Aaditya Cast)
Survey No. 57,
Gejjenahalli,
Shimoga - 577204.
35. M/s R.K. Machine Tools Ltd.,
854, R.K. Road,
Industrial Area -A,
Ludhiana - 141003.
36. M/s Mani's Foundries (Pvt.) Ltd.,
SF No. 211 & 274, Uralipatty,
Velvarkottai (PO)
Dindigul - 624803.
37. M/s Castech Foundries Pvt. Ltd.,
1708/1709, G.I.D.C., Phase - II,
Dolatpara, Junagarh - 362003 (Gujarat)
38. M/s S.S. Alloy Products Pvt. Ltd.,
83/5, Phase-I, "F" Road,
GIDC Vatva,
Ahmedabad - 382445.
39. M/s. Sri Padmabalaji Steels P. Ltd.,
459/460, Masandipalayam,
Karakoundampalayam Post,
Annur, Coimbatore - 641 697.
40. M/s NMVST Alloys Cast,
4/363, Kallipalayam Village,
Chikkarampalayam PO.,
Karamadai (PO) - 641 104,
Coimbatore Dist.,
Tamilnadu.
41. M/s. Veeyes Alloys Private Limited,
Unit-II, S.F. No.518/1A&1B,
Saravanampatti- Tudiyalur Road,
Vellakinar Post,
Coimbatore - 641 029.
42. M/s. Amex Alloys Private Limited,
SF No. 289/2, Sathy Road,
Kunnathur Pudur PO,
Coimbatore 641 107.
43. M/s. Balaji Super Alloys,
Bettathapuram Pirivu,
Karamadai (PO) - 641 104
Coimbatore Dist.

44. M/s. Anugraha Valve Castings Limited,
(Formerly : M/s Graha Industries Private Limited)
S.F. No.307, Sendoda Goudan Pudur,
Arasur Village, Palladam (TK),
COIMBATORE-641 407.
45. M/s Aruna Alloy Steels Pvt. Ltd.,
Narasingampatti, (Unit-III)
Therkutheru,
Madurai - 625112.
46. M/s Rine Engineering Pvt. Ltd.,
Plot No. 73 AB&C, HPSIDC, Industrial Area Baddi,
Distt. Solan - 173 205, (H.P.)
47. M/s Ratnamani Techno Casts Ltd.,
3310, Phase IV, GIDC Estate, Chhatral 382 729,
Ahmedabad Mehsana Highway, Dist. Gandhinagar,
Gujarat.
48. M/s Nectar Steel Cast Pvt. Ltd.,
E-62, MIDC Waluj,
Aurangabad - 431 136.
49. M/s Western Precicast Pvt. Ltd.,
Gate No. 170, Village Savali,
Taluka Miraj, Dist. Sangli. (Maharashtra)
50. M/s. Shyam Forgings Pvt. Ltd.,
6th Mile Stone, G.T. Road, Chhaprola,
Gautambudh Nagar - 201 009 (U.P.).
51. M/s Simplex Castings Limited,
(Special Castings Division),
Urla Industrial Estate,
Raipur - 492 023
(Chhattisgarh State).
52. M/s Electralloy Special Steel Castings Pvt. Ltd.,
Plot No. 25, SIPCOT Industrial Complex,
6th Cross Road,
Hosur-635 126 (Tamil Nadu)
53. M/s Koso Fluid Control (P) Limited,
Foundry Division,
1/80, Talungupalayam Road,
Pillayappampalayam Post,
Annur, Coimbatore-641 653
54. M/s Bharat Heavy Electricals Limited,
Central Foundry Forge Plant,
Ranipur, Haridwar-249 403 (Uttarakhand)
55. M/s Amsteel Castings Pvt. Limited,
35-A, Sipcot Industrial Industrial Complex,
Hosur-635 126 (Tamil Nadu)

56. M/s Neesa Infrastructure Limited,
278, Pancharatna Industrial Estate,
Vill: Changodar, Tal.: Sanand,
Distt. Ahmedabad- 382 213
Gujarat
57. M/s RLS Alloys Private Limited,
S.F. No. 118/1,2,3 Sethurapatti,
Fathimanagar,
Trichy- 620 012
Tamil Nadu
58. M/s Harihar alloys Castings (P) Limited,
Unit II, S.F. No. 229/2 & 4B,
Laxmanampatti Village,
Kulathur(Tk),
Pudukottai-622 054
Tamil Nadu
59. M/s Leader Valves Limited,
S-3,S-4, Industrial Town,
Jalandhar-144 004
Punjab
60. M/s A. K. Multimetals Private Limited,
A-1, Focal Point,
Mandi Gobindgarh-147 301
Punjab
61. M/s Uttar Pradesh Steels,
Village- Nara,
P.O. Mansurpur-251 203
Distt. Muzaffarnagar,
Uttar Pradesh
62. M/s Shree Kumaran Alloys,
S.F.No. 461, Telungupalayam Road,
Ellapalayam Post
Annur,
Coimbatore-641 697
63. M/s Yama Control Company,
Old No. 26, New No. 43A, P.N.Palayam Road,
Perumal Koil Thottam,
Ganapathy
Coimbatore-641 006

(As on 31/3/2011)

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
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

Annexure: J

Sl. 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



70-006

Bharat Heavy Electricals Limited

High Pressure Boiler Plant, Tiruchirappalli-620 014, India.

Grams : BHARATELEC

Phone :

Telex : 0455 - 211, 212, 295 & 298

FAX : 91 - (0431) - 52710

PRODUCT ENGINEERING/VALVES

VL:STDC:023

REV.00

PAGE 1 OF 6

TDC FOR UNTOLERANCED DIMENSIONS IN CASTING & FORGING DRAWINGS

Scope :

This technical delivery condition specifies the tolerance for the untoleranced dimension for the castings and forgings wherever tolerances are not specified in the applicable drawing applicable material TDC.

A. Castings :

Nominal dimension (in mm)		Tolerance on diameter & height (in mm)
UPTO	4	± 0.5
OVER	4 UPTO 16	± 1.0
OVER	16 UPTO 65	± 1.5
OVER	65 UPTO 125	± 2.0
OVER	125 UPTO 250	± 2.5
OVER	250 UPTO 500	± 3.0
OVER	500 UPTO 1000	± 4.0
OVER	1000 UPTO 1600	± 5.0

B. Forgings : As per Table (1), (2), (3) & (4)


PREPARED


CHECKED


APPROVED

(S. KUMAR)
SM/PE/USA
28/2/94

INTEGRITY PACT

Between

Bharat Heavy Electricals Ltd. (BHEL), a company registered under the Companies Act 1956 and having its registered office at "BHEL House", Siri Fort, New Delhi – 110049 (India) hereinafter referred to as "The Principal", which expression unless repugnant to the context or meaning hereof shall include its successors or assigns of the ONE PART

and

_____, (description of the party along with address), hereinafter referred to as "The Bidder/ Contractor" which expression unless repugnant to the context or meaning hereof shall include its successors or assigns of the OTHER PART

Preamble

The Principal intends to award, under laid-down organizational procedures, contract/s for

_____. The Principal values full compliance with all relevant laws of the land, rules and regulations, and the principles of economic use of resources, and of fairness and transparency in its relations with its Bidder(s)/ Contractor(s).

In order to achieve these goals, the Principal will appoint Independent External Monitor(s), who will monitor the tender process and the execution of the contract for compliance with the principles mentioned above.

Section 1 – Commitments of the Principal

- 1.1 The Principal commits itself to take all measures necessary to prevent corruption and to observe the following principles:-
 - 1.1.1 No employee of the Principal, personally or through family members, will in connection with the tender for, or the execution of a contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.
 - 1.1.2 The Principal will, during the tender process treat all Bidder(s) with equity and reason. The Principal will in particular, before and during the tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential / additional information through which the Bidder(s) could obtain an advantage in relation to the tender process or the contract execution.
 - 1.1.3 The Principal will exclude from the process all known prejudiced persons.
- 1.2 If the Principal obtains information on the conduct of any of its employees which is a penal offence under the Indian Penal Code 1860 and Prevention of Corruption Act 1988 or any other statutory penal enactment, or if there be a substantive suspicion in this regard, the Principal will inform its Vigilance Office and in addition can initiate disciplinary actions.

Section 2 – Commitments of the Bidder(s)/ Contractor(s)

- 2.1 The Bidder(s)/ Contractor(s) commit himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the tender process and during the contract execution.
 - 2.1.1 The Bidder(s)/ Contractor(s) will not, directly or through any other person or firm, offer, promise or give to the Principal or to any of the Principal's employees involved

in the tender process or the execution of the contract or to any third person any material, immaterial or any other benefit which he / she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the tender process or during the execution of the contract.

- 2.1.2 The Bidder(s)/ Contractor(s) will not enter with other Bidder(s) into any illegal or undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.
- 2.1.3 The Bidder(s)/ Contractor(s) will not commit any penal offence under the relevant IPC/ PC Act; further the Bidder(s)/ Contractor(s) will not use improperly, for purposes of competition or personal gain, or pass on to others, any information or document provided by the Principal as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.
- 2.1.4 The Bidder(s)/ Contractor(s) will, when presenting his bid, disclose any and all payments he has made, and is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract.
- 2.2 The Bidder(s)/ Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.

Section 3 – Disqualification from tender process and exclusion from future contracts

If the Bidder(s)/ Contractor(s), before award or during execution has committed a transgression through a violation of Section 2 above, or acts in any other manner such as to put his reliability or credibility in question, the Principal is entitled to disqualify the Bidder(s)/ Contractor(s) from the tender process or take action as per the separate "Guidelines on Banning of Business dealings with Suppliers/ Contractors". framed by the Principal.

Section 4 – Compensation for Damages

- 4.1 If the Principal has disqualified the Bidder from the tender process prior to the award according to Section 3, the Principal is entitled to demand and recover the damages equivalent Earnest Money Deposit/Bid Security.
- 4.2 If the Principal has terminated the contract according to Section 3, or if the Principal is entitled to terminate the contract according to section 3, the Principal shall be entitled to demand and recover from the Contractor liquidated damages equivalent to 5% of the contract value or the amount equivalent to Security Deposit/Performance Bank Guarantee, whichever is higher.

Section 5 – Previous Transgression

- 5.1 The Bidder declares that no previous transgressions occurred in the last 3 years with any other company in any country conforming to the anti-corruption approach or with any other Public Sector Enterprise in India that could justify his exclusion from the tender process.
- 5.2 If the Bidder makes incorrect statement on this subject, he can be disqualified from the tender process or the contract, if already awarded, can be terminated for such reason.

Section 6 – Equal treatment of all Bidders/ Contractors/ Sub-contractors

- 6.1 The Bidder(s)/ Contractor(s) undertake(s) to obtain from all subcontractors a commitment consistent with this Integrity Pact and report Compliance to the Principal. This commitment shall be taken only from those sub-contractors whose contract value is more than 20 % of Bidder's/ Contractor's contract value with the Principal. The Bidder(s)/ Contractor(s) shall continue to remain responsible for any default by his Sub-contractor(s).
- 6.2 The Principal will enter into agreements with identical conditions as this one with all Bidders and Contractors.
- 6.3 The Principal will disqualify from the tender process all bidders who do not sign this pact or violate its provisions.

Section 7 – Criminal Charges against violating Bidders/ Contractors /Sub-contractors

If the Principal obtains knowledge of conduct of a Bidder, Contractor or Subcontractor, or of an employee or a representative or an associate of a Bidder, Contractor or Subcontractor which constitutes corruption, or if the Principal has substantive suspicion in this regard, the Principal will inform the Vigilance Office.

Section 8 –Independent External Monitor(s)

- 8.1 The Principal appoints competent and credible Independent External Monitor for this Pact. The task of the Monitor is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement.

- 8.2 The Monitor is not subject to instructions by the representatives of the parties and performs his functions neutrally and independently. He reports to the CMD, BHEL.
- 8.3 The Bidder(s)/ Contractor(s) accepts that the Monitor has the right to access without restriction to all contract documentation of the Principal including that provided by the Bidder(s)/ Contractor(s). The Bidder(s)/ Contractor(s) will grant the monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his contract documentation. The same is applicable to Sub-contractor(s). The Monitor is under contractual obligation to treat the information and documents of the Bidder(s)/ Contractor(s) / Sub-contractor(s) with confidentiality.
- 8.4 The Principal will provide to the Monitor sufficient information about all meetings among the parties related to the contract provided such meetings could have an impact on the contractual relations between the Principal and the Contractor. The parties offer to the Monitor the option to participate in such meetings.
- 8.5 As soon as the Monitor notices, or believes to notice, a violation of this agreement, he will so inform the Management of the Principal and request the Management to discontinue or take corrective action, or heal the situation, or to take other relevant action. The Monitor can in this regard submit non-binding recommendations. Beyond this, the Monitor has no right to demand from the parties that they act in a specific manner, refrain from action or tolerate action.
- 8.6 The Monitor will submit a written report to the CMD, BHEL within 8 to 10 weeks from the date of reference or intimation to him by the Principal and, should the occasion arise, submit proposals for correcting problematic situations.
- 8.7 The CMD, BHEL shall decide the compensation to be paid to the Monitor and its terms and conditions.
- 8.8 If the Monitor has reported to the CMD, BHEL, a substantiated suspicion of an offence under relevant IPC / PC Act, and the CMD, BHEL has not, within reasonable time, taken visible action to proceed against such offence or reported it to the Vigilance Office, the

Monitor may also transmit this information directly to the Central Vigilance Commissioner, Government of India.

8.9 The number of Independent External Monitor(s) shall be decided by the CMD, BHEL.

8.10 The word 'Monitor' would include both singular and plural.

Section 9 – Pact Duration

9.1 This Pact begins and shall be binding on and from the submission of bid(s) by bidder(s). It expires for the Contractor 12 months after the last payment under the respective contract and for all other Bidders 6 months after the contract has been awarded.

9.2 If any claim is made / lodged during this time, the same shall be binding and continue to be valid despite the lapse of this pact as specified as above, unless it is discharged/ determined by the CMD, BHEL.

Section 10 – Other Provisions

10.1 This agreement is subject to Indian Laws and jurisdiction shall be registered office of the Principal, i.e. New Delhi.

10.2 Changes and supplements as well as termination notices need to be made in writing. Side agreements have not been made.

10.3 If the Contractor is a partnership or a consortium, this agreement must be signed by all partners or consortium members.

10.4 Should one or several provisions of this agreement turn out to be invalid, the remainder of this agreement remains valid. In this case, the parties will strive to come to an agreement to their original intentions.

10.5 Only those bidders/ contractors who have entered into this agreement with the Principal would be competent to participate in the bidding. In other words, entering into this agreement would be a preliminary qualification.

For & On behalf of the Principal

For & On behalf of the Bidder/ Contractor

(Office Seal)

(Office Seal)

Place-----

Date-----

Witness: _____

Witness: _____

(Name & Address) _____

(Name & Address) _____
