434-003/A	ENQUIRY VALVES	**Bharat Heavy Electricals Limited** (A Government of India undertaking) HIGH PRESSURE BOILER PLANT PURCHASE DEPARTMENT/VALVES TIRUCHIRAPPALLI-620 014.	Phone: +91 (431) 257 7096/4047 Email: sivabala@bhel.in kathir@bhel.in

ENQUIRY NO.	DATE	DUE DATE FOR QUOTATION
ENSFV00188	**12.02.2018**	**10.03.2018**

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

Date, Time &
Venue of tender opening:

10.03.2018 at 14.30 Hrs.
at
The Tender Opening Cell/Valves
Room No. -26, Building -24
Bharat Heavy Electricals Limited
Tiruchirappalli - 620014,
Tamilnadu, India

Email: tender_cell@bheltry.co.in

Scope of supply

Supply of Spring Loaded Safety Valves as per the purchase specification enclosed.

-List of Annexures

00. Annexure 0A - Scope of Supply
01. Annexure 1A - DATA SHEET VDS:SV:1819 Rev: 01
02. Annexure 1B - SV Spec SV-013 Rev:02
    Annexure 1C - *<Not Applicable>*
03. Annexure 1D - QP FORMAT
04. Annexure 1E - QA REQUIREMENT
05. Annexure 2A - GENERAL TERMS AND CONDITIONS
06. Annexure 2B - SPECIAL TENDER TERMS
07. Annexure 2C - IBR APPROVED INSPECTION AGENCIES
08. Annexure 2D - CONFIRMATION TO THE TERMS AND CONDITIONS
09. Annexure 3A - PBG FORMAT
10. Annexure 3B - LIST OF CONSORTIUM BANKS
11. Annexure 4A - INTEGRITY PACT FORMAT
11. Annexure 4B - SCHEDULE OF DEVIATIONS
12. Annexure 4C - UNPRICED FORMAT IMPORT
13. Annexure 4D - PRICED BID FORMAT IMPORT

The rate of Excise Duty and Sales Tax, Prevalent on the date of quotation, should be clearly indicated in the quotation itself.

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 14.00 Hrs. (IST)

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

Late tenders will not be considered.

Yours faithfully,

For Bharat Heavy Electricals Ltd

Sivabala Shanmugam
Sr. Engineer/Purchase/Valves

ANNEXURE 0A
SCOPE OF SUPPLY

ENSFV00188 - SCOPE OF SUPPLY

Material	Matl_Desc	Open_Qty	Sale Order	Item	ProjName
974611410000	SPRING LOADED SHSV-1-TELANGANA-1819	2	3503184	005001	NTPC TELANGANA 2X800MW UNIT 1
974611420000	SPRING LOADED SHSV-2-TELANGANA-1819	2	3503184	005002	NTPC TELANGANA 2X800MW UNIT 1
974611430000	SPRING LOADED HRHSV-1-TELANGANA-1819	2	3503184	005003	NTPC TELANGANA 2X800MW UNIT 1
974611440000	SPRING LOADED HRHSV-2-TELANGANA-1819	2	3503184	005004	NTPC TELANGANA 2X800MW UNIT 1
974611450000	SPRING LOADED HRHSV-3-TELANGANA-1819	2	3503184	005005	NTPC TELANGANA 2X800MW UNIT 1
974611410000	SPRING LOADED SHSV-1-TELANGANA-1819	2	3503185	005001	NTPC TELANGANA 2X800MW UNIT 2
974611420000	SPRING LOADED SHSV-2-TELANGANA-1819	2	3503185	005002	NTPC TELANGANA 2X800MW UNIT 2
974611430000	SPRING LOADED HRHSV-1-TELANGANA-1819	2	3503185	005003	NTPC TELANGANA 2X800MW UNIT 2
974611440000	SPRING LOADED HRHSV-2-TELANGANA-1819	2	3503185	005004	NTPC TELANGANA 2X800MW UNIT 2
974611450000	SPRING LOADED HRHSV-3-TELANGANA-1819	2	3503185	005005	NTPC TELANGANA 2X800MW UNIT 2
		20			

ANNEXURE 1A
DATA SHEET

365-003/A	**Bharat Heavy Electricals Ltd., Trichy-14, Valves Engineering**		**DATA SHEET**		**Sheet: 1 of 6**
			SPRING LOADED SAFETY VALVE		**Date: 10.01.2017**
			VDS:SV:1819 Rev: 01		**Cust no: 1819**
		Customer:	**M/s NTPC**		**Pre: Rabin R**
			Project: TELANGANA 2x800 MW		**Appd: E.Athiannavi**
1	*Serial no.*		1	2	
2	*Tag no.*		10LBA11-AA702, 10LBA12-AA702	10LBA11-AA703, 10LBA12-AA703	
3	*Location*		**SUPERHEATER OUTLET**	**SUPERHEATER OUTLET**	
4	*Required quantity*	nos.	2 no. / Unit	2 no. / Unit	
5	*Fluid to be handled*		STEAM	STEAM	
6	*Required Capacity*	kg/h	**645000 (for 4 valves)**		
7	***Set Pressure***	kg/cm²(g)	300.0	300.4	
8	***Relieving Temperature***	°C	603±5°C	603±5°C	
9	*Valve Type*		**Spring Loaded, Full Lift, Angle**	**Spring Loaded, Full Lift, Angle**	
10	*Orifice Designation*		*	*	
11	*Calculated Orifice Area*	mm²	*	*	
12	*Selected Orifice Area*	mm²	*	*	
13	***Rated Capacity per Valve***	kg/h	*	*	
14	*System Design Temperature*	°C	608	608	
15	*System Operating Pressure*	kg/cm²(g)	279.0	279.0	
16	*System Design Pressure*	kg/cm²(g)	301.0	301.0	
17	*Imposed Back Pr.*		Atmosphere	Atmosphere	
18	*Allowable Over Pr.*		As per ASME Sec-I	As per ASME Sec-I	
19	*Blowdown*	%	As per ASME Sec-I	As per ASME Sec-I	
20	*Applicable Code*		ASME Sec-I / IBR	ASME Sec-I / IBR	
21	***Valve Model***		*	*	
22	*Inlet Size & Rating*		*	*	
23	*Inlet Type/Standard*		Butt Weld/ASME B16.25	Butt Weld/ASME B16.25	
24	*Outlet Size & Rating*		*	*	
25	*Outlet Type/Standard*		Flanged/ASME B16.5	Flanged/ASME B16.5	
26	*Body Material*		SA182 F92 (or) Equivalent	SA182 F92 (or) Equivalent	
27	*Disc Material*		*	*	
28	*Nozzle/Seat Material*		*	*	
29	*Inlet Neck Material*		SA182 F92	SA182 F92	
30	*Guide Material*		*	*	
31	*Spindle Material*		*	*	
32	*Spring Material*		*	*	
33	*Lift*	mm	*	*	
34	*Weight*	kg	*	*	
35	*Reaction Force*	kgf	*	*	
36	*Opening/Raising Time*	Seconds	*	*	
37	*Noise generated at source*	dBA	*	*	
38	*Inspection/Certification*		Hyd.Test (Form-IIIC as per IBR regulation 269), ITEM 11 of IBR FORM-III , Functional test, Leak test	Hyd.Test (Form-IIIC as per IBR regulation 269), ITEM 11 of IBR FORM-III , Functional test, Leak test	
39	*Required Accessories*		Blowdown adjustment rings, Manual Lifting Lever, Test Gag, Hydro Test Plug etc	Blowdown adjustment rings, Manual Lifting Lever, Test Gag, Hydro Test Plug etc	
Notes:					
* *means Vendor to specify*					

1. Offers received from vendor shall include the commissioning spares and also the operational spares indicated in Annexure-I. Offers without spares will be subsequently rejected
2. BHEL reserves the right to change the spares requirement as per customer need in the PO
3. For site information see Annexure - II
4. Edge preparation as per Annexure - III
5. Other Requirements as per Annexure - IV

365-003/A	**Bharat Heavy Electricals Ltd., Trichy-14, Valves Engineering**		**DATA SHEET**		**Sheet: 2 of 6**
			SPRING LOADED SAFETY VALVE		**Date: 10.01.2017**
			VDS:SV:1819 Rev: 01		**Cust no: 1819**
		Customer:	**M/s NTPC**		**Pre: Rabin R**
			Project: TELANGANA 2x800 MW		**Appd: E.Athiannavi**
1	*Serial no.*		3	4	5
2	*Tag no.*		10LBB11-AA703, 10LBB12-AA703	10LBB11-AA704, 10LBB12-AA704	10LBB11-AA705, 10LBB12-AA705
3	*Location*		**REHEATER OUTLET**	**REHEATER OUTLET**	**REHEATER OUTLET**
4	*Required quantity*	nos.	2 no. / Unit	2 no. / Unit	2 no. / Unit
5	*Fluid to be handled*		STEAM	STEAM	STEAM
6	*Required Capacity*	kg/h	**1298700 (for 6 valves)**		
7	***Set Pressure***	kg/cm²(g)	71.4	71.8	73.5
8	***Relieving Temperature***	°C	603±5°C	603±5°C	603±5°C
9	*Valve Type*		**Spring Loaded, Full Lift, Angle**	**Spring Loaded, Full Lift, Angle**	**Spring Loaded, Full Lift, Angle**
10	*Orifice Designation*		*	*	*
11	*Calculated Orifice Area*	mm²	*	*	*
12	*Selected Orifice Area*	mm²	*	*	*
13	***Rated Capacity per Valve***	kg/h	*	*	*
14	*System Design Temperature*	°C	608	608	608
15	*System Operating Pressure*	kg/cm²(g)	63.75	63.75	63.75
16	*System Design Pressure*	kg/cm²(g)	72.45	72.45	72.45
17	*Imposed Back Pr.*		Atmosphere	Atmosphere	Atmosphere
18	*Allowable Over Pr.*		As per ASME Sec-I	As per ASME Sec-I	As per ASME Sec-I
19	*Blowdown*	%	As per ASME Sec-I	As per ASME Sec-I	As per ASME Sec-I
20	*Applicable Code*		ASME Sec-I / IBR	ASME Sec-I / IBR	ASME Sec-I / IBR
21	***Valve Model***		*	*	*
22	*Inlet Size & Rating*		*	*	*
23	*Inlet Type/Standard*		Butt Weld/ASME B16.25	Butt Weld/ASME B16.25	Butt Weld/ASME B16.25
24	*Outlet Size & Rating*		*	*	*
25	*Outlet Type/Standard*		Flanged/ASME B16.5	Flanged/ASME B16.5	Flanged/ASME B16.5
26	*Body Material*		SA182 F92 (or) Equivalent	SA182 F92 (or) Equivalent	SA182 F92 (or) Equivalent
27	*Disc Material*		*	*	*
28	*Nozzle/Seat Material*		*	*	*
29	*Inlet Neck Material*		SA182 F92	SA182 F92	SA182 F92
30	*Guide Material*		*	*	*
31	*Spindle Material*		*	*	*
32	*Spring Material*		*	*	*
33	*Lift*	mm	*	*	*
34	*Weight*	kg	*	*	*
35	*Reaction Force*	kgf	*	*	*
36	*Opening/Raising Time*	Seconds	*	*	*
37	*Noise generated at source*	dBA	*	*	*
38	*Inspection/Certification*		Hyd.Test (Form-IIIC as per IBR regulation 269), ITEM 11 of IBR FORM-III , Functional test, Leak test	Hyd.Test (Form-IIIC as per IBR regulation 269), ITEM 11 of IBR FORM-III , Functional test, Leak test	Hyd.Test (Form-IIIC as per IBR regulation 269), ITEM 11 of IBR FORM-III , Functional test, Leak test
39	*Required Accessories*		Blowdown adjustment rings, Manual Lifting Lever, Test Gag, Hydro Test Plug etc	Blowdown adjustment rings, Manual Lifting Lever, Test Gag, Hydro Test Plug etc	Blowdown adjustment rings, Manual Lifting Lever, Test Gag, Hydro Test Plug etc
Notes:					
* *means Vendor to specify*					

1. Offers received from vendor shall include the commissioning spares and also the operational spares indicated in Annexure-I. Offers without spares will be subsequently rejected
2. BHEL reserves the right to change the spares requirement as per customer need in the PO
3. For site information see Annexure - II
4. Edge preparation as per Annexure - III
5. Other Requirements as per Annexure - IV

GENERAL NOTES for Spring loaded Valves

1. Selected Valve model should be the same for one particular location.
2. Tag nos. are given for one unit only, for other units will be furnished later.
3. BHEL approved procedures should be followed for inspection, testing and certification.
4. Test certificates should be in line with IBR form-IIIC & ITEM 11 of IBR FORM-III.
5. Site Information given in Annexure –II should also be considered in the SV design offered

ANNEXURE - I

The details of spares components and required quantity for a given material code are given below.

A) Material Code for operational Spares of SH SV for TELANGANA Project

Sl no	*Material Code*	*Description*	*Quantity*
1	974611410010	Upper Adjusting Ring Pin (SH SV)	1 no.
2	974611410020	Lower Adjusting Ring Pin (SH SV)	1 no.
3	974611410030	Upper Adjusting Ring (SH SV)	1 no.
4	974611410040	Lower Adjusting Ring (SH SV)	1 no.
5	974611410050	Disc (SH SV)	1 no.
6	974611410060	Spindle (SH SV)	1 no.
7	974611410070	Guide (SH SV)	1 no.
8	974611410080	Disc Holder (SH SV)	1 no.
9	974611410090	Spring (SH SV)	1 no.

B) Material Code for operational spare of HRH SV for TELANGANA Project

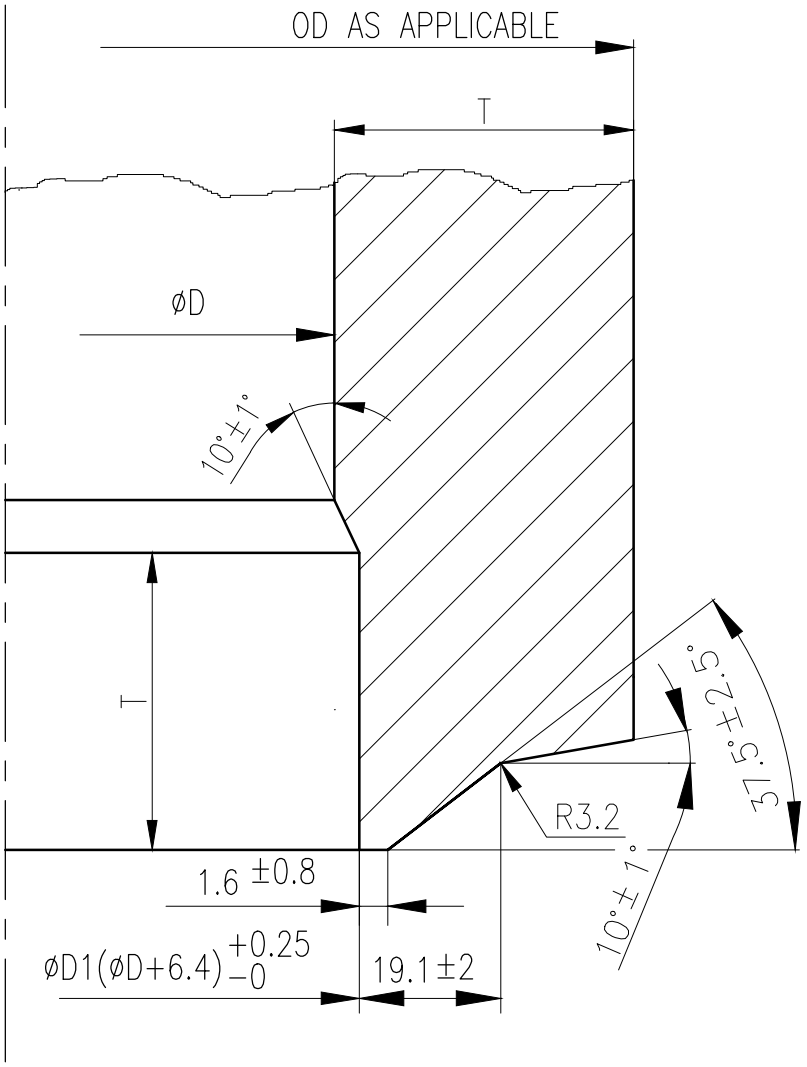
Sl no	*Material Code*	*Description*	*Quantity*
1	974611430010	Upper Adjusting Ring Pin (HRH SV)	1 no.
2	974611430020	Lower Adjusting Ring Pin (HRH SV)	1 no.
3	974611430030	Upper Adjusting Ring (HRH SV)	1 no.
4	974611430040	Lower Adjusting Ring (HRH SV)	1 no.
5	974611430050	Disc (HRH SV)	1 no.
6	974611430060	Spindle (HRH SV)	1 no.
7	974611430070	Guide (HRH SV)	1 no.
8	974611430080	Disc Holder (HRH SV)	1 no.
9	974611430090	Spring (HRH SV)	1 no.

ANNEXURE - II

SITE INFORMATION

1. Ambient Temperature (Min) : 7.8°C
   Ambient Temperature (Max) : 47.2°C
2. Relative Humidity : 60%
3. Height above MSL : 148 m
4. Wind Data - Calculations for wind effect shall be in accordance with IS 875 (Part 3):1987
   a. Basic Wind Speed : 44m/sec
      (At 10m above mean ground level)
   b. Factor K1 : 1.07
   c. Category of terrain : Category 2

ANNEXURE – III



GIVEN DIMENSIONS ARE IN MILLIMETERS

VALVE INLET EDGE PREPARATION STYLE

ANNEXURE – IV

ADDITIONAL REQUIREMENTS

1. When the materials ASTM A335 P92 or SA182-F92 or equivalent is used, Bidder shall be required to furnish a certificate of provenness of the material certifying the usage & satisfactory performance of the proposed material in Main Steam and/or Hot Reheat Piping/valves/ components for a reference plant (or applicable unit of reference plant) having rated main steam and/or Hot Reheat steam temperature at turbine inlet at least equal to or higher than the rated Main Steam and/or Hot Reheat steam temperature at turbine inlet offered by the bidder. Such reference plant(s) (or unit) should have been executed by the bidder himself or by others and should have been under operation for at least 50,000 hours or 6 years from date of commissioning of the applicable unit (of the reference plant).

2. If ASTM A335 P92 or SA182-F92 or equivalent is offered/ used by the bidder/ contractor for piping/valves/components application, maximum allowable stress values to be considered for calculating the thickness of piping will be reduced by 10% w.r.t allowable stress value indicated in code case (ASME-B-31.1) for P-92 (or) F-92. Similarly, if any proven material equivalent to ASTM-A-335-P92 or SA182-F92 is used, the maximum allowable stress to be considered for design calculation of pipe thickness shall also be reduced by 10% w.r.t allowable stress value indicated in the standard/code of that equivalent material.

3. Supplementary test & Additional Requirements applicable for ASTM A335-P92 or Equivalent:
   For ASTM A335 Grade P 92 or equivalent following additional tests are to be done:
   a. Supplementary tests S1, S2, S3 and S4 as per ASTM A 335 will be done. However, quantum of tests shall be at least 5% of the pipes per heat or Minimum 2 pipes per heat from one end / both end of the pipe as specified in ASTM A335.
   b. Supplementary requirement S5: Certificate of Conformity “COC” from pipe supplier for microstructure and delta ferrite (to be maintained within 3%max. when measured as per VD TUV 1272).
   c. Chemical Composition: For ASTM A335 P92 Nickel and Copper shall be limited to Ni 0.3% max. and Cu 0.25% max., respectively, while complying the percentage of other elements in P-92 or equivalent material within the prescribed limits as indicated in the applicable codes/standards

4. The supplier has to submit a copy of minimum one (1) performance certificate in English from end user along with copy of related purchase order(PO) or letter of intent(LOI) or letter of award(LOA) or work order(WO) specifying that the product / equipment is running at least 50,000 hours or 6 years from date of commissioning meeting pre-qualifying requirement

ANNEXURE 1B
VALVE SPECIFICATION

TABLE OF CONTENTS

02	**Performance requirements added.**	**S. MADHULINGAM**	**E. ATHIANNAVI**	**E. ATHIANNAVI**	**03.01.11**
01	Revised based on vendor feedback	S. MADHULINGAM	E. ATHIANNAVI	E. ATHIANNAVI	12.10.10
00	FIRST ISSUE	S. MADHULINGAM	E. ATHIANNAVI	E. ATHIANNAVI	08.03.10
REV. NO	*DESCRIPTION*	*PREPARED BY*	*CHECKED BY*	*APPROVED BY*	*DATE*

1.0 **GENERAL**

This specification, together with the applicable data sheets relevant for the specific project, covers the requirements for the design, materials, construction details, manufacture, nameplate marking, inspection, testing, painting, packing and shipment of safety valves. The offer shall be submitted along with all the documents required in this specification.

1.1 Data sheet indicates the type, size, required relieving capacity etc. of the selected valve. However, vendor shall be responsible to size and select the proper valve with orifice relieving area meeting the indicated operating conditions.

1.2 Data sheets specify the minimum acceptable materials for body, Seat bushing, Disc, Spring, Inlet neck etc. Alternate superior material of construction shall also be acceptable, with prior written approval by us.

1.3 The manufacture, inspection and testing of valves shall conform in all respects to the applicable requirements of ASME Section-I/IBR.

1.4 Supplier shall attach the list of supplied projects with the parameters, for each safety valve models for the given flow parameters or higher, which are in service for more than two years to consider the technical suitability.

1.5 The valves covered under this specification shall be governed by the following standards. However the valves confirming to other International Standards may be acceptable provided they are equivalent or superior to those listed below:

ANSI-American National Standards Institute

ASME-American Society of Mechanical Engineers

ASTM -American Society for Testing and Materials.

AWS-American Welding Society

IEC-International Electro technical Commission

ISA-Instrument Society of America

IBR-Indian Boiler Regulations

NEMA-National Electrical Manufacturers Association

NEC-National Electrical Code

NFPA-National Fire Protection Association

OSHA-Occupational Safety and Health Administration

1.6 All welding procedures and welders shall be qualified in accordance with the appropriate sections of the AWS Code D14.6 or ASME Section-IX and AWS Code 1.1 or IBR. When welders and welding procedures are qualified in accordance with codes other than those specified the Seller must take exception at the time of quotation. The procedures and materials proposed must be submitted to the Purchaser with the quotation for review and approval.

1.7 All materials, construction and design of the pressure parts shall conform in all respects to the applicable requirements of ASME Section-I.

1.8 Safety valves shall be furnished in accordance with ASME Section-I.

1.9 All pressure retaining parts of the valve shall be made of materials, including specific limitations on various materials that are in full compliance with PG-5 of ASME Code Section-I.

1.10 Only materials listed and rated in B16.34 are acceptable and materials offered shall be appropriate to the design conditions listed.

1.11 All materials shall be readily identifiable. Mill test reports shall be obtained for all pressure boundary parts. These test reports shall be available for review at the Seller's shops. Copies of these are to be supplied to the Purchaser, if requested, prior to ordering.

1.12 Nothing in this Specification shall be construed as relieving the Seller of his responsibility for compliance with all applicable codes and regulations.

2.0 DESIGN AND CONSTRUCTION

2.1 The function of the Safety Valve is to provide over pressure protection for ASME Code Section-I fired vessels.

2.2 The Safety Valve assembly should include respective Test Gag, Hydrostatic Plug for butt welded valves, Lifting Lever, Cap, Weather protection hood or Spring Cover etc.

2.3 All the Safety Valves shall be suitable for outdoor installation.

2.4 Safety valves shall be of the direct spring loaded type and shall have a tight, positive & precision closing and shall be of pop type.

2.5 Sizing shall be carried out as per ASME Sec-I or IBR (Indian Boiler Regulations). The seller is required to accurately calculate and verify the sizes of the valves based upon the Valve Design conditions submitted by the Purchaser in the data sheet. Seller shall request any additional process data that may be required for proper analysis and sizing. Seller shall submit their calculations for Purchaser approval and record.

2.6 Construction and Materials shall conform to ASME Section-I Code.

2.7 The design of valve seat and guiding arrangement shall ensure consistent operation reseating and tightness over several successive operations.

2.8 Safety valves shall have the feature of adjustable blow down for the range given in ASME Section-I.

2.9 Valves shall have open yoke and suitable weatherproof cover for spring.

2.10 Unless otherwise mentioned, end connections details shall be as below:
a) Threaded end connections shall be NPT as per ANSI/ASME B1.20.1
b) Flanged end connections shall be as per ANSI/ASME B16.5.
c) Butt welding end connection as per ASME B16.25 (Welding End Detail for Joint Without Backing Ring).

2.11 Wherever stelliting of Disc and Seat bushing has been specified, it stands for stelliting of the seat area or the entire disc contour, unless otherwise specified.

2.12 The allowable tolerance in set pressure is as per ASME Section-I.

2.13 Nameplates shall be of white non-hygroscopic material with engraved black lettering and shall be suitably fixed on both front and rear sides. The nameplates shall have the following details minimum.
i) Tag number as per purchaser's data sheet.
ii) Manufacturer's Model number
iii) Manufacturer's Serial number
iv) Size & Rating for Inlet and Outlet
v) Seat diameter
vi) Manufacturer's name/trade mark.
vii) Blow down as percentage of set pressure.
viii) Accumulation as percentage of set pressure.
ix) Lift
x) Certified capacity of steam in Kg/h (with type test report to be submitted)
xi) Valve set pressure.
xii) Relieving Temperature.
xiii) Cold bench set pressure.
xiv) Date of manufacture.

3.0 INSPECTION AND TESTING

3.1 All safety valves shall be inspected, tested and stamped per applicable ASME Section-I code. All valves shall be factory calibrated and set as per the process data submitted by the Purchaser and as per applicable ASME code.

3.2 Material, Mechanical and Chemical tests shall be performed in a manner as specified in the relevant codes.

3.3 Quality Assurance plan to be submitted for our/clients review & approval. Sample quality plan attached.

3.4 The material test certificates (correlated to melt number) shall be furnished by the vendor for identification and correlation.

3.5 For components like Body, Inlet Neck, Seat Bushing, Disc, Spindle, Spring, Disc Holder & Guide, Blowdown ring and Yoke and Yoke Rod etc. material test certificates (typical) shall be furnished for identification & correlation.

3.6.0 Minimum NDT requirements extent of check for Pressure retaining parts/components shall be as follows.

3.6.1 Steel Castings: 100% RT on butt weld joints/ends and MPI on change in dimensions /shape shall be carried out.

3.6.2 Steel Forgings: 100% MPI and 100% UT on all areas shall be carried out on all forgings for valves with rating 1500 and above. Also UT shall be carried where the thickness/ diameter is greater than 40mm.

3.6.3 Dye penetrate test as per ASTM E165 shall be performed on all machined surfaces of critical components.

3.6.4 For butt-welding ends of all valves, dye-penetrate test as per ASTM E165 shall be carried out on 100% of the valves and the results shall show no defects.

3.6.5 Hardness testing shall be done on body seat, disc/wedge facing, spindle, backseat bushing, thrust plate etc. The Purchaser's representative shall also check hardness of random samples.

3.6.6 Casting Radiography: For pressure rating below 600 class, one out of ten or part there of the castings per foundry, (irrespective of size and melt) shall be radiographed. If any defects are found (beyond the acceptable level of ASME B16.34), further sample of double the size of initial sampling shall be radiographed. If all samples are within acceptable limit of ASME B16.34, the lot will be accepted. Even if one is found defective, 100% of the lot will be radiographed and castings will acceptable limits of ASME/ANSI B16.34 shall be accepted. For pressure rating of 600 class and above. 100% RT will be done in line with ASME B16.34.

3.6.7 100% MPI shall be done on base/body casting with pressure rating 1500 class and above in line with ASME B16.34.

3.6.8 Joint welding of pressure parts to be RT entire length of weld with procedure and acceptance in accordance with ASME Section VIII paragraph UW-51 and Mandatory appendix 4.

3.7 Each Safety valve, pressure retaining parts shall undergo hydrostatic test as per IBR/ASME code. There shall not be any visible leakage during this test. Test certificate to be furnished in the form of IBR Form IIIC. The contractor shall guarantee his valve as capable of withstanding such hydrostatic tests and shall repair or replace, at his expenses, any item which fails to pass such tests at site.

3.8 Safety valve shall be tested for opening at specified set pressure. Testing of safety valve shall be with steam only. Attachment 11 to IBR Form III to be furnished

3.9 Seat Leakage test as applicable.

3.10 Type test report for capacity, shall be furnished for the selected valve series along with offer.

4.0 ADDITIONAL REQUIREMENTS

4.1 Machined surfaces shall be suitably protected.

4.2 Valve ends shall be protected by means of metallic covers/polythene caps/rubber and protectors to prevent damage to ends & also to avoid foreign material entering the valve while shipment & storage.

4.3 All the valves shall be packed suitably in wooden cases in order to avoid damage during transit and also during storage at site.

4.4 Valve Tag nos. shall also be incorporated in all the dispatch documents. In addition to the tagging requirements of ASME Section-I, each valve shall be assigned a unique valve number and have a permanent stamped metal tag bearing the “Valve Number” securely attached to the valve. (These valve numbers shall be provided to the Seller). Tags shall be attached either by welding or riveting to the valve body, if the body is large enough to do so. The method of attachment shall not degrade the pressure rating of the valve. Tag attachment to the smaller valve bodies shall be by minimum 20-gauge stainless steel wire. All tags shall be made of stainless steel plate and attached to the valve so as to be visible after valve installation. The tag number shall be punched or etched into the tag so that the tag number is recognizable even if the tag has been painted. Each valve accessory item furnished with the valve, but not securely attached to the valve, shall be provided with an identification tag also.

4.5 All painted surfaces shall be given a minimum coating 2.0 mils dry film thickness.

4.6 All unpainted surfaces shall be protected with a rust preventive, which can be removed by solvent washing.

4.7 Paint specifications are to be submitted for purchaser’s review with bid.

4.8 All exposed machined surfaces shall be coated with suitable rust preventative coating prior to shipment.

4.9 The Seller shall adequately crate, block, anchor and protect equipment as required to prevent damage during overseas shipment and outdoor storage for a period of one (1) year at the site.

4.10 All threaded connections shall be plugged or capped with standard pipe plugs or caps.

4.11 List of Commissioning spares shall be quoted if applicable.

4.12 List of recommended spares for 5 years trouble free operation of valves shall be quoted.
i) Upper Adjusting Ring 2 nos. of each type
ii) Lower Adjusting Ring 2 nos. of each type
iii) Upper Adjusting Ring Lock Pin 2 nos. of each type
iv) Lower Adjusting Ring Lock Pin 2 nos. of each type
v) Disc 2 nos. of each type
vi) Guide 1 no. of each type
vii) Disc Holder 1 no. of each type
viii) Spindle 1 no. of each type

4.13 Recommended List of special tools and equipment (required for assembling, complete dismantling and maintenance of all equipment supplied) to be provided and also to be supplied along with valve.

4.14 Vendor has to furnish complete inputs required for the selection of silencer (i.e. Noise level data, recommended input/outlet pipe size etc.) along with the quotation.

5.0 DOCUMENT REQUIREMENTS

5.1 Materials of all parts & trim details to be furnished by vendor along with quote.

5.2 General arrangement drawing with mounting details, BOM, Face to Face & overall dimensions, Marking for identification of recommended spare components.

5.3 Valve sizing calculations as per IBR or ASME Sec I with valve model, inlet outlet size, orifice details, Rated/ Certified Capacity.

5.4 Recommended Inlet Stub End connection Edge preparation details for our approval.

5.5 Copy of type test report for capacity, for the selected valve series.

5.6 Sound Pressure Level calculations.

5.7 Valve Outlet Pressure While relieving.

5.8 Shipment weight & volume details.

5.9 Equipment preservation procedure during shipment, pre-erection storage period & Extended storage period.

5.10 Operation & maintenance manual 6 sets and one soft copy.

5.11 All GA drawings, Test Certificates (in the form of IBR form IIIC and Attachment 11 to Form III as per IBR), Seat leakage test report, filled datasheets and Material test Certificates.

5.12 The following details should be submitted
i)Special tool list
ii)Rust preservation schedule
iii)Painting schedule
iv)Lubrication list

5.13 Reaction force Calculations as per ANSI/ ASME B31.1

5.14 Recommended discharge piping size, allowable forces on connections, weight of valve, product catalogue, customer filled in data sheets (if any)

5.15 The welding procedure and materials proposed of pressure boundary joints must be submitted to the purchaser with the quotation for review and approval.

5.16 Valve opening / rising time & typical exhaust piping details.

5.17 If the bid submitted has got any deviation from the technical stipulation in the tender document, the tenderer shall tabulate in the appropriate “schedule of deviation” furnishing full particular of such deviations. Deviations are to be furnished with specific mention to clause number. Only such deviations will be discussed and resolved. Reasons / explanation for such deviations shall be furnished. Any other notes / comments viz. “refer to forwarding letter” etc. is not acceptable.

5.18 Even if there is no deviation from the tender document, the tenderer shall submit the deviation form and indicate as “no deviations”.

ITEM 11 of IBR FORM-III

11. Boilers:

Details of safety valves and test results:

Manufacturer…….
Identification marks of valves…… .
Maker's No…… ..
Type…… .
Lift (mm)……. Drawing Nos…… ...
Valves details:-
Material…….
Valve Seat…… …….
Flat/Bevel…… .
Diameter of valve seating…… .
Valve Body:-
Material…….
Opening at neck…… ..
Opening at outlet…… .
Springs:-
Material…….
Process of manufacture…… ……
Chemical composition…… .
Dimensions:
Outside diameter of coil…… ..
Section of wire…….
Number of coils…… ..
Free length of coils…… .
Test results:-
Place of test…… .. date…….
Closing down pressure…….
Remarks:-
Does the valve chatter?…….
Does the valve seat leak?…… .
Blow off pressure…… .
Type of valve and extract of test results…… ..
Type of valve…….
Place of test…… .. date …… …….
Constant 'C' by test results…… ..
Capacity of the valve for the intended blow off pressure…… ..

Signature of Maker's representative

Inspecting Authority witnessing tests.

FORM III-C

Certificate of Manufacture and test of Boiler Mountings and Fittings (REGULATION 269)

Name of part……...……
Maker's name and address…….
……
Intended working pressure…… …… .kg./cm^2
…… (lb./sq. inch) Hydraulic test pressure…… ..kg./cm^2
…… (lb./sq. inch)
Main dimensions……
Drawing Nos…… .. Identification Marks……
…… . Chemical composition…… . Physical test results…… .

(i) tensile strength……
(ii) transverse bend test…… .
(iii) Elongation…… ……

Certified that the particulars entered herein by us are correct.

The part has been designed and constructed to comply with the Indian Boiler Regulations for a working pressure of _____ and satisfactorily withstood a hydraulic test using water or kerosene or any other suitable liquid to a pressure _____ on the _____ day of _____ 20___ in the presence of our responsible representative whose signature is appended hereunder:

Maker Representative
(Name and signature)

MAKERS_____

We have satisfied ourselves and the valve/fitting has been constructed and tested in accordance with the requirements of the Indian Boiler Regulations, 1950. We further certify that the particulars entered herein are correct.

Place_____

Name and signature of the Inspecting Officer who witnessed the tests.

Date_____ 20___.

Name and signature of the Inspecting Authority Strike out which is not applicable.

Note: In the case of valve chest made and tested by well known Foundries or Forges recognised by the Central Boilers Board in the manner as laid down in regulations 4A to 4H, particulars regarding the material as certified by them, in any form, shall be noted in the appropriate columns or paragraphs in the certificates and in case of certificates from Well Known Foundries or Forges is produced, such certificate may be accepted in lieu of the certificate from Inspecting Authority in so far as it relates to the testing of material specified in the Form.

ANNEXURE 1C
C&I SPECIFICATION

<not applicable>

ANNEXURE 1D
QUALITY REQUIREMENTS

Additional Quality Requirements

1. Raw Materials shall be as per BHEL Engineering Specification, IBR and international material specifications.
2. Welders shall be qualified as per IBR. Welding procedures shall be qualified as per ASME BPVC Sec IX.
3. Heat Treatment shall be as per qualified WPS and IBR. Wherever Gr 91 is involved in the welds, such welds shall be post weld heat treated at 760±10 Deg C with soaking time of one hour/inch of job thickness.
4. NDE on raw materials, machined edges and welds shall be carried out & accepted as below, as applicable:

Sl No	NDE Method	Test Method	Acceptance Criteria
1	UT – on forgings	ASTM A388	ASME BPVC Sec VIII Div 2 Cl 3.3.4
2	UT on Pipes	ASTM E213	ASTM E213 with 5% notch (0.3 mm min & 1.5 mm max)
3	RT	ASME BPVC Sec V	ASME BPVC Sec VIII Div 1 UW-51 & Mandatory Appx 4
4	MT	ASTM E709	ASME BPVC Sec VIII Div 1 Mandatory Appx 6
5	PT	ASTM E165	ASME BPVC Sec VIII Div 1 Mandatory Appx 8

5. Hydrostatic test, seat leak test and functional test shall be carried out as per BHEL Engineering Specification & BHEL/Customer approved datasheets. IBR Form III-C shall be submitted
6. All forgings/bars of diameter/wall thickness above 40 mm shall be UT tested.
7. Forgings shall be certified in IBR Form III-G and Castings, if used, shall be certified in IBR Form III-F.
8. Hardness testing shall be done on raw materials of Gr 91/92 as per the material specifications and results reported in MTCs.
9. Hardness testing shall be done after PWHT on welds wherever Gr 91/92 materials are involved and shall be within 195-300 HBW and results reported in inspection records.
10. All fillet welds shall be MPI/LPI tested after PWHT.

Note: - Vendor must submit their acceptance on above referred points and in case of any deviation please mention them on Schedule of deviation sheet.

ANNEXURE 1E
QUALITY PLAN FORMAT

MFGR.'s LOGO	MANUFACTURER'S NAME AND ADDRESS	MANUFACTURING QUALITY PLAN		PROJECT : PACKAGE : CONTRACT NO. : MAIN-SUPPLIER:
		ITEM : SUB-SYSTEM:	QP NO.: REV.NO.: DATE: PAGE: …. OF….	

SL. NO	COMPONENT & OPERATIONS	CHARACTERISTICS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK		REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD		AGENCY			REMARKS
					M	C / N					M	C	N	
1.	2.	3.	4.	5.	6.		7.	8.	9.	D*	** 10.			11.

MANUFACTURER/ SUB-SUPPLIER	MAIN-SUPPLIER
SIGNATURE	

LEGEND: * RECORDS, INDENTIFIED WITH "TICK" (√) SHALL BE ESSENTIALLY INCLUDED BY SUPPLIER IN QA DOCUMENTATION.
** **M:** MANUFACTURER/SUB-SUPPLIER **C:** MAIN SUPPLIER, **N**: NTPC
P: PERFORM **W**: WITNESS AND **V:** VERIFICATION. AS APPROPRIATE,
CHP: NTPC SHALL IDENTIFIED IN COLUM "N" AS ' W"

FOR NTPC USE

DOC. NO.:		REV…… CAT…..
REVIEWED BY	APPROVED BY	APPROVAL SEAL

ANNEXURE 2A

GENERAL TERMS & CONDITIONS

BHARAT HEAVY ELECTRICALS LTD

VALVES PURCHASE
Trichy - 620 014, India
GENERAL TERMS AND CONDITIONS (ENSFV00188)

1. QUOTATIONS:

a. **BID system:** The offers are invited in Two part bid system (Part I will be Techno-commercial bid and part II will be Price Bid). Techno-commercially suitable vendors alone will be intimated for price bid opening.

b. **Submission of tender:**

i. ~~Tender called through E-Procurement mode: The bidder shall submit the bid online in BHEL e-Procurement portal at https://bheleps.buyjunction.in~~

~~The bidder would be required to register on the above e-procurement portal for submitting their bids. Offers through mail and Hardcopies are not acceptable.~~

ii. Tender called through Non- Procurement mode: Each offer should be sent in double cover separately and the same should be sealed and super scribed with correct Tender No., item of supply and due date of opening. Two or more quotations should not be sent in one cover. Price Bid should contain only Price in INR per unit for each type. Tender should send to the below mentioned address:

The Tender Opening Cell / Valves
Room No. -26, Building -24
Bharat Heavy Electricals Limited
Tiruchirappalli - 620014, Tamil Nadu, India
Or
Email ID: tender_cell@bheltry.co.in

c. **Late tenders:** Tender received after 2.00 pm on due date will be considered as Late tender. Late tenders will not be considered under any circumstance.

d. **Regulations:** 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.

e. **PVC:** Price Variation clause not acceptable. Prices should be firm.

f. **Catalogue:** Manufacturer's name, Trade Mark or Patent No. if any should be specified. Illustrative leaflets giving technical particulars are required along with quotation.

g. **Samples:** Samples should be submitted separately if specially requested in tender before due date of the enquiry. They should be clearly marked with the enquiry No and date on the outside cover to facilitate identification.

h. **GST Number:** GST registration number, HSN number (Item wise) with applicable taxes should be mentioned in quotation. If the vendor is not GST registered the offer is liable for rejection.

i. **Deviation**. Any deviations from the specification are to be furnished separately as "Schedule of Deviation". If there is no deviation vendor should indicate "No Deviation".

j. **Confirmation:** Confirmation for compliance is to be given in the offer for all the techno commercial conditions specified in the specification.

2. COMMERCIAL TERMS & CONDITIONS:

a. **Terms of Payment:**

For Indigenous Suppliers: 100% after 45 days on satisfactory receipts and acceptance of material at BHEL stores/ Site acknowledgement.

Any deviation in the above payment terms except payment through LC/Advance will attract loading as "Base rate of SBI (as applicable on the date of bid opening. Techno-commercial bid opening in case of two part bids) + 6% shall be considered for loading for the period of relaxation sought by bidder. Offers of indigenous Suppliers with payment terms as CAD at site, Confirmed LCs, Advance payment or any other payment terms are liable for rejection.

For Import Supplies: Payment term is 100% payment on CAD basis after 45 days from the date of receipt of documents, specified in PO, at BHEL bank. Respective bank charges to respective account.

Any deviation in the above payment term will attract loading as "Base rate of SBI (as applicable on the date of bid opening. Techno-commercial bid opening in case of two part bids) + 6% shall be considered for loading for the period of relaxation sought by bidders.

In case of Usance LCs the loading will be considered @ 1.5% on the offered Value. For unconfirmed LC at sight the loading will be considered @ 3.5% on the offered Value. CAD at site, Confirmed LCs, Advance payment or any other payment terms are liable for rejection.

b. Liquidated Damage: Liquidated damages shall be 0.5% of the total order value or part thereof subject to a maximum of 10% of the total order value. For staggered delivery schedule, LD shall be 0.5% of the undelivered portion per week of the delay or part thereof subject to a maximum of 10% of the total order value.

Any deviation from the above LD clause, loading will be applied to the extent to which it is not agreed by the bidder (at offered value)

Under GST regime, BHEL has to discharge GST liability on LD recovered from suppliers/contractors. Hence applicable GST shall also be recoverable from suppliers/contractors on LD amount. For this Debit note will be issued by BHEL indicating the respective supply invoice number.

c. Delivery Terms:

For Indigenous Suppliers: FOR BHEL Trichy inclusive of freight and insurance

For import Supplies: CFR/CIF Chennai seaport as per incoterm 2010

d. Validity of Offer: Prices should be fixed and valid for 120 days from the date of tender opening

e. Delivery period: Delivery schedule will be **24 Weeks** from the date of PO. If supplier offers more than the required delivery period BHEL will operate 0.5% loading factor for evaluation of their offer for every week delay to a maximum of 5%. Any other delivery period after loading to maximum will be rejected.

f. Risk Purchase: The purchaser at his option will be entitled to terminate the contract and to purchase elsewhere at the risk and cost of seller either the whole of 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. 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 2 b above. Non acceptance to risk purchase clause the offer is liable for rejection.

~~**g. Guarantee Clause:** The vendor shall give a guarantee for the performance of his supplies for a period of eighteen months from the date of dispatch or twelve months from the date of commissioning whichever is earlier.~~

h. Miscellaneous: Any conditions which might have been quoted by the seller and are in contravention to the terms of PO and which have not been specifically accepted by Purchaser will not be applicable to the contract/PO.

i. Performance Bank Guarantee: If tender Calls for Performance Bank Guarantee, Vendor should provide a performance bank guarantee (PBG) in BHEL format for 10% of the total Purchase order value valid for warranty/guarantee period with an additional claim period of 2 months. PBG should be issued from list of consortium banks.

3. Compliance / Acceptance required for following points to ensure Input Tax Credit

a. Supplier shall mention their GSTN registration number in all their invoices and invoices shall be in the format as specified/prescribed under GST laws. Invoices shall necessarily contain Invoice number (in case of multiple numbering system is being followed for billing like SAP invoice no, commercial invoice no etc., then the Invoice No which is linked/uploaded in GSTN network shall be clearly indicated), item description as per PO, Quantity, Rate, Value, applicable taxes with nomenclature (like IGST, SGST, CGST & UTGST) separately, HSN/ SAC Code, etc.

b. All invoices shall bear the HSN Code for each item separately (Harmonized System of Nomenclature)/ SAC code (Services Accounting Code).

c. A declaration to the effect that all invoice particulars are/were uploaded in the GSTN network/ portal & all tax liability as per GST rules and regulations have been and will be discharged, shall be mentioned in the invoice. If not mentioned in the invoice, a separate declaration shall be submitted as per the requirement of BHEL.

d. All documents like Mill Test Certificate, LR copy, Guarantee/Warrantee certificate, work completion certificate, any other document mentioned in PO, shall be sent along with the vehicle/consignment. For all consignments received within the calendar month, input credit will be availed within that month in line with monthly returns filing cycle. In case of any discrepancy in the document or non-submission of documents mentioned in the PO, then BHEL will not be able to accept or account the material, in such case availing of tax credit will be deferred to next month or so.

e. In case of discrepancy in the data uploaded by supplier in the GSTN portal or in case of any shortages or rejection in the supply, then BHEL will not be able to avail the tax credit and will notify the supplier of the same. Supplier has to rectify the data discrepancy in the GSTN portal or issue credit note (details to be uploaded in GSTN portal) for the shortages or rejections in the suppliers, within the calendar month notified by BHEL.

f. For any such delay in availing of tax credit for reasons attributable to supplier (as mentioned above), interest (calculated @ SBI Base Rate + 6%) along with penalty (if any) will be deducted/recovered for the delayed period i.e. from the month of receipt till the month tax credit is availed, from the running bills.

4. Special Provisions for Micro and Small Enterprises (MSE):

a. 20% of the tendered quantity is earmarked for MSE suppliers in this tender.
b. Out of the 20% tendered quantity reserved for MSE suppliers, 4% shall be earmarked for procurement from MSE owned by SC/ST entrepreneurs.
c. In case MSE vendor participating in the tender quotes within the price band of LI +15%, they will be allowed to supply the portion of the requirement subject to acceptance of LI price by MSE vendor. In case of more than one such MSE, the supply shall be shared proportionately.
d. MSE suppliers can avail the intended benefits only if they submit along with offer, attested copies of either EM II certificate having deemed validity (Two years from the date of issue of acknowledgement in EM II) or valid NSIC certificate or EM II certificate along with CA certificate applicable for the year, certifying quantum of investment in plant and machinery within the permissible limit as per the act for relevant status (Micro or small) where the deemed validity of EM II is over. Date to be reckoned for determining the deemed validity will be the last date of technical bid submission. Non submission of such documents will lead to consideration of their bids at par with other bidders and MSE status of such suppliers shall be shifted to Non MSE supplier till the supplier submits these documents.

3. GENERAL CONDITIONS

a. BHEL reserves the right to finalize the tender as per item serial number wise or as a total package or project wise. Separate orders will be released for each project and documents should be supplied for each order separately.
b. BHEL reserves the right to increase or reduce or split the Tender Quantity and to NOT to order for some or all material based on the changes in project.
c. BHEL shall have the right to visit vendor works during the execution of contract along with end customer for verifying status, inspection and testing of the material.
d. BHEL reserves the right to negotiate or re-float the tender in case the quoted prices are not acceptable.
e. Supplier shall arrange packing to avoid lose or damages during Road Transport, Site handling & Storage.
f. BHEL reserves the right to finalize the tender either through price bid opening or through Reverse Auction route.
g. BHEL reserves the right to reject the offer of a particular bidder due to unsatisfactory past performance in the execution of a contract at any of BHEL projects / units.
h. The Drawings and Technical documents given in this enquiry are the sole property of BHEL. This should not be misused in any form.
i. Purchase Order, PO Item serial number, Material code, Quantity should be clearly marked on the packing
j. Confirmation for compliance is to be given in the offer for all the conditions specified above and to the respective Purchase Specification.
k. If any supplier is not honouring their own quotation or any of its conditions within the validity period, the action will be taken against those suppliers in line with "Guidelines for suspension of business dealings with suppliers/contractors" (refer www.bhel.com)

4. DOCUMENTATION:

a. **With Consignment:** Duplicate for transporter copy, Original Invoice, Packing List, Delivery Challan, O&M manual (if applicable) Material Test Certificate, Test Certificates, Compliance Certificate, Guarantee/Warrantee Certificate and other documents mentioned in PO/TDC/Drawing.
b. Online Submission: Supplier should upload the soft copy of all Test Certificates in BHEL website http://vis.bheltry.co.in/vis/index.jsp at Vendor information system tab.
c. **To Purchase:**
  i. FOR BHEL TRICHY case- Original Invoice, duplicate for transporter copy, Packing list, LWB and Delivery challan.
  ii. FOR Site case- Original Invoice, Original LWB, Original Packing List, Original IBR documents, Original despatch clearance Certificate and Inspection report, Test certificates as per PO, Original Site Acknowledgment etc.
d. **Identification:** Material code, Purchase Order, PO item serial number, Unique serial number if any should be provided in all despatch documents, materials and packing clearly.

5. TENDER EVALUATION:

a. PART I Techno-commercial Bid.

- **i.** All vendors should submit General arrangement drawing, datasheet and C&I diagram (If any) of the offered product
- **ii.** Point by point technical confirmation of all pages of our technical specifications and commercial conditions are required with your sign and seal along with techno commercial Offer.
- **iii.** Offers from supplier not having technical capability or not agreed for commercial terms, will be rejected.

b. PART II Price Bid.

- **i.** Bidders qualified for both part I will be intimated for participating in priced bid opening/Reverse Auction.
- **ii.** L1 bidder will be decided based on landed cost for the equipment to BHEL.
- **iii.** For evaluation, the exchange rate shall be taken as TT selling rate of SBI on date of Part-1 bid opening.

****

ANNEXURE 2B

SPECIAL TERMS AND CONDITONS

BHARAT HEAVY ELECTRICALS LTD

VALVES PURCHASE
Trichy - 620 014, India
SPECIAL TERMS AND CONDITIONS (ENSFV00188)

1. All material should be inspected by IBR approved inspection agency, Customer and BHEL.
2. **Performance Bank Guarantee is Applicable**: Vendor should provide a performance bank guarantee (PBG) for 10% of the total Purchase order value valid for a guarantee period with an additional claim period of 2 months. Bank guarantee should be as per BHEL format from list of consortium Banks (Annexure 3B).
3. Evaluation will be as **total package** with cost to BHEL which will include Commissioning spares and commissioning assistance.
4. Delivery should be **24 weeks** from date of purchase order and if supplier offers more than this delivery period BHEL will operate 0.5% loading factor for evaluation of their offer for every week delay.
5. **Guarantee Period:** The complete system shall be guaranteed for 24 months of trouble free performance from the date of shipment or 18 months from commissioning date whichever is earlier. In case of any failure or trouble reported from site, the supplier shall depute their representative immediately to attend the problem and replace the defective components/parts, free of cost.
6. **Commissioning Assistance:** Commissioning assistance should be quoted in price bid, Quotation should contain exact value including all expenses like commissioning charges, travel, accommodation etc. Since commissioning requirement and time depends on the equipment supplied by the supplier, number of days required for commissioning should be decided by the vendor for arriving commissioning charges. Vendor have to quote firm price in currency without any variable elements. **Vendor should NOT specify that commissioning charges will be quoted separately.**
7. Customs duty is exempted for this project

Loading Criteria

1. Any deviation in the payment term will attract loading as mentioned. "Base rate of SBI (as applicable on the date of bid opening. Techno-commercial bid opening in case of two part bids) + 6% shall be considered for loading for the period of relaxation sought by bidders.
2. In the case of Usance LCs the loading will be considered @ 1.5% on the offered Value.
3. For LC at sight the loading will be considered @ 3.5% on the offered Value.
4. Normally CAD at sight, Confirmed LCs and Advance payment are liable for rejection.
5. Any deviation from the LD clause, loading will be applied to the extent to which it is not agreed by the bidder (at offered value).

Integrity Pact (IP)

1. IP is a tool to ensure that activities and transactions between Company and its Bidders/Contractors are handled in affair, transparent and corruption free manner. A panel of Independent External Monitors(IEMs) have been appointed to oversee implementation of IP in BHEL.

   The IP as enclosed with the tender is to be submitted (duly signed by authorized signatory who signs in the offer) along with the techno-commercial bid. Only those bidders who have entered into such an IP with BHEL would be competent to participate in the bidding. In other words, entering into this pact would be a preliminary qualification.

Details of IEM for this tender is furnished below:

Name: Shri D.R.S Chaudhary, IAS (Retd.)
Address: E-1/164 Arera Colony Bhopal -462016
Email: dilip.chaudhary@icloud.com

2. Please refer Section-B of the IP for Roles and Responsibilities of IEMs. In case of any complaint arising out of the tendering process, the matter may be referred to the IEM mentioned in the tender.

   No routine correspondence shall be addressed to the IEM (phone/post/email) regarding the clarifications, time extensions or any other administrative queries etc. on the tender issued. All such clarifications / issues shall be addressed directly to the tender issuing (procurement) department.

****

ANNEXURE 2C

IBR APPROVED INSPECTION AGENCIES

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 2nd April , 2012

To

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

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

Sir,

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

Thanking you,

Yours faithfully,

2/4/2012

(S. K. Jain)
Development Officer &
Assistant Secretary, Central Boilers Board
Tel.No.011-23063321/3318

Encl: "As above"

Mr. SPK Ukgandmayan
Mr. VRK

(As on 31/03/2012)

INSPECTING AUTHORITIES

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

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

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

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

(As on 31/03/2012)

COMPETENT AUTHORITIES

NAME OF THE AUTHORITY

1. Director of Boilers,
   Andhra Pradesh

2. Chief Inspector of Boilers,
   Arunachal Pradesh

3. Chief Inspector of Boilers
   Assam

4. Chief Inspector of Boilers
   Bihar.

5. Chief Inspector of Boilers
   Chhattisgarh

6. Chief Inspector of Boilers,
   Delhi.

7. Chief Inspector of Boilers,
   Goa.

8. Director of Boilers,
   Gujarat.

9. Chief Inspector of Boilers,
   Haryana.

10. Chief Inspector of Boilers,
    Himachal Pradesh.

11. Chief Inspector of Boilers,,
    Jharkhand.

12. Director of Boilers,
    Karnataka.

13. Director of Boilers,
    Kerala.

14. Director of Boilers,
    Madhya Pradesh.

15. Director of Boilers,
    Maharashtra.

16. Chief Inspector of Boilers,
    Meghalaya

17. Chief Inspector of Boilers,
    Manipur

18. Chief Inspector of Boilers,
Mizoram

19. Chief Inspector of Boilers,
Nagaland

20. Director of Boilers,
Orissa

21. Director of Boilers,
Punjab

22. Chief Inspector of Boilers,
Labour Department,
Government of Puducherry,
Puducherry

23. Chief Inspector of Boilers,
Rajasthan.

24. Director of Boilers
Tamil Nadu

25. Chief Inspector of Boilers,
Tripura

26. Director of Boilers,
Uttar Pradesh

27. Deputy Director of Factories & Boilers
Uttarakhand

28. Chief Inspector of Boilers,
West Bengal

29. M/s. National Test House,
Plot No.F-10, M.I.D.C.,
Marol, Andheri (E),
MUMBAI - 400 093.

30. Welding Research Institute,
Bharat Heavy Electricals limited,
Tiruchirapalli – 620014.

31. M/s RSA
(Formerly Royal & Sun Alliance plc)
17 York Street,
Manchester, M2 3RS,
United Kingdom — Europe

32. M/s. TUV Nord Systems GmbH Co.KG.
Langemarckstr 20
451141 Essen
GERMANY. — Europe, Brazil, China, Korea and Thailand

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, 647-2,Sinpyeong-dong, Saha-gu, Busan, KOREA (604-030).	Korea and Japan
36.	M/s Bureau Veritas, 67-71, Boulevard du Chateau, 92200 Neuilly-sur-Seine, FRANCE	
37.	M/s. Lloyds Register Verification Limited, 71, Fenchurch Street, London EC3M 4BS, UNITED KINGDOM	All countries except India
38.	M/s. Velosi Certification Bureau Ltd., Unit 1 Woodside Business Park, Whitley Wood Lane, Reading, Berkshire, RG2 8LW United Kingdom	Europe, Middle East Countries, China, Malaysia & USA
39.	Technischer Uberwachungs-Verein Saarland e.V., Am Tuev 1, 66280 Sulzbach, Germany	Europe
40.	M/s. OOO "TekhnoLogicheskieEnergosistime", 1, Kalinia St. Belgorod, 308001, Russia.	Russia, China, Ukraine, USA & Germany
41.	M/s. National Test House, 11/1, Judges Court Road Alipore, Calcutta - 700027	
42.	M/s. ARISE Boiler Inspection & Insurance Company Risk Retention Group, Grand Bay 1, 7000 South Edgerton Road, Suite 100, Breeksville, OH 44141 USA	USA & Canada
43.	M/s TUV Rheinland Brandenburg Pfalz e.V., Am Grauen Stein, D-51105 Klon, Germany	

44.	M/s National Test House, Kamla Nehru Nagar, Ghaziabad- 201 002 Uttar Pradesh	
45.	M/s TUV SUD Industrie Service GmbH, Wstendstr. 199, 80686 Munich, Germany	All countries except India
46.	M/s Germanischer Lloyd Industrial Services GmbH, Steinhoeft 9, 20459 Hamburg, Germany	All countries except India
47	M/s. TUV Thuringen e.V., Business Division Steam and Pressure Technology, Melchendorfer Str. 64, 99096 Erfurt, Germany	Europe
48.	M/s. SGS-CSTC Standards Technical Services Co. Ltd. 9th Building, No. 69, KangQiao Industrial Park, Block 1159, KangQiao East Road, Pudong District, Shanghai-201 319 China	China
49.	M/s Moody International Limited, Hayworthe House, Market Place, Haywards Heath, West Sussex, United Kingdom	All countries except India

ANNEXURE 2D

CONFIRMATION TO TERMS & CONDITIONS

BHARAT HEAVY ELECTRICALS LTD

VALVES PURCHASE

Trichy - 620 014. India

GENERAL TERMS AND CONDITIONS(ENSFV00188)

TERMS & CONDITION	**VENDOR CONFIRMATION**
a. **Terms of Payment:** 100% after 45 days on satisfactory receipts and acceptance of material at BHEL stores/ Site acknowledgement. Offers with payment term as Confirmed LC and advance payment will be rejected.	
b. **Liquidated Damage:** Liquidated damages shall be 0.5% of the total order value or part thereof subject to a maximum of 10% of the total order value.	
c. **Delivery Terms:** For import Supplies: CFR/CIF Chennai seaport as per incoterm 2010	
d. **Validity of Offer:** Prices should be valid for 120 days from the date of opening of this tender.	
e. **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 seller either the whole of 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. Supplier shall be liable for any loss which the purchaser may sustain by reason for such risk purchases in addition to penalty.	
f. **Guarantee Period:** The complete system shall be guaranteed for 24 months of trouble free performance from the date of shipment or 18 months from commissioning date whichever is earlier. In case of any failure or trouble reported from site, the supplier shall depute their representative immediately to attend the problem and replace the defective components/parts, free of cost.	
g. **Delivery period:** Delivery period should be within 24 weeks from date of PO	
h. **Commissioning Assistance:** Commissioning assistance should be quoted in price bid, Quotation should contain exact value including all expenses like commissioning charges, travel, accommodation etc.. Since commissioning requirement and time depends on the equipment supplied by the supplier, number of days required for commissioning should be decided by the vendor for arriving commissioning charges. Vendor have to quote firm price in currency without any variable elements like no of days.	
DOCUMENTATION: Following documents should be part of tender for evaluation, failure to submit this details for evaluation, you offer will be technically rejected	
1. **GA drawing with EP and mounting detail**	
2. **IBR certification for factory**	
3. **Filled in datasheet**	
4. **Hook up drawing**	
5. **Bill of material for accessories**	
6. **Schedule of deviation**	
7. **Signed Integrity pact**	

ANNEXURE 3A

PRICE BANK GUARANTEE FORMAT

(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 with …….hereinafter 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 forbearence, 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 unrealised.**

9. **Any claim or dispute arising under the terms of this document shall only be enforced or settled in the Courts at Tiruchirapalli.**

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 3B
LIST OF CONSORTIUM BANKS

List of Consortium Bank			
	Nationalised Bank		**Nationalised Bank**
1	Allahabad bank	19	Vijaya Bank
2	Andhra bank		**Public Sector Banks**
3	Bank of Baroda	20	IDBI
4	Canara Bank		**Foreign bank**
5	Corporation bank	21	CITI Bank N.A
6	Central bank	22	Deutsche Bank AG
7	Indian Bank	23	The Hongkong and Shanghai Banking Corporation Limited
8	Indian Oversea Bank	24	Standard Chartered Bank
9	Oriental bank of Commerce	25	The Royal Bank of Scotland N.V.
10	Punjab National Bank	26	J P Morgan
11	Punjab & Sindh Bank		**Private bank**
12	State Bank of India	27	Axis Bank
13	State Bank of Hyderabad	28	The Federal Bank Limited
14	Syndicate Bank	29	HDFC
15	State Bank of Travancore	30	Kotak Mahindra Bank
16	UCO Bank	31	ICICI
17	Union Bank of India	32	Indusind Bank
18	United Bank of India	33	Yes Bank

ANNEXURE 4A
INTEGRITY PACT FORMAT

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)_____
_____	_____

ANNEXURE 4B

SCHEDULE OF DEVIATIONS FORMAT

SCHEDULE OF DEVIATIONS

Enq Ref:

Offer Ref:

Date:

Commercial Deviation:

Annexure / Clause No.	Description	Supplier Deviation

Technical Deviation:

Annexure / Clause No.	Description	Supplier Deviation

We confirm acceptance of all the Technical and Commercial requirements as per BHEL Tender, except the above deviations.

Signature with Seal

ANNEXURE 4C
UNPRICED BID FORMAT

BHEL Enquiry No. & Date	Vendor's Offer Ref No. & Date

MODEL UNPRICE BID FORMAT FOR IMPORT VENDORS

Currency	

Enq Sl No.	Description	Unit	Qty	Unit Price in Currency
1				Quoted/Not Quoted
2				Quoted/Not Quoted
3				Quoted/Not Quoted
4				Quoted/Not Quoted
5				Quoted/Not Quoted
.				Quoted/Not Quoted
.				

	Total CIF Value in Currency			Quoted/Not Quoted
	Commissioning charges			
	Validity of Price			
	Consignment Package Details			
	Approximate Net / Cross Weight in Kgs			
	Dimension of Consignment			

Signature & Seal of Vendor

NOTE:
The Unpriced Bid should be submitted strictly in line with the above **FORMAT**

ANNEXURE 4D
PRICED BID FORMAT

BHEL Enquiry No. & Date	Vendor's Offer Ref No. & Date	

MODEL PRICE BID FORMAT FOR IMPORT VENDORS

Currency	

Enq Sl No.	Description	Unit	Qty	Unit Price in Currency	Value in Currency
1					
2					
3					
4					
5					
.					
.					

	Total CIF Value in Currency				
	Commissioning charges				
	Validity of Price				
	Consignment Package Details				
	Approximate Net / Cross Weight in Kgs				
	Dimension of Consignment				

Signature & Seal of Vendor

NOTE:
The Price Bid should be submitted strictly in line with the above **FORMAT**