

	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 4797/7096 Email: vavinash@bhel.in sivabala@bhel.in	
		ENQUIRY NO.	DATE	DUE DATE FOR QUOTATION
		ENSFV00225	31.07.2019	21.08.2019
		Please quote Enquiry No., and due date in correspondences <i>This is only a request for quotation and not an order.</i>		
<u>Date, Time & Venue of tender opening:</u> 21.08.2019 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@bhel.in		<u>Scope of supply</u> Supply of Electromatic Relief Valves as per the purchase specification enclosed. -List of Annexures 01. Annexure 1A - DATA SHEET VDS:ER:1728 Rev: 00 02. Annexure 1B – SPEC:ERV:014 Rev:05 03. Annexure 1C - Spec C&I for ERV-019 Rev02 04. Annexure 1D - QA REQUIREMENT 05. Annexure 2A - GENERAL TERMS AND CONDITIONS 06. Annexure 2B - CONFIRMATION TO THE TERMS AND CONDITIONS 07. Annexure 2C - UNPRICED FORMAT 08. Annexure 2D - PRICED BID FORMAT 09. Annexure 2E - SCHEDULE OF DEVIATIONS FORMAT 10. Annexure 3A - IBR APPROVED INSPECTION AGENCIES 11. Annexure 3B - PBG FORMAT 12. Annexure 3C - LIST OF CONSORTIUM BANKS		
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 Avinash Vijayagopal Sr. Engineer/Purchase/Valves		

ANNEXURE 1A

DATA SHEET

 Bharat Heavy Electricals Ltd., Trichy-14, Valves Engineering			DATA SHEET ELECTROMATIC RELIEF VALVE VDS:ER:1728 Rev: 00		Sheet: 1 of 4 Date: 09.05.2019 Cust no: 1728 Pre: Rabin R Appd: S. Madhulingam
Customer:			M/s UPRVUNL Panki, 1x660MW		
1	Serial no.		1	2	
2	Tag no.		10LBA11-AA701, 10LBA12-AA701	10LBB11-AA702, 10LBB12-AA702	
3	Location		SUPERHEATER OUTLET	REHEATER OUTLET	
4	Required quantity	nos.	2 nos. / Unit	2 nos. / Unit	
5	Fluid to be handled		STEAM	STEAM	
6	Required Capacity	kg/h	309750 (for 2 valves)	325652 (for 2 valves)	
7	Set Pressure	kg/cm ² (g)	295.0	66.6	
8	Relieving Temperature	°C	596±5° C	596±5° C	
9	Valve Type		Power Control-Pneumatic Actuator	Power Control-Pneumatic Actuator	
10	Orifice Designation		*	*	
11	Calculated Orifice Area	mm ²	*	*	
12	Selected Orifice Area	mm ²	*	*	
13	Rated Capacity per Valve	kg/h	*	*	
14	System Design Temperature	°C	601.0	601.0	
15	System Operating Pressure	kg/cm ² (g)	276.9	57.02	
16	System Design Pressure	kg/cm ² (g)	304.4	68.05	
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 F91 (or) Equivalent	SA182 F91 (or) Equivalent	
27	Disc Material		*	*	
28	Nozzle/Seat Material		*	*	
29	Inlet Neck Material		SA182 F91	SA182 F91	
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)	Hyd.Test (Form-IIIC as per IBR regulation 269)	
39	Required Accessories		All control accessories (Air Pr. available = 4.0 to 7.0 kg/cm ² g, Electrical supply = 220V DC)	All control accessories (Air Pr. available = 4.0 to 7.0 kg/cm ² g, Electrical supply = 220V DC)	
40	Material Code		974611660000	974611670000	

Notes:

* means Vendor to specify

- Offers received from vendor shall include the spares indicated in Annexure - I also. Offers without spares will be rejected consequently.
- BHEL reserves the right to change the spares requirements based on the customer need on PO.
- Valve inlet edge preparation style shall be as per Annexure - II.

GENERAL NOTES for Power Assisted Relief 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.
5. Site Information given in Annexure –II should also be considered in the ERV design offered

ANNEXURE - I

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

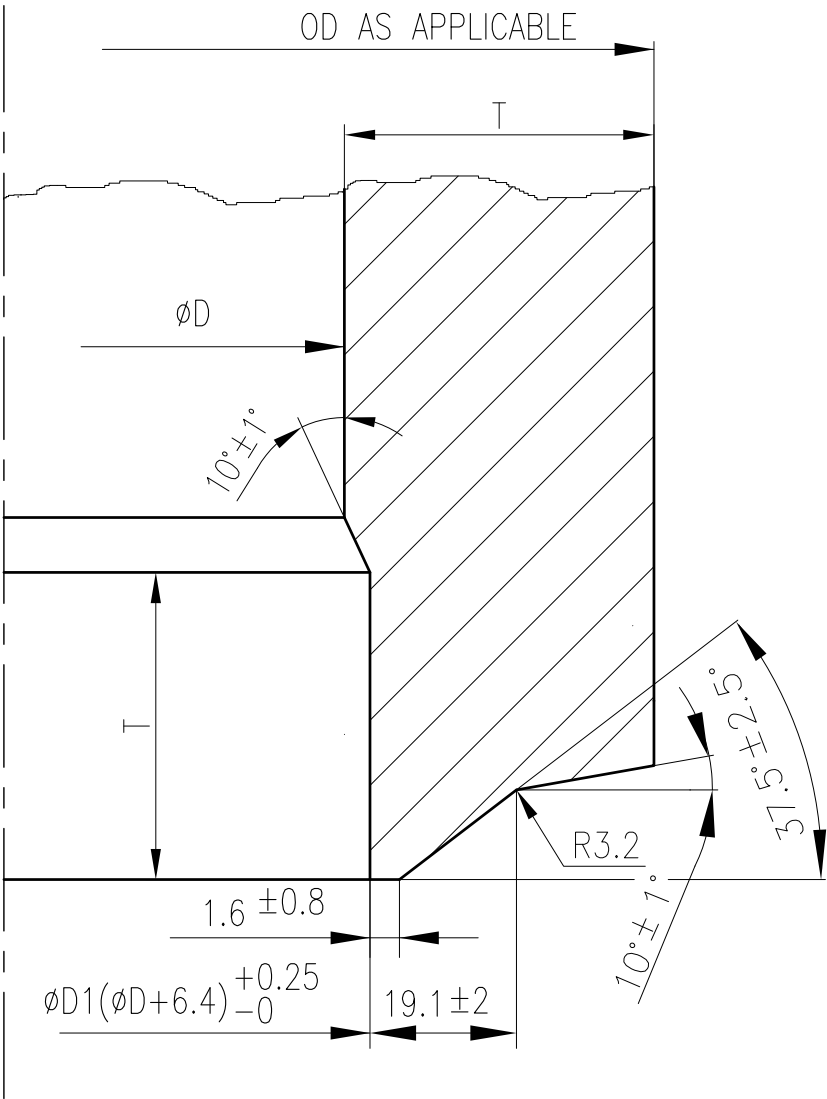
A) Material Code 974611660001 – 5 years operational Spares of the offered SH ERV model for Patrattu Project (Material code of individual spare component will be provided later)
B) Material Code 974611670001 – 5 years operational Spares of the offered HRH ERV model for Patrattu Project (Material code of individual spare component will be provided later)
C) Material Code: 974611660500 - Complete Power Assisted Relief Valve without Actuator and Controls (SH ERV) for Telangana Project
D) Material Code: 974611670500 - Complete Power Assisted Relief Valve without Actuator and Controls (HRH ERV) for Telangana Project

ANNEXURE - II

SITE INFORMATION

1. Ambient Temperature (Min) : 4°C
Ambient Temperature (Max) : 44°C
2. Relative Humidity : 60%
3. Height above MSL : 126.0 m
4. Wind Data - Calculations for wind effect shall be in accordance with IS 875 (Part 3):1987
 - a. Basic Wind Speed : 47m/sec
(At 10m above mean ground level)

ANNEXURE – III



GIVEN DIMENSIONS ARE IN MILLIMETERS

VALVE INLET EDGE PREPARATION STYLE

ANNEXURE 1B

VALVE SPECIFICATION



**STANDARD SPECIFICATION FOR
ELECTROMATIC RELIEF VALVES
FOR SUPERCRITICAL BOILERS**

Spec No: SPEC:ERV: 014

Rev No: 05

Date: 28.02.2017

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05	Revised based on the input from Boiler Mountings/FB and C&I/FB	RABIN R	E ATHIANNAVI	E ATHIANNAVI	28.02.17
04	QA Comments included	S. MADHULINGAM	E. ATHIANNAVI	E. ATHIANNAVI	18.05.15
03	SI no:03 revised and SI no:07 Erection and commissioning support added	S. MADHULINGAM	E. ATHIANNAVI	E. ATHIANNAVI	16.08.13
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



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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 Electromatic Relief valves (**Power Assisted Relief Valve**). **Electromatic relief valves (ERV) and Power assisted relief valves mean one and the same**. The offer shall be submitted along with all the documents required in this specification.

- 1.1 Data sheet indicates the type, size, relieving capacity etc. of the required 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 and Inlet neck. Alternate superior material of construction shall also be acceptable, with prior written approval by **BHEL**.
- 1.3 The design, material, construction, manufacture, inspection and testing of valves shall confirm to the latest applicable codes and standards **and approved Quality Plan**.
- 1.4 Supplier shall attach the list of supplied projects with the parameters, for each **ERV** 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.
API	: American Petroleum Institute
ISO	: International Organization for Standardization
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



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- 1.6 All welding procedures and welders shall be qualified in accordance with the appropriate sections of the **ASME Section-IX, IBR and AWS Code 1.1**. 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 and IBR.
- 1.8 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.
- 1.9 Only materials listed and rated in B16.34 are acceptable and materials offered shall be appropriate to the design conditions listed.
- 1.10 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, along with valve supply.
- 1.11 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 **FUNCTION:** The function of **ERV** is to provide automatic or manual overpressure protection that can be controlled by the plant operator from the control room.

DESCRIPTION: **ERVs** (ERV) are used on the superheater and reheater outlet lead. The **ERV** size is to be determined by the Seller. The inlet connection is to be a butt weld type. The outlet is to be a flanged type. The materials for the body, seat, disk or ball are to be determined by the Seller. The **ERV** shall be provided with controls such as valve **actuator**, pressure controller, solenoid coil and limit switches, sub-panel suitable for remote mounting **and any other equipment required to complete the system for effective functioning**. Pneumatic actuator **also acceptable and it should be suitable to operate at air pressure of 4.0 to 7.0 kg/cm²g. However vendor shall provide air accumulator to meet the occasional pressure drop in the line**. The opening time of the valve should be within 2 seconds.

- 2.2 Sizing shall be carried out as per ASME Sec-I. 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 his calculations for Purchaser approval and record. **ERV is intended for auxiliary overpressure protection. Hence non-certified capacity is acceptable.**
- 2.3 Construction and Materials shall conform to ASME Section-I Code.
- 2.4 The design of valve seat and guiding arrangement shall **ensure** consistent operation reseating and tightness over several successive operations.



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- 2.5 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).
- 2.6 Wherever stelling of Disc and Seat bushing has been specified, it stands for stelling of the seat area or the entire disc contour, unless otherwise specified.
- 2.7 The allowable tolerance in set pressure are as per ASME Section-I.
- 2.8 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.
- a) Tag number as per purchasers data sheet.
 - b) Manufacturers Model number
 - c) Manufacturers Serial number
 - d) Size: Inlet & Outlet
 - e) Bore diameter
 - f) Manufacturers name/trade mark.
 - g) Blow down as percentage of set pressure.
 - h) Accumulation as percentage of set pressure
 - i) Lift
 - j) Certified capacity of steam in Kg/h (with Type test report to be submitted)
 - k) Set Pressure
 - l) Relieving Temperature.
 - m) Cold bench set pressure.
 - n) Date of manufacture.

2.9 System should not contain Asbestos material in any form

3.0 CONTROLS & INSTRUMENTATIONS

3.1 Control and Instrumentation details shall be referred in the Specification No:SPEC:CI:019

3.2 ERV shall get power supply through a power contactor located in the controller, which is energized / de-energized by the switch depending upon the pressure. Typical sketch indicating the controller and valve connections is enclosed for reference.



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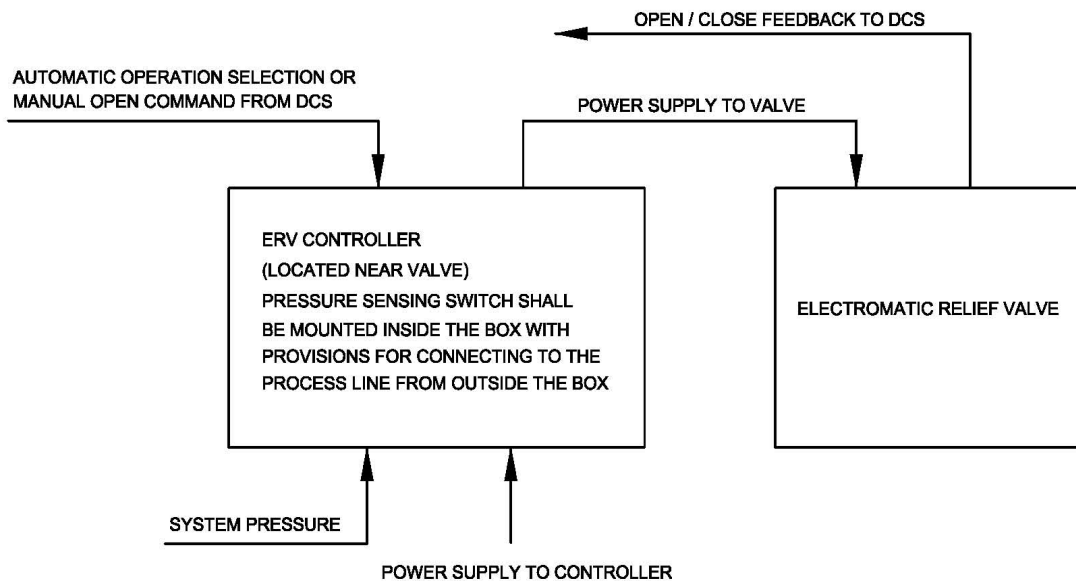
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3.3 OPEN / CLOSE FEEDBACK DIAGRAM



4.0 INSPECTION AND TESTING

- 4.1 All ERVs shall be inspected, tested and stamped as per applicable ASME codes. All valves shall be factory calibrated and set as per the process data submitted by the Purchaser and as per applicable ASME code.
- 4.2 Material, Mechanical and Chemical tests shall be performed in a manner as specified in the relevant codes.
- 4.3 All valve pressure retaining parts shall be subjected to hydrostatic test pressure as required by the IBR and other applicable standards. The contractor shall guarantee his work 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.
- 4.4 Quality Assurance plan to be submitted for our review & approval. Sample quality plan attached.
- 4.5 The material test certificates (correlated to melt number) shall be furnished by the vendor with identification and correlation.
- 4.6 For Pressure retaining components such as Body, Inlet Neck, Seat Bushing (or) seat ring, Disc (or) Ball, Spindle, Guide etc. as applicable, Material test certificates (typical) shall be furnished for identification & correlation.
- 4.7.0 Minimum NDT requirements extent of check for Pressure retaining parts/components shall be as follows.
- 4.7.1 Steel Castings: 100% RT on butt weld joints/ends and change in dimension/shape shall be carried out.



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- 4.7.2 100% MPI shall be done on base/body casting **on all accessible surfaces** in line with ASME B16.34.
- 4.7.3 Steel Forgings: 100% MPI and 100% UT on all areas shall be carried out on all forgings for valves. Also UT shall be carried where the thickness/ diameter is greater than 40mm.
- 4.7.4 Dye penetrate test as per ASTM E165 shall be performed on all machined surfaces of critical components.
- 4.7.5 For butt-welding ends of all valves, dye-penetrant test as per ASTM E165 shall be carried out on 100% of the valves and the results shall show no defects.
- 4.7.6 Hardness testing shall be done **as per material specification and on hardfaced surfaces** of body seat, disc/wedge facing, spindle, backseat bushing, thrust plate etc., **as applicable**. The Purchaser's representative shall also check hardness of random samples.
- 4.7.7 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.
- 4.8 Each ERV, pressure retaining parts shall undergo hydrostatic test as per IBR/ASME B16.34 code. There shall not be any visible leakage during this test. **IBR** Form IIIC certificate to be furnished.
- 4.9 ERV shall be tested for opening at specified set pressure. Testing of ERV shall be with steam only. IBR Form IIIC to be furnished.
- 4.10 Seat Leakage test as applicable.
- 4.11 Type test report for capacity, shall be furnished for the selected valve series along with offer.
- 4.12 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.
- 5.0 **ADDITIONAL REQUIREMENTS**
- 5.1 Machined surfaces shall be suitably protected.
- 5.2 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.



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- 5.3 All the valves shall be packed suitably in wooden cases in order to avoid damage during transit and also during storage at site.
- 5.4 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.
- 5.5 All painted surfaces shall be given a minimum coating 2.0 mils dry film thickness.
- 5.6 All unpainted surfaces shall be protected with a rust preventive, which can be removed by solvent washing.
- 5.7 Paint specifications are to be submitted for purchaser's review with bid.
- 5.8 All exposed machined surfaces shall be coated with suitable rust preventative coating prior to shipment.
- 5.9 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.
- 5.10 All threaded connections shall be plugged or capped with standard pipe plugs or caps.
- 5.11 List of Commissioning spares shall be quoted.
- 5.12 List of recommended spares for 5 years trouble free operation of valves shall be quoted.
- 5.13 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.
- 5.14 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.
- 5.15 Electrical supply details at the electrical terminals on all control equipment such as actuating devices, transmitters, panel stations, and control cabinets with typical wiring diagram to be provided by the vendor.
- 5.16 **All electrical accessories including power and control cable between ERV and controller are to be provided by vendor considering a distance of 15m.**



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6.0 DOCUMENT REQUIREMENTS

- 6.1 Materials of all parts & trim details to be furnished by vendor along with quote.
- 6.2 Valve sizing calculations as per IBR or ASME Sec I with valve model, inlet outlet size, orifice details, Rated/ Certified Capacity.
- 6.3 Recommended Inlet Stub End connection Edge preparation details for our approval.
- 6.4 Copy of type test report for capacity, for the selected valve series.
- 6.5 Sound Pressure Level calculations.
- 6.6 Valve Outlet Pressure While relieving.
- 6.7 Reaction force Calculations as per ANSI/ ASME B31.1.
- 6.8 General arrangement drawing (including actual actuator used along with orientation and dimensions) with mounting details, BOM, Face to Face & overall dimensions, Marking for identification of recommended spare components.
- 6.9 Detailed QA plan for clients/BHEL approval.
- 6.10 Shipment weight & volume details.
- 6.11 Equipment preservation procedure during shipment, pre-erection storage period & Extended storage period.
- 6.12 Operation & maintenance manual - two sets of hard copies and two sets of soft copies in the form of CDs.
- 6.13 All GA drawings, Test Certificates (in the form of IBR form IIIC), Seat leakage test report, filled datasheets and Material test Certificates.
- 6.14 The following details should be submitted
 - i) Special tool list
 - ii) Rust preservation schedule
 - iii) Painting schedule
 - iv) Lubrication list
- 6.15 Recommended discharge piping, allowable forces on connections, weight of valve, product catalogue, and customer filled in data sheets.
- 6.16 The welding procedure and materials proposed of pressure boundary joints must be submitted to the purchaser with the quotation for review and approval.
- 6.17 Valve opening time & typical exhaust piping details.



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6.18 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.

6.19 Vendor should give confirmation to BHEL's technical specification and drawing. Any deviations from the specification or drawing are to be furnished separately as "Schedule of Deviation". If there is no deviation, vendor should indicate "No Deviation".

6.20 Hook up diagram

7.0 OFFER FOR ERECTION – COMMISSIONING SUPPORT AT SITE

7.1 The supplier shall depute their representative at project site for erection and commissioning support. Offer for providing erection and commissioning support shall be furnished by the supplier.

7.2 Special instructions which are required to be followed at site during erection and commissioning shall be furnished by the vendor.



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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./cm²
..... (lb./sq. inch) Hydraulic test
pressure..... kg./cm²
..... (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



**CONTROL & INSTRUMENTATION
SPECIFICATION FOR ELECTROMATIC
RELIEF VALVES (ERV)**

Spec No: SPEC:CI: 019

Rev No: 02

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- 1 Valve shall be operable using single coil solenoid valve. Solenoid shall be energise to open and de-energise to close type.
- 2 ERV/controller shall be suitable for operating with 220VDC, as applicable for this contract.
- 3 One number local controller shall be provided near each ERV for controlling the operation of valve based on Process Pressure and Remote Commands.
 - a) Controller shall have capability for receiving the process pressure from pressure switch/ transmitter and open/close the valve accordingly.
 - b) Controller shall be suitable satisfactory operation at ambient temperature expected **near** the boiler **70°C** with dusty and humid conditions.
 - c) Controller shall be provided with degree of protection of IP55 as a minimum.
 - d) Controller shall have necessary in-built protection and controls necessary for valve as well as provisions for accepting the pressure signal from the switch/transmitter. Controller shall have provisions for isolating power supply with suitable MCCB/MCB with provision for locking at ON/OFF positions.
 - e) ERV controller shall operate based on the process pressure. However, in addition to the operation based on process pressure, controller should have provisions to turn on the valve using command from DCS irrespective of process pressure. No local operation is envisaged.
- 4 Each controller shall be provided with one number of pressure switch / pressure transmitter for sensing steam pressure upstream of ERV. Switch/transmitter shall be supplied along with required accessories (such as siphon, **connectors, manifold and any other equipment required to complete the system for effective functioning**).
 - a) If switch is provided, the same shall have dual set point, one for open and second for closing valve. Pressure switch shall meet the following specifications
 - i. Accuracy of $\pm 0.5\%$
 - ii. Repeatability of $\pm 1\%$.
 - iii. If mounted separately, the same shall be suitable for IP:55 degree of protection with corrosion resistant coating
 - b) If transmitter is provided, the same shall meet the following specifications
 - i. Working principle : Capacitance / Piezoelectric / Silicon resonance / Digital Inductance.
 - ii. Type : Microprocessor based 2 wire type.
 - iii. Output : 4 - 20 mA DC with power supply of 24V DC $\pm 10\%$
 - iv. Turn down ratio shall be 30:1
 - v. Stability : $\pm 0.25\%$ of calibrated span for six months
 - vi. Housing: Weather proof as per IP-55 with durable corrosion resistant coating
 - vii. Over pressure: The diaphragm of transmitters shall be designed to withstand static pressure of 1.5 times the max. span without damage or permanent deformation.
 - viii. Zero & span adjustment: Easily accessible & adjustable continuously at field.
 - ix. Accuracy : $\pm 0.5\%$ of calibrated span
 - x. Sensitivity / dead band: 0.1 % of calibrated range.
 - xi. Repeatability: 0.2 % of calibrated range.
 - xii. Thermal Drift: Max. 0.04 % per Deg. C
 - xiii. Linearity: 0.2 % throughout the range irrespective of burden on the circuit.



**CONTROL & INSTRUMENTATION
SPECIFICATION FOR ELECTROMATIC
RELIEF VALVES (ERV)**

Spec No: SPEC:CI: 019

Rev No: 02

Date: 28.02.2017

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- c) Pressure port of switch / transmitter shall have 1/4" NPT (F) process connection and shall preferably have 3/4" BSC (F) electrical connection.
- d) Make of pressure switch/ transmitter shall be subjected to BHEL approval. Make shall be indicated in the offer itself.
- 5 Open/close limit switches (potential free) with 2NO+2NC contacts to be supplied along with valve for feedback indication to DCS.
- 6 Documents :
 - a) Vendor to indicate all utility requirements for ERV and field controller such as power & air supply requirement / quantity/ rating etc. along with the offer for BHEL to arrange the same.
 - b) Detailed write up on the system to be furnished along with the offer.
 - c) Terminal details for ERV controller/valve showing all the signal interfaces required with BHEL's DCS
- 7 BHEL Scope shall be limited to the following. Other than the below all necessary materials shall be supplied by the vendor.
 - a) BHEL will supply required instrument/service air (as indicated by vendor during offer stage) up to one common point for each ERV (within two meters from the valve) terminated with an Nb15 isolation valve. Further, it shall be vendor's responsibility to make arrangements for connecting air to their equipment. Necessary material also shall be in vendor scope only.
 - b) BHEL will provide power (220VDC) up to the local ERV controller supplied by vendor. Further any cables within the systems provided by vendor shall be in their scope only.
 - c) Pressure switch/transmitter shall be supplied along with required accessories (such as siphon, **connectors, manifold and any other equipment required to complete the system for effective functioning**). Necessary recommended erection drawings to be furnished by vendor. BHEL will do the necessary erection based on the drawings furnished by vendor. BHEL will terminate the process measurement connection with dual isolation valves.
 - d) Any interconnecting cables/ tubes/ other materials required for interconnecting with their system shall be in vendor scope only.
- 8 Erection
Erection of ERV controller will be done by BHEL based on the recommended drawings supplied by vendor
- 9 Commissioning
Commissioning of the system shall be in vendor scope. Vendor shall ensure successful handing over of the system to customer and signing of handing over protocol.

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 91/92 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 with a minimum soaking time of one hour.
4. NDE on raw materials, machined edges and welds shall be carried out & accepted as below, as applicable:

SI 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 2A
GENERAL TERMS &
CONDITIONS



BHARAT HEAVY ELECTRICALS LTD

VALVES PURCHASE

Trichy - 620 014, India

GENERAL TERMS AND CONDITIONS

Enquiry Reference: ENSFV00225

1. QUOTATIONS:

- a. **BID system:** Offers are invited in any one of the below formats. The no. of bids to be submitted is mentioned in "Confirmation to the Terms and Conditions" attached.
- i. Two part bid: 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.
- ii. Single part bid: ~~The offers are invited in Single part bid system (Price Bid alone). The vendor shall confirm to all of BHEL's technical & commercial conditions.~~

b. **Submission of offer:**

- i. ~~Offer called through e-Procurement mode: The bidder shall submit the bid online in BHEL e-Procurement portal at~~
<https://bhel.abcpurchase.com/EPROC/>

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

- ii. Offer called through Non-e-Procurement mode: Each part of offer should be sent in a double cover separately and the same should be sealed and super scribed with details such as enquiry reference, name of the vendor, 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 per unit" for each type. Offer should be sent 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@bhel.in

- c. **Late offers:** Offer received after 2.00 pm on due date will be considered as Late offers. Late offers will not be considered under any circumstance.
- d. **Regulations:** Offers 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. In case of a difference between the amount quoted in words and figures, the 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 the due date of the enquiry. They should be clearly marked with the enquiry reference and date on the enclosing cover to facilitate identification.
- h. **GST Number:** GST registration number, HSN number (Item wise) with applicable taxes should be mentioned in the offer. 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" in the offer.
- j. **Confirmation:** Confirmation for compliance is to be given in the offer for all the techno commercial conditions specified in the tender.

2. COMMERCIAL TERMS & CONDITIONS:

a. **Terms of Payment:**

For Indigenous Suppliers:

If the materials are receivable at BHEL Stores, Trichy:

Payment term is 100% direct Payment after 60 days from the date of receipt and acceptance of materials. (if PBG is not applicable)

(or)

Payment term is 100% direct payment after 60 days from the date of receipt and acceptance of materials and against 10% PBG valid for the warranty period. (if PBG is applicable)



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If the materials are receivable at site:

Payment term is 100% direct payment after 60 days from the date of dispatch against site acknowledgement (if PBG is applicable)

(or)

Payment term is 100% direct payment after 60 days from the date of dispatch against site acknowledgement and against 10% PBG valid for the warranty period (if PBG is applicable)

Any deviation in the above payment terms, any other conditions in payment terms or any other payment terms will not be accepted and offers will not be considered.

For Import Suppliers: Payment term is 100% payment on CAD basis after 60 days from the date of receipt of documents, specified in PO, at BHEL bank. Respective bank charges to respective account.

If supplier insists for LC, only Usance LC with 60 days' credit will be opened, one month prior to material readiness. Further loading will be considered @ 1.5% on the offered value. Hence, supplier shall intimate the material readiness accordingly for opening LC. LC validity period will be 90 days and for any extension, applicable charges will be to suppliers account.

Any deviation in the above payment terms, any other conditions in payment terms or any other payment terms will not be accepted and offers will not be considered.

For New Suppliers: For new suppliers not registered with BHEL, Trichy for the product, payment shall be made 120 days after receipt and acceptance of materials.

In case of foreign supplier, first lot of mutually agreed quantities shall be supplied with payment as CAD basis after 120 days from the date of receipt and acceptance of material. If insisted for LC after acceptance of first lot, only usance LC with 120 days' credit will be opened one month prior to material readiness.

- b. Liquidated Damage:** Liquidated damages shall be 0.5% of the total order value per week of the delay 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. Hence applicable GST shall also be recoverable from suppliers on LD amount. Debit note will be issued by BHEL for this amount, indicating the respective supply invoice number.

c. Delivery Terms:

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

For Import Suppliers: CFR/CIF Chennai seaport as per Incoterms 2010.

- d. Validity of Offer:** Prices should be fixed and should be valid for period as mentioned in the "Confirmation to the Terms and Conditions" attached.
- e. Delivery period:** Delivery schedule will be as mentioned in the "Confirmation to the Terms and Conditions" attached. 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.
- 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 period:** 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.



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- j. **Counter Offering:** If counter offering is applicable for the enquiry, the L1 rates will be counter-offered to other eligible vendors as per below points
- In case there are only two qualified offers for any item, the L1 rate will be counter-offered to the L2 vendor.
 - In case of more than two qualified offers for any item, the L1 rates will be counter-offered to maximum (n-1) vendors (where 'n' is the no. of techno-commercially qualified vendors) or the no. of vendors required (as mentioned in the "Confirmation to the Terms and Conditions" attached), whichever is lower.
 - In case a lower ranked vendor does not accept the counter-offered rates, the rates may be offered to next higher ranked vendor.
 - The manner of splitting of the enquiry quantity across L1 and counter-offer accepted vendors will be as per the ratios mentioned in the "Confirmation to the Terms and Conditions" attached.

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/Warranty 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. In case of 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. 25% of the tendered quantity is earmarked for MSE suppliers in this tender.
- b. Out of the 25% tendered quantity reserved for MSE suppliers, 6.25% shall be earmarked for procurement from MSE owned by SC/ST entrepreneurs and 3% shall be earmarked for procurement from MSE owned by women 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,
The vendor submits along with offer, a Copy of the Udhayog Aadhar and a certificate, as per the format in Annexure-A, issued by a chartered accountant during the financial year of the date of part-1 bid opening, certifying that the quantum of investment in plant and machinery is within the permissible limit as per the act for relevant status (Micro or small).

(or)

The vendor has already submitted the above documents for the financial year of the date of part-1 bid opening and the MSE status has been updated in BHEL Trichy's records.

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.

- e. Payment for MSE vendors will be as per MSMED Act, 2006.



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5. GENERAL CONDITIONS

- a. The manner of finalization will be as mentioned in the "Confirmation to the Terms and Conditions" attached. 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 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 reject the offer of a particular bidder due to unsatisfactory past performance in the execution of a contract at any of BHEL projects / units.
- g. The Drawings and Technical documents given in this enquiry are the sole property of BHEL. This should not be misused in any form.
- h. Purchase Order, PO Item serial number, Material code, Quantity should be clearly marked on the packing
- i. Confirmation for compliance is to be given in the offer for all the conditions specified above and to the respective Purchase Specification.
- j. 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)
- k. The bidder along with its associate/collaborators/sub-contractors/sub-vendors/consultants/service providers shall strictly adhere to BHEL fraud prevention policy (refer www.bhel.com) and shall immediately bring to the notice of the BHEL management about any fraud or suspected fraud as soon as it comes to their notice.
- l. For this procurement, Public Procurement (Preference to Make in India), Order 2017 dated 15.06.2017 & 28.05.2018 and subsequent orders issued by the respective Nodal Ministry shall be applicable even if issued after issue of this NIT but before finalization of contract/PO/WO against this NIT. In the event of any Nodal Ministry prescribing higher or lower percentage of preference and/or local content in respect of this procurement, the same shall be applicable.

6. REVERSE AUCTION

- a. BHEL reserves the right to go for Reverse Auction (RA) (Guidelines as available on www.bhel.com) instead of opening the sealed envelope price bid, submitted by the bidder. This will be decided after techno-commercial evaluation. Bidders to give their acceptance with the offer for participation in RA. Non-acceptance to participate in RA may result in non-consideration of their bids, in case BHEL decides to go for RA.
- b. Those bidders who have given their acceptance to participate in Reverse Auction will have to necessarily submit 'Process compliance form' (to the designated service provider) as well as 'Online sealed bid' in the Reverse Auction. Non-submission of 'Process compliance form' or 'Online sealed bid' by the agreed bidder(s) will be considered as tampering of the tender process and will invite action by BHEL as per extant guidelines for suspension of business dealings with suppliers/ contractors (as available on www.bhel.com).
- c. The bidders have to necessarily submit online sealed bid less than or equal to their envelope sealed price bid already submitted to BHEL along with the offer. The envelope sealed price bid of successful L1 bidder in RA, if conducted, shall also be opened after RA and the order will be placed on lower of the two bids (RA closing price envelope sealed price) thus obtained. The bidder having submitted this offer specifically agrees to this condition and undertakes to execute the contract on thus awarded rates.
- d. If it is found that L1 bidder has quoted higher in online sealed bid in comparison to envelope sealed bid for any item(s), the bidder will be issued a warning letter to this effect. However, if the same bidder again defaults on this count in any subsequent tender in the unit, it will be considered as fraud and will invite action by BHEL as per extant guidelines for suspension of business dealings with suppliers/ contractors (as available on www.bhel.com).



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7. 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/Warranty Certificate and other documents mentioned in PO/TDC/Drawing.
- b. **To Purchase:**
 - i. FOR BHEL TRICHY case- Original Invoice, Duplicate for transporter copy, Packing list, LWB and Delivery challan, GST declaration as mentioned in point 3c.
 - 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.
- c. **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.

8. TENDER EVALUATION:

- a. 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. Price Bid.
 - i. Bidders qualified for 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. Exchange rates for currencies other than INR shall be taken from the TT selling rate of SBI on date of Part-1 bid opening. If the date of opening happens to be a bank holiday, then the forex rate as on previous bank (SBI) working day shall be taken.
 - iv. In case of tie for the L1 positions,
 - a. The L1 vendors will be requested to submit new price bid for those items/package for which the tie exists.
 - b. The new prices should be submitted in a closed cover to the address mentioned in clause 1.b.ii, within the specified date.
 - c. New prices must not be higher than the originally quoted prices.
 - d. In case of non-submission of the new prices within the submission deadline, originally quoted prices shall be taken as final prices.
 - e. L1 vendor for those items/package will be decided based on the evaluation of new price bids.
 - f. In case, there happens to be a tie for L1 position again, lot system will be opted to finalise the L1 supplier.

9. IMPORTANT INFORMATION FOR IMPORT SUPPLIERS:

- a. In case of CFR INCO TERMS - CONTAINERIZED CARGO
 - i. In case of CFR terms, moved through CONTAINERS (Suppliers should clearly specify this in their offer) it would be presumed by BHEL that the freight charges quoted is on LILO (LINER IN LINER OUT) basis including extra charges, if any, like Container Imbalance Charges, Trade Imbalance charges or any other charges payable to the Liner. No other charges other than the quoted Freight rate will be paid by BHEL excepting applicable Terminal Handling Charges, Container cleaning Charges, DO charges to Shipping Liner at Discharge Port. 14 FREE DAYS for Container detention shall be provided. If any deviation is taken by Tenderer, a loading of 22% on the freight rate per MT shall be considered by BHEL for arriving at the Total Landed Cost.
 - ii. In case of shipment through Containers on CFR basis, the BL should bear the endorsement that "14 free days for Container Detention is applicable".



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b. In case of CFR INCO TERMS - BREAKBULK CARGO

- i. In case of CFR terms, moved through BREAK BULK BASIS (Suppliers should clearly specify this in their offer) it would be presumed by BHEL that the freight charges quoted is on LILO (LINER IN LINER OUT) basis. The materials will be Custom cleared from Port itself.
- ii. The Indian Customs imposed, a penalty on late filing of Bill of Entries (Air/Sea Shipments) by the importer. The maximum free time allowed is 24 hrs from the time of arrival of cargo at final port of discharge. Rs.5000/- per day (for Initial 03 days) & Rs.10000/- per day (thereafter)
- iii. The vendor should furnish the Non-Negotiable Documents (Air Way Bill/Bill of Lading, Commercial Invoice, Packing List, and Certificate of Origin) either by email or post/courier to BHEL well before the landing of cargo at final port of discharge.
- iv. Vendor will be held responsible for the penalty arises against the late filing of Bill of entry due to:
 - a. Non availability of Non-Negotiable Documents (NNDs) before the cargo arrival
 - b. Discrepancy in documents
 - c. Short landing of Consignments (For shipments on CFR/CPT/CIF/CIP – Chennai Port)
- v. All the shipments for the contracts (POs) finalized on CFR -Chennai Port basis
 - a. Delivery Orders involving multiple agencies like liners/freight forwarders are not allowed. There must be a single agency office at the final discharge Port (Chennai) for issuing the Delivery Order to BHEL.
 - b. The detention/demurrage charges arise due to the delay in collection of Delivery Orders from multiple agencies of liner/freight forwarder also whose offices are not at available Chennai, the same amount will be deducted from Vendor's bills only.
 - c. Apart from the normal charges like Terminal Handling Charges, Container cleaning Charges, Delivery Order Charges at final port of discharge no other charges will be borne by BHEL.
 - d. The liner/freight forwarders should be properly communicated by the Vendor for not to claim such charges for issuing Delivery Order. If the liner/freight forwarder claims such charges in their invoices, the same amount will be deducted from the Vendor bills without any prior intimation in order to avoid the delay in Customs clearance. The likely additional/hidden costs or charges are:
 - i. CIC - Container Imbalance Charges/Surcharges
 - ii. EIC - Equipment Imbalance Charge/Surcharges
 - iii. CAF - Container/Currency Adjustment Factor
 - iv. BAF - Bunker adjustment Factor
 - v. RDS - Rupee Depreciation Surcharge
 - vi. CDS - Currency Depreciation Surcharge

c. Transport Conditions for Import:

The Original Documents (Bill of Lading, Invoice, Packing List, Certificate of Origin & Test Certificate) shall reach BHEL well in advance before the vessel arrival. The soft copies of the above shall be forwarded to BHEL immediately after shipment.

- i. In the event of delayed submission of documents by the supplier, an amount up to 5% of the invoice value will be retained towards demurrage & other charges and the difference if any between actual charges and recovery will be settled separately through supplementary invoice.
- ii. In such cases, the Supplier shall authorize the Steamer / Shipping agent / transporter to freely release the consignment to BHEL by providing a "Surrender Bill of Lading".
- iii. Otherwise, No-objection Certificate shall be issued to the Liner, authorizing BHEL to get the Delivery Order without producing the Original Bill of Lading.
- iv. This is required to ensure avoidance of demurrage at Chennai Sea-port that may arise in case of delayed presentation of documents by the Seller.

Following details to be endorsed in OBL

- i. Import & Export Code (IEC) of importer: 0588138690
- ii. GST Identification No (GSTIN) of importer: 33AAACB4146P2ZL
- iii. Official email id of importer: santoshj@bhel.in ; asvasalu@bhel.in



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10. INTEGRITY PACT (IP)

- a. 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. Following Independent External Monitors (IEMs) on the present panel have been appointed by BHEL with the approval of CVC to oversee implementation of IP in BHEL.

Sl.	IEM	Address	Email
1	Shri D.R.S Chaudhary, IAS (Retd.)	E-1/164 Arera Colony Bhopal- 462016 (M.P.)	dilip.chaudhary@icloud.com
2	Mrs. Pravin Tripathi, IA & AS (Retd.)	D-423, Anupam Gardens, Lane IB, Neb Sarai, Sainik Farms, New Delhi - 110068	pravin.tripathi@gmail.com

- b. If IP is applicable for the enquiry, the IP as enclosed with the tender is to be submitted (duly signed by authorized signatory) along with the techno-commercial bid (Part-I, in case of two/three part 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.
- c. Please refer Section-8 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 any of the above IEM(s). All correspondence with the IEMs shall be done through email only.

Note:

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's officials whose contact details are provided below

(1)

S Sivabala

Sr. Engineer

Valves Purchase

24 Building, 3rd Floor,

BHEL, Trichy-620014

+91 431 2577096

sivabala@bhel.in

(2)

G Subhashini

DGM

Valves Purchase

24 Building, 3rd Floor,

BHEL, Trichy-620014

+91 431 2574032

subhashini@bhel.in

ANNEXURE 2B
CONFIRMATION TO TERMS
& CONDITIONS



BHARAT HEAVY ELECTRICALS LTD

VALVES PURCHASE

Trichy - 620 014. India

CONFIRMATION TO TERMS AND CONDITIONS

Enquiry Reference: ENSFV00222

<u>TERMS & CONDITION</u>	<u>VENDOR CONFIRMATION</u>
a. Rate Contract: This is an enquiry for the finalization of a Rate Contract (RC) for a period as mentioned in 'Validity of offer' below. The quantities mentioned in the enquiry are indicative for the entire RC period. Purchase Orders will NOT be issued for the entire quantum in one lot, whereas POs will be released on a time to time basis during the RC period, based on actual requirement.	
b. Vendor should give confirmation to BHEL's Technical Specification. Any deviations from the specification are to be furnished separately as "Schedule of Deviation". If there is no deviation vendor should indicate "No Deviation".	
c. The offer has to be submitted as a Two-part bid (Techno-commercial & Price bid)	
d. The tender will be finalized on item-wise/package/project-wise basis	
e. Terms of Payment: <u>Indigenous Supplier (Non-MSE):</u> 100% direct EFT Payment after 60 days from the date of receipt and acceptance of materials at BHEL stores / against site acknowledgement. <u>Indigenous Supplier (MSE):</u> Payment will be as per MSMED Act, 2006 <u>Import Supplier:</u> Payment term is 100% payment on CAD basis after 60 days from the date of receipt of documents, specified in PO, at BHEL bank. Respective bank charges to respective account.	
f. 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.	
g. Delivery Terms: Prices shall be quoted on " FIRM PRICE " basis only. <u>For Indigenous Supplies:</u> FOR BHEL Trichy <u>For import Supplies:</u> CFR/CIF Chennai Sea Port as per incoterm 2010	
h. Validity of Offer: Prices should be valid for 120 days from the date of part-1 bid opening of this tender. The delay in responding to BHEL technical clarification beyond four days will be subsequently added to the validity period. Revised Price Bids will not be encouraged.	
i. Delivery period: Delivery period should be 24 weeks from the date of purchase order. 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 subject to a maximum of 2%. Any other delivery period after loading to maximum will be rejected.	
j. 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. Non acceptance to risk purchase clause the offer is liable for rejection.	
k. Guarantee Clause: The vendor shall give a guarantee for the performance of his supplies for a period of twenty four months from the date of dispatch or eighteen months from the date of commissioning whichever is earlier.	
l. 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.	



BHARAT HEAVY ELECTRICALS LTD

VALVES PURCHASE

Trichy - 620 014. India

CONFIRMATION TO TERMS AND CONDITIONS

Enquiry Reference: ENSFV00222

<u>TERMS & CONDITION</u>	<u>VENDOR CONFIRMATION</u>
m. Counter-offering Counter-offering is not applicable for this enquiry	
n. Integrity Pact Integrity pact is not applicable for this enquiry	

ANNEXURE 2C
UNPRICED BID FORMAT

FORMAT FOR SUBMISSION OF UNPRICED BID
(Unpriced Bid should strictly as per below format ONLY)

BHEL's enquiry ref:	ENSFV00225
Enquiry date:	26-07-2019
Project:	Panki 1x660 MW

Vendor name:	
Vendor's offer ref:	
Offer date:	

Section A: Prices of Full Valve Assembly

- Prices for valves should have to be valid for 120 days from the date of part-1 bid opening
- Purchase order for supply portion will be released immediately upon finalisation of tender
- Prices for commissioning assistance should be valid until the date of commissioning at site
- Purchase order for commissioning assistance portion will be released one week prior to actual requirement at site

Item wise rates

Sl. No.	Material Code	Material Description	Qty	UOM	Quoted/ Not Quoted
10	974611660000	SHERV WITH CTRL ACCESSORIES-1728PANKI	2	NO	Quoted/ Not Quoted
20	974611670000	HRHERV WITH CTRL ACCESSORIES-1728PANKI	2	NO	Quoted/ Not Quoted

Other charges (only if applicable)

Type of charge	Quoted/ Not Quoted
Packing Charges	Quoted/ Not Quoted
Inspection/Documentation Charges	Quoted/ Not Quoted
CFR Charges	Quoted/ Not Quoted
Any Other Charges (please specify)	Quoted/ Not Quoted

Commissioning assistance charges

Type of charge	Quoted/ Not Quoted
Lumpsome amount for commissioning assistance at site (should be inclusive of travelling, accomodation, service and all other charges for minimum two (02) days on site during commissioning of valve)	Quoted/ Not Quoted
Per day charges for site assistance, in case the requirement at site exceed 02 days (should be inclusive of travelling, accomodation, service and all other charges) (For information only. Will NOT be used for package rate calculation)	Quoted/ Not Quoted

Consignment package details (approximate details will suffice)

Net weight of the final packed consignment		Kgs
Dimensions of the consignment		L(mm) x B(mm) x H(mm)

Note:

- The prices for items/components that are to be supplied by the vendor's Indian office or counter-part, shall be quoted seperately. The prices for such items/components should be in INR only.
- The prices for services/support that are to be rendered by the vendor's Indian office or counter-part, shall be quoted seperately. The prices for such services/support should be in INR only.
- Commissioning charges should be mandatorily quoted. If any deviation is taken, stating that the commissioning charges will be quoted seperately, the offer will be rejected.

Section B: Prices of Mandatory Spares

- Prices should be valid for 12 months from the date of part-1 bid opening
- Purchase orders may be released during any point of the 12 month validity period
- Purchase orders may be released for full or partial items based on actual contract requirement
- In case the requirement for any of the below items is finalized prior to price bid opening, the requirement quantity of such items will be considered for L1 finalization. Suppliers will be notified in case of such a scenario.

Sl. No.	Material Description	UOM	Quoted/ Not Quoted
SHERV - (Ball Valve Type)			
1.00	SHERV without actuator and controls	NO	Quoted/ Not Quoted
1.10	Body gasket	NO	Quoted/ Not Quoted
1.20	Belleville spring	SET	Quoted/ Not Quoted
1.30	Gland spring	NO	Quoted/ Not Quoted
1.40	Gland packing	NO	Quoted/ Not Quoted
1.50	Upstream Seat	NO	Quoted/ Not Quoted
1.60	Ball	NO	Quoted/ Not Quoted
1.70	Endcap	NO	Quoted/ Not Quoted
1.140	Solenoid Valve	NO	Quoted/ Not Quoted
1.150	Pressure Transmitter	NO	Quoted/ Not Quoted
1.160	Local Control Box	NO	Quoted/ Not Quoted
SHERV - (Spring Loaded Type)			
2.00	SHERV without actuator and controls	NO	Quoted/ Not Quoted
2.10	Gasket	NO	Quoted/ Not Quoted
2.20	Spring	NO	Quoted/ Not Quoted
2.50	Seat bush	NO	Quoted/ Not Quoted
2.60	Disc	NO	Quoted/ Not Quoted
2.100	Spiral gasket	NO	Quoted/ Not Quoted
2.110	Flat gasket	NO	Quoted/ Not Quoted
2.120	Spindle	NO	Quoted/ Not Quoted
2.140	Solenoid Valve	NO	Quoted/ Not Quoted
2.150	Pressure Transducer	NO	Quoted/ Not Quoted
2.160	Controller Unit	NO	Quoted/ Not Quoted
2.170	O-rings	SET	Quoted/ Not Quoted
2.180	Piston Seal	NO	Quoted/ Not Quoted
2.190	Rod guide rings	SET	Quoted/ Not Quoted
2.200	Rod gasket	NO	Quoted/ Not Quoted
2.210	Disc retainer	NO	Quoted/ Not Quoted

Signature & Seal of Vendor

ANNEXURE 2D
PRICED BID FORMAT

FORMAT FOR SUBMISSION OF PRICED BID

(Priced Bid should strictly as per below format ONLY)

BHEL's enquiry ref:	ENSFV00225
Enquiry date:	26-07-2019
Project:	Panki 1x660 MW

Vendor name:	
Vendor's offer ref:	
Offer date:	

Section A: Prices of Full Valve Assembly

- Prices for valves should have to be valid for 60 days from the date of part-1 bid opening
- Purchase order for supply portion will be released immediately upon finalisation of tender
- Prices for commissioning assistance should be valid until the date of commissioning at site
- Purchase order for commissioning assistance portion will be released one week prior to actual requirement at site

Item wise rates

Sl. No.	Material Code	Material Description	Qty (a)	UOM	Unit Price (b)	Item price (a x b)	Currency
10	974611660000	SHERV WITH CTRL ACCESSORIES-1728PANKI	2	NO		0.00	
20	974611670000	HRHERV WITH CTRL ACCESSORIES-1728PANKI	2	NO			
SUB TOTAL (i)							

Other charges (only if applicable)

Type of charge	Rate	Currency
Packing Charges		
Inspection/Documentation Charges		
CFR Charges		
Any Other Charges (please specify)		
SUB TOTAL (ii)		0.00

TOTAL COST - SUPPLY PORTION (i + ii)	0.00
---	-------------

Commissioning assistance charges

Type of charge	Rate	Currency
Lumpsome amount for commissioning assistance at site		
(should be inclusive of travelling, accomodation, service and all other charges for minimum two (02) days on site during commissioning of valve)		
SUB TOTAL (iii)		0.00

Per day charges for site assistance, in case the requirement at site exceed 02 days		
(should be inclusive of travelling, accomodation, service and all other charges)		
(For information only. Will NOT be used for package rate calculation)		

TOTAL PACKAGE COST (i + ii + iii)	0.00
--	-------------

Consignment package details (approximate details will suffice)

Net weight of the final packed consignment		Kgs
Dimensions of the consignment		L(mm) x B(mm) x H(mm)

Note:

- The prices for items/components that are to be supplied by the vendor's Indian office or counter-part, shall be quoted separately. The prices for such items/components should be in INR only.
- The prices for services/support that are to be rendered by the vendor's Indian office or counter-part, shall be quoted separately. The prices for such services/support should be in INR only.
- Commissioning charges should be mandatorily quoted. If any deviation is taken, stating that the commissioning charges will be quoted separately, the offer will be rejected.

Signature & Seal of Vendor

Section B: Prices of Mandatory Spares

- Prices should to be valid for 12 months from the date of part-1 bid opening
- Purchase orders may be released during any point of the 12 month validity period
- Purchase orders may be released for full or partial items based on actual contract requirement
- In case the requirement for any of the below items is finalized prior to price bid opening, the requirement quantity of such items will be considered for L1 finalization. Suppliers will be notified in case of such a scenario.

Sl. No.	Material Description	UOM	Unit Price	Curr
SHERV - (Ball Valve Type)				
1.00	SHERV without actuator and controls	NO		
1.10	Body gasket	NO		
1.20	Belleville spring	SET		
1.30	Gland spring	NO		
1.40	Gland packing	NO		
1.50	Upstream Seat	NO		
1.60	Ball	NO		
1.70	Endcap	NO		
1.140	Solenoid Valve	NO		
1.150	Pressure Transmitter	NO		
1.160	Local Control Box	NO		
SHERV - (Spring Loaded Type)				
2.00	SHERV without actuator and controls	NO		
2.10	Gasket	NO		
2.20	Spring	NO		
2.50	Seat bush	NO		
2.60	Disc	NO		
2.100	Spiral gasket	NO		
2.110	Flat gasket	NO		
2.120	Spindle	NO		
2.140	Solenoid Valve	NO		
2.150	Pressure Transducer	NO		
2.160	Controller Unit	NO		
2.170	O-rings	SET		
2.180	Piston Seal	NO		
2.190	Rod guide rings	SET		
2.200	Rod gasket	NO		
2.210	Disc retainer	NO		

ANNEXURE 2E

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 3A
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,

(S. K. Jain)

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

Encl: "As above"

Mr. SRH
↓
Mr. VRK
2
25/4

V. K. JAIN

(As on 31/03/2012)

INSPECTING AUTHORITIES

<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 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, 6 th Floor,
Kondivita Lane, Off. Andheri-Kurla Road,
Mumbai-400 059 | Tamilnadu, Maharashtra
Gujarat, Haryana & Punjab |
| 30. M/s. TUV Nord Systems GmbH Co.KG.
Langemarckstr 20
451141 Essen
GERMANY. | Europe, Brazil, China, Korea
and Thailand |
| 31. M/s RSA
(Formerly Royal & Sun Alliance plc)
17 York Street,
Manchester, M2 3RS,
United Kingdom | Europe |

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

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, Korea and Japan
Industrial Division,
647-2, Sinpyeong-dong,
Saha-gu, Busan,
KOREA (604-030).

36. M/s Bureau Veritas,
67-71, Boulevard du Chateau,
92200 Neuilly-sur-Seine,
FRANCE

37. M/s. Lloyds Register Verification Limited, All countries except India
71, Fenchurch Street,
London EC3M 4BS,
UNITED KINGDOM

38. M/s. Velosi Certification Bureau Ltd., Europe, Middle East
Countries, China, Malaysia
& USA
Unit 1 Woodside Business Park,
Whitley Wood Lane,
Reading, Berkshire, RG2 8LW
United Kingdom

39. Technischer Uberwachungs-Verein Saarland e.V., Europe
Am Tuev 1,
66280 Sulzbach,
Germany

40. M/s. OOO "TekhnoLogicheskieEnergosistime", Russia, China, Ukraine, USA
& Germany
1, Kalinia St. Belgorod, 308001,
Russia.

41. M/s. National Test House,
11/1, Judges Court Road
Alipore, Calcutta - 700027

42. M/s. ARISE Boiler Inspection & Insurance Company USA & Canada
Risk Retention Group,
Grand Bay 1, 7000 South Edgerton Road,
Suite 100, Brecksville,
OH 44141 USA

43. M/s TUV Rheinland Brandenburg Pfalz e.V.,
Am Grauen Stein, D-51105 Klon,
Germany

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

ANNEXURE 3B
PRICE BANK GUARANTEE
FORMAT

BANK GUARANTEE FOR PERFORMANCE SECURITY

(Non-Judicial Stamp paper/e-stamp paper of appropriate value as per Stamp Act prevailing in the State(s))

Bank Guarantee No:

Date:

To

NAME

& ADDRESSES OF THE BENEFICIARY

IFSC AND MICR CODE

Dear Sirs,

1. In consideration of Bharat Heavy Electricals Limited (hereinafter referred to as the 'Employer' which expression shall unless repugnant to the context or meaning thereof, include its successors and permitted assigns) incorporated under the Companies Act, 1956 and having its registered office at _____¹ through its Unit at.....(name of the Unit) having awarded to (Name of the Vendor / Contractor / Supplier) (VENDOR CODE) with its registered office at _____² hereinafter referred to as the ' Vendor / Contractor / Supplier ', which expression shall unless repugnant to the context or meaning thereof, include its successors and permitted assigns), a contract Ref No.....dated³ valued at Rs.....⁴ (Rupees -----)/FC.....(in words.....) for⁵ (hereinafter called the 'Contract') and the Vendor / Contractor / Supplier having agreed to provide a Contract Performance Bank Guarantee, equivalent to% (... Percent) of the said value of the Contract to the Employer for the faithful performance of the Contract,

2. we,, (hereinafter referred to as the Bank), having registered/Head office at and inter alia a branch at being the Guarantor under this Guarantee, hereby, irrevocably and unconditionally undertake to forthwith and immediately pay to the Employer any sum or sums upto a maximum amount of Rs -----⁶ (Rupees -----) without any demur, immediately on first demand from the Employer and without any reservation, protest, and recourse and without the Employer needing to prove or demonstrate reasons for its such demand.

3. 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. _____.

4. We undertake to pay to the Employer any money so demanded notwithstanding any dispute or disputes raised by the Vendor / Contractor / Supplier in any suit or proceeding pending before any Court or Tribunal, Arbitrator or any other authority, our liability under this present being absolute and unequivocal.

5. The payment so made by us under this Guarantee shall be a valid discharge of our liability for payment thereunder and the Vendor / Contractor / Supplier shall have no claim against us for making such payment.

6. We thebank 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 Contract/satisfactory completion of the performance guarantee period as per the terms of the Contract and that it shall continue to be enforceable till all the dues of the Employer under or by virtue of the said Contract have been fully paid and its claims satisfied or discharged.

7. We.....BANK further agree with the Employer that the Employer 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 Contract or to extend time of performance by the said Vendor / Contractor / Supplier from time to time or to postpone for any time or from time to time any of the powers exercisable by the Employer against the said Vendor / Contractor / Supplier and to forbear or enforce any of the terms and conditions relating to the said Contract and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said Vendor / Contractor / Supplier or for any forbearance, act or omission on the part of the Employer or any indulgence by the Employer to the said Vendor / Contractor / Supplier or by any such matter or thing whatsoever which under the law relating to sureties would but for this provision have effect of so relieving us.

8. The Bank also agrees that the Employer at its option shall be entitled to enforce this Guarantee against the Bank as a principal debtor, in the first instance without proceeding against the Vendor / Contractor / Supplier and notwithstanding any security or other guarantee that the Employer may have in relation to the Vendor / Contractor / Supplier's liabilities.

9. This Guarantee shall remain in force upto and including.....⁷ and shall be extended from time to time for such period as may be desired by Employer.

10. This Guarantee shall not be determined or affected by liquidation or winding up, dissolution or change of constitution or insolvency of the Vendor / Contractor / Supplier but shall in all respects and for all purposes be binding and operative until payment of all money payable to the Employer in terms thereof.

11. Unless a demand or claim under this guarantee is made on us in writing on or before the⁸we shall be discharged from all liabilities under this guarantee thereafter.

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

13. We..... BANK lastly undertake not to revoke this guarantee during its currency except with the previous consent of the Employer in writing.

Notwithstanding anything to the contrary contained hereinabove:

a) The liability of the Bank under this Guarantee shall not exceed.....⁶

- b) This Guarantee shall be valid up to⁷
- c) Unless the Bank is served a written claim or demand on or before (minimum 3 to 6 months from the expiry date)⁸ all rights under this guarantee shall be forfeited and the Bank shall be relieved and discharged from all liabilities under this guarantee irrespective of whether or not the original bank guarantee is returned to the Bank.

14. We, _____ Bank, have power to issue this Guarantee under law and the undersigned as a duly authorized person has full powers to sign this Guarantee on behalf of the Bank.

For and on behalf of
(Name of the Bank)

Dated.....

Place of Issue.....

BANK EMAIL ID:

BANK PHONE NO:

AUTHORISED SIGNATORIES CELL PHONE NO:

BANK FAX NO:

¹ NAME AND ADDRESS OF EMPLOYER I.e Bharat Heavy Electricals Limited

² NAME AND ADDRESS OF THE VENDOR /CONTRACTOR / SUPPLIER.

³ DETAILS ABOUT THE NOTICE OF AWARD/CONTRACT REFERENCE

⁴ CONTRACT VALUE

⁵ PROJECT/SUPPLY DETAILS

⁶ BG AMOUNT IN FIGURES AND WORDS

⁷ VALIDITY DATE

⁸ DATE OF EXPIRY OF CLAIM PERIOD

ANNEXURE 3C
LIST OF CONSORTIUM
BANKS

List of Consortium Banks *			
	Nationalised Banks		Nationalised Banks
1	Allahabad bank	19	Vijaya Bank
2	Andhra bank		Public Sector Banks
3	Bank of Baroda	20	IDBI
4	Canara Bank		Foreign banks
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	J P Morgan
10	Punjab National Bank		
11	Punjab & Sindh Bank		Private banks
12	State Bank of India	26	Axis Bank
13	State Bank of Hyderabad	27	The Federal Bank Limited
14	Syndicate Bank	28	HDFC
15	State Bank of Travancore	29	Kotak Mahindra Bank
16	UCO Bank	30	ICICI
17	Union Bank of India	31	Indusind Bank
18	United Bank of India	32	Yes Bank

* wef 22.03.2016