

**General Note: BHARAT HEAVY ELECTRICALS LIMITED**

Page:1/2

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

PHONE : 0431-2574111
 GRAMS : BHARATELEC
 FAX NO: 0431-2520719
 E-mail :
 Web :

429-002/A

	Collective No.	Enquiry Date	Due Date For Quotation
	1802200123	04.06.2022	15.06.2022
Please quote Enquiry No, Date and due date in all correspondences. This is only a request for quotation and not an order			

Item	Description	Unit	Quantity	Delivery Quantity	Schedule Date
10	963620370000 BWCP Emergency CWB VALVE - 3" Refer Spec. TSBM:004/Rev.02	NO	2.000	2.00	02.10.22
20	963620370100 BWCP Emergency CWB VALVE - 3" GLAND PACK Refer Spec. TSBM:004/Rev.02	SET	5.000	5.00	02.10.22
30	963620370200 BWCP Emergency CWB VALVE - 3" GASKET Refer Spec. TSBM:004/Rev.02	SET	5.000	5.00	02.10.22
40	963620380000 BWCP Emergency CWB VALVE - 1" Refer Spec. TSBM:004/Rev.02	NO	3.000	3.00	02.10.22
50	963620380100 BWCP Emergency CWB VALVE - 1" GLAND PACK Refer Spec. TSBM:004/Rev.02	SET	5.000	5.00	02.10.22
60	963620380200 BWCP Emergency CWB VALVE - 1" GASKET Refer Spec. TSBM:004/Rev.02	SET	5.000	5.00	02.10.22

General Note:**Enclosures:****"LD clause has to be confirmed without fail."**

The bidder along with its associate / collaborators / sub-contractors / sub-vendors / consultants / service providers shall strictly adhere to BHEL fraud prevention policy displayed on BHEL website <http://www.bhel.com> and shall immediately bring to the notice of BHEL Management about any fraud or suspected fraud as soon as it comes to their notice.

PR Links

Material.	PR.No	PR.Item.	Quantity	Acc. Assign	Customer Number
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The offers should reach us 30 minutes before the time of opening of tenders.
 The offers will be opened at 14.30 hrs on the due date of tender in the presence of tenderers who have submitted their offer and who may like to be present for the tender opening. Late and delayed offers are liable to be rejected.

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

MANAGER / PURCHASE
 (FOSSIL BOILERS)

BHARAT HEAVY ELECTRICALS LIMITED

Page:2/2



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THIRUCHIRAPALLI - 620014
TAMILNADU (INDIA)

429-002/A

1802200123 / 04.06.2022

23505

Material.	PR.No	PR.Item.	Quantity	Acc. Assign	Customer Number
963620370000	131370077	00010	2.000	U6/1729	U6/1729
963620370100	131370077	00020	5.000	U6/1729	U6/1729
963620370200	131370077	00030	5.000	U6/1729	U6/1729
963620380000	131370077	00040	3.000	U6/1729	U6/1729
963620380100	131370077	00050	5.000	U6/1729	U6/1729
963620380200	131370077	00060	5.000	U6/1729	U6/1729



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

MANAGER / PURCHASE
(FOSSIL BOILERS)
Yours faithfully,



An ISO 9001
Company

Bharat Heavy Electricals Limited
(High Pressure Boiler Plant)
Tiruchirappalli-620 014, Tamil Nadu, India
Dept: MATERIALS MANAGEMENT/BOI

Annexure – T- Additional Terms and Conditions

The terms and condition mentioned in this document are applicable for this enquiry. Bidders shall furnish pointwise confirmation/details.

Description of the Equipment:	BWCP Emergency CWB VALVE - 3" & 1"
Projects	Various Project requirements
BHEL Tender No. & Date	1802200123 dt 04.06.2022
Name of the firm (Bidder)	:
Address	:
Contact details	<p><u>Contact person 1</u> Name: Designation: Office Phone: Mobile: e-mail:</p> <p><u>Contact person 2</u> Name: Designation: Office Phone: Mobile: e-mail:</p>

To be filled by bidder

Sl. No.	Terms and conditions	Vendor's confirmation
1.	<p><u>Technical:</u></p> <p>Bidder shall comply the specification requirements and shall submit the duly filled in specifications along with supporting document as per BHEL Specification. Any clarifications/deviations to the specification requirements are to be clearly indicated. Hidden deviations indicated elsewhere in the offer will not be evaluated.</p> <p>Applicable Technical specifications:</p> <p>SPECIFICATION NO.: TSBM:004 /Rev 02 Quality Plan : SQP:SD:06 Rev 00</p> <p>No deviation format to be submitted along with your offer.</p>	
2.	<p><u>Pre-qualification requirement:</u></p> <p>Offer shall be considered only if bidder is meeting Tender Prequalification requirement. Vendor to comply with Pre-Qualification requirement of the tender and submit along with their technical bid - the credentials and other documents as indicated in the PQR in the format prescribed. Otherwise their offer will get rejected.</p>	

3.	<p><u>CUSTOMER APPROVAL</u></p> <p>Vendor offers will be considered for price bid opening subject to fulfilment of techno commercial suitability and vendor approval by end customer before price bid opening.</p> <p>Vendor firms not approved by end customer shall submit supporting documents/Credentials for taking up with end customer for their approval.</p>	
4.	Inspection by BHEL/ BHEL approved TPIA/Customer.	
5.	<p><u>Firm Price:</u></p> <p>The quoted / finalised rates shall be Firm till execution of the supplies. Offer with PVC clause will not be considered.</p>	
6.	<p><u>Payment term</u></p> <p>“100% direct EFT payment after 90 days from the date of receipt & acceptance of material at our stores.”</p> <p>For MSE vendors, Payment term shall be as per MSME act.</p> <p>No deviation is permitted. Any deviation in the above payment term, any other conditions in payment term or any other payment term may not be accepted and the offers of such vendors are liable for rejection.</p>	
7.	<p><u>Delivery terms:</u></p> <p>FOR BHEL Trichy Stores basis</p> <p>The quote shall be on respective destination basis, inclusive of Packing & forwarding and Freight charges to your account.</p> <p>Transit Insurance is under BHEL scope.</p>	
8.	<p><u>TENDER FINALIZATION:</u></p> <p>Tender will be finalized on Item Wise evaluation basis and on TWO part bid basis.</p> <p>Evaluation shall be on total landed cost to BHEL on FOR destination basis.</p>	
9.	<p><u>Guarantee / Warranty Period:</u></p> <p>18 months from the date of supply or 12 months from date of commissioning, whichever is earlier.</p>	
10.	<p><u>Repair & replacements:</u> Within the guarantee period vendor has to replace / rectify the defective/ damaged items on free of cost within a reasonable time of reporting from our end.</p>	
11.	<p><u>Loading Criteria:</u></p> <p>Guarantee / Warranty Period: No Deviation is permitted. If still vendor offered any deviation on the Guarantee / warranty period, it may lead to rejection of offer.</p>	

12.	Kindly Indicate the HSN Code for all items	
13.	<p><u>Delivery Period:</u></p> <p>Delivery shall be 90 Days from Document approval</p> <p>Material shall be dispatched after obtaining dispatch clearance from BHEL. Delivery period mentioned anywhere else in the bid document is for indicative purpose.</p>	
14.	<p><u>Document Submission:</u></p> <p>In case of PO placements, required documents have to be submitted for approval within 15 days from the date of PO & reply for any further clarification has to be within 4 days. Any delay beyond the above specified period will be considered during LD calculation.</p>	
15.	<p><u>Liquidated damages:</u></p> <p>a) Time is the essence of the contract.</p> <p>b) The ordered items shall be delivered as per the delivery period mentioned in the Purchase Order.</p> <p>c) In case the supplier supplies the ordered items beyond the delivery period specified, Liquidated Damages -LD - as detailed below will be levied from the supplier without prejudice to any other relief /compensation available to BHEL, Tiruchirappalli under any other condition of the contract/applicable legal provisions.</p> <p>d) Failure to dispatch the materials in the time as per the delivery quoted in our Purchase Order(PO) would make the supplier liable to an unconditional LD at the rate of 0.5% of the undelivered portion per week of the delay or part thereof subject to a maximum of 10% of Purchase order value.</p> <p>e) 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).</p> <p>f) 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.</p> <p>g) Invoice date/Bill of Lading date/Airway Bill date/Lorry way bill date/Railway Receipt date/E way bill date, whichever is later will be considered for LD calculation.</p>	
16.	<p><u>Risk purchase clause:</u></p> <p>In the event of any successful Tenderer's failure to fulfil any of the tender / Contract obligations including supply of whole or any part of the ordered items as per Contract / Agreement, BHEL has the right to terminate the contract and purchase from elsewhere, at the risk and cost of the defaulted supplier, either the whole of the goods or any part which the supplier has failed to deliver or dispatch within the time stipulated in the contract or if the same were not available, the best and nearest available substitute thereof. The supplier shall be liable for the additional expenditure/difference in Cost, if any, including consequential losses which BHEL may sustain by reason of risk purchase in addition to the applicable LD as per the Purchase order/contract.</p>	

	<p>a) The decision of BHEL with regard to the additional expenditure / difference in cost and consequential losses incurred by BHEL shall be final and binding on the supplier.</p> <p>b) The amount recoverable under risk purchase shall be recovered from the defaulted supplier in all or any of the following manners:</p> <ul style="list-style-type: none"> • from dues available in the form of Bills payable to defaulted supplier, SD, BGs against the same contract. • from the dues payable to defaulted supplier against other contracts in the same Region/Unit /any other region/unit <p>c) In-case recoveries are not possible with any of the above available options, Legal action shall be initiated for recovery against defaulted supplier.</p> <p>d) Withdrawal of offer after price bid opening or varying the same in any manner within the validity period, but before the placement of order will be liable for suitable action for suspension of further business with the vendor as per BHEL corporate procedures.</p> <p>e) Abridged version of extant 'Guidelines for suspension of business dealings with suppliers/ contractors' has now been uploaded on www.bhel.com on "supplier registration page" at the following link: http://www.bhel.com/vender_registration/vender.php (Guidelines for suspension of business dealings with suppliers/ contractors).</p>	
17.	<p>Validity: 90 days minimum from techno commercial bid opening (Part-1). Any Deviation with respect to validity your offer will not be considered. Ensure your quoted rates will have 90 days' minimum validity from techno commercial bid opening. The delay in technical clarification beyond four days will be subsequently added to the validity period, Revised Price Bids will not be encouraged.</p>	
18.	<p>Documents are to be submitted along with technical bid (Part-1)</p> <ol style="list-style-type: none"> 01. Covering letter 02. Unpriced offer. 03. Filled technical specification and BHEL datasheets. 04. Filled BHEL Terms and condition sheet (Annexure-A) 05. Filled in PQR along with supporting documents. 06. GA Drawing 07. Self-Certification as per Make in India clause 08. MSE Certificates (if applicable) <p>Note: All the pages of documents are to be signed and sealed by authorized signatory of the company. Any query during enquiry stage shall be replied within two days failing which offer may be rejected as non-responsive.</p>	
19.	<p>Inspection and testing requirements: Inspection and testing requirements are to be carried out as per the specification and BHEL/Customer approved Drawing (All documents shall be submitted within 15 days from the date of PO for our approval), Technical spec &QP and all test certificates are to be submitted in complete set. Inspection notice period: For TPI inspector visit to vendor works, a minimum of 3 working days' notice period.</p>	
20.	<p>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</p>	

	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.	
21.	All invoices shall bear the HSN Code for each item separately (Harmonized System of Nomenclature)/ SAC code (Services Accounting Code).	
22.	Invoices will be processed only upon completion of statutory requirement and further subject to following: <ul style="list-style-type: none"> • Vendor declaring such invoice in Form GST ANX-1 • Receipt of Goods or Services and Tax invoice by BHEL 	
23.	As the continuous uploading of tax invoices in GSTN portal (in GST ANX-1) is available for all (i.e. both Small & Large) tax payers under proposed new GST Return System, all invoices raised on BHEL may be uploaded immediately in GST portal on despatch of material /rendering of services. The supplier shall ensure availability of Invoice in GST portal before submission of invoice to BHEL. Invoices will be admitted by BHEL only if the invoices are available in GSTN portal (in BHEL's GST ANX-2).	
24.	In case of discrepancy in the data uploaded by the 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 or debit note (details also to be uploaded in GSTN portal) for the shortages or rejections in the supplies or additional claims, within the calendar month informed by BHEL.	
25.	In cases where invoice details have been uploaded by the vendor but failed to remit the GST amount to GST Department (Form PMT-08 or Form GST RET-01 to be submitted) within stipulated time, then GST paid on the invoices pertaining to the month for which GST return not filed by the vendor will be recovered from the vendor along with the applicable interest (currently 24% p.a) and all subsequent bills of the vendor will not be processed till filing of the GST return by the vendor	
26.	In case GST credit is denied to BHEL due to non-receipt or delayed receipt of goods and/ or tax invoice or expiry of timeline prescribed in GST law for availing such ITC, or any other reasons not attributable to BHEL, GST amount claimed in the invoice shall be disallowed to the vendor.	
27.	Where any GST liability arising on BHEL under Reverse Charge (RCM), the vendor has to submit the invoices to BHEL well within the timeline prescribed in GST Law, to enable BHEL to discharge the GST liability. If there is a delay in submission of invoice by the vendor resulting in delayed payment of GST by BHEL along with Interest, then such Interest payable or paid shall be recovered from the vendor.	
28.	Under GST regime, BHEL has to discharge GST liability on LD recovered from suppliers/contracts. Hence applicable GST shall also be recoverable from suppliers/contractors on LD amount. For this Tax Invoice will be issued by BHEL indicating the respective supply invoice number.	
29.	GST TDS will be deducted as per Section 51 of CGST Act 2017 and in line with Notification 50/2018 – Central Tax dated 13.09.2018. GST TDS certificate which	

	will be generated in GST portal subsequent to vendor accepting the TDS deduction in the GST portal, will be issued to the vendor.	
30.	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	
31.	<p><u>BILL PROCESSING METHOD:</u></p> <p>“Supplier has to ensure the full quantity of material delivery within given PO delivery date to process the bill for payment. In case supplier fails to deliver full quantity within delivery date, bills received after PO delivery date will be processed after final despatch of the total pending supply. Further, bills will be clubbed and forwarded for payment processing as a single bunch”.</p>	
32.	<p><u>MSE VENDOR:</u></p> <p><i>i. If L1 vendor is an MSE vendor entire project package will be ordered on L1 vendor.</i></p> <p><i>ii. If a Non MSE vendor is coming as L1, then L1 prices will be counteroffered on MSE vendor who is quoting price within the price band L1+15% and if they are agreeing, purchase order will be awarded for full/complete supply of total tendered value to MSE.</i></p> <p><i>iii. If more than one MSE vendors are available in the L1+15% price band then lowest of the MSE vendor will be selected for counteroffering. If lowest MSE vendor is not accepting it will be counteroffered to the next MSE vendor in the price band and so on.</i></p> <p><i>iv. Finally if none of the MSE vendor in the price band is not accepting it will be ordered on L1 non MSE vendor.</i></p> <p>Payment for MSE Indigenous vendors will be as per MSMED Act, 2006</p> <p>MSE suppliers can avail the intended benefits only if they submit <i>Udyam Registration certificate</i>.</p> <p>Non submission of such documents will lead to consideration of their bid at par with other bidders. No benefit shall be applicable for this enquiry, in case of any deficiency in the above required documents or in case the documents are not submitted before price bid opening.</p>	
33.	<p><u>Make in India:</u></p> <p>As per the clause no 4 as defined in Public Procurement (Preference to Make in India), Order 2017 dated 04.06.2020 issued by DPIIT, purchase preference is not applicable for local suppliers in this enquiry.</p>	
34.	<p><u>ARBITRATION & CONCILIATION:</u></p> <p>Except as provided elsewhere in this Contract, in case amicable settlement is not reached between the Parties, in respect of any dispute or difference; arising out of the formation, breach, termination, validity or execution of the Contract; or, the respective rights and liabilities of the Parties; or, in relation</p>	

	<p>to interpretation of any provision of the Contract; or, in any manner touching upon the Contract, then, either Party may, by a notice in writing to the other Party refer such dispute or difference to the sole arbitration of an arbitrator appointed by Head of the BHEL Unit/Region/Division issuing the Contract. The Arbitrator shall pass a reasoned award and the award of the Arbitrator shall be final and binding upon the Parties. Subject as aforesaid, the provisions of Arbitration and Conciliation Act 1996 (India) or statutory modifications or re-enactments thereof and the rules made thereunder and for the time being in force shall apply to the arbitration proceedings under this clause. The seat of arbitration shall be (the place from which the contract is issued). The cost of arbitration shall be borne as per the award of the Arbitrator.</p> <p>Subject to the arbitration in terms of Clause above, the Courts at TRICHY shall have exclusive jurisdiction over any matter arising out of or in connection with this Contract.</p> <p>Notwithstanding the existence or any dispute or differences and/or reference for the arbitration, the contractor shall proceed with and continue without hindrance the performance of its obligations under this contract with due diligence and expedition in a professional manner except where the Contract has been terminated by either Party in terms of this Contract.</p> <p>In case of contract with Public Sector Enterprise (PSE) or a Government Department, the following shall be applicable: In the event of any dispute or difference relating to the interpretation and application of the provisions of the Contract, such dispute or difference shall be referred by either Party for arbitration to the sole arbitrator in the Department of Public Enterprises to be nominated by the Secretary to the Government of India in-charge of the Department of Public Enterprises. The Arbitration and Conciliation Act, 1996 shall not be applicable to arbitration under this clause. The award of the arbitrator shall be binding upon the Parties to the dispute, provided, however, any Party aggrieved by such award may make further reference for setting aside or revision of the award to the Law Secretary, Department of Legal Affairs, Ministry of Law and Justice, Government of India. Upon such reference the dispute shall be decided by the Law Secretary or the Special Secretary or Additional Secretary when so authorized by the Law Secretary, whose decision shall bind the Parties hereto finally and conclusively. The Parties to the dispute will share equally the cost of arbitration as intimated by the Arbitrator.</p>	
35.	<p><u>Suspension of Business Dealings with Suppliers/ Contractors</u></p> <p>The offers of the bidders who are under suspension as also the offers of the bidders, who engage the services of the banned firms, shall be rejected. The list of banned firms is available on BHEL web site www.bhel.com.</p> <p>Integrity commitment, performance of the contract and punitive action thereof:</p> <ol style="list-style-type: none"> 1. Commitment by BHEL BHEL commits to take all measures necessary to prevent corruption in connection with the tender process and execution of the contract. BHEL will during the tender process treat all Bidder(s) in a transparent and fair manner, and with equity 2. Commitment by Bidder/ Supplier/ Contractor 	

	<p>a The bidder/ supplier/ contractor commit to take all measures to prevent corruption and will not directly or indirectly influence any decision or benefit which he is not legally entitled to nor will act or omit in any manner which tantamount to an offence punishable under any provision of the Indian Penal Code, 1860 or any other law in force in India.</p> <p>b The bidder/ supplier/ contractor 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 and shall adhere to relevant guidelines issued from time to time by Govt. of India/ BHEL</p> <p>c The bidder/ supplier/ contractor will perform/ execute the contract as per the contract terms & conditions and will not default without any reasonable cause, which causes loss of business/ money/ reputation, to BHEL. If any bidder/ supplier/ contractor during pre-tendering/ tendering/ post tendering/ award/ execution/ post-execution stage indulges in mal-practices, cheating, bribery, fraud or and other misconduct or formation of cartel so as to influence the bidding process or influence the price or acts or omits in any manner which tantamount to an offence punishable under any provision of the Indian Penal Code, 1860 or any other law in force in India, then, action may be taken against such bidder/ supplier/ contractor as per extant guidelines of the company available on www. bhel.com and/or under applicable legal provisions. Guidelines for suspension of business dealings is available in the webpage: http://www.bhel.com/vender_registration/vender.php</p>	
36.	<p><u>Fraud Prevention Policy</u> Bidder along with its associate /collaborators /sub-contractors /sub-vendors / consultants / service providers shall strictly adhere to BHEL Fraud Prevention Policy displayed on BHEL website http://www.bhel.com and shall immediately bring to the notice of BHEL Management about any fraud or suspected fraud as soon as it comes to their notice.</p>	
37.	<p><u>Resolution of Disputes</u> The Parties agree that if at any time (whether before, during or after the arbitral or judicial proceedings), any Disputes (which term shall mean and include any dispute, difference, question or disagreement arising in connection with construction, meaning, operation, effect, interpretation or breach of the contract/tender which the Parties are unable to settle mutually), arise inter-se the Parties, the same may, be referred by either party to Conciliation to be conducted through Independent Experts Committee to be appointed by competent authority of BHEL from the BHEL Panel of Conciliators.</p> <p>The proceedings of Conciliation shall broadly be governed by Part-III of the Arbitration and Conciliation Act 1996 or any statutory modification thereof.</p> <p><u>Notes:</u></p> <p>1. No serving or a retired employee of BHEL/Administrative Ministry of BHEL shall be included in the BHEL Panel of Conciliators.</p>	

2. Any other person(s) can be appointed as Conciliator(s) who is/are mutually agreeable to both the parties from outside the BHEL Panel of Conciliators.

The proceedings of Conciliation shall broadly be governed by Part-III of the Arbitration and Conciliation Act 1996 or any statutory modification thereof and as provided in Annexure X to this Enquiry Conditions.

The Annexure together with its appendices will be treated as if the same is part and parcel hereof and shall be as effectual as if set out herein in these Enquiry Conditions

Except as provided elsewhere in this Contract, in case amicable settlement is not reached between the parties, in respect of any dispute or difference; arising out of the formation, breach, termination, validity or execution of the Contract; or, the respective rights and liabilities of the Parties; or, in relation to interpretation of any provision of the Contract ; or , in any manner touching upon the Contract, then, either Party may , by a notice in writing to other Party refer such dispute or difference to sole arbitration of an arbitrator appointed as per the Arbitration and Conciliation Act, 1996 (India) or statutory modification or re-enactment thereof and the rules made thereunder and for the time being in force .

The Arbitrator shall pass a reasoned award and the award of the Arbitrator shall be final and binding upon the parties. Subject as aforesaid, the provision of Arbitration & Conciliation Act 1996 (India) or statutory modification or re-enactment thereof and the rules made thereunder and for the time being in force shall apply to the arbitration proceeding under this clause.

The seat of arbitration shall be Trichy, Tamil Nadu, India.

The cost of arbitration shall be borne as per the award of the Arbitrator.

Subject to arbitration in terms of clause above, the Courts at Trichy, Tamil Nadu, India shall have exclusive jurisdiction over any matter arising out of or in connection with this Contract.

Notwithstanding the existence or any dispute or difference and/or reference for the arbitration, the vendor shall proceed with and continue without hindrance the performance of its obligation under this Contract with due diligence and expedition in a professional manner except where the Contract has been terminated by either Party in terms of this Contract.

In Case of Contract with Public Sector Enterprise (PSE) or a Government Department, the following shall be applicable:

In the event of any dispute or difference relating to the interpretation and application of the provisions of commercial contract(s) between Central Public Sector Enterprises (CPSEs)/Port Trusts inter se and also between CPSEs

	and Government Departments/Organizations (Excluding disputes concerning Railways, Income Tax, Customs & Excise Departments, such dispute or difference shall be taken up by either party for resolution through AMRCD as mentioned in DPE OM No. 4(1)/2013 –DPE (GM)/FTS-1835 dated 22-05-2018.	
38.	<u>PRICE IMPACT:</u> All the technical / commercial details given in the enquiry shall be taken care and offer shall be quoted accordingly. No price impact / implication will be accepted within the validity period.	
39.	<u>BHEL reserve the right to inspect the item ordered at any stage at vendor's works and if found not meeting the stipulated conditions, material is liable for rejection</u>	
40.	<p><u>OTHER TERMS AND CONDITIONS:</u></p> <ul style="list-style-type: none"> • No revision of prices will be entertained at any circumstances after tenders are opened. • On the due date of tender opening, only the Techno-commercial bids will be opened. Techno-commercial bids will be evaluated by us and clarifications required, if any, will be called from the bidders on technical and commercial points. • If any difference is found in the terms in the Techno-commercial bid and price bid, the terms mentioned in the Techno-Commercial Bid will be considered. • BHEL reserves the right to negotiate or refloat the tender opened, if L1 price is not the lowest acceptable price to BHEL due to inter-alia other reasons. • The correspondence between the bidder and BHEL through Email is considered as valid document Legally though not signed. It is treated as valid confirmations made on behalf of the respective company and comes under the legal ambit of the business transaction and hence binding on both the parties. • If The Due Date Of Tender Opening Happens to be a Holiday, those tenders Will Be Opened On Next Working Day. • The quality of the supplies should strictly conform to technical specifications applicable for the item. The offer should specifically confirm this. • If any quality problem is pointed out by BHEL w.r.t. supplied material, the same shall be settled and corrected immediately by the supplier. If the material cannot be accepted by BHEL, supplier has to replace the material with no extra cost. Collection of rejected material will be sole responsibility of the supplier. • BHEL reserves the right to cancel the tender at any stage without giving any reasons. • In the event of our customer order covering this tender being cancelled /placed on hold / otherwise modified, BHEL would be constrained to accordingly cancel / hold / modify the tender at any stage of execution. • BHEL may negotiate the L1 rate, if not meeting our budget / estimated cost. BHEL may re-float the tender opened, if L1 price is not acceptable to BHEL. • BHEL reserves its right to reject an offer due to unsatisfactory past performance by the respective Vendor in the execution of any contract to any BHEL project / Unit. • Any other Techno –Commercial Terms indicated by the vendor in their offer elsewhere will be ignored. BHEL will proceed with tender evaluation as per Annexure A only. • For any clarifications, you may contact to the following Email ID : <ul style="list-style-type: none"> a) akhildas@bhel.in b) indhubannari@bhel.in 	

Note	For more details please refer to Ref. NIT of BHEL's website http://www.bhel.com (tender notification page) or from the govt. tender website http://tender.gov.in (Public Sector Units Bharat Heavy Electricals Limited page) or CPP portal https://eprocure.gov.in/eprocure/app . <i>Important: All updates, amendments, corrigendum etc., if any will be posted only on the above website as and when required. There will be no publication of the same through any other media.</i>
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Annexure-D

SUB-DELIVERY ENQUIRY DEVIATION FORMAT


	MATERIALS MANAGEMENT / BOI SUB-DELIVERY ENQUIRY DEVIATION FORMAT	
Schedule of deviation to Sub-delivery Enquiry No.	: 1802200123 dt 04.06.2022	
Description	: BWCP Emergency CWB VALVE - 3" & 1"	
Technical Specifications Document	: TSBM:004/Rev 00	
Drawing Nos.	:	
Quality Plan	: SQP:SD:06 Rev 00	
Packing Procedure	:	
Document reference	BHEL called for	Firm's
Certified that other than the above deviations, we are accepting all the other specifications and requirements in full to your Enquiry.		
Station :		
Date :	Signature of firm's representative	Firm seal
Note :	1. Deviations should be taken only in the extreme case 2. If necessary, use additional sheets with page control number	

TECHNICAL PRE-QUALIFICATION REQUIREMENT (PQR) FOR BCWP EMERGENCY COOLING WATER BLOCK VALVES WITH PNEUMATIC ACTUATOR

1. The vendor shall be an established supplier of **Block Valve with Pneumatic Actuator**, having adequate Engineering, Manufacturing, testing and servicing facilities and shall furnish technical backup documents in proof for above requirements.
2. The vendor shall have experience of having supplied **Block Valve with Pneumatic Actuator** as per the technical specification or application of similar severity. Supply reference list with details of PO, PO date, customer name shall be submitted.
3. The **Valve** offered shall be from the existing regular supply range of the vendor. Vendor shall provide the product catalogue.
4. As proof of above pre-qualifying requirement points, vendor should submit:
 - 4.1. Copy of minimum one (1) performance certificate in English from end user along with copy of related PO/LOI/LOA/WO specifying that the product / equipment is running successfully for one (1) year from date of commissioning meeting the pre-qualification requirement.
OR
 - 4.2. Minimum two PO/LOI/LOA/WO placed with a minimum gap of one (1) year from same purchaser meeting the pre-qualification requirement.
OR
 - 4.3. Minimum three customer's/ third party's inspection reports/ test certificates/ commissioning certificates meeting the pre-qualification requirement.
5. In case of ordering, the Vendor shall have the responsibility for the following and same to be confirmed point wise.
 - i) Vendor should have the component replacement responsibility in case of defect / failure.
 - ii) Experts from Vendor's side shall associate in commissioning activities at site, if required.
 - iii) Vendor should ensure the product performance during erection & commissioning and ensure performance guarantee.
6. Copy of Statutory documents –Company registration, GST certificate and PAN Card.

7. Backup document checklist to meet PQR to the fullest satisfaction of BHEL:

S. No	Document description	Check list
1	Documents to meet Clause(1) - Manufacturer	<input type="checkbox"/>
2	General Supply Reference List to meet Clause (2)	<input type="checkbox"/>
3	Product Catalogues	<input type="checkbox"/>
4	Minimum one end user certificate / Two Purchase Order copies and respective technical back up documents	<input type="checkbox"/>
5	Minimum one end user certificate / Two Purchase Order copies and respective technical back up documents	<input type="checkbox"/>
6	Confirmation to clause (5)	<input type="checkbox"/>
7	Copy of Statutory documents	<input type="checkbox"/>

	DATA SHEET FOR BCWP EMERGENCY COOLING WATER BLOCK VALVES with Pneumatic Actuator		SPECIFICATION NO.: TSBM:004		
			SECTION :Boiler Mountings (FB)		
			REV. NO. : 02	DATE : 24.12.08	
			SHEET : 01 of 03		
PROJECT : STANDARD					
MATERIAL CODE: 1) 963620370000 - 3" On-OFF Pneumatic valve with accessories – 1 No. 2) 963620370100 - Gland Packing (Commissioning spare)- 1 Set 3) 963620370200 - Gasket(Commissioning spare – 1 Set					
BCWP EMERGENCY COOLING WATER BLOCK VALVE DATA SHEET – A&B					
DATA SHEET – A FOR BCWP EMERGENCY COOLING WATER BLOCK VALVE WITH PNEUMATIC ACTUATOR (TO BE FILLED UP BY PURCHASER)			DATA SHEET – B (TO BE FILLED UP BY BIDDER)		
GENERAL	PROJECT SERVICE LOCATION DUTY PIPE SIZE (inlet / outlet) PIPE MATERIAL (inlet / outlet) MEDIUM	STANDARD – 500MW Projects BCWP EMERGENCY COOLING WATER BV OUTDOOR ON-OFF D88.9 x 5.49 / D88.9 x 5.49 SA106 Gr.B / SA106 Gr.B COOLING WATER			
BODY	MODEL No. TYPE OF BODY BODY SIZE : DESIGN CV END CONNECTION & RATING (ANSI) BODY MATERIAL PACKING MATERIAL BONNET TYPE TRIM FORM TRIM MATERIAL: SEAT / PLUG // CAGE / STEM BALANCED / UNBALANCED FLOW VALVE OUTLET VELOCITY REQUIRED LEAKAGE CLASS NOISE LEVEL in dBA (SPEC . 3 . 1 . 14) ANTI CAVITATION TRIM VALVE LIFT in mm	GLOBE 3" BUTT WELD; Style- D;d1=79.0 mm & ANSI 300 A216 WCB / A216 WCC GRAFOIL STD / EXTENDED / FINNED QUICK OPEN (ON/OFF) BELOW SEAT / ABOVE SEAT < 8 m/s V LESS THAN 85 dBA			
PNEUMATIC ACTUATOR	MODEL No. & SIZE MIN REQUIRED / AVAILABLE AIR PR. (kg/cm ² (g)) TRAVEL TIME FOR OPEN TO CLOSE / CLOSE TO OPEN VALVE POSN. ON SIGNAL AIR FAILURE VALVE POSN. ON SUPPLY AIR FAILURE	SPRING ACTION OPENS THE VALVE / 3 to 5 <10 Secs / <10 Secs NOT APPLICABLE STAY PUT			
PERFORMANCE OF VALVE	LINEARITY HYSTERISIS SENSITIVITY ACCURACY (OVERALL)	± 2% ± 1% ± 0.5% ± 2%			

Actuator sizing pressure : 22.0 kg/cm² (g)
 Body design: pressure / temperature : 22.0 kg/cm² (g) / 50°C
 IBR FORM – III C : REQUIRED
 Total weight (valve+actuator+accessories) : Kgs.

Valves should be directly weldable to connecting pipe without the use of Reducers. Only Globe / Inline Valves acceptable. Angle Valves not acceptable.

Vendor to refer the Pneumatic hook up diagram enclosed by BHEL and confirm the following:

1	During Normal situation (Air supply normal), valve is closed (by Air to Actuator) when Solenoid Coil-1 is energized.
2	Normal situation (but compressed air suddenly fails): Valve continues to be closed due to Airlock action.
3	Emergency situation : Solenoid Coil-2 is energized and valve opens.
4	Air supply fails during emergency situation : Valve continues to remain in open condition.


Vendor has to incorporate the above tests in Quality Plan and submit certificate to BHEL Engg. before actual dispatch for each of the above 4 situations being achieved during testing.

Special painting requirements:

- a) For Carbon Steel Valves
 Surface preparation : St.3 Power Tool Cleaning
 Primer Paint : Heat Resistant Aluminium Paint to IS13183 Gr.I / Number of coats = 2.
 Finish Coat Shade : Aluminium
 Total DFT : 40µm
 b) For Forged Valves : Only Phosphating required.

NOTE:

- Vendor to quote for commissioning spares: a) Gland packing, b) Gasket and to be ordered on the vendor to whom the order for BCWP Emergency Block valve is placed.
- Vendor to submit filled up Datasheets, Pneumatic Hook up diagram and Terminal Block Wiring Diagram along with offer.
- Catalogs of valves & accessories to be submitted along with offer.
- Two Copies of O&M Manuals are to be submitted to BHEL, Trichy after placement of P.O and 1 copy has to be sent along with valve assy. to site directly.

	DATA SHEET FOR BCWP EMERGENCY COOLING WATER BLOCK VALVES with Pneumatic Actuator		SPECIFICATION NO.: TSBM:004		
			SECTION :Boiler Mountings (FB)		
			REV. NO. : 02	DATE : 24.12.08	
			SHEET : 02 of 03		
PROJECT : STANDARD					
MATERIAL CODE: 1) 963620380000 - 1" On-OFF Pneumatic valve with accessories – 1 No. 2) 963620380100 - Gland Packing (Commissioning spare)- 1 Set 3) 963620380200 - Gasket(Commissioning spare – 1 Set					
BCWP EMERGENCY COOLING WATER BLOCK VALVE DATA SHEET – A&B					
DATA SHEET – A FOR BCWP EMERGENCY COOLING WATER BLOCK VALVE WITH PNEUMATIC ACTUATOR (TO BE FILLED UP BY PURCHASER)			DATA SHEET – B (TO BE FILLED UP BY BIDDER)		
GENERAL	PROJECT SERVICE LOCATION DUTY PIPE SIZE (inlet / outlet) PIPE MATERIAL (inlet / outlet) MEDIUM	STANDARD – 500 MW Projects BCWP EMERGENCY COOLING WATER BV OUTDOOR ON-OFF D33.4 x 3.38 / D33.4 x 3.38 SA106 Gr.B / SA106 Gr.B COOLING WATER			
BODY	MODEL No. TYPE OF BODY BODY SIZE : DESIGN CV END CONNECTION & RATING (ANSI) BODY MATERIAL PACKING MATERIAL BONNET TYPE TRIM FORM TRIM MATERIAL: SEAT / PLUG // CAGE / STEM BALANCED / UNBALANCED FLOW VALVE OUTLET VELOCITY REQUIRED LEAKAGE CLASS NOISE LEVEL in dBA (SPEC . 3 . 1 . 14) ANTI CAVITATION TRIM VALVE LIFT in mm	GLOBE 1" SOCKET WELD & ANSI 300 A105 / A216 WCB / A216 WCC GRAFOIL STD / EXTENDED / FINNED QUICK OPEN (ON/OFF) BELOW SEAT / ABOVE SEAT < 8 m/s V LESS THAN 85 dBA			
PNEUMATIC ACTUATOR	MODEL No. & SIZE MIN REQUIRED / AVAILABLE AIR PR. (kg/cm ² (g)) TRAVEL TIME FOR OPEN TO CLOSE / CLOSE TO OPEN VALVE POSN. ON SIGNAL AIR FAILURE VALVE POSN. ON SUPPLY AIR FAILURE	SPRING ACTION OPENS THE VALVE / 3 to 5 <10 Secs / <10 Secs NOT APPLICABLE STAY PUT			
PERFORMANCE OF VALVE	LINEARITY HYSTERISIS SENSITIVITY ACCURACY (OVERALL)	± 2% ± 1% ± 0.5% ± 2%			

Atuator sizing pressure : 22.0 kg/cm²(g)
 Body design: pressure / temperature : 22.0 kg/cm²(g) / 50°C
 IBR FORM – III C : REQUIRED
 Total weight (valve+actuator+accessories) : Kgs.

Valves should be directly weldable to connecting pipe without the use of Reducers. Only Globe / Inline Valves acceptable. Angle Valves not acceptable.

Vendor to refer the Pneumatic hook up diagram enclosed by BHEL and confirm the following:

1	During Normal situation (Air supply normal), valve is closed (by Air to Actuator) when Solenoid Coil-1 is energized.
2	Normal situation (but compressed air suddenly fails): Valve continues to be closed due to Airlock action.
3	Emergency situation : Solenoid Coil-2 is energized and valve opens.
4	Air supply fails during emergency situation : Valve continues to remain in open condition.

Vendor has to incorporate the above tests in Quality Plan and submit certificate to BHEL Engg. Before actual dispatch for each of the above 4 situations being achieved during testing.

Special painting requirements:

- b) For Carbon Steel Valves
 Surface preparation : St.3 Power Tool Cleaning
 Primer Paint : Heat Resistant Aluminium Paint to IS13183 Gr.1 / Number of coats = 2.
 Finish Coat Shade : Aluminium
 Total DFT : 40µm
 b) For Forged Valves : Only Phosphating required.

Note:

- Vendor to quote for commissioning spares: a) Gland packing b) Gasket and to be ordered on the vendor to whom the order for BCWP Emergency Block valve is placed.
- Vendor to submit filled up Datasheets, Pneumatic Hook up diagram and Terminal Block Wiring Diagram along with offer.
- Catalogs of valves & accessories to be submitted along with offer.
- Two Copies of O&M Manuals are to be submitted to BHEL, Trichy after placement of P.O and 1 copy has to be sent along with valve assy. to site directly.



DATA SHEET FOR BCWP EMERGENCY COOLING WATER BLOCK VALVES with Pneumatic Actuator

SPECIFICATION NO.: TSBM:004

SECTION : Boiler Mountings(FB)

REV. NO. : 02

DATE : 24.12.08

SHEET : 03 OF 03

BCWP EMERGENCY COOLING WATER BLOCK VALVE DATA SHEET – A&B

DATA SHEET – A FOR BCWP EMERGENCY COOLING WATER BLOCK VALVE WITH PNEUMATIC ACTUATOR
(TO BE FILLED UP BY PURCHASER)

DATA SHEET – B
(TO BE FILLED UP BY BIDDER)

ACCESSORIES	POSITIONER	NOT REQUIRED	
	AIR FILTER REGULATOR	REQUIRED	
	AIR LOCK RELAY	REQUIRED	
	POSITION LIMIT SWITCH	REQUIRED	
	POSITION TRANSMITTER	NOT REQUIRED	
	SOLENOID VALVE	REQUIRED	
	I/P CONVERTER	NOT REQUIRED	
	JUNCTION BOX	REQUIRED	
	HAND WHEEL (SIDE MOUNTED)	REQUIRED	
	LOCAL POSITION INDICATOR	REQUIRED	
	VOLUME BOOSTER & DUMP VALVE	REQUIRED / NOT REQUIRED	
POSITIONER	MANUFACTURER & MODEL No. BYPASS : GAUGES : ENCLOSURE CLASS INPUT SIGNAL in kg/cm ² (g) OUTPUT SIGNAL	YES / NO / TWO : IP-55 0.2 – 1.0 TO SUIT ACTUATOR	NOT APPLICABLE
AIR FILTER REGULATOR	MANUFACTURER & MODEL No. AIR SUPPLY PRESSURE in kg/cm ² (g) OUTPUT PRESSURE in kg/cm ² (g) OUTPUT GAUGE	3.0 to 5.0 TO SUIT ACTUATOR REQUIRED	
AIR LOCK	MANUFACTURER & MODEL No. SET PRESSURE in kg/cm ² (g) SUPPLY PRESSURE in kg/cm ² (g) RESET TYPE VENT PLUG	3.0 to 5.0 AUTO	
LIMIT SWITCH	MANUFACTURER & MODEL No. OPEN : INT : CLOSE CONTACT TYPE RATING (AC/DC) ENCLOSURE CLASS	1 No. : ---- : 1 No. SPDT 2 NO + 2 NC 5A 240V, AC and 0.2A, 220V, DC IP65	
POSITION TRANSMITTER	MANUFACTURER & MODEL No. TYPE SUPPLY OUTPUT RATING ACCURACY ENCLOSURE CLASS	LVDT TYPE 24V DC 4-20Ma / 0-100 Ohms +/- 1% FS IP65	NOT APPLICABLE
SOLENOID VALVE	MANUFACTURER & MODEL No. RATING OPERATION / 4 WAY, DUAL COIL COIL INSULATION CLASS ENCLOSURE CLASS	24V, DC STAYPUT / CLASS-H IP65 / NEMA4	
HANDWHEEL	ORIENTATION	SIDE MOUNTED	
JUNCTION BOX	No. OF WAYS 3 Nos. of 9 PIN PLUG & SOCKETS (OUT OF 3 Nos. of 9 PIN PLUG & SOCKET 1 No. is SPARE) CABLE GLANDS: (SIZE / QNTY) ENCLOSURE CLASS	THIRTY SIX REQUIRED REQUIRED IP55	
I/P CONVERTER (Fail Freeze Type)	INPUT SIGNAL : POWER SUPPLY SPLIT RANGE ENCLOSURE CLASS	4 – 20mA, DC / 24V, DC YES / NO // YES / NO IP55	NOT APPLICABLE
AIR CONNECTION SIZE SHOULD BE ¼ " NPT (F)			
Revision: Revn 01: Note No.01 added.		Revn. 02 : Specification & Material codes added Dt.: 24.12.08	
PREPARED	CHECKED	APPROVED	VENDOR SEAL
K. SRIDHAR	K.PERIASAMY	K. PERIASAMY	SIGN.: NAME: DATE:



BHARAT HEAVY ELECTRICALS LIMITED
TIRUCHIRAPPALLI - 620 014, INDIA.
QUALITY ASSURANCE DEPARTMENT

STANDARD QUALITY PLAN FOR CONTROL VALVES (STEAM & WATER APPLICATIONS)

SQP:SD:06 Rev 00

Page: 1 of 5

Prepared By
Quality Assurance

VENKANNA RUPANI


R Venkanna
14/09/2015

Reviewed by	Signature
Quality Assurance S. PANNNEER SELVAM	 14/09/15
Engineering K. SRIDHARAN	 16/09/15
Materials Management/BOI K. UDAYA KUMAR	 16/9/15
Quality Control R. DHARMAR	 15/09/15

Rev No	Date	Approved by	Signature
00	14/09/2015	AGM / QA & BE	

Record of Revisions

Rev No	Details of Revision	Remarks
00	Fresh Issue	

		STANDARD QUALITY PLAN							QWI NO:SQP:SD:06 REV.NO.00 DATE: 14/09/2015 PAGE: 2 OF 5				
		PRODUCT: CONTROL VALVES – STEAM & WATER APPLICATIONS (SH, RH SPRAY BLOCK; SB PRESSURE REDUCING; WARM KEEPING LEVEL; START-UP SYSTEM:SEPARATOR LEVEL & MINIMUM ECONOMIZER FLOW)											
		SUB-SYSTEM :Steam Generator Package											
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	M	C/N	7	8	9	D*	**	10	11

1.0 RAW MATERIALS & BOUGHT OUT ITEMS														
1.1	Body, Bonnet, inlet & outlet nozzles (if applicable)	Chemical & Mech Properties, Heat treatment, Hardness@	B	TC Verification	1/Heat	1/Heat	BHEL approved datasheet/ ASTM Std	BHEL approved datasheet / ASTM Std	MTC	√	P	V	V	@on Gr 91 materials only.
		Surface quality*	B	Visual Examination	100%	100%	MSS SP 55	MSS SP 55	MTC	√	P	V	V	*on castings.
		Internal Soundness for class rating ≥ 900 (RT/UT#)	B	TC Verification	100%	100%	ASME Sec V	RT: ASME B16.34 Appendix I/ UT: ASME B16.34 Appendix IV	MTC	√	P	V	V	#RT as per ASME B16.34; UT for forgings of dia/thick ≥50mm.
		#Sub-Surface Soundness(MPI)	B	TC Verification	100%	100%	ASME Sec V/ ASTM E709	ASME B 16.34 Appendix II	MTC	√	P	V	V	#On accessible areas.
1.2	Trim(Plug, Seat ring & Stem)	Chemical & Mechanical Properties, Hardness@	B	TC Verification	1/Heat	1/Heat	BHEL approved datasheet / ASTM Std	BHEL approved datasheet / ASTM Std	MTC	√	P	V	V	@on Gr 91 materials only.
		Stem Internal Soundness(UT#)	B	TC Verification	100%	100%	ASME Sec V/ ASTM A 388	ASME B 16.34 Appendix IV	MTC	√	P	V	V	#UT for dia/ thick ≥50mm
1.3	Pressure retaining fasteners	Chemical, Mechanical Prop & Dimensions	B	TC Verification	1/Heat	1/Heat	BHEL approved datasheet /ASTM Std	BHEL approved datasheet /ASTM Std	MTC/ COC	√	P	V	V	
1.4	Diaphragm/ Piston Cylinder, if applicable	Surface Quality, Strength & %Elg, Hardness, *, Endurance Life, Dimensions	B	Visual & Measurement	1/ Lot 100%	1/ Lot 100%	Manufacturer's Specification 10,000 Cycles	Manufacturer's Specification No damage	COC	√	P	V	V	*property change after heat aging.
1.5	Springs, if applicable	Chemistry, Strength, Hardness, Endurance*, Scragging, Linearity & Dimensions	B	Chemical Analysis, Compression & Load test, Measurement, Cyclic Test, Measurement	1/ Lot	1/ Lot	Manufacturer's Specification 10,000 Cycles	Manufacturer's Specification No damage	COC	√	P	V	V	*including stiffness ratio.

LEGEND: *RECORDS IDENTIFIED WITH "TICK" (√) SHALL BE ESSENTIALLY INCLUDED BY THE SUPPLIER IN QA DOCUMENTATION;
**** M:** MANUFACTURER, **C:** BHEL QC/BHEL AIA, **N:** CUSTOMER; **P:** PERFORM. **W:** WITNESS, **V:** VERIFICATION; **CLASS:** A - CRITICAL ; B - MAJOR ; C - MINOR;
MTC- Mill /Manufacturer's Test Certificate; IR- Inspection/Test Report; (R): Routine test; (I)/(Ts): Type test, COC: Certificate of compliance



MANUFACTURER'S
NAME & ADDRESS:
BHEL TIRUCHIRAPPALLI
APPROVED SUPPLIERS

STANDARD QUALITY PLAN

PRODUCT: CONTROL VALVES – STEAM & WATER APPLICATIONS (SH, RH SPRAY
BLOCK; SB PRESSURE REDUCING; WARM KEEPING LEVEL;
START-UP SYSTEM:SEPARATOR LEVEL & MINIMUM ECONOMIZER FLOW)

QWI NO:SQP:SD:06
REV.NO.00 DATE: 14/09/2015
PAGE: 3 OF 5

SUB-SYSTEM :Steam Generator Package

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	M	C/N	7	8	9	D*	**	10	11	
1.6	Pressure Gauges, if applicable	Rating/Range, Performance	B	Visual, Calibration	100%	100%	Manufacturer's Specification	Manufacturer's Specification	IR/COC	√	P	V	V	
1.7	Accessories: Solenoid valve, limit switch, ALR, junction box, positioner & transmitters, etc.#	Make/rating/type; Degree of protection(as applicable)*	B	Verification	100%	100%	BHEL approved datasheet	BHEL approved datasheet	COC & Certificates *	√	P	V	V	#BHEL approved makes. *For electrical items, certificates by statutory bodies shall be furnished.
2.0 INPROCESS INSPECTION														
2.1	Welding Qualifications, if welding is involved	Procedure	B	Document Review	100%	100%	ASME Sec IX	ASME Sec IX	PQR & WPS	√	P	V	V	# ASME Sec IX for BHEL export boilers only
		Personnel #	B	Document Review	100%	100%	IBR/ ASME Sec IX#	IBR/ ASME Sec IX #	WPQ	√	P	V	V	
2.2	PWHT, if applicable	Time & Temp control	B	Review of HT Chart	100%	100%	WPS & IBR	WPS & IBR	HT Chart	√	P	V	V	
2.3	Hard faced Trims	Hardness	B	Measurement	On test samples only		BHEL approved datasheet / Mfg Std	BHEL approved datasheet / Mfg Std	Test Report	√	P	V	V	
2.4	Body, Bonnet, Plug, Seat Rings & Stems after machining	Surface quality, Dimensions including profile check	B	Visual & Measurement	100%	--	Manufacturer's Drawing	Manufacturer's Drawing	--	-	P	--	-	
2.5	Lapping*	M/c surface contact	B	Visual	1/Heat		---	Proper Physical contact	Test Report	-	P	-	-	*for rotating stem valves.
2.6	NDE on hard faced trims	Weld Soundness	B	LPI	100%	100%	ASME E165	ASME Sec VIII Div 1 Appd 8.4	Test Report	√	P	V	V	
2.7	NDE on butt weld joints	Weld Soundness	B	RT/UT	100%	100%	ASME Sec V	ASME Sec I	Test Report	√	P	V	V	*Film Review
2.8	NDE on butt weld ends	Soundness of edges after m/c	B	LPI	100%	100%	ASME Sec V	ASME Sec VIII Div 1 Appd 8.4	Test Report	√	P	V	V	
2.9	Body & Bonnet	Leak tightness & pressure resistance	A	Hydro Test	100%	-	ASME 16.34/ ISA 75.19	No Leak	Register/ Log	--	P	-	-	
2.10	Hardness on Gr 91 welds	Hardness	B	Measurement	100%	10%	Manufacturer's standard	186-300 BHN	Test Report	√	P	W	V	

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MANUFACTURER'S
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APPROVED SUPPLIERS

STANDARD QUALITY PLAN

PRODUCT: CONTROL VALVES – STEAM & WATER APPLICATIONS (SH, RH SPRAY
BLOCK; SB PRESSURE REDUCING; WARM KEEPING LEVEL;
START-UP SYSTEM:SEPARATOR LEVEL & MINIMUM ECONOMIZER FLOW)

QWI NO:SQP:SD:06
REV.NO.00 DATE: 14/09/2015
PAGE: 4 OF 5

SUB-SYSTEM :Steam Generator Package

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	
1	2	3	4	5	M	C/N	7	8	9	D*	**	10	11

3.0 FINAL INSPECTION & TESTING

3.1	Performance Test on assembled valves fitted with all accessories	Leak tightness & pressure resistance of Body & Bonnet joint	A	Hydro Test	100%	10%	ASME 16.34/ISA 75.19	No Leak	Test Report	√	P	W	V	IBR Form III C shall be submitted	
3.2		Leak through seat	A	Seat Leak Test (Air/Hydro test)	100%	10%	FCI 70.2 /BHEL approved datasheet	FCI 70.2 /BHEL approved datasheet	Test Report	√	P	W	V		
3.3		Travel, linearity, hysteresis, valve opening & closing time, fail safe feature, functioning of all accessories.	A	Performance/ Calibration Test	100%	10%	IEC 60534-4/ BHEL approved datasheet	BHEL approved datasheet	Test Report	√	P	W	V		
3.4		Packing Tightness*	A	Packing Leak Test	100%	10%	ASME B16.34/ BHEL approved datasheet	ASME B16.34/ BHEL approved datasheet	Test Report	√	P	W	V	*can be done during hydro test (Cl 3.1)	
3.5		Control valve flow Capacity# (Discharge Vs Opening)	A	Capacity Test (Cv test)	1/Type	1/Type	BHEL approved datasheet /ISA 75.02	ISA 75.11	Test Report#	√	P	V	V	#Type test witnessed by BHEL or done at FCRI shall be submitted for review & clearance by BHEL Engg (certificate valid for 5 years).	
3.6		Actuator chamber-Strength & leakage	B	Air Leak Test	100%	10%	Manufacturer's std	No leak when tested @ 1.5 times supply press or 60 psi max.	Test Report	√	P	W	V		
3.7		Actuator & Positioner	Model, Sl No, Qty, Rating	B	Visual & Document Review	100%	10%	BHEL approved datasheet	BHEL approved datasheet	Test Report/ COC	√	P	W	V	
3.8		Final Inspection	Overall Dimensions*	B	Measurement	100%	10%	BHEL approved GA Drawing	BHEL approved GA Drawing	Test Report	√	P	W	V	*including OD, d1, thickness, etc.

LEGEND: *RECORDS IDENTIFIED WITH "TICK" (√) SHALL BE ESSENTIALLY INCLUDED BY THE SUPPLIER IN QA DOCUMENTATION;

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MTC: Mill /Manufacturer's Test Certificate; IR- Inspection/Test Report; (R): Routine test; (T)/(Ts): Type test, COC: Certificate of compliance



MANUFACTURER'S
NAME & ADDRESS:
BHEL TIRUCHIRAPPALLI
APPROVED SUPPLIERS

STANDARD QUALITY PLAN

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BLOCK; SB PRESSURE REDUCING; WARM KEEPING LEVEL;
START-UP SYSTEM:SEPARATOR LEVEL & MINIMUM ECONOMIZER FLOW)

QWI NO:SQP:SD:06
REV.NO.00 DATE: 14/09/2015
PAGE: 5 OF 5

SUB-SYSTEM :Steam Generator Package

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	
1	2	3	4	5	M	C/N	7	8	9	D*	**	10	11

4.0 PAINTING, PRESERVATION & PACKING

4.1	Painting	Surface Prep, Primer & finish coats & Shade, DFT	B	Visual & Measurement	100%	100%	BHEL approved painting Scheme	BHEL approved painting Scheme	Test Report	√	P	V	V	
4.2	Identification #	Marking /Name Plate & Tagging	B	Visual	100%	100%	BHEL Spec & PO	BHEL Spec & PO	Test Report	--	P	V	V	#with IBR stamp
4.3	Packing*	Cleanliness, Water-proof packing & Stability	B	Verification	100%	100%	Manufacturer's practice	Manufacturer's practice	Packing List	√	P	V	V	*with site storage & handling instructions.
4.4	Spare Parts	Parts, Type, Qty, Dimensions, etc.	B	Visual & Measurement	100%	100%	BHEL approved datasheet & PO	BHEL approved datasheet & PO	IR/COC	√	P	V	V	

Note: 1. Customer verification stages specified above shall be followed. Any witness stages shall be as specified/indicated in BHEL PO.

LEGEND: *RECORDS IDENTIFIED WITH "TICK" (√) SHALL BE ESSENTIALLY INCLUDED BY THE SUPPLIER IN QA DOCUMENTATION;
** M: MANUFACTURER, C: BHEL QC/BHEL AIA, N: CUSTOMER; P: PERFORM. W: WITNESS, V: VERIFICATION; CLASS: A - CRITICAL; B - MAJOR; C - MINOR;
MTC- Mill /Manufacturer's Test Certificate; IR- Inspection/Test Report; (R): Routine test; (T)/(Ts): Type test, COC: Certificate of compliance