		BHARAT HEAVY ELECTRICALS LIMITED [A Government of India Undertaking] Ramachandrapuram, Hyderabad, 502032, A.P. India Phone 040-23184526, 23182322 FAX:040-23021910, 1954			भारत हेवी इलेक्ट्रिकल्स लिमिटेड (भारत सरकार का उपक्रम) रामचन्द्रपुरम, हैदराबाद, 502032 आंध्र प्रदेश, भारत			RFQ NO :		PURCHASE DEPARTMENT ENQUIRY क्रय विभाग जांच (ई मेल : tenderbox@bhelhyd.co.in)		SHEET:1 OF :1	
HY17001 C REV.NO.0		Phone 091-40-23184526 091-40-23182322			FAX : 091-40-23021910 091-40-23021954			PURCHASE DEPARTMENT					
		GSTIN:			Enq/Collective No :B7B1X59054		Enq.Dt. : 21.08.2024		No.Of Items :3		DUE Dt. OF QUOTN. : 17.09.2024		
Office Copy					Please submit your lowest quotation in sealed cover superscribed with Enquiry No./Collective No.(RFQ No) and due date subject to our terms and conditions attached ,for the materials mentioned below.Your offer has to reach us onor before due date by 11.00 Hours (IST) and will be opened at 14.00 Hours.(IST).If our Enquiry No./Collective No.(RFQ No) and tender due date are not super scribed on the tender cover , your offer shall be summarily rejected. Incomplete offers and late offers will not be considered.								
SL NO	Purchase Req.no	item no	Material Code, HSN No.	Drq no - Ver , Rev & Spec - Ver , Rev,Spec-Var	Description			Unit	Qty	Delivery Date	Schedule Qty		
1	1900159054	10	TC9756712015 84813000	NA-,,TC56712,00,01	LOW DP AXIAL NRV 24"#150RF A352 GR-LCB			EA	1.000	18.06.2025	1.000		
2	1900159055	10	TC9756712023 84813000	NA-,,TC56712,00,02	LOW DP AXIAL NRV 24"#150RF A216 GR-WCB			EA	1.000	18.06.2025	1.000		
3	1900159056	10	TC9756712031 84813000	NA-,,TC56712,00,03	LOW DP AXIAL NRV 18"#300RF A216 GR-WCB			EA	1.000	18.06.2025	1.000		
Special Remarks													
CheckList of Quality Interventions: BHEL reserves the right to enforce any or all of the following checks during execution of the order. There is no additional cost to the vendor on account of these checks.													
								TEST CERTIFICATE REQD: GUARANTEE REQ : SAMPLE REQD : BID TYPE : TWO PART			For and on-behalf of Bharat Heavy Electricals Limited. SUMIT DAS SARKAR MANAGER/TC PURCHASE		

Attachment to Enquiry No. B7B1X59054		Special Conditions of Contract (SCC) for Global Open Tender Enquiry	Due on Date	17-09-2024
Dated 02-09-2024				
Sl. No	Clause	Available Options	BHEL requirements	Bidder response
1	Mode of Submission	Conventional / E-Procurement	Conventional	
2	Type of Bid	Single part / Two Part / Three Part	Two Part	
3	Evaluation basis	Itemwise / Total	Itemwise	
4	Quantity Split	Splittable / Non-Splittable	Non-Splittable	
5		(Tabulation for splitting to be detailed)		
6	Payments Terms	Inland Letter of Credit (ILC) In case Bidder opts for ILC Payment, the LC Usance period shall be 120 days with all charges to bidder's account and loading of 0.50%.	As per Document No. HY:MM:ITB Rev:13 Clause:12	
7	Drawing approval	Applicable / Not applicable	Required after placement of PO	
8	QAP approval	Applicable / Not applicable	Required after placement of PO	
9	Documents Requirement	All the original documents like CQIR report, Test Certificates, IBRs (if any), in line with Quality plan and signed by TPI must be submitted before dispatch of materials to rathod@bhel.in,sdsarkar@bhel.in and originals must be submitted along with the materials.	Non Deviatable	
10	Provide Contact Details for further coordination To be	Name and designation :		
		E-Mail ID :		
		Alternative Email ID :		
		Telephone No :		
		Phone No :		
		Local representative details (If any) :		

Special Conditions of Contract (SCC) for Global Open Tender Enquiry B7B1X59054

Sl. No	Detailed Terms & Conditions							Vendor Response (Yes/Deviation)
1	Your best quotation/offer for below mentioned requirement, in line with BHEL specification should be submitted .							
	ITEM SL. NO	PR	MATERIAL CODE	DESCRIPTION	QTY/E A	SPECIFICATION/ VAR	IBR REQUIREMENT	
	1	1900159054	TC9756712015	LOW DP AXIAL NRV 24"#150RF A352 GR-LCB	1	TC56712-01	NO	
	2	1900159055	TC9756712023	LOW DP AXIAL NRV 24"#150RF A216 GR-WCB	1	TC56712-02	NO	
	3	1900159056	TC9756712031	LOW DP AXIAL NRV 18"#300RF A216 GR-WCB	1	TC56712-03	NO	
2	Delivery schedule: A) Delivery schedule shall be as follows: 12 Weeks from the PO date. Vendors are requested to comply with above said delivery schedules. If bidder does not meet the above delivery schedule, BHEL reserves the right to reject the vendor's offer. B) Delivery Terms: F.O.R BHEL/Project Site for Indigenous bidders as per following Haldia Petrochemicals Limited, Propylene Refrigerant Compressor, HPL, HALDIA,Durgachak,Purba Midnapore, Haldia,West Bengal,PIN-721602.INDIA. C) Delivery Terms: FCA,CIP, Ex works for Foreign bidders Vendors/Supplier shall quote the cumulated price of considering Freight & Insurance, P&F, and All taxes like GST the in the quoted price. Suppliers shall submit complete compliance to BHEL specifications in their technical bid. Technical acceptance of the offers/ Bids is subject to end customer approval only.							
3	Inspection: Foreign Vendors: At Vendor Works by BHEL/TPIA. Vendor must quote TPIA Inspection etc. charges inclusive. Indigenous Vendor: At Vendor Works by BHEL/TPIA. TPIA Inspection etc. charges under BHEL Scope.							
4	Reverse Auction: Procurement through reverse auction is not applicable for this RFQ.							
5	Offer shall be valid for a period of 90 days from the date of bid opening (Technical bid /part-I in case of two part bid)..							
5	Guarantee / Warranty Period: a. Guarantee period shall be 12 months from the date of commissioning or 18 months from the date of supply whichever is earlier.							
6	Note: Bidder to submit duly Signed & Stamped copy of following documents along with Technical bid: a) Annexure I - Major Activity timelines shall be considered for Indigenous purchases b) Annexure II - Framework Confidentiality Agreement Cum Undertaking c) Annexure III - local content d) Annexure IV – Restriction of procurement from Countries sharing land e) Annexure V-10F/Imports f) Annexure VI- Integrity Pact							
7	For any Further details/queries regarding this Tender, you may please contact the following Officers: a) Sumit Das Sarkar, Manager/Purchase/TC_Purchase – sdsarkar@bhel.in b) Ravikumar Rathod R, Sr. DGM/TC_Purchase- rathod@bhel.in c) B Narasimha Rao,DGM/TC_Engineering- bnarasimha@bhel.in You can call us on 040-2318-2155/5492/2374							
7	Special Notes: Submit Offers on below given email: Techno-commercial bid : technicalbid_hyd@bhel.in Price Bid: pricebid_hyd@bhel.in							

Annexure-I

Major Activity timelines shall be considered for indigenous purchases

S No	Activity	Agency	Timeline
1	PO acknowledgement	Vendor	03 days from the date of receipt of PO
2	First submission of Drawings, Data sheets and QP Rev-00	Vendor	15 days from receipt of PO
3	commented / approved drawings / data sheets and QP to vendor	BHEL/Customer	07 days from the receipt of Rev-00 submission.
4	Subsequent submission of revised drawings / data sheets and QP	Vendor	07 days from the receipt of commented drawings / data sheets and QP
5	Subsequent Approved /commented Drawings and QP to vendor	BHEL/Customer	07 days from the date of receipt of revised drawings / data sheets and QAP.
6	Raising of Inspection Call	Vendor	07 days before the proposing inspection date. (BHEL will provide approved QP before raising inspection call)
7	Inspection completion	BHEL Third party inspection agency / Customer	07 days from inspection call date.
8	Despatch Instructions	BHEL	07 days from the date of receipt of final approved inspection report to BHEL.
9	Receipt of Material at BHEL stores/ site	Vendor	15 days from Despatch instructions .

Absence of this annexure in NIT will entail non processing of delivery extension cases in case of delay in supplies of goods owing to reason attributable to BHEL.

Vendor Signature

Annexure - III

Proforma for self-certification by Supplier for minimum local content on their letter head for tender value less than Rs 10 Crore

"We _____ (Name of Manufacturer) undertake that we meet the mandatory minimum Local Content (LC) requirement i.e. _____ (to be filled as notified in the policy) for claiming Purchase Preference linked with Local Contents under the Govt. policy against tender no. _____."

Auditor's certification with respect to minimum local content on the letter head of Statutory Auditor for tender value above Rs.10 crore

"We _____ the statutory auditor of M/s _____ (name of the bidder) hereby certify that M/s _____ (name of manufacturer) meet the mandatory Local Content requirements of the Goods and/or Services i.e. _____ (to be filled as notified in the policy) quoted vide offer No. _____ dated _____ against BHEL's tender No. _____ by M/s _____ (Name of the bidder)."

Annexure - IV

Proforma for self-certification by Supplier for Compliance to Clause No 20 (B)

I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India and I certify that M/s.... (Name of firm) is **not from such a country/is from such a country** (delete whichever is NOT applicable) and has been duly registered with the Competent authority (delete if NOT applicable) . I hereby certify M/s fulfills all requirements in this regard and is eligible to be considered . (where applicable , valid registration by the competent authority shall be attached)

Sd/-

Authorised Signatory with Stamp

(To be executed on Non- Judicial Stamp Paper for an appropriate value.
To be stamped as an agreement)

(For Suppliers on Unit's / Division's PMD)

ANNEXURE-II

Framework Confidentiality Agreement Cum Undertaking

This Agreement made on this the _____ day of (month) _____ 20 ____ ("Effective Date") by and between M/s. BHARAT HEAVY ELECTRICALS LIMITED, having registered office at "BHEL House", Siri Fort, New Delhi – 110049 (India), acting through its _____ Unit (hereinafter may be referred to as "BHEL" or "the company").

And

M/s. _____ (address) _____
represented by authorized representative Sri _____ (herein after referred to as the "Supplier").

The supplier and the company may, unless the context otherwise requires, hereinafter be collectively referred to as "Parties" or singly as the "Party".

RECITALS

Whereas, BHEL is engaged in the design, engineering, manufacturing, construction, testing, commissioning and servicing of a wide range of products, systems and services for the core sectors of the economy, viz. Power, Transmission, Industry, Transportation, Renewable energy, Oil & Gas and Defence and providing associated services to varied customers in relation to which BHEL / its affiliates own valuable information of a secret and confidential nature.

Whereas the Company may, in connection with contract(s) (as defined hereunder) placed or to be placed upon the supplier, or otherwise, from time to time, make available, Technical Information as is defined hereunder.

And Whereas BHEL is willing to provide such Technical Information to the Supplier from time to time and the Supplier understands and acknowledges that such Technical Information is valuable for the Company and as such is willing to protect confidentiality of such information, subject to the terms and conditions set out hereunder.

Now therefore, in view of the foregoing premises and in consideration of the mutual covenants and agreements hereinafter set forth, the parties agree as under:

1. Definitions:

Unless the context so requires, in this Agreement, the following terms will bear the meaning ascribed to the said term in this clause.

- A. **“Contract”** means the contract entered into with a supplier and includes a Purchase Order, or a Work Order for procurement of any goods or for provision of any services.
- B. **“Effective Date”** means the date of this Agreement as mentioned in the preamble of this Agreement.
- C. **“Supplier”** includes a Contractor or a Vendor of the Company whether for supplying of goods or for providing any services under a Contract or both.
- D. **“Technical Information”** includes Drawings, and / or Product Standards and / or Specifications and / or Corporate / Plant Specifications and / or Technological Process Sheets and / or Technical Data Sheets and / or Jigs & Fixtures and / or Pattern & Dies and / or Special Gauges and / or Tools etc. Belonging to or wherein the Company has acquired from a third party a right of user and includes any improvement thereto from time to time whether carried out by the Company or by the Suppliers.
- E. **“Intended Purpose”** means the purpose for which the Technical Information is provided to the supplier under or in connection with a contract.
- F. **“Improvement”** includes any modification made to, or adaptation of, the Technical Information which enhances or is calculated to enhance the performance (Whether in terms of effectiveness or in terms of efficiency or both) of the product and / or the service to be provided by the Supplier under a Contract.

2. This Agreement shall come into force / deemed to have come into force, as the case may be, on the Effective Date; or, on the first date when the Technical Information or any part thereof is provided by BHEL to the supplier; whichever is earlier.

3. **Agreement deemed to be incorporated in each contract:** Unless and to the extent otherwise stipulated in the Contract, the conditions of this Agreement are deemed to be incorporated in all Contracts which may be entered into between the Company and the Supplier. Further, unless otherwise stipulated, the obligations under this Agreement are and will be independent of the obligations under the Contracts and such obligations of the Supplier hereunder will remain of full effect and validity notwithstanding that the period of validity of the Contract has expired by efflux of time stipulated therein; or, the contract has been discharged by performance or breach; or, the termination of the Contracts for any reason whatsoever.

4. **Ownership:**

4.1 The Company may, from time to time, make available to the Supplier, Technical Information on a non-exclusive basis by way of loan.

4.2 The Supplier acknowledges and agrees that all Technical Information and copies thereof that are or may be provided by the Company to the Supplier, are and shall remain the property of

BHEL or that of the concerned entity from whom BHEL has obtained the Technical Information and such Technical Information are and shall constitute trade secrets of the BHEL. Nothing in this Agreement or in any disclosures made hereunder by or on behalf of the Company shall be construed as granting upon the Supplier any patent, copyright or design or any other intellectual property rights of whatsoever description that subsists or may hereinafter exist in the Technical Information. Furthermore, nothing in this Agreement or in any disclosures made hereunder by or on behalf of the Company shall be construed as granting upon the supplier any license or right of use of such patent, copyright or design or any other intellectual property rights of whatsoever description which may now or hereafter exist in the Technical Information except for use of the Technical Information strictly in accordance with this Agreement and the contract and / or as directed in writing by the Company, solely for the Intended Purpose under the Contract.

- 4.3 Neither party is obligated by or under this Agreement to purchase from or provide to the other party any service or product and that any such purchase / sale of any product and / or service by one party to the other party will be governed by the Contract if any, that may be entered into by and between the Company and the Supplier.
- 4.4 The Supplier is / has been made well aware and acknowledges that the Technical Information being / which may be shared with it by the Company has been either generated by the Company by incurring huge investment and cost or obtained from foreign collaborators under Technical Collaboration Agreement (TCA) with stringent confidentiality conditions.
- 4.5 The supplier agrees and undertakes to adhere to confidentiality requirements as applicable to BHEL under a TCA and also ensure that the confidentiality requirements are adhered to by all its concerned employees or sub-contractors /suppliers (where permitted to be engaged by BHEL). Any damages, losses, expenses of any description whatsoever, arising out of or in connection with a breach of the confidentiality requirements under a TCA owing to any act or omission on the part of the supplier or its employees or sub-contractors / suppliers that is claimed by a foreign collaborator from the Company shall be wholly borne by the Supplier and it shall keep BHEL fully indemnified in this behalf. The demand by the Company shall be conclusive upon the Supplier who shall thereupon forthwith pay to the Company without demur, dispute or delay the amount as demanded without demanding any further proof thereof.
- 4.6 The Supplier agrees and undertakes that unless so decided and advised by the Company in writing all rights / title to any Improvement to the Technical Information shall vest in the Company. The Supplier undertakes and agrees to inform forthwith to the Company of any such Improvement made to the Technical Information and transfer all drawings / documents or other materials connected with such Improvement to the Company and also agrees to fully cooperate with the Company for protecting the Company's interests in such Improvements

in the Technical Information including but not limited to obtaining necessary protection for the intellectual property rights in such improvement, if so desired by the Company. If a question arises whether a modification amounts to improvement to the Technical Information, the same shall be decided by the Company and such decision shall be final and binding upon the supplier.

5. Use and Non – Disclosure:

5.1 Unless otherwise stipulated by the Company, all Technical Information made available to the supplier, by the Company shall be treated as Confidential irrespective of whether the same is marked or otherwise denoted to be Confidential or not.

5.2 The Supplier undertakes and agrees that the Technical Information in its possession shall be held in strict confidence and will be used strictly in accordance with this Agreement and solely for the Intended Purpose under the Contract. Use of the Technical Information for any other purpose other than Intended Purpose is prohibited.

5.3 In particular, the Supplier shall not use Technical Information or any Improvement in its possession for the manufacture or procurement of the product(s) or components or parts thereof or use the Technical Information or any portion thereof or any modification or adaptation thereof in any form to provide any product and / or service to any third party, without the prior written consent of the Company.

5.4 The Supplier shall not disclose any of such Technical Information to any third party without the prior written consent of the Company. The Supplier agrees that without prior written consent of the Company, the supplier shall not disclose to a third party about the existence of this Agreement, or of the fact that it is / was in possession of or has experience in the use of any Technical Information nor shall the Supplier share in any manner whatsoever, with a third party, the name or details of any Contract(s) awarded by the Company to it or performed by the Supplier or the scope of work thereof or share any document or correspondence by and between the Company and the supplier in or in connection with this Agreement or such Contract(s). Notwithstanding what is stated elsewhere, the overall responsibility of any breach of the confidentiality provisions under this Agreement shall rest with the Supplier.

5.5 This Supplier undertakes and agrees not to make copies or extracts of and not to disclose to other any or all of the Technical Information in its possession, except as follows:

(a) The Supplier may disclose the Technical Information to such of its officers and employees strictly to the extent as is necessary for such officer or employee for the Intended Purpose, provided that the Confidential Information (or copies thereof) disclosed shall be marked

clearly as the confidential and proprietary information of Company and that such officers and employees shall similarly be bound by undertakings of confidence, restricted use and non-disclosure in respect of the Technical Information. The Supplier shall be responsible for any breach of such confidentiality provisions by such officers and employees.

- (b) With the prior written consent of Company, the supplier may disclose for the Intended Purpose such Technical Information as is provided for in such consent to such of its professional advisers: consultants, insurers and subcontractors who shall be similarly bound by undertakings of confidence, restricted use and non-disclosure in respect of such Technical Information.
- (c) The Supplier shall not be prevented to make any disclosure required by (i) order of a court of competent jurisdiction or (ii) any competent regulatory authority or agency where such disclosure is required by law, provided that where the supplier intends to make such disclosure, it shall first consult Company and take all reasonable steps requested by it to minimize the extent of the Technical Information disclosed and to make such disclosure in confidence and also shall cooperate with the Company in seeking any protective order or any other remedy from proper authority in this matter.

6. Exceptions:

The Obligations of the Supplier pursuant to the provisions of this agreement shall not apply to any Confidential Information that:

- a) was / is known to, or in the possession of the Supplier prior to disclosure thereof by the Company;
- b) is or becomes publicly known, otherwise than as a result of a breach of this agreement by the Supplier.
- c) is developed independently of the Disclosing party by the Supplier in circumstances that do not amount to a breach of the provisions of this Agreement or the Contract;
- d) is received from a third party in circumstances that do not result in a breach of the provisions of this Agreement.

- 7. The Obligation of maintaining confidentiality of the Technical Information on each occasion, shall subsist for the entire duration during which the Technical Information / equipment is in possession of the Supplier and shall thereafter subsist for a further period of _____ years from the date when the complete Technical Information has been returned in portions on different dates, the period of ____ years will be reckoned from the date when the last portion of the Technical Information has been returned. Notwithstanding the expiry of the confidentiality obligation, the obligation of the Supplier under clause 5.4 shall continue to subsist for a further period of _____ years.

8. Warranties & Undertakings:

- a) The Supplier undertakes to ensure the due observance of the undertakings of confidence, restricted use and non-disclosure by its persons to whom it discloses or releases copies or extracts of the Technical Information.
- b) The Supplier shall keep the Technical Information or improvement made therein properly segregated and not mix up the same with any other material / documents belonging to him / it or to any other third party.
- c) The Supplier further undertakes that he / it shall not hypothecate or give on lease or otherwise alienate or do away with any of the Technical Information and / or equipment of the Company, made available to him / it, and undertakes that he / it shall hold the same as a trustee, in capacity of custodian thereof and use / utilise the same solely for the purpose of executing the contract awarded by the Company.
- d) The Supplier further undertakes that he / it shall return all the equipment and / or Technical Information as far as practicable in the same condition in which the same was made available to him / it by the Company together with any Improvement thereon and the documents connected with such Improvement, to the Company forthwith upon completion of the scope of work or contract for which such Technical Information was provided by the Company to it or as directed by the Company together with a confirmation by way of an affidavit or in such manner as directed by the Company that it has not retained any equipment and / or Technical Information / improvement thereof. In case any such equipment and / or Technical Information or thereof shall remain in his possession or is not capable of being returned, the retention and use of such Technical Information or improvement thereto shall continue to be governed by this Agreement.
- e) The Supplier undertakes to indemnify the Company for all the direct, indirect and / or consequential losses, damages, expenses whatsoever including any consequential loss of business, profits suffered by the Company owing to breach by the Supplier of its obligations under this Agreement and / or the confidentiality requirements, if any, contained in the Contract and that the Supplier hereby agrees that the decision of the Company in all such or any such matter/s shall be final and binding on the Supplier. On mere written demand of the Company, the Supplier shall forthwith and without demur or delay pay to the Company any such sum as determined by the Company as the amount of loss or damage or expense which has been suffered by the Company. The Supplier agrees that the Company shall be entitled to withhold and appropriate any amount payable to the Supplier under any Contract then existing between the Company and the Supplier, in case the Supplier fails to make payment, in terms of the written demand, within 7 days thereof. Without prejudice to the forgoing actions, in respect to any breach of this Agreement, the Company shall be entitled to take

any other action against the Supplier as per applicable laws, the Contract, Company's applicable policies, guidelines rules, procedures, etc.

9. Without prejudice to any other mode of recovery as may be available to the Company for recovery of the amount determined as due as per Clause 9 (f) hereinabove, the Company shall have a right to withhold, recovery and appropriate the amount due towards such losses, damages, expenses, from any amount due to the Supplier in respect of any other Contract (s) placed on him / it by any department / office / unit/ division of the said Company.

10. Arbitration & Conciliation:

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, penalty deduction, validity or execution of the Contract; time extension, 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 the other Party refer such dispute or difference to the sole arbitration. Sole arbitrator to be appointed by Head of the Unit - BHEL, HPEP.

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 Sangareddy / Hyderabad, Telangana. The language of arbitration shall be English and the documents shall be submitted in English.

The cost of arbitration shall initially be borne equally by the Parties subject to the final apportionment of the cost of the arbitration in the award of the Arbitrator.

Subject to the arbitration in terms of clause 46 of ITB (clause 27 of ATC GeM), the courts at Sangareddy, Telangana State shall have exclusive jurisdiction over any matter arising out of or in connection with this contract.

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.

ARBITRATION FOR CONTRACT WITH PUBLIC SECTOR ENTERPRISE (PSE) OR A GOVERNMENT DEPARTMENT

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

CONCILIATION CLAUSE FOR CONDUCTING CONCILIATION PROCEEDINGS UNDER THE BHEL CONCILIATION SCHEME, 2018: 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 agreement, contract or the Memorandum of Understanding, penalty deduction, time extension), 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.

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 Procedure in http://www.bhel.com/index.php/story_details?story=2454 . The Procedure together with its Formats will be treated as if the same is part and parcel hereof and shall be as effectual as if set out herein in this ITB

11. Governing Law & Jurisdiction:

This agreement shall be construed and interpreted in accordance with the laws of India and shall have exclusive jurisdiction of Sangareddy/Hyderabad courts, Telangana, India.

SIGNATURE

WITNESSES

1

Name:

Address:

2

Name:

Address:

Annexure V

(On Company Letter Head)

FORM NO. 10F

[See sub-rule (1) of rule 21AB]

Information to be provided under sub-section (5) of section 90 or sub-section (5) of section 90A of the Income-tax Act, 1961

I..... son/daughter of Mr in the capacity of.....
(Designation) do provide the following information, relevant to the previous year **2021-22** in case of for the purposes of sub-section (5) of section 90/section 90A:-

Sl.No.	Nature of information	Details
(i)	Status (individual; company, firm etc.) of the assessee	Company
(ii)	Permanent Account Number (PAN) of the assessee if allotted	
(iii)	Nationality (in the case of an individual) or Country or specified territory of incorporation or registration (in the case of others)
(iv)	Assessee's tax identification number in the country or specified territory of residence and if there is no such number, then, a unique number on the basis of which the person is identified by the Government of the country or the specified territory of which the assessee claims to be a resident

(v)	Period for which the residential status as mentioned in the certificate referred to in sub-section (4) of section 90 or sub-section (4) of section 90A is applicable	<u>2022-23</u>
(vi)	Address of the assessee in the country or territory outside India during the period for which the certificate, mentioned in (v) above, is applicable

I have obtained a certificate to in sub-section (4) of section 90 of sub-section (4) of section 90A from the Government of..... (name of country or specified territory outside India)

Signature:.....

Name:.....

Address:.....

Email ID:.....

Contact Number.....

Permanent Account Number:.....

Verification

I..... do hereby declare that to the best of my knowledge and belief what is stated above is correct complete and is truly stated. Verified today the..... day of.....

In case the M/s Bharat Heavy Electricals Limited, HPEP, Ramachandrapuram, Hyderabad is declared as an assessee in default due to any misstatement or incorrect declaration, we indemnify M/s Bharat Heavy Electricals Limited from any ensuing consequences thereunder.

Signature of the person providing the information

Place:.....

(On Company Letter Head)

No Business Connection or Permanent Establishment Certificate

Date

To

Bharat Heavy Electricals Limited
Ramachandrapuram, Hyderabad
India - 502032

Sir,

Sub: No Business Connection or Permanent Establishment declaration for FY **2021-22**

This is to certify that (Name of the supplier) is a company incorporated in(country) and does not have any business connection in India as per the provision of Section 9 of the Income Tax Act 1961 or any Permanent Establishment as defined in Article 5 of the India and(country) DTAA.

We hereby certify that we will notify BHEL in case of any change in the status as certified above.

For

Authorised Signatory

(Note – Please refer definition of the Business Connection on reverse and Permanent Establishment in the relevant DTAA)

"Business connection" as defined in Section 9 of the Income Tax Act shall include any business activity carried out through a person who, acting on behalf of the non-resident,—

- (a) has and habitually exercises in India, an authority to conclude contracts on behalf of the non-resident or habitually concludes contracts or habitually plays the principal role leading to conclusion of contracts by that non-resident and the contracts are—
 - (i) in the name of the non-resident; or
 - (ii) for the transfer of the ownership of, or for the granting of the right to use, property owned by that non-resident or that non-resident has the right to use; or
 - (iii) for the provision of services by the non-resident; or
- (b) has no such authority, but habitually maintains in India a stock of goods or merchandise from which he regularly delivers goods or merchandise on behalf of the non-resident; or
- (c) habitually secures orders in India, mainly or wholly for the non-resident or for that non-resident and other non-residents controlling, controlled by, or subject to the same common control, as that non-resident:

Provided that such business connection shall not include any business activity carried out through a broker, general commission agent or any other agent having an independent status, if such broker, general commission agent or any other agent having an independent status is acting in the ordinary course of his business :

Provided further that where such broker, general commission agent or any other agent works mainly or wholly on behalf of a non-resident (hereafter in this proviso referred to as the principal non-resident) or on behalf of such non-resident and other non-residents which are controlled by the principal non-resident or have a controlling interest in the principal non-resident or are subject to the same common control as the principal non-resident, he shall not be deemed to be a broker, general commission agent or an agent of an independent status

For the removal of doubts, it is hereby clarified with explanation-2A, that the significant economic presence of a non-resident in India shall constitute "business connection" in India and "significant economic presence" for this purpose, shall mean—

- (a) transaction in respect of any goods, services or property carried out by a non-resident in India including provision of download of data or software in India, if the aggregate of payments arising from such transaction or transactions during the previous year exceeds such amount as may be prescribed; or
- (b) systematic and continuous soliciting of business activities or engaging in interaction with such number of users as may be prescribed, in India through digital means:

Provided that the transactions or activities shall constitute significant economic presence in India, whether or not,—

- (i) the agreement for such transactions or activities is entered in India; or
- (ii) the non-resident has a residence or place of business in India; or
- (iii) the non-resident renders services in India:

Thresholds for the purposes of significant economic presence.

11UD. (1) For the purposes of clause (a) of Explanation 2A to clause (i) of sub-section (1) of section 9, the amount of aggregate of payments arising from transaction or transactions in respect of any goods, services or property carried out by a non-resident with any person in India, including provision of download of data or software in India during the previous year, shall be two crore rupees;

(2) For the purposes of clause (b) of Explanation 2A to clause (i) of sub-section (1) of section 9, the number of users with whom systematic and continuous business activities are solicited or who are engaged in interaction shall be three lakhs.

INTEGRITY PACT

Between

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

and

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

Preamble

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

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

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

Section 1 – Commitments of the Principal

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

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

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

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

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

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

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

Section 4 – Compensation for Damages

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

Section 5 – Previous Transgression

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

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

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

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

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

Section 8 –Independent External Monitor(s)

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

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

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

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

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

Section 9 – Pact Duration

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

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

Section 10 – Other Provisions

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

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

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

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

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

For & On behalf of the Principal

(Office Seal)

For & On behalf of the Bidder/ Contractor

(Office Seal)

Place-----

Date-----

Witness: _____

(Name & Address) _____

Witness: _____

(Name & Address) _____

BANK GUARANTEE FOR PERFORMANCE SECURITY

Bank Guarantee No:

Date:

To

NAME

& ADDRESSES OF THE BENEFICIARY

Dear Sirs,

In consideration of the Bharat Heavy Electricals Limited ¹ (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 _____ through its Unit at.....(name of the Unit) having awarded to (Name of the Vendor / Contractor / Supplier) having its registered office at _____ ² hereinafter referred to as the '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 Contractor having agreed to provide a Contract Performance Guarantee, equivalent to% (.... Percent) of the said value of the Contract to the Employer for the faithful performance of the Contract,

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 a maximum amount Rs ----- (Rupees -----) without any demur, immediately on a demand from the Employer, .

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. _____.

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

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

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 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.

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 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 Contractor/Supplier and to forbear or enforce any of the terms and conditions relating to the said Agreement and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said Contractor/Supplier or for any forbearance, act or omission on the part of the Employer or any indulgence by the Employer to the said 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.

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 Contractor and notwithstanding any security or other guarantee that the Employer may have in relation to the Contractor's liabilities.

This Guarantee shall remain in force upto and including.....⁶ and shall be extended from time to time for such period as may be desired by Employer.

This Guarantee shall not be determined or affected by liquidation or winding up, dissolution or change of constitution or insolvency of the 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.

Unless a demand or claim under this guarantee is made on us in writing on or before the⁷we shall be discharged from all liabilities under this guarantee thereafter.

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.....⁸
- b) This Guarantee shall be valid up to⁹

- c) Unless the Bank is served a written claim or demand on or before _____¹⁰ 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.

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.....

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 PROJECT/SUPPLY DETAILS

⁵ BG AMOUNT IN FIGURES AND WORDS

⁶ VALIDITY DATE

⁷ DATE OF EXPIRY OF CLAIM PERIOD

⁸ BG AMOUNT IN FIGURES AND WORDS.

⁹ VALIDITY DATE

¹⁰ DATE OF EXPIRY OF CLAIM PERIOD

Note:

1. Units are advised that expiry of claim period may be kept 2/3 months after validity date.

2. In Case of Bank Guarantees submitted by Foreign Vendors-

- a. **From Nationalized/Public Sector / Private Sector/ Foreign Banks (BG issued by Branches in India)** can be accepted subject to the condition that the Bank Guarantee should be enforceable in the town/city or at nearest branch where the Unit is located i.e. Demand can be presented at the Branch located in the town/city or at nearest branch where the Unit is located.
- b. **From Foreign Banks (wherein Foreign Vendors intend to provide BG from local branch of the Vendor country's Bank)**
- b.1 In such cases, in the Tender Enquiry/ Contract itself, it may be clearly specified that Bank Guarantee issued by **any of the Consortium Banks only** will be accepted by BHEL. As such, Foreign Vendor needs to make necessary arrangements for issuance of Counter- Guarantee by Foreign Bank in favour of the Indian Bank (BHEL's Consortium Bank). It is advisable that all charges for issuance of Bank Guarantee/ counter- Guarantee should be borne by the Foreign Vendor. The tender stipulation should clearly specify these requirements.

- b.2** In case, Foreign Vendors intend to provide BG from Overseas Branch of our Consortium Bank (e.g. if a BG is to be issued by SBI Frankfurt), the same is acceptable. However, the procedure at **sl.no. b.1** will required to be followed.
- b.3** The BG issued may preferably be subject to Uniform Rules for Demand Guarantees (URDG) 758 (as amended from time to time). In case, of Foreign Vendors, the BG Format provided to them should clearly specify the same.
- b.4** The BG should clearly specify that the demand or other document can be presented in electronic form.



(Attachment to Enquiry No. XXXXXXXXXXXX Due on Date XX.XX.XXXX for submission by 11.00 hrs to open from 14.00 hrs.)

INSTRUCTIONS TO BIDDER (ITB)**NOTE: Bidder to confirm in affirmative by typing "YES" or "Applicable Data" in the response column. Deviations, if any shall be recorded in deviations/comments column (Separate sheet can be attached if needed). Non deviatable clauses are indicated as "NON DEVIATABLE".**

Sl. No.	DETAILED TERMS & CONDITIONS	BIDDER RESPONSE (YES/NO)	DEVIATIONS / COMMENT
1	SCOPE OF SUPPLY:		
	Signed & Sealed offers are invited for the Scope of Supply of goods or services or both as detailed in the enquiry. Relevant enclosures/supporting documents / catalogue, if any shall be enclosed to the technical offer.		
2	DEFINITIONS		
A	'The Buyer' means BHEL-HPEP, Ramachandrapuram, Hyderabad-502 032 of Bharat Heavy Electricals Limited (A Govt. of India Undertaking) incorporated under the companies Act having its registered office at BHEL House, Siri fort, New Delhi-110049, India and shall be deemed to include its successors and assigns. It may also be referred to as BHEL.		
B	'The Bidder' means the persons, firm, company or organization on whom the Purchase order is placed and shall be deemed to include the bidder's successors, representatives, heirs, executors and administrator as the case may be. It may also be referred to as Contractor, supplier or bidder.		
C	'Contract' shall mean and include the Purchase order incorporating various documents viz., Notice Inviting Tender (NIT), Offer, Letter Of Intent/Acceptance (LOI/LOA), Instruction to Bidders (ITB) and Special Conditions of Contract (SCC), specifications, inspection/quality plan, schedule of prices and quantities, drawings, if any, enclosed by Bidder/ provided by the Buyer or his authorized nominee and the samples or patterns if any to be provided under the provision of the contract. In case of any inconsistency or contradiction between any of the documents, the order of precedence shall be Purchase Order, LOI/LOA followed by Minutes Of Meeting (MOM), NIT, SCC, ITB.		
D	'Parties to the contract' shall mean the bidder and the buyer as named in the main body of the Purchase Order.		
E	'Goods/Material' shall include Works and Services which are incidental or consequential to supply.		
3	GENERAL INSTRUCTIONS:		
A	Mode of submission of offer shall be as indicated in SCC		Non Deviatable
B	The quotation should be neatly typed and free from over writing/ erasures. Any correction or addition must be authenticated. The offer including annexures and brochures should be submitted in English / Hindi. All Pages of Techno Commercial Bids (Main Pages), ITB, SCC should be signed and Stamped. If there is a conflict in case of bilingual submission, the submission in English will be final. Prices shall be quoted both in figures and words. In case of any discrepancy in value, the prices quoted in words shall be considered for evaluation and establishing L1 Status. Any discount / revised offer / bids submitted by a bidder on his own shall be considered, provided it is received on or before the due date and time of offer / bid submission (Part-1). Conditional discounts shall not be considered for evaluation of tenders.		Non Deviatable
C	Incomplete offers are liable for rejection.		Non Deviatable
D	Bidders to please note that the Terms & conditions contained in this document and SCC are to be read fully before submission of quotations.		Non Deviatable
E	Bidders are advised to comply with ITB and SCC, should there be any deviations (where deviations are permitted), it shall be entered in the deviation column. BHEL reserves the right to reject such offers or load the bid suitably for evaluation.		Non Deviatable
F	Offers shall be submitted directly, only by the bidder or by their authorized representative / agent and the offer should be in line with the regulatory guidelines (i.e. A valid Agency agreement between principal bidder and agent / representative shall be attached and the agreement shall cover the scope of services rendered by Agent, Agency Commission and any other information called for as per the regulatory guidelines). OEM / Mill details shall be provided if bidder is not a manufacturer. Bid envelops shall bear the name of Bidder. In case of submission through authorized representative/agent, the name of representative/agent should also be mentioned apart from bidder name.		Non Deviatable
G	Offer received after the specified time and date of submission will be rejected. No further correspondence shall be entertained.		Non Deviatable
H	Unsolicited offers will not be considered.		Non Deviatable
4	OTHER PARTICULARS (Please indicate applicable data)		
A	Name of the Bid currency (freely tradable foreign currency for imports and Indian Rupees for indigenous purchase).		
B	Name of the Port of loading and Port of Discharge (applicable to imports).		



5	BID SUBMISSION PROCEDURE FOR CONVENTIONAL TENDER:		
A	For Single Part Bids:		
	The complete bid shall be submitted in a single sealed cover superscribing the Tender number and due date, addressed to Sr DGM/CMM, Vendor Complex, BHEL, Hyderabad and sent by appropriate mode to above address or dropped in tender box located at vendor complex on or before the specified time and date of submission of offers, preferably in the bidder's envelope. E- mail bids shall be sent to mail ID pricebid_hyd@bhel.in only as an attachment.		Non Deviatable
B.	For two-Part Bids:		
i	<p>The offer is to be submitted in two parts viz.,</p> <p>Techno-commercial Bid - (Part-I), with all technical specification & scope including bill of material etc., Earnest Money Deposit (EMD)(wherever applicable) and unpriced bid with all applicable Commercial Terms and Conditions, rates of agency commission, duties, taxes and other charges, Signed and Stamped ITB and SCC, <u>except the price</u>, shall be kept in a separate sealed cover, superscribing enquiry No. (Techno-Commercial Bid) and due date</p> <p>AND</p> <p>Price Bid (Part-II), containing ONLY the price (including agency commission, if any) and the applicable duties/taxes/other charges shall be kept in a separate sealed cover superscribing Enquiry no. (Price bid) & due date.</p> <p>Both the above covers (Part –I & II) shall be kept in a Third cover superscribing Enquiry no. & due date.</p> <p>Bidder can also submit offer through email. Technical offer to be submitted to mail ID technicalbid_hyd@bhel.in, and price bid to be submitted to mail ID pricebid_hyd@bhel.in only as an attachment. Interchanging the information in the mails may lead to rejection of the offer. Bidder shall have no claim on e-mail offers sent to any other e-mail ID.</p> <p>In case of e-mail offers, the mail subject should contain Enquiry Number, Due date and Bidder name. Bidder address including contact details shall be mentioned in the content of the mail. Without these details, the offer is liable for rejection.</p> <p>All techno commercial terms & conditions mutually agreed prior to price bid opening shall prevail and supersede any terms and conditions specified otherwise in price bid.</p>		Non Deviatable
ii	The bidders whose bids are techno commercially not accepted will be informed and EMD shall be returned wherever submitted.		
iii	Bidders will be allowed to submit the impact on their quoted prices due to changes in technical scope, specifications, and commercial terms/conditions as specified in NIT which in the opinion of BHEL , warrant changes in prices.		Non Deviatable
C	Bids shall be opened on due time and date in the presence of bidders who may like to be present. Only one representative of each bidder shall be permitted to attend the bid opening. Only the price bids of bidder (in case of two part bid) whose techno commercial bids are accepted will be opened later on a specified date.		Non Deviatable
6	DELIVERY TERMS		
A	Indigenous Purchase		
	<p>a. Terms of Delivery for dispatches to BHEL Hyderabad (HPEP) shall be FOR Destination.</p> <p>b. Terms of Delivery for Direct Dispatch (DD) items shall be Ex Works.</p> <p>i. Incase specified in SCC that insurance is in customer/BHEL scope, price quoted shall include Freight charges up to Destination.</p> <p>ii. Otherwise, price quoted shall include Freight and Insurance upto Destination. However, beneficiary for insurance shall be BHEL.</p>		
B.	Imports		
	The goods shall be delivered on FCA capital airport basis in case of freight by Air and CIP basis in case of freight by Sea.		
7	Documentation for Payment		
A	Indigenous Purchase		
	<p>Following documents shall be submitted immediately on dispatch of material to BHEL HPEP / Site</p> <p>a. Original Tax Invoice (Refer ITB clause no 11 for Tax Compliance)</p> <p>b. Packing List - clearly showing number of packages, gross weight and net weight.</p> <p>c. Test/Warranty/Guarantee certificates, O&M Manual (If specified in SCC)</p> <p>d. Insurance intimation/declaration certificate</p> <p>e. Pre-dispatch Inspection report /Third Party Inspection Certificates.</p> <p>f. Consignee copy of LR signed & stamped by Customer/Site representative for DD Items</p> <p>g. e-waybill</p> <p>h. Any other documents as specified in SCC.</p> <p>Softcopies of the above documents shall be uploaded in Pradan portal https://hpep.bhel.com/mm immediately after dispatch of the material.</p>		Non Deviatable

B	<p>Imports</p> <p>i) Bidder shall inform BHEL the readiness of material along with packing details 30 days in advance from the date of delivery. For Hazardous cargo/DG cargo, supplier must provide the following documents prior to handing over shipment to freight forwarder, wherever freight is in BHEL scope:</p> <ol style="list-style-type: none"> 1. Valid MSDS 2. DGD certificate with appropriate UN numbers. 3. Labelling and marking on DG cargo along with photo of packaging. 4. Self-declaration for consignment 5. Packaging Certificate as per DG Standards 6. TSA Approved Truckers details to be provided to forwarder at the time of shipment <p>In addition to the above, supplier should ensure to comply all IATA DG regulations, if any new requirement is added in future.</p> <p>ii). Bidder shall also upload the soft copy of the dispatch documents consisting of BL / AWB, Invoice, delivery note, packing list, country of origin & Test certificates and other documents as specifically indicated in the SCC in PRADAN Portal (https://hpep.bhel.com/mm) within Five days from the B/L date for sea shipment and One day from AWB date for Air shipment and sent to email ids: mssea@bhel.in, msair@bhel.in, cmmfe@bhel.in.</p> <p>iii) AWB/BL must contain the information of BHEL GST no., and PAN no.</p> <p>iv) Air Shipments: Bidder shall ensure the following</p> <ol style="list-style-type: none"> a) Port of discharge -- Mumbai/Chennai/Hyderabad (as indicated in SCC). b) Consignee shall be BHEL, Hyderabad. Material shall be air freighted through cargo mode only and not through Courier. c) Upon handing over the cargo to the forwarder, bidder shall ensure the acknowledgement receipt with wordings "Cargo handed over in sound condition for Air freighting". Note: Warehouse receipt will not be considered for penalty calculations. d) In case of CIF/ shipments, bidder shall also inform BHEL the information about discharge port agent details and cargo arrival information within one day from the date of Shipment. e) Following dimensions of single package may be noted. <ol style="list-style-type: none"> i). Maximum dimension of the cargo(ODC) -- 125" x 88" x 63" ii). Maximum weight of the cargo -- 3.5 MT. <p>If any package dimension or weight exceeds the above set limits, it will be treated as Over Dimension Cargo (ODC) or Over Weight Cargo and bidder shall inform BHEL 30 days in advance to the delivery date to enable BHEL to finalize the freight forwarder.</p> f). If package falls under Hazardous category, bidder shall communicate BHEL 30 days in advance period with document support. <p>v) Sea Shipments:- bidder shall ensure the following</p> <ol style="list-style-type: none"> a). Port of discharge -- Nhavaseva/Mumbai/Chennai. b). Place of Delivery / Final Destination for CIP shipments - Nhavaseva CFS / Chennai CFS. c). In case of FOB shipments, bidder shall handover the material to BHEL nominated forwarder and obtain the cargo receipt. d). If the material cannot be containerized in 20 or 40 GP containers, an advance information of 30 days prior to the delivery date shall be communicated to BHEL for necessary arrangements and finalisation of freight forwarder. e). For CIP shipments <ol style="list-style-type: none"> 1. In case of FCL shipments, Detention free period must be 14 days. 2. Bidder shall also inform BHEL the information about discharge port agent details and cargo arrival information within 5 days from the date of Shipment. 3. No charges for the services rendered till place of destination will be payable by BHEL. In case liner / forwarder insist for charges, not in the scope of BHEL, the same will be adjusted from bidder account. 4. In case of CIF shipments -- Bidder must select a forwarder/liner whose discharge port published tariff for THC and other services is available. Any charges over and above the published tariff will not be borne by BHEL or will be adjusted from the bidder's bill. 5. bidder must insure the cargo for 110% of material value including the freight amount. (vi). Recovery charges for non-submission of documents: - Bidder shall submit all the required documents to BHEL as prescribed in the Purchase order and NIT. <p>If BHEL incurs any charges such as Penalty, demurrage, container detention, wharfage, storage, Ground rent etc., due to non - compliance / non - submission of documents prescribed in Purchase Order/ NIT/Letter of credit, the same shall be recovered from the bidder as under:</p> <ol style="list-style-type: none"> 1. EUROPE/USA/Black Sea/ Far East/Middle East/South East sector <p>A. For FOB Sea Consignments:-</p> <p>Penalty for late submission / negotiation of documents beyond 14 days shall be as under:</p>		
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A	<p>Indigenous Purchase</p> <p>i) Only valid GST registered bidders will be considered for the tender. The GSTIN of the bidder should be clearly mentioned in the offer.</p> <p>ii) If bidder is exempted from GST registration under any provision of the GST Law, a declaration with due supporting documents should be furnished for considering the offer.</p> <p>iii) Bidder to quote the applicable taxes in the following manner:</p> <ul style="list-style-type: none"> - Harmonized System of Nomenclature (HSN) of Goods - Services Accounting Code(SAC) of Services. - IGST/CGST/SGST/UTGST: Rate of Tax to be quoted as extra in % against the space provided <p>iv) Bidders to ensure correct applicability of IGST/CGST/SGST/UTGST based on the Inter / Intra state movement of goods/services.</p> <p>v) In case Bidder has opted for GST Composition Scheme, the same may be stated explicitly both in their technical and price bids. An undertaking to the effect that any change in the status of the bidder will be intimated.</p> <p>vi) Any other taxes & duties not covered anywhere above may be indicated separately.</p> <p>Taxes deducted at source:</p> <ul style="list-style-type: none"> - TDS as per the extant statutes shall be deducted. - In case bidder does not provide PAN details, higher rate of tax shall be deducted as per the Act. - Concessional certificates, if any, should be provided well in time for lower deduction of tax. 		Non Deviatable
	<p>Terms & Conditions to be complied</p> <p>1. All invoices (incl. Credit Notes, Debit Notes) to contain BHEL HPEP GSTIN ie 36AAACB4146P1ZG. Invoices submitted should be in the format as specified under GST Law. All details as mentioned in Invoice Rules including Dealer GST registration number (GSTIN), invoice number with date of issue, quantity, rate, value, taxes with nomenclature – CGST, SGST, UGST, IGST mentioned separately, HSN Code / SAC Code etc.</p> <p>2. Reimbursement of GST amount will be made only upon completion of the following:</p> <ol style="list-style-type: none"> i. Bidder declaring such invoice in their GSTR-1 Return/ IFF ii. Receipt of Goods or Services and Submission of Tax invoice by BHEL iii. The tax invoice is reflected in the GSTR2B of BHEL, HPEP (buyer). Payment of GST will be made only if it is matching with data uploaded by the Bidder in GST portal. <p>3. In case of discrepancy in the data uploaded by the bidder in the GSTN portal vis-a-vis the tax invoice or in case of any shortages or rejection in the supply, then BHEL will not be able to avail the tax credit. The same would be available in PRADAN Portal for the bidder's information. Bidder 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 for processing of such invoices.</p> <p>4. In cases where invoice details have been uploaded by the bidder but failed to remit the GST amount to GST Department within stipulated time, then GST on the invoices in default will be recovered from the bidder along with the applicable interest.</p> <p>5. In case GST credit is delayed/denied to BHEL due to non/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, such GST amount will be recoverable from bidder along with interest levied/leviable on BHEL.</p> <p>6. GST TDS deducted as per GST Act, is uploaded in GSTN portal along GSTR7. Bidders can directly download the GST TDS Certificate from the GSTN Portal.</p> <p>7. Bidders to note that Rules & Regulations pertaining to E-way bill system are to be strictly adhered to, as and when notified by Govt. authorities.</p> <p>8. Vendors who fall under the E-Invoice regulations, i.e., having an annual turnover of Rs. 10 crores (Rs 5 crore w.e.f 01.08.2023) in the previous year shall issue e-invoice in line with Rule 48(4) of CGST Rules failing which GST amount will not be reimbursed to the vendor even if the other requirements are fulfilled.</p> <p>9. In case the vendor is exempted by the GST department under the Rule 48(4) of CGST Rules from issuing E-invoice, a declaration as prescribed in the Notification 17/2022 - Central Tax dated 01-08-2022 shall be provided on the invoice.</p> <p>10. Vendors who do not fall under the E-Invoice regulations, i.e., whose annual turnover is less than Rs. 10 crores (Rs 5 crore w.e.f 01.08.2023) in the previous year have to give an undertaking indemnifying BHEL that the vendor is not falling under the E-invoice requirement category and that in case of any breach of this E-invoicing requirement, the vendor indemnifies BHEL of any consequences that may arise due to such a breach.</p> <p>11. No GST shall be levied on liquidated damages / penalty.</p>		
B.	<p>Foreign Purchase (Imports)</p>		



	<p>The offered price shall be inclusive of all the Taxes and duties as applicable in country of export / country of dispatch for the quoted price.</p> <p>Taxes deducted at source:</p> <p>a. In case of goods or services subject to Income tax in India, such tax as per the extant statute shall be recovered.</p> <p>b. In case bidder does not provide necessary documents for beneficial taxation (Refer clause 7-B-(ix) a-c of ITB), the TDS deduction shall be at the maximum percentage stipulated as per the provisions of Income Tax Act.</p>		Non Deviatable
12	Payment Terms: Unless otherwise specified in SCC, following shall be the terms of Payment.		
A	<p>Indigenous:</p> <p>a. Micro & Small Enterprises (MSEs) - 100% Direct EFT payment within 45 days</p> <p>b. Medium Enterprises - 100% Direct EFT payment within 60 days</p> <p>c. Non MSME Bidders - 100% direct EFT Payment within 90 Days</p> <p>Note</p> <p>A. Above due date is reckoned from the date of Receipt of material or 15 days from the date of submission of complete set of documents as per PO whichever is later. Payment will be made on acceptance of Material.</p> <p>B. MSEs (covered under MSME Act) need to register and renew periodically and update the same with BHEL</p> <p>C. The taxes that are reimbursed are limited to applicable taxes as on the Purchase Order delivery date or the amount actually paid whichever is less.</p> <p>D. Adherence to the above time schedule of payment is contingent upon Bidder complying with GST provisions and availment of Input Tax Credit by BHEL before the date of payment.</p> <p>E. In case of packaged items, 10% of supply value will be retained till completion of total supplies.</p> <p>F. Bidders to comply with clause 11 on GST requirements</p> <p>G. MSE benefits are not applicable to Traders/Wholesalers registered as MSEs</p>		
B	<p>Imports:</p> <p>i) 100% payment (less Indian Agency Commission, if any) shall be through Wire Transfer with a credit period of 60 days - Cash Against Documents (CAD)</p> <p>ii) In case Bidder opts for Letter of Credit payment, the LC Usance period shall be 90 days with respective bank charges to respective accounts and loading of 0.50%</p> <p>iii) Indian Agency commission if payable and so specified in the Purchase order shall be paid in Indian Rupees, considering the SBI TT selling exchange rate, as on the date of payment after successful completion of the contract.</p>		
C	<p>Conditions for LC:</p> <p>a. LC validity period will be 90 days and for any extension, applicable charges will be to bidder's account.</p> <p>b. LC will be opened after successful completion of pre dispatch inspection prior to the scheduled / agreed delivery date. LC will be opened within 15 bank working days from the date of request.</p>		Non Deviatable
D	<p>Conditions for both Indigenous & Foreign Bidders:</p> <p>a. In case Bidders insist for lesser Credit period and BHEL accepts, a loading of 0.60% for every 15 days reduction will be applicable.</p> <p>b. In case PBG as required is not furnished, Payment will be released deducting the BG amount, which will be paid after expiry of warranty period against submission of supplementary claim.</p> <p>c. Payment does not imply in any respect whatsoever a waiver of Buyer's right to performance of the Order. Buyer is entitled to set off claimable debts against claimable liabilities with the bidder by means of a setoff Note.</p>		Non Deviatable
E	<p>Wherever EMD is applicable, the EMD will be paid back to unsuccessful bidders within fifteen days after award of the contract. Successful bidder's EMD will be retained till submission of Performance Bank Guarantee (PBG).</p> <p>Tender Fee wherever applicable is not refundable.</p> <p>No interest shall be payable by BHEL on earnest money or security deposit or any money due to the contractor by BHEL.</p>		Non Deviatable



13	Penalty clause: In the event of delay in supply /part-supply of goods, Penalty as detailed below is leviable a. Penalty of 0.5% per week or part there of shall be levied, limited to a max of 10% (ten percent) of delayed portion value / order value (as specified in SCC). b. Penalty applicable for delay in documentation is as per SCC. c. Date Reckoned for Penalty - Indigenous Orders with delivery terms FOR HPEP: C Note date. - Indigenous Orders (Others): Date of e-waybill. - Imports: For CIP/CIF Orders: IGM date - Imports: For FOB Orders: AWB / BL date - Imports: For FCA/Ex Work Orders: Date of acknowledgement from Freight Forwarder. d. In case of Deviation to above Penalty clause, loading applicable to the extent to which not agreed by Bidder. e. Timelines as mentioned in the Annexure 1 will be considered for reckoning delivery. Penalty amount so determined along with applicable GST (for Indigenous orders) thereon shall be recovered. Imposition, recovery or settlement of this penalty shall not affect BHEL's right to performance, compensation and termination of the order.		
14	Excess materials supplied beyond tolerance limit as specified in PO will not be paid and bidder may raise credit note for the excess/unaccepted material as per GST law.		Non Deviatable
15	Rejected materials , if any, shall be collected by the bidder within 90 days of such communication to the bidder. Beyond this period the bidder forfeits their right to the materials.		Non Deviatable
16	Guarantee / Warranty Period: Wherever required, and so provided in the specifications/SCC/Purchase Order, the bidder shall guarantee that the goods supplied shall comply with the specifications laid down, for materials, workmanship and performance. a. Guarantee period shall be 12 months from the date of commissioning or 18 months from the date of supply whichever is earlier. b. In case erection & commissioning is involved, guarantee period shall be 12 months from the date of commissioning. c. In case of equipment bought as a package which are intended to be incorporated in installations or systems, the guarantee period shall be 12 months from the date of commissioning of such equipment. The guarantee period shall be extended by the period during which the goods are not in compliance. If the delivery is found to be non-complaint, bidder shall replace, repair or re-execute the as requested by BHEL. If the bidder defaults on his obligations, buyer has the right to proceed to replace, repair or re-execute at the bidder's expense. A guarantee period as described above shall apply afresh to replaced, repaired or re-executed parts of a delivery. Loading for deviation: In case warranty specified in SCC is over and above the period mentioned in b & c above; loading will be 1% per annum for the deviation in warranty end period, on the contract value. Expected commissioning period is as indicated in SCC.		Non Deviatable
17	PERFORMANCE BANK GUARANTEE (PBG) (Applicable in case mentioned in SCC) In case enquiry specifically spells out PBG requirement, PBG is to be submitted by Bidder in requisite format as per Annexure VII. Further detailing on PBG as specified in SCC. The PBG shall be for the performance of the goods and shall remain binding not withstanding such variations, alterations or extensions of item as may be made, give, conceded or agreed to between the Bidder and BHEL under these Terms and conditions or otherwise.		Non Deviatable
NOTE: Deviations (Commercial as well as Technical) from the tender specifications and conditions are generally not acceptable. However, deviation if any, shall be brought out clearly with proper justification in the offer. The deviation, if considered by BHEL, shall be loaded for comparison, while evaluating the offer. If a bidder unconditionally withdraws any deviation before price bid opening, the same shall not be loaded. Loading criteria in respect of major commercial conditions where deviations if any are accepted shall be as per clause No.18. The Bidders may specifically note the following.			
18	Evaluation and Loading Criteria:		

	<p>i) Evaluation Currency for this tender shall be "INR".</p> <p>ii) Evaluation of prices shall be done item-wise unless otherwise specified in the SCC.</p> <p>iii) Evaluation shall be on the basis of delivered cost, i.e. "Total Cost to BHEL" w.r.t the finalized technical scope and commercial conditions (after considering incidence of applicable taxes and duties and loading).</p> <p>iv) In the course of evaluation, if more than one Bidder happens to occupy L1 status, effective L1 will be decided by soliciting discounts from the respective L1 Bidders. In case more than one Bidder happens to occupy the L1 status even after soliciting discounts, the L1 Bidder shall be decided by a toss/draw of lots, in the presence of the respective L1 Bidders or their representatives. Ranking will be done accordingly. BHEL decision in such situations shall be final and binding.</p> <p>INDIGENOUS</p> <p>a. Bidder shall ensure to indicate the applicable taxes against each line item, failing which the same will be considered as inclusive/NIL.</p> <p>b. Ex-works offers received (as against FOR Destination mentioned in enquiry) shall be loaded by 2% of Ex-works value.</p> <p>c. GST and any other charges quoted will be added to the base price. However, in case input credit is available for GST (SGST, CGST/IGST), the same shall be excluded for arriving at "Total Cost to BHEL"</p> <p>IMPORTS</p> <p>For evaluation of offers in foreign currency, exchange rate (TT selling rate of State Bank of India) as on the date of bid opening (Part-I, in case of two-part bids) shall be considered. If the relevant day happens to be a bank holiday, then the forex rate as on the previous bank (SBI) working day shall be taken.</p> <p>In case of foreign Bidders, the quoted CIP price shall be loaded by the following factors to arrive at "Total Cost to BHEL":</p> <p>- Import duty as applicable on the date of Part-I bid opening.</p> <p>- Loading will be as per the table below</p> <table><tr><th></th><th>Ex Works</th><th>FOB/FC A</th><th>CIF/CFR</th><th>CIP</th></tr><tr><td>Foreign Inland freight and insurance</td><td>2%</td><td></td><td></td><td></td></tr><tr><td>Marine freight and marine insurance</td><td>3%</td><td>3%</td><td></td><td></td></tr><tr><td>Destination Port handling charges</td><td>0.50%</td><td>0.50%</td><td>0.50%</td><td></td></tr><tr><td>clearing charges & inland freight and insurance</td><td>2%</td><td>2%</td><td>2%</td><td>2%</td></tr></table> <p>COMMON LOADING FOR IMPORTS & INDIGENOUS that will be added for arriving the "Total Cost to BHEL"</p> <p>A. Loading on Deviated Penalty clause shall be 10% or to the extent to which the bidder has opted for deviation.</p> <p>B. Loading for payment terms as per clause 12 of ITB</p> <p>C. Loading for deviation in Warranty & PBG as per clause 16,17.</p>		Ex Works	FOB/FC A	CIF/CFR	CIP	Foreign Inland freight and insurance	2%				Marine freight and marine insurance	3%	3%			Destination Port handling charges	0.50%	0.50%	0.50%		clearing charges & inland freight and insurance	2%	2%	2%	2%
	Ex Works	FOB/FC A	CIF/CFR	CIP																						
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clearing charges & inland freight and insurance	2%	2%	2%	2%																						
19	Procurement directly from the manufacturers/ suppliers shall be preferred. However, no agent shall be allowed to represent more than one manufacturer/ supplier in the same tender. Moreover, either the agent could bid on behalf of the manufacturer/ supplier or the manufacturer / supplier could bid directly but not both. In case bids are received from both from the manufacturer/ supplier and the agent, bid received from the agent shall be ignored.																									
20	RIGHT OF REJECTION /NON- PLACEMENT OF PO: BHEL reserves the right to accept or reject any or all bid/s in full or part without assigning any reason whatsoever.																									
21	INTEGRITY PACT Bidders shall have to enter into Integrity Pact with BHEL as per Annexure VI - for Tender value of rupees two crores and above and shall be signed by the authorized signatory along with the offer, failing which Bidder's offer will be rejected.																									
22	Public Procurement																									
A	Make in India For this Procurement, the local content to categorize a bidder as a Class I local bidder / Class II local bidder / Non-Local bidder and purchase preference to Class I local bidder, is as defined in Public Procurement (Preference to Make in India) order No P-45021/2/2017-PP(BE-II) dated 04-06-2020 issued by DPIIT as amended from time to time. Proforma for self-certification for minimum local content and auditor's certification is given in Annexure III.																									
B	Any Bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with competent authority. GOI website https://www.mea.gov.in/ to be referred for latest details of competent authority and exemptions . Proforma for self-certification for compliance is given in Annexure IV.																									
C	Startups: For Start-ups duly registered with DPIIT (Copy of certificate to be provided), condition of prior turnover and prior experience in Public Procurement may be relaxed subject to meeting of Quality and Technical Specifications. Startups are exempt from paying EMD.																									
23	Benefits earmarked for Purchase from Micro & Small Enterprises (MSEs) – Indigenous Purchase																									
A	All Micro and Small Enterprises (MSEs) as defined in MSE Procurement Policy are exempt from Paying EMD. NSIC/UDYAM registered bidders shall submit NSIC/UDYAM Certificate along with bid documents. Date to be reckoned for determining the deemed validity will be the last date of Technical bid submission. Non- submission of such document will lead to consideration of their bid, at par with other bidders and MSE status of such bidders shall be shifted to Non- MSE Category till the bidder submits these documents																									

B	In tender, MSEs quoting price within price band of L1+15% shall also be allowed to supply a portion of requirement by bringing down their price to L1 price in a situation where L1 price is from someone other than a MSE and such MSE shall be allowed to supply at least 25% of total tendered value. In case of more than one such MSE, the supply shall be shared proportionately. Out of these 25% minimum 3% shall be earmarked for MSEs owned by women and 6.25% for MSEs owned by SC/STs who submit the relevant documents.
C	If an enterprise falling under MSME category as defined in the Act, graduates to a higher category from its original category or beyond the purview of the Act, it shall continue to avail all non-tax benefits of its original category notified by the Ministry of Micro, Small and Medium Enterprise for a period of three years from the date of such graduation to the higher category.
D	BHEL HPEP is registered with RXIL (TReDS) platform. MSME bidders are requested to get registered with RXIL (TReDS) platform to avail the facility as per the GOI guidelines.
24	Inspection Measuring and Test Equipment (IMTE) used by the Bidder/ Contractor or sub-contractor shall be calibrated, maintained and controlled. Calibration shall be valid and IMTE maintained in sound condition during usage.
25	ISO-9001, ISO14001 & OHSMS 45001 shall be complied.
26	If BHEL registered supplier is not quoting against this NIT, supplier shall send regret letter positively with valid reasons for not participating. Repeated lack of response on the part of supplier may lead to deletion of such registered supplier from BHEL's approved supplier's list as per BHEL SEARP Guidelines.
27	Risk Purchase clause: In case bidder fails/delays to supply whole or part of the ordered items or supplies defective items or fails to fulfil any other terms and conditions given in Purchase Order/Contract, BHEL has the right to terminate the order/contract or withdraw balance scope of work/supply and make the purchase of such material / services from elsewhere at the risk and cost of the defaulted bidder. The bidder is 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 order/contract. Non-performance of contract attracts penal provisions in line with BHEL guidelines for Suspension of Business Dealings (SBD).
28	Any other terms and conditions of the bidder attached / referred against the tender enquiry will not be considered.
29	All drawings, patterns and tools supplied by BHEL or made at BHEL's expense are BHEL's property. These cannot be used or referred to any other party and must be used only in the execution of BHEL's orders.
30	Any amount payable by the bidder under any of the conditions of this contract shall be liable to be adjusted against any amount payable to the bidder under any other work / contract awarded by BHEL HPEP or any other BHEL Units. This is without prejudice to any other action as may be deemed fit by BHEL.
31	The bids of the bidders who are on the banned list and also the bids of the bidders, who engage the services of the banned firms, will be rejected. The list of firms banned by BHEL is available on BHEL web site: www.bhel.com
32	Ordering and confirmation of order The bidder shall send the order acceptance within one week from the date of LOI/Purchase order or such other period as specified/agreed by the Buyer. Buyer reserves the right to revoke the order placed if the order confirmation differs from the original order placed. Buyer shall be legally bound, only if agreed for any deviation explicitly in writing. The acceptance of deliverables or supplies by Buyer as well as payments made in this regard shall not imply acceptance of any deviations. The Purchase order will be deemed to have been accepted if no communication to the contrary is received within one week (or the time limit as specified /agreed by the Buyer) from the date of P.O. Buyer, is at liberty to send signed P.O. through electronic media such as e-mail and the receipt of which shall be treated as receipt of order.
33	Execution The whole contract is to be executed in the most workman like manner, substantial and approved as per the contracted terms.
34	Progress Report The bidder shall render such report as to the progress of work and in such form as may be called for by the Buyer from time to time. The submission and acceptance of such reports shall not prejudice the rights of the buyer in any manner. Bidder shall communicate to BHEL immediately, the change of address, ownership, contact person(s), the mobile numbers and e-mail of the dealing person concerned. Milestones shall be periodically updated by bidder through PRADAN Portal (https://hpep.bhel.com/mm/). Non updation will adversely affect service rating of bidder performance.
35	Non-disclosure Obligations

	<p>Drawings, technical documents or other technical information received by one party shall not without the consent of the other party, be used for any other purpose than that for which they were provided. They may not, without the consent of the submitting party, otherwise be used or copied, reproduced, transmitted or communicated to third parties. All information and data contained in general product documentation, whether in electronic or any other form, are confidential and binding only to the extent that they are by reference expressly included in the contract.</p> <p>The bidder shall, as per agreed date/s but not later than the date of delivery, provide free of charge any information and/or drawings which are necessary to permit the Buyer to erect, commission, operate and maintain the product. Such information and drawings shall be supplied as specified in technical specification.</p> <p>All intellectual properties, including designs, drawings and product information etc. exchanged during the formation and execution of the contract shall continue to be the property of the submitting party.</p> <p>The bidder shall provide Buyer with all information pertaining to the delivery in so far as it could be of importance to Buyer. The bidder shall not reveal confidential information to its own employees not involved with the tender/contract and its execution and delivery or to third parties, unless Buyer has agreed to this in writing beforehand. The bidder shall not be entitled to use the Buyer's name in advertisements and other commercial publications including website without prior written permission from Buyer.</p> <p>In the event of violation of the confidentiality as agreed, BHEL will take legal action as deemed fit. Non-disclosure agreement to be entered as per Annexure- II wherever applicable.</p>
36	Inspection and Testing
A	The goods and stores shall be manufactured by approved quality system and each part/component may be inspected and tested by the Buyer prior to shipment and shall comply with relevant requirements. Buyer has the right to inspect at any stage during manufacture/ delivery.
B	<p>Buyer or his authorized representative shall be entitled at all reasonable times during execution to inspect, examine and test at the bidder's premises the material and workmanship of all stores to be supplied under the contract, and if the part of the stores are being manufactured at other premises, the bidder shall obtain for buyer or his authorized representative permission to inspect, examine and test as if the said stores are being manufactured at the bidder's premises. Such inspection, examination and testing, if made shall not release the bidder from any obligation under the contract.</p> <p>For indigenous bidders all costs related to first inspection request shall be borne by the buyer and the cost of subsequent inspections due to non-readiness of material/rework/ rejections shall be borne by the bidder. In case of imports all inspection charges including third party inspections if any shall be borne by the bidder. The cost of inspection staff/third party specified by the Buyer shall be borne by bidder unless otherwise specifically agreed. If the contract provides for tests on the premises of the bidder or any of his sub-contractor/s, bidder shall be responsible to provide such assistance, labor, materials, electricity, fuels, stores, apparatus, instruments as may be required and as may be reasonably demanded to carry out such tests efficiently. Cost of any type test or such other special tests shall be borne by the bidder unless otherwise specifically agreed in the contract. The Bidder shall give the authorized representative of the buyer reasonable notice in writing of the date on and the place at which any stores will be ready for inspection/ testing as provided in the Contract. Annexure – I, may strictly be complied with for the time lines. Any delay in submission of the documents by the bidder will not alter the delivery date.</p>
37	Quality and Condition of the Deliverables
	The bidder shall be responsible for compliance with applicable technical, safety, quality, environmental requirements and other regulations in relation to products, packaging and raw and ancillary materials.
38	Packaging and Dispatch
	<p>The bidder shall package the deliverables safely and carefully and pack them suitably in all respects considering the peculiarity of the material for normal safe transport by sea/air/rail/road to its destination suitably protected against loss, damage, corrosion in transit and the effect of tropical salt laden atmosphere. The packages shall be provided with fixtures/hooks and sling marks as may be required for easy and safe handling by mechanical means. Special packaging conditions/ environmental conditions as defined in the NIT shall be fully complied.</p> <p>Each package must be marked with consignee name, address, P.O. number, Package Number, gross weight & net weight, dimensions (L x B x H) and bidder's name. The packing shall allow for easy removal and checking of goods on receipt and comply with carrier's conditions of packing or established trade practices. Packing list for goods inside each package with P.O. item No. & quantity must also be fixed securely outside the box to indicate the contents. If any consignment needs special handling instruction, the same shall be clearly marked with standard symbols/instructions. Hazardous material should be notified as such and their packing, transportation and other protection must conform to relevant regulations.</p>
39	Contract variations; Increase or decrease in the scope of supply
	<p>Buyer may vary the contracted scope during execution due to exigencies of project requirement.</p> <p>If the bidder is of the opinion that the variation has an effect on the agreed price or delivery period, Buyer shall be informed of this immediately in writing along with technical details, and in the event of additional work, submit a quotation with regards to the price and period involved, as well as the effect this additional work will have on the other work to be performed by the bidder. Wherever unit rates are available in the contract, the same shall be applied to such additional work. The bidder shall not perform additional work before buyer has issued written instructions/amendment to the purchase order to that effect. The work which the bidder should have or could have anticipated in terms of delivering the service (s) and functionality (ies) as described in this agreement should be executed by the bidder without any price implication.</p> <p>In case of no change in the scope / technical specifications, bidder shall endeavor to keep the material ready and intimate the same to BHEL within the contractual delivery date, failing which, the delay if any will be attributed to supplier, and any upward price variation thereof for delivery at a later date is not admissible.</p>
40	Rejected/Short shipments/ warranty/guarantee replacements
	In case of any short shipment during initial supply which is subsequently dispatched by the bidder or any guarantee / warranty replacements shall be dispatched on "DDP-Delivered duty paid BHEL stores" basis for imported items and "FOR-BHEL Stores/designated destination" basis for indigenous items.
41	Export Administration Regulations
	If a delivery includes such technology and / or supply that is subjected to the export regulations the bidder shall obtain due permissions, approvals, license etc.
42	Force Majeure

	<p>The bidder shall not be considered in default if delay occurs due to causes beyond their control such as Acts of God, Natural calamities, Fire, Frost, Flood, Civil War, civil commotion, riot, Government Restrictions.</p> <p>Only those causes that have duration of more than seven days shall be considered cause of force majeure. Notification to this effect duly certified by local chamber of commerce/statutory authorities with supporting documents shall be given by the bidder to BHEL by registered letter/courier service immediately without loss of time.</p> <p>In the event of delay due to such causes the delivery schedule shall be extended for a length of time equal to the period of Force Majeure or at the option of BHEL the order may be cancelled. Such cancellation would be without any liability whatsoever on the part of BHEL.</p> <p>In the event of such cancellation the bidder shall refund any amount advanced or paid to the bidder by BHEL and deliver back any material issued to him by BHEL and release facilities, if any provided by BHEL.</p>
43	Non-waiver of Defaults
	If any individual provision of the contract is invalid, the other provisions shall not be affected.
44	Settlement of Disputes
	<p>Except as otherwise specifically provided in the contract, all disputes concerning questions of the facts arising under the contract, shall be decided by the Buyer, subject to written appeal by the bidder to the buyer, whose decision shall be final.</p> <p>Any disputes of differences shall to the extent possible be settled amicably between the parties thereto, failing which the disputed issues shall be settled through arbitration</p> <p>The bidder shall continue to perform the contract, pending settlement of disputes(s).</p>
45	Conciliation clause
	<p>CONCILIATION CLAUSE FOR CONDUCTING CONCILIATION PROCEEDINGS UNDER THE BHEL CONCILIATION SCHEME, 2018: 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 agreement, contract or the Memorandum of Understanding, penalty deduction, time extension), 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 and as provided in Procedure in http://www.bhel.com/index.php/story_details?story=2454 . The Procedure together with its Formats will be treated as if the same is part and parcel hereof and shall be as effectual as if set out herein in this ITB</p>
46	ARBITRATION (WITH SOLE ARBITRATOR)
	<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, penalty deduction, validity or execution of the Contract; time extension, 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 the other Party refer such dispute or difference to the sole arbitration . Sole arbitrator to be appointed by Head of the Unit - BHEL , HPEP .</p> <p>The Arbitrator shall pass a reasoned award and the award of the Arbitrator shall be final and binding upon the Parties.</p> <p>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 Sangareddy / Hyderabad, Telangana. The language of arbitration shall be English and the documents shall be submitted in English.</p> <p>The cost of arbitration shall initially be borne equally by the Parties subject to the final apportionment of the cost of the arbitration in the award of the Arbitrator.</p> <p>Subject to the arbitration in terms of clause 45, the courts at Sangareddy, Telangana State 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>
	ARBITRATION FOR CONTRACT WITH PUBLIC SECTOR ENTERPRISE (PSE) OR A GOVERNMENT DEPARTMENT
	<p>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</p>
47	Applicable Laws and jurisdiction of Courts
	This agreement shall be construed and interpreted in accordance with the laws of India and shall have exclusive jurisdiction of Sangareddy/Hyderabad courts, Telangana, India.
48	BHEL-Fraud prevention policy shall be adhered to.
	<p>The Bidder along with its associate/ Collaborators/ Sub-contractors/ sub-bidders/ 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> <p>List of nodal officers is hosted on BHEL Hyderabad website https://hpep.bhel.com/.</p>
49	Suspected Cartel Formation
	<p>The Bidder declares that they will not enter into any illegal or undisclosed agreement or understanding, whether formal or informal with other Bidder(s). This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process. In case , the Bidder is found having indulged in above activities, suitable action shall be taken by BHEL as per extant policies / guidelines .</p>
50	Conflict of Interest:
	<p>"A bidder shall not have conflict of interest with other bidders. Such conflict of interest can lead to anti-competitive practices to the detriment of Procuring Entity's interests. The bidder found to have a conflict of interest shall be disqualified. A bidder may be considered to have a conflict of interest with one or more parties in this bidding process, if:</p>



- a) they have controlling partner (s) in common; or
b) they receive or have received any direct or indirect subsidy/ financial stake from any of them; or
c) they have the same legal representative/agent for purposes of this bid; or
d) they have relationship with each other, directly or through common third parties, that puts them in a position to have access to information about or influence on the bid of another Bidder; or
e) Bidder participates in more than one bid in this bidding process. Participation by a Bidder in more than one Bid will result in the disqualification of all bids in which the parties are involved. However, this does not limit the inclusion of the components/ sub-assembly/ Assemblies from. one bidding manufacturer in more than one bid; or
f) In cases of agents quoting in offshore procurements, on behalf of their principal manufacturers, one agent cannot represent two manufacturers or quote on their behalf in a particular tender enquiry. One manufacturer can also authorize only one agent/dealer. There can be only one bid from the following:
1. The principal manufacturer directly or through one Indian agent on his behalf; and
2. Indian/foreign agent on behalf of only one principal; or
g) A Bidder or any of its affiliates participated as a consultant in the preparation of the design or technical specifications of the contract that is the subject of the Bid; or
h) In case of a holding company having more than one independently manufacturing units, or more than one unit having common business ownership/management, only one unit should quote. Similar restrictions would apply to closely related sister companies. Bidders must proactively declare such sister/ common business/ management units in same/ similar line of business. "

Note: Purchase officer has to fill Annexure-I while sending enquiry



PURCHASE SPECIFICATION
Turbines & Compressors Engineering

TC - 5- 6712

REV. NO. 01

Page 1 of 03

LOW PRESSURE DROP NON SLAM CHECK VALVE

1. SCOPE OF SUPPLY:

1.1 This standard specifies the requirement of LOW PRESSURE DROP AXIAL NON SLAM CHECK VALVES

1.2 This standard shall be supplemented by AA0851403 for technical delivery conditions

2. SIZES AND DIMENSION:

Size, rating and design parameters shall be as per below table

3. DESIGN PARAMETERS AND MATERIAL OF CONSTRUCTION:

	Variant-01		Variant-02		Variant-03	
Size	24"		24"		18"	
Rating and End Connection	#150 RF		#150 RF		#300 RF	
Type of valve	Axial Noz check valve		Axial Noz check valve		Axial Noz check valve	
Medium	Propylene		Propylene		Propylene	
Operating pressure (kg/Cm2(A))	Normal	Rated	Normal	Rated	Normal	Rated
	1.66	1.87	5.6	6.09	20.18	20.18
Operating Temperature (°C)	Normal	Rated	Normal	Rated	Normal	Rated
	-30.6	-30.6	12.18	11.67	80.34	76.55
Gas Density (Kg/m ³)	Normal	Rated	Normal	Rated	Normal	Rated
	3.59	4.08	10.91	12.07	35.24	35.98
Flow (Am3/hr)	Normal	Rated	Normal	Rated	Normal	Rated
	21121	22515	17674	19322	5473	6481
Design Pressure (kg/Cm2(A))	Corresponding to pressure class		Corresponding to pressure class		Corresponding to pressure class	
Design Temperature(°C) (min/max)	-45/100		10/100		10/100	

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PURCHASE SPECIFICATION
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Tag no	P-01	P-02	P-03
Line no	24"-P-11520-0301-A2A	24"-P-11520-0421-A1D	18"-P-11520-0102-B1D
MOC			
Body	A352,GR.LCB	A216,GR.WCB	A216,GR.WCB
Trim	No. 12 (316 and HF)	No. 8 (13Cr and Co-Cr A T410)	No. 8 (13Cr and Co-Cr A T410)
Spring Material	Inconel X750	Inconel X750	Inconel X750
Certificate	EN 10204, Type 3.1	EN 10204, Type 3.1	EN 10204, Type 3.1
others	Enclosure for valves	Enclosure for valves	Enclosure for valves
Design Standard	API594	API 594	API594
Testing Standard	API598	API598	API598

4 General requirements:

- 1) Pressure drop across the valve should mentioned and certified in the offer by vendor
- 2) All casting shall be of radiographic quality. This requirement to be ensured by sample radiography before proceeding with the actual production
- 3) Radiography procedure, areas of casting to be radiographed, and the acceptance criteria shall be as per ASME/ANSI B16.34.
- 4) 100% radiography on weld joints and Casting.
- 5) When specification requires that the carbon content of the base metal be determined so that "L" (Low Carbon) or "H" (High Carbon) grades may be distinguished, chemical analysis for carbon shall be conducted in accordance with ASTM E1086.
- 6) **HPL document 6778-PIP-G0000-EC-0015 shall be complied for all the Technical requirement of Valves.**

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Tests for LTCS Items:

- 1) Charpy-V Notch impact testing shall be carried out in accordance with paragraph UG-84 of ASME Section VIII, Div-1 for weld metal and base metal from the thickest item per heat of material and per heat treating batch. Impact
- 2) Test specimen shall be in complete heat treated condition and in accordance with ASTM A370. Impact energies at 0 C shall average greater than 27J (20 ft-lb) per set of 3 specimens, with a minimum of 19J (15 ft-lb).
- 3) If welding is used in manufacture, impact test of Heat Affected Zone (HAZ) and weld metal shall also be carried out.
- 4) Cryogenic testing as per BS 6364 shall be carried out at temperature (-45°C), (-100°C) & (-196°C) for "LTCS", 31/2 Ni steel & austenitic stainless steel valves respectively.
- 5) Supplier shall strictly comply with this standard in all respects. No deviation shall be allowed unless written permission of BHEL is obtained before finalization of the order
- 6) Vendor shall submit the GAD with BOM and relevant datasheets along with offer for technical scrutiny



Piping Material class Index

Pipe Class	ASME Flange Rating	Corrosion Allowance (mm)	Basic MOC	ASME Category	Service
A2A	150 RF	1.5	LTCS	CAT-NF	L.T. HYDROCARBON COLD FLARE, LIQUID DRAIN, PPL REFRIGERANT
A1D	150 RF	1.5	CS	CAT-NF	Water/Acetone Drain , HYDROCARBON, HYDROCARBON (WITH <5% BENZENE)
B1D	300 RF	1.5	CS	CAT-NF	Water/Acetone Drain , HYDROCARBON, HYDROCARBON (WITH <5% BENZENE)

Variant table :

Material Code	Description	Variant
TC9756712015	LOW DP AXIAL NRV 24"#150RF A352 GR-LCB	01
TC9756712023	LOW DP AXIAL NRV 24"#150RF A216 GR-WCB	02
TC9756712031	LOW DP AXIAL NRV 18"#300RF A216 GR-WCB	03

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Plant	Client	Contract Code	Document ID	HPL Contract No. 4010464		
PROJECT HAVEN	Haldia Petrochemicals Ltd.	HPL OCU-CPU	6778-PIP-G0000-EC-0015	tkUIPL Contract No 66-6778		
	TECHNICAL REQUIREMENTS FOR VALVES					
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BIDDERS DEVIATION

1 GENERAL

- 1.1 Vendor shall supply valves in accordance with the Valve Specification sheets along with auxiliaries, if any, such as Gear Operator, Bypasses, Locking Arrangement, Drains etc. wherever specified in the specification sheets, supplementary requirements and other enclosures if any specified in the technical specification.
- 1.2 Vendor shall quote in strict accordance with the valve technical specification sheets, supplementary requirements and all other enclosures to the technical specification. Deviations to the specification/data sheets, supplementary requirements and other enclosures of the technical specification, if any, shall be stated as explained in Clause 2.0.
- 1.3 All codes and standards for manufacture, testing, inspection etc. shall be of latest editions.
- 1.4 Any conflict between this document and technical specification the later shall govern.



2 DOCUMENT SUBMISSION

2.1 Bidder shall submit with the offer the following:

- 2.1.1 The technical part of the offer must consist of tkUIPL Technical Specification for the particular item in which the vendor has to mark clearly 'YES' against each line of the specification sheet under the column "**Confirm to spec**" if there is no deviation to tkUIPL Specification.
- 2.1.2 In case the bidder is taking a deviation from tkUIPL spec, the bidder should clearly state the deviation under column "**Deviations**". Deviations indicated anywhere else will not be entertained. The sheet must bear the seal and signature of the bidder in the technical specification sheet.
- 2.1.3 If the bidder is regretting or has no deviation to state for any specific valve code the bidder shall clearly specify on the applicable valve specification sheet as "**regret**" or "**no deviation**".
- 2.1.4 Failure to submit documents as specified in Clauses 2.1.1 to 2.1.3 above, shall lead to **rejection** of the offer.

2.2 After the placement of order on successful bidder:

- 2.2.1 On the issue of Letter/Fax of Intent, tkUIPL shall issue order specification along with the list of acceptable agreed deviations. Vendor to submit the relevant construction feature drawings including all the technical details like rating, material, overall dimensions etc. within two weeks of Order placement. Descriptive and illustrative catalogue information is not acceptable. The construction feature drawing submitted shall be approved by tkUIPL and sent to vendor along with the order technical specification. The order specification

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forwarded along with the approved drawings shall form an integral part of the order. No deviation to specification shall be permitted after placement of order.

Approval of drawings shall be valid for construction features, dimensions & material specification. In case the drawing is approved with comments, then the drawing shall not be re-submitted for final approval. These comments shall be incorporated in final documentation drawings.

- 2.2.2 Test reports shall be supplied for all mandatory tests as per the applicable code. Test reports shall also be furnished for any **supplementary tests** as specified in Clause 5.4

2.3 For final documentation:

- 2.3.1 The final drawing submitted for documentation shall incorporate the material and dimensional details as per the order specification with the constructional features remaining unchanged. Refer **Annexure – III** for Summary of Engineering and Final Documents.



3 DESIGN AND CONSTRUCTION

- 3.1 Valves shall be designed, manufactured, tested, inspected and marked as per the design manufacturing standards (latest editions) indicated in the respective valve specification sheets. Any conflict between the technical specification, enclosures and referred standard codes shall be brought to the notice of tkUIPL/purchaser for clarifications, but generally enclosures of the technical specification including supplementary requirements shall govern.

- 3.2 Unless otherwise specified in the technical specification the following standard **construction features** shall be followed:

- 3.2.1 **Face to face dimension:** Face to face dimension of valves shall conform to following :

- All flanged / BW end CS/SS/AS/LTCS/Exotic material valves shall be to **ASME B16.10** except flanged Butterfly & Diaphragm valves.
- For sizes not listed in ASME B 16.10 the Face-to-Face dimension shall be to BS EN 558. For ball valves for sizes not listed in ASME B16.10, the Face-to-Face dimensions shall be as per API 6D.
- **Flanged/sandwich type butterfly valves, diaphragm valves** as well as other **sandwich type** valves shall be to their respective design manufacturing standard.
- **Lined** Y-type globe, diaphragm, ball, plug valves shall have face to face dimension as per respective design manufacturing standard or ASME B 16.10 as the case may be **before lining**.
- **Socket welded** and **screwed valves** shall have face to face dimension to manufacturer's standard.

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- For double flanged Dual Plate Check valves, face to face dimensions shall be as per API 594-Table 3.
- For double flanged Butterfly valves, face to face dimensions shall be as per Category B, Double Flanged Short Pattern (Table 3c of API 609)

3.2.2 No repair welding shall be done on valve bodies during manufacturing.

3.2.3 All flanged valves shall have flanges integral (except forged valves) with the valve body. For forged valves with weld-on flanges, the valve shall be with BW ends welded with forged WN flanges. The weld joint shall be 100% radiographed. The surface finish for flange shall be obtained by **cylindrical machining** so that no radial tool marks are created on the surface finish during machining.

3.2.4 For For all butt weld end valves the bevel end preparation shall be as per ASME B16.25. For all socket weld end valves, the ends shall be as per ASME B16.11. For all threaded end valves, the ends shall be as per ASME B1.20.1, NPT (F), unless specified otherwise.

3.2.5 Valve body/bonnet shall be forged/cast as specified. Forgings are acceptable in place of casting but not vice-versa.

3.2.6 All sandwich type valves shall have self-centering feature.

3.2.7 Spiral wound bonnet gaskets are to be provided with inner/outer ring except when encapsulated gasket type body-bonnet joints are employed. Outer ring may be avoided in case of non-circular spiral wound gasket used in CL150 valve provided the outermost layer of spiral touches the bolts ascertaining the centering.

3.2.8 When specifically stated "Valve to be provided with locking arrangement " then the arrangement shall be for both open & closed position.

3.2.9 Additional Requirements :



3.2.9.1 Valves under "HYDROGEN SERVICE" (as indicated on the data sheet) shall comply with requirements of Doc. 6778-PIP-G0000-EC-0025.

3.2.9.2 All alloy steel material shall be in Normalised and Tempered Condition.

3.2.9.3 Austenitic Stainless Steel items/parts shall be supplied in solution annealed and pickled condition.

3.2.9.4 For all items of stabilised SS grades (SS 321 / 321H, SS 347 / 347H), stabilizing heat treatment shall also be done. It shall be carried out subsequent to normal solution annealing. Soaking temperature and holding time shall be 900°C and 4hrs respectively.

3.2.9.5 Stellite / hard facing by deposition shall be minimum 1.6mm, finished thickness after final machine condition.

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3.2.9.6 The Brinell hardness of heat treated casting shall not exceed 200 BHN for carbon steel & 225 for alloy steel.

3.2.10 Gate/Globe/check valves:

3.2.10.1 The valve design shall be outside screw and yoke type (OS & Y) when manufactured as per API600, BS1873, API602, BS EN ISO 15761, BSEN12288 (bronze valves). All Gate and Globe Valves shall be furnished with back seat arrangement.

3.2.10.2 The integral and renewable seating for Gate, Globe and Check Valve shall be as listed below:

	<u>Back Seat</u>	<u>Disc Seat</u>	<u>Body Seat</u>
Forged C.S./LTCS/AS Valves	Integral	Integral	Renewable
Forged SS/Exotic material	Integral	Integral	Integral
Cast C.S/LTCS/AS valve	Renewable	Integral	Renewable
Cast SS/Exotic material	Integral	Integral	Integral

3.2.10.3 The trim material wherever indicated in the specification shall mean the following:

- Body seating surface
- Disc / Gate seating surface
- Stem
- Bushing or deposited weld for backseat and stem hole guide
- Small internal parts normally in contact with the service fluid excluding the pin that is used to make a stem to disc connection. This pin shall be made of minimum austenitic stainless steel material.

3.2.10.4 Regulating type globe valve shall have **parabolic disc** with linear flow character. Regulating type globe valve shall be provided with guided disc for size 2" and above. Vendor to indicate the same on valve drawings. Non-regulating type globe valve shall have plug type disc.



3.2.10.5 Gate valve & bellow sealed globe valves shall have rising stem non-rising handwheel design. Globe valve shall have rising stem and rising handwheel design. Gate valve shall have **solid wedge** upto 1½" dia., above 1½" dia the wedge shall be **flexible**.

3.2.10.6 Swing check valve shall have **dash pot arrangement** for nominal sizes 10" and above.

3.2.10.7 For check valves, where the weight of valve necessitates provisions of lifting lugs, eyebolts and such standard devices the same shall be provided.

3.2.10.8 In case of Gate and Globe cast valves of CL.300 and above rating, the depth of gland stuffing box shall be sufficient to accommodate lantern rings in addition to gland packing.

3.2.10.9 Extended Bonnet wherever specified in the valve data sheet to BS:6364 shall be for "Non-cold box application" unless otherwise specified in the technical



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specification. Even if not specified in technical specification, "Cryogenic" service valve shall be supplied with bonnet extension. For bonnet extension, fillet welds shall be DP tested, BW joints shall be DP tested & 100% radiographed before valve assembly.

- 3.2.10.10 Unless specified otherwise in the data sheet, all check valves 3" & above (except in CL.900, 1500, & 2500 ratings) shall have a drain boss at location "G" (Refer Fig. No.1 of ASME B 16.34). A tapped drain hole with plug shall be provided as per ASME B16.34. Threads shall be NPT(Taper).
- 3.2.10.11 Wherever check valve disc assembly is supported from the cover of the check valves, the following shall be ascertained:
- Positive location/positioning of cover must be provided to ensure correct alignment of the valve disc.
 - Hinge pin design must permit accurate alignment of the disc and valve seat.
- 3.2.10.12 Bellow seal feature of **bellow sealed valve** shall comply with BS EN ISO 15761. Bellow design shall be such that no torsion is developed on bellow. The life cycle of bellow shall be minimum 10000 cycles.
- 3.2.10.13 Welded bonnet / cover shall have full penetration welds & shall be 100% radiographed.

3.2.11 BY-PASS

- 3.2.11.1 By-pass requirement for gate valves is indicated in the respective data sheets. As a rule following shall be followed:
- | | |
|-----------------|------------------------|
| ASME 150 Class | on sizes 26" and above |
| ASME 300 Class | on sizes 16" and above |
| ASME 600 Class | on sizes 6" and above |
| ASME 900 Class | on sizes 4" and above |
| ASME 1500 Class | on sizes 4" and above |
| ASME 2500 Class | on sizes 3" and above |
- 3.2.11.2 By-pass valve shall be a globe valve. The material specification shall be same or equivalent as of main valve. The sizes shall be as under:
- | <u>Main Valve Size</u> | <u>Min. by-pass Valve Size</u> |
|---------------------------------|--------------------------------|
| Less than or equal to 4" | 1/2" |
| Greater than 4" & less than 10" | 3/4" |
| Equal to or greater than 10" | 1" |
- 3.2.11.3 Vendor shall supply the by-pass valve duly tested and fitted to the main valve. By-pass piping & fittings shall be of compatible material and design. Valves with by-pass shall have the direction of flow marked on the main valve. By-pass attachment to the main valve body shall not be screwed. All fillet welds for by-pass installation shall be 100% examined by DP test.
- 3.2.11.4 The by-pass piping arrangement shall be such that clearance between main valve body & by-pass assembly shall be the minimum possible for layout reasons. Vendor shall follow the sketch indicated in **Annexure – II**.

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Ball / Plug / Butterfly valves

- 3.2.12 Ball valves shall always be of **full bore** design and **short pattern** unless otherwise specified in the technical specification. Plug Valve to BS5353 shall be **short pattern**.
- 3.2.13 Ball valve shall be of two piece design and with blow out proof stem. The ball design shall be as per the design manufacturing standard stated in the technical data sheet.
- 3.2.14 Plug valve shall have top entry body construction with integral stem and solid taper plug.
- 3.2.15 Butterfly valves shall have integral disc seat and renewable sleeve body seat.
- 3.2.16 Butterfly valves shall be suitable for throttling application.
- 3.2.17 Soft-seated ball, plug & butterfly valves shall be supplied with antistatic devices.
- 3.2.18 Soft seated BW/SW end ball/plug valves shall have a **100 mm long** seamless pipe nipple (compatible to body material) welded to each end of the valve. Forged gate / globe valves shall have a 100 mm nipple welded to each end, if specified on the valve data sheet. Vendor to indicate the same on valve drawings. Nipples are to be welded prior to assembling teflon/soft seats/seals. Schedule of nipple shall be indicated in the valve specification sheet. For BW end valves, the weld joint between valve body and the pipe nipple shall be full penetration weld, 100% radiographed and DP tested. For SW end valves, the same shall be 100% DP tested. PWHT shall be carried out if required as per material / service requirements and for all welds in alloy steel. NDE shall be carried out after PWHT, unless specified otherwise
- 3.2.19 Bidder to ensure while quoting for fire safe design valves that he has been qualified for supplying these valves by certifying authorities like Lloyds etc. Bidder's offer will be valid only for those size ranges approved by the certifying authority as per the guideline laid down in ISO 10497 : 2004, part II / API 607.

The certificate shall be produced to the tkUIPL inspector during inspection of these valves.

- 3.2.20 Ball valves shall be floating ball type / trunnion mounted type as per following :

CL.150	8" & below 10" & above	Floating Ball Trunnion mounted
CL.300	4" & below 6" & above	Floating Ball Trunnion mounted
CL.600 & above	1.5" & below 2" above	Floating Ball Trunnion mounted

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3.2.21 Diaphragm valves:

The valves shall have indicating stem and solid compressor with rising handwheel upto 6" and non-rising handwheel for 8" and above.

The valves shall be provided with travel stop arrangement to avoid over compression.

3.2.22 All valve shall be provided with Locking Arrangemnt.



3.3 Basis for material selection:

3.3.1 Following basis shall be considered while selecting material of construction for Yoke, Yoke bush, Gland Flange, Gland etc.:

Disc	:	Same as body material for cast valves and equivalent to trim material for forged valves.
Bonnet	:	Same as body material
Thrust collar	:	Same as plug material
Yoke	:	Same as body/bonnet material.
Gland Flange	:	Minimum equivalent to body/bonnet but only forged. In case of cast iron or ductile iron the gland flange shall be ASTM A105.
Yoke Bush	:	Ni-resist
Gland	:	Gland material shall be same as trim material.
Compressor for diaphragm valve	:	Same as body material
Hand wheel/lever	:	Malleable iron/Carbon steel
Locking plate	:	Locking plate material shall be minimum SS304. In case of integral design, locking plate material same as body material is acceptable.
Bellow material of Bellow seal valve	:	Shall be minimum SS321

Note : Stem material for butterfly valves to be specified by vendor in his offer.

Valves for steam service, rating CL.300 and above requiring IBR certification shall always be provided with stellited seatings.

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3.3.2 For gate / globe valve of NS 2½" & above the body seat / wedge disc seat can be provided of 13% Cr overlay over WCB in place of solid 13% Cr.

3.3.3 Stem shall be forged or machined from forged/rolled bar. No casting is permitted. However, integral stem of cast stainless steel ball valve is acceptable.

3.3.4 Wherever stem material is specified as 13% Cr the valve manufacturer shall provide minimum hardness of 200 BHN. Wherever 13% Cr is specified for Body Seat and Disc Seat, the hardness of Body Seat shall be 300 BHN and that of Disc Seat shall be 250 BHN. Vendor shall submit certificate to confirm the same for tkUIPL review.

3.3.5 Graphite gland packing shall consist of braided top & bottom graphite rings, die formed flexible graphite intermediate Anti Extrusion rings with corrosion inhibitor (low emission), suitable for temp. upto 540°C.

3.4 Cryogenic Service Valves:

3.4.1 As a pre-qualification, low temperature carbon steel (LTCS), 31/2 Ni steel & austenitic stainless steel valves for cryogenic applications shall be subjected to cryogenic test as per BS 6364 and test shall be witnessed and certified by tkUIPL or tkUIPL nominated inspection agency. The vendor has to submit test certificate for prototype valves along with the offer. Prototype test carried on a particular size, rating and design will qualify valves of sizes equal to and below the particular size of the same rating and design.

3.4.2 Cryogenic testing as per BS 6364 shall be carried out at temperature (-45°C), (-100°C) & (-196°C) for "LTCS", 31/2 Ni steel & austenitic stainless steel valves respectively.



3.4.3 Wherever impact test of SS studs/nuts is called for in the data sheet, the impact value shall be 27J at the intended service temperature specified in the data sheets.

3.4.4 Before conducting post order testing, vendor shall submit the following for approval.

- Test procedure (as per BS 6364).
- Cross-section drawing of the valve with material of construction.
- Schematic of test rig (as per BS 6364) with complete details

3.5 For Ring Joint Valves Flanges, the hardness shall be as follows:

Flange Material	Min. Hardness of Groove (BHN)
Carbon Steel	140
1% Cr to 5% Cr, 1/2 Mo	150
Type 304,316,347,321	160
Type 304L, 316L	140

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4 **OPERATION**

- 4.1. Generally the valves are hand wheel or lever operated. Gear operation shall be provided as under :

Rating	Gate, Globe & Diaphragm	Ball & Plug (Note 1)	Butterfly
CL.150	14" & above	6" & above	6" & above
CL.300	12" & above	6" & above	6" & above
CL.600	10" & above	4" & above	--
CL.800/900	6" & above	3" & above	--
CL.1500	4" & above	3" & above	--
CL.2500	3" & above	--	--

Note 1: For pressure balance plug valves the gear operator shall be as per manufacturers recommendation. For sizes lower than these ranges, hand wheel / lever / wrench shall be provided.

- 4.2 Gear operator shall be as under, with position indicators for open / close positions, with limit stops. (Limit stops are not applicable for gate and globe valves).

For Gate / Globe / Diaphragm Valves Totally enclosed bevel gear in grease case with grease nipples / plugs.



For Ball / Plug / Butterfly Valves Totally enclosed helical worm or combination of helical worm and spur gear in grease case with grease nipples / plugs.

- 4.3 Where gear operator is not called for as per Clause 4.1 but vendor recommends a gear operator, he shall highlight such case(s) and quote separate prices for the valve and gear operator.

- 4.4 Gear operator shall be so designed to operate effectively with the differential pressure across the closed valve equal to the cold non-shock pressure rating.

- 4.5 Ball, Plug & Butterfly valves provided with wrench or lever operators shall have "open" position indicators with limit stops.

- 4.6 Hand wheel diameter shall not exceed 750 mm and lever length shall not exceed 500 mm on both sides. Effort to operate shall not exceed 35 kgs. at hand wheel periphery. However, failing to meet the above requirements, vendor shall offer gear operated valve and quote as per Clause 4.3. Hand wheels shall not be made of Grey iron (SG iron) or fabricated from bars /plates ,non-metallic materials.

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- 4.7 Vendor shall indicate dimensions of valve spindle / handwheel position during both open & closed position in the drawing. Handwheel orientation of gear operated valves will be specified clearly on the valve outline drawings.

5 INSPECTION AND TESTING



- 5.1 Every valve shall be subjected to all the mandatory tests and checks called in the respective codes / technical specification.

- 5.2 The following tests are mandatory for all types of valves -



- Hydrotest of body
- Hydrotest of seat.
- Hydrotest of backseat. (for Gate/Globe valves)
- Pneumatic testing of seat. (except Check Valves)
- In addition to above all S.W. and B.W. valves shall be DP tested at both ends.
- Strip test shall be carried out for minimum 1% (Min. 1 no) of offered quantity on random basis. However, strip test is not required for CS/ Brass/ Bronze material valves with 13% Cr/ Brass/ Bronze trims. During strip test the following will be check points and or as defined in ITP and the same will be witnessed by TPI.
 - Minimum wear travel allowance of wedge as per applicable standard.
 - PMI of SS & Alloy steel parts.
 - Hardness test of stem as per specification.
 - Trim materials as per valve details specified in PMS.
 - Shell wall thickness
- Spark test shall be carried out for lined valves. PTFE lined valves shall be tested at 20 KV and rubber lined valves shall be tested at 6 KV per MM of lining thickness. (not applicable to valves with loose liners)
- PMI (Positive material identification) of Low Alloy / High Alloy / Stainless Steel / Non-Ferrous valves shall be carried out. PMI by the vendor shall be as per standard ITP. PMI will be applicable to the body and bonnet only and not to the valve internals.
- When specification requires that the carbon content of the base metal be determined so that "L" (Low Carbon) or "H" (High Carbon) grades may be distinguished, chemical analysis for carbon shall be conducted in accordance with ASTM E1086.
- Review of material test certificates as per code / GA drawing / specification by Manufacturer & TPI.
- Radiography test for castings in accordance with clause 6.0
- For SS valves, IGC test shall be carried out as per clause 5.13.1
- Visual inspection for 100% quantity shall be carried out as per MSS SP 55 and dimensional inspection as per approved drawing.
- Opening test as per Clause 5.9 for Check valves.
- For hydrotest the chloride content shall not exceed 25 ppm for SS valves.
- When specified in valve datasheet, vacuum test shall be done as per 5.15.

All the test details shall be indicated by vendor on valve GA drawings.

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5.3 The testing pressure against each type/rating/material is indicated vide **Annexure-I** to this document. If any material is missing, test pressure shall be calculated from ASME B16.34.

5.4 The testing standard to be followed shall be as follows:

API Standard Valves : API 598
(Eg: API 600, API 602)

British Standard Valves : BS EN 12266-1
(BS EN ISO 15761, ISO 17292, BS 5353 etc)

The leakage rate shall be 'Rate A' as per BS EN 12266-1 except check valves. For check valves the leakage rate shall be "Rate C".

ASME B16.34 : API 598

Fire Safe Design

For British Standard Valves : ISO 10497

For API Standard Valves : API 607

All the valves manufactured as per any other International Standard shall be tested as per guidelines laid in the respective standards.

5.5 Material/Production/Heat Treatment Certificate shall be 100% reviewed. The completeness of each piece shall be verified.

5.6 Surface, dimension, identification, marking, leakage and functioning shall be witnessed by inspector. Extent of inspection shall be as per ITP.

5.7 Radiography when specified in the technical specification, 100% radiography films shall be offered for tkUIPL / TPIA review along with reports duly certified by vendors / sub-vendors RT Level-II personnel. This is applicable for IBR valves also.

5.8 Every valve, its components and auxiliaries be subjected to additional mandatory tests and checks if any called in the respective codes.



5.9 In addition to the normal seat test, a test should be carried out to ensure that all Check Valves start opening at 0.2 kg/cm²(g) on the inlet side.

5.10 Any additional testing required will be listed in the technical specification sheet and mentioned as separate enclosure to the enquiry specification shall be carried out as per the laid guidelines.

5.11 Review of Fire safe test certificates furnished against each size by the approving authority as listed in Clause no 3.2.18.

5.12 In case of motor operated valves, functional/operational checks as per the requirements of the specifications shall be made on each valve.



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5.13 IGC TEST

- 5.13.1 Wherever specified inter-granular corrosion test shall have to be conducted as per following for valve body / bonnet :

ASTM A 262 practice "B" with acceptance criteria of "60 MILS/year (max)" - for all materials forged, rolled, wrought and casting.

OR

ASTM A 262 practice "E" with acceptance criteria of "No cracks as observed from 20X magnification" - for all materials other than castings. "Microscopic structure to be observed from 250X magnification" in addition.

For IGC test, two sets shall be drawn from each solution annealing lot; one set corresponding to highest carbon content and other set corresponding to the highest rating/thickness.

- 5.13.2 When specifically asked for in technical specification for high temperature application of some grades of austenitic stainless steel (e.g. SS309, 310, 316, 316H etc.) ASTM A 262 practice "C" with acceptance criteria of "15 MILS/year (max.)" shall have to be conducted.

5.14 Fugitive Emission Testing (FET)

- Gate, Globe and other rising stem valves equipped with graphite packing shall comply with the fugitive emission requirements of API 624.
- Ball, Plug and all other quarter turn valves except butterfly valves shall comply with the fugitive emission requirements of API 641.
- Gate, Globe, Ball, Plug and other valves except butterfly valves: The size and/or ratings not covered in respective API standards shall comply with the fugitive emission requirements of ISO- 15848-1.
- Butterfly valves in Hydrocarbon Services shall comply with the fugitive emission requirements of API 641. The sizes not covered in API 641 shall comply with the fugitive emission requirements of ISO-15848-1.



5.15 Vacuum test requirement for valves in Vacuum service:

Valve to be tested for vacuum as per ASME BPVC SEC V, Subsection-A, Article 10 (Hood Method) Appendix IX to check suitability for vacuum service.

Lantern rings shall be provided for all valves (2" & above) in Vacuum service. Live loading arrangements with Belleville springs shall also be provided for all valves. All valves in vacuum service shall be tested for vacuum.

Type testing are acceptable and the criteria for type testing is as follows: One valve for each size, rating, material and valve type for TPI/tkUIPL witness.

IBR Valves, where vacuum testing is requested, shall have the specific design of gland packing (Cup and cone packing rings design with an inverted V shape pattern) to aid valve sealing instead of carrying out vacuum test as per HOOD method.

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6 RADIOGRAPHY OF CAST VALVES

- 6.1 All castings shall be of radiographic quality. This requirement to be ensured by sample radiography before proceeding with the actual production.

By default valve castings shall undergo radiographic examination as specified under. If radiography is not required, then same shall be mentioned in valve datasheet.

- 6.1.1 For stabilized grades of SS, 100% radiography is required for castings irrespective of the category or rating.

- 6.1.2 For Hydrogen, NACE & stress relieved MOC:

MATERIAL	RATING	SIZE RANGE	RADIOGRAPHY
ALL	CL.150	All sizes	100%
ALL	CL.300	All sizes	100%

- 6.1.3 For Low temp. and Cryogenic service:

MATERIAL	RATING	SIZE RANGE	RADIOGRAPHY
ALL	CL.150	24" and below	20%
ALL	CL.300	16" and below	20%



- 6.1.4 Valve castings other than the above (6.1.1 – 6.1.3) shall undergo radiographic examination as specified here under:

MATERIAL	RATING	SIZE RANGE	RADIOGRAPHY
CS	CL.150	24" and below	10%
AS & SS	CL.150	24" and below	10%
ALL	CL.150	26" and above	100%
ALL	CL.300	16" and below	10%
ALL	CL.300	18" and above	100%
ALL	CL.600 & above	All sizes	100%

- 6.2 Radiography procedure, areas of casting to be radiographed shall be as per ASME B16.34 and acceptance criteria shall be as per ASME B16.34, Mandatory Appendix - I. However, for areas of casting to be radiographed for types of valve not covered in ASME B16.34, vendor shall enclose details of areas to be radiographed in line with ASME B16.34, Mandatory Appendix-I

- 6.3 Following inspection procedure shall be applicable where 5% / 10% radiography of casting is specified:

- 5% / 10% radiography means, 5% / 10% resp., of the quantity ordered per size per heat / cast no. per foundry per tag number. Fraction shall

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be rounded off to 1 to decide the number of castings to be radiographed.

- b. In case of rejection, double the quantity of the casting to be radiographed as determined by 6.3(a) above shall be offered for radiography. In the event of further rejection of single casting, the whole lot shall be radiographed.
- c. The extent of radiography shall be restricted only to the critical areas as defined in **ASME B16.34**. Acceptance of radiography is level 3 as defined in **ASTM E446**.

- 6.4 Radiography wherever specified in the data sheets or as per Clause 6.1 shall be done by X-ray / GAMMA-ray to get the required sensitivity.
- 6.5 Magnetic particle inspection (MPI) or Dye Penetration Inspection (DPI) shall be carried out on all accessible interior and exterior surfaces, including machined surfaces of all cast or forged valves for flaw detection.
- 6.6 Ultrasonic examination of castings may be carried out after specific approval by the tkUIPL/owner, where radiographic inspection is not feasible.
- 6.7 Weld on flanges shall be made full penetration joints and 100% radiographed.

7 IBR CERTIFICATION

- 7.1 For valves described "IBR", valves shall be in accordance with the latest IBR (Indian Boiler Regulation) including the requirements specified in the specification.
- 7.2 SW/BW end carbon steel valves under IBR, the chemical composition shall conform to the following:



Carbon (Max)	:	0.25%
Others (S, P, Mn)	:	As per IBR Regulations

The above composition is not valid for non-IBR valves.

- 7.3 For IBR valves, manufacturer's test certificate shall be attached with IBR certificate – Form IIIC, giving details of testing carried out as per technical specification with valve tag no., size, order no., serial no. of PO etc. duly endorsed by tkUIPL-IN / TPIA / manufacturer as applicable. IBR original certificate shall be submitted to tkUIPL.
- 7.4 All "IBR" valves shall be painted red in body bonnet/body cover joint.

8 MARKING

- 8.1 Valve markings, symbols, abbreviations etc. shall be in accordance with MSS-SP-25 or the standard referred in specification sheet as applicable. Vendor's name, valve rating, material designation, nominal size, direction of flow shall

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be integral on the body. In addition the purchase order number, the valve data sheet No./ SAP item Code (if any) & special condition such as:

- "IBR", "CRYO", "NACE", "H2" etc. shall also be marked.
- Fire Safe ball / plug valves shall also be marked "Fire Safe" additionally

- 8.2 Each valve shall have a corrosion resistant tag giving Valve Size, Rating, MOC, Valve Tag No./ Item Code No / SAP Item Code , PO No. with Date , Project Name , Vendor's Name securely attached to the valve body.
- 8.3 Additionally a separate stainless steel tag stamped with only valve tag number shall be permanently attached to each valve with corrosion resistance wire prior to shipment.
- 8.4 Paint or ink for marking shall not contain any harmful metal which can cause corrosive attack on heating.



9 **PAINTING AND COATING**

Unmachined exterior surfaces of the shell shall be painted as per the manufacturer's standard paint with an aluminium or silver color. However paint shall be suitable for below mention (Table-1) operating temperatures unless otherwise specified in valves datasheets. Austenitic SS valves shall not be painted. Machined and threaded surfaces (except those on austenitic SS materials) shall be coated with an easily removable rust preventive. The stem does not need to be coated if the stem packing contains a corrosion inhibitor.



Table-1	
Valve Body Material	Max.Operating Temp (Deg C)
Carbon Steel	400
Low Temp. Carbon Steel	-46 to 300
Alloy Steel	550

10 **PACKING**

- 10.1 All valves shall be packed after inspection taking particular care for protection of the valve yokes and flanges. The flanges shall be closed with non metallic end covers. Ends of threaded and socket welded valves shall be closed using plastic caps.
- 10.2 Valves having pressure grease seal gland packing arrangement for Stem shall be supplied free of grease. The grease sealing arrangement shall be well protected to prevent damage during shipping & shall be indicated by vendor on valve drawings.
- 10.3 Packing should be sea worthy for items intended to be transported by ship, Air freight (as per PO requirements).
- 10.4 Valves shall be dry, clean and free from moisture, dirt and loose foreign materials of any kind.

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- 10.5 Packing inspection: Following to be ensured prior to shipment from supplier
- 10.5.1 After inspection and testing, the valves shall be properly packed in wooden boxes to avoid transportation damage. Socket weld/screwed ends shall be closed using plastic caps. The wooden case should be properly covered or wrapped by tarpaulin or by any kind waterproof and strong plastic foil.
- 10.5.2 Packing shall be such that no free movement within packed wooden or metallic crates/boxes and no damage to paint / rust preventive shall happen until receipt at site. Materials shall be protected against corrosion during transit as necessary. Wood shavings and other paper shall not be used for padding or cushioning. Gunny bag packing are not permitted.
- 10.5.3 Inspection release note, list of spares, list of loose items shall be included inside the packing and outside the packing along with material to site.
- 10.5.4 All consignment must be properly packed & accompanied with proper documents such as LR copy with weight, delivery note, Invoice copy, release order, and MTC etc.
- 10.5.5 Packages containing "FRAGILE" articles shall be appropriately packed and in addition to the words "Fragile-Handle With Care" being stencilled on two opposite sides, internationally recognized symbols shall also be used "This Side Up".
- 10.5.6 "Mandatory spare", which shall be individually tagged, must be covered with a suitable preservative and wrapped with grease proof paper and be packed in separate cases from the prime item. The cases are to bear the markings as specified and in addition the words "Mandatory Spare". Commissioning spares shall be individually tagged and marked "COMMISSIONING SPARES" and shall be packed and shipped with the prime item.
- 10.5.7 Photos before and after packing shall be submitted for review and records.
- 10.6 Preservation: Following to be ensured prior to shipment from supplier
- 10.6.1 All weather protection is required in such a way rain water should not enter inside the package.
- 10.6.2 After the pickling and drying, valves should be preserved in clean and dry condition to prevent entry of moisture, dust or dirt.
- 10.6.3 Valves shall be protected from rust, corrosion and mechanical damage during transportation, shipment and storage.
- 10.6.4 Rust preventive used on machined surfaces to be welded shall be easily removable with a petroleum solvent and the same shall not be harmful/detrimental to welding.
- 10.6.5 An adequate quantity of moisture absorbent (silica gel) shall be added to protect the contents for sufficiently long time from corrosion.

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10.6.6 All bright and machined parts shall be coated with a recognized rust preventative suited to the particular application concerned. Ensure application of rust protective coating on Bolt and Nuts fitted with the equipment's to prevent rusting during storage.

10.7 Vendor shall ensure that equipment / item shall reach site in the as released condition in shop floor without any damages. In case of any damage observed upon receipt at site, the equipment shall be rectified, item shall be replaced without any cost & time implication by supplier.

11 **GUARANTEE**

All valves and their components shall be guaranteed for trouble-free operation for a period of the period specified in the Commercial part of the Enquiry document.

12 **MAINTENANCE SPARES**

Bidder should furnish a complete list of maintenance spares required for two years trouble-free operation along with recommended quantities and quote the price for the same.

13 **LINED VALVES**

13.1 Rubber lining:

Rubber lining of valves shall confirm to IS 4682 PART- I or equivalent DIN / ASME / BS / any other international standard with minimum thickness of 3mm. Minimum 3 mm thickness of rubber lining shall be maintained on flange facing.

13.2 PTFE /FEP/PFA/PVDF lining:

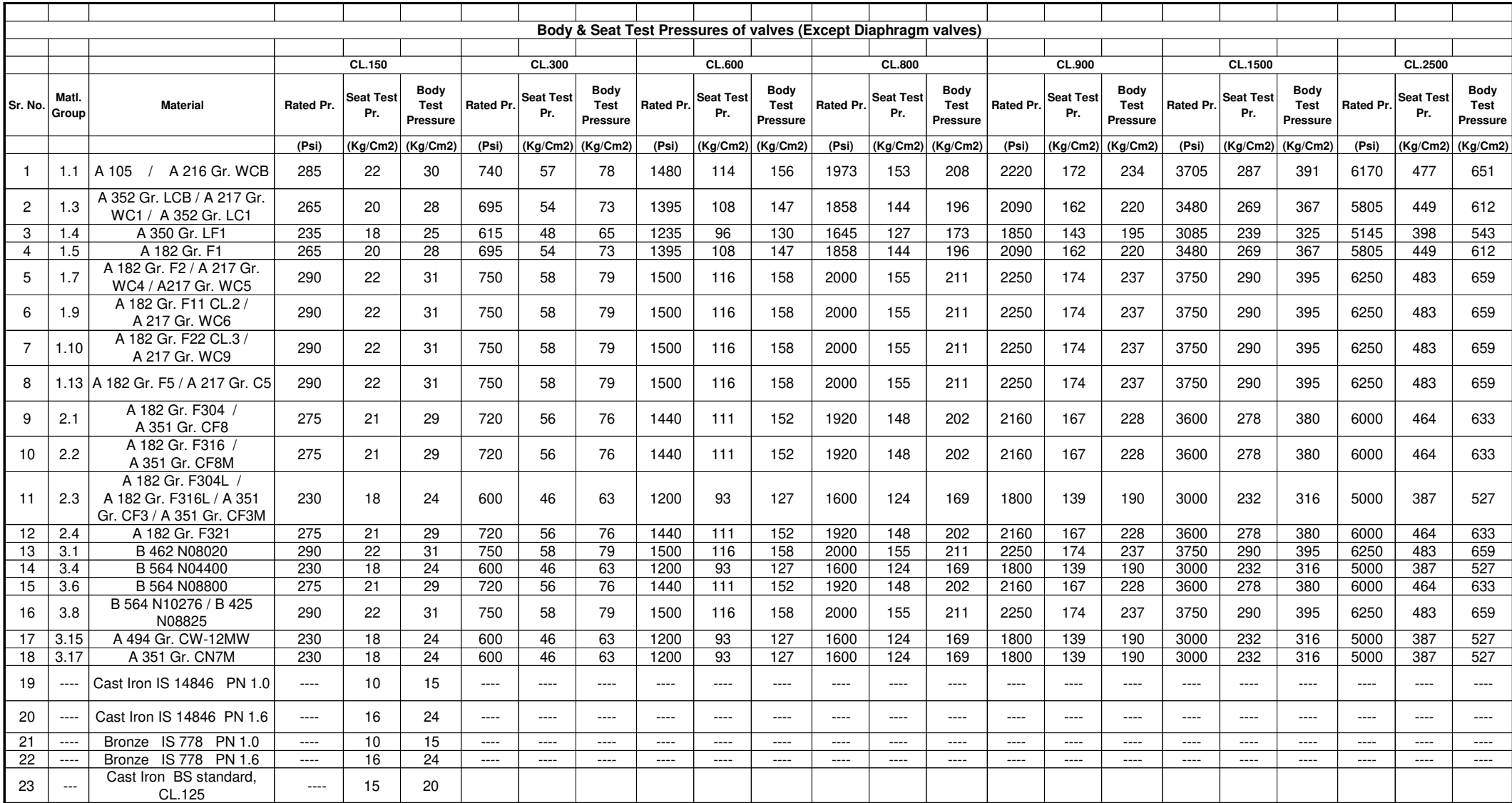
Lining thickness shall be minimum 3mm after machine.

14 **SLEEVED BUTTERFLY VALVES**

Sleeved butterfly valves are valves wherein the entire body of the valve is lined either by moulded liner or by a loose liner. In either case, for rubber sleeves the same shall confirm to IS 4682 or equivalent DIN / ASME / BS / any international standard with minimum thickness of 3mm. Spark testing of sleeve shall be carried out at 6KV / mm of thickness of rubber lining. For PTFE lined valves the thickness too shall be 3mm minimum and spark testing shall be carried out at 20KV. Vendor shall indicate the same on valve drawings. (not applicable to valves with loose liners.)

15 **FOUNDRIES FOR VALVE CASTINGS**

In addition to IBR approved foundries, castings / forgings from reputed foundries who have supplied castings / forgings under reputed TPIA's like LRA, EIL, CEIL, PDIL, NPCIL, NTPC, SGS, BVIS, TUV, DNV, ABS, IRS etc" are acceptable for which documentary proof shall be produced immediately after placement of order.





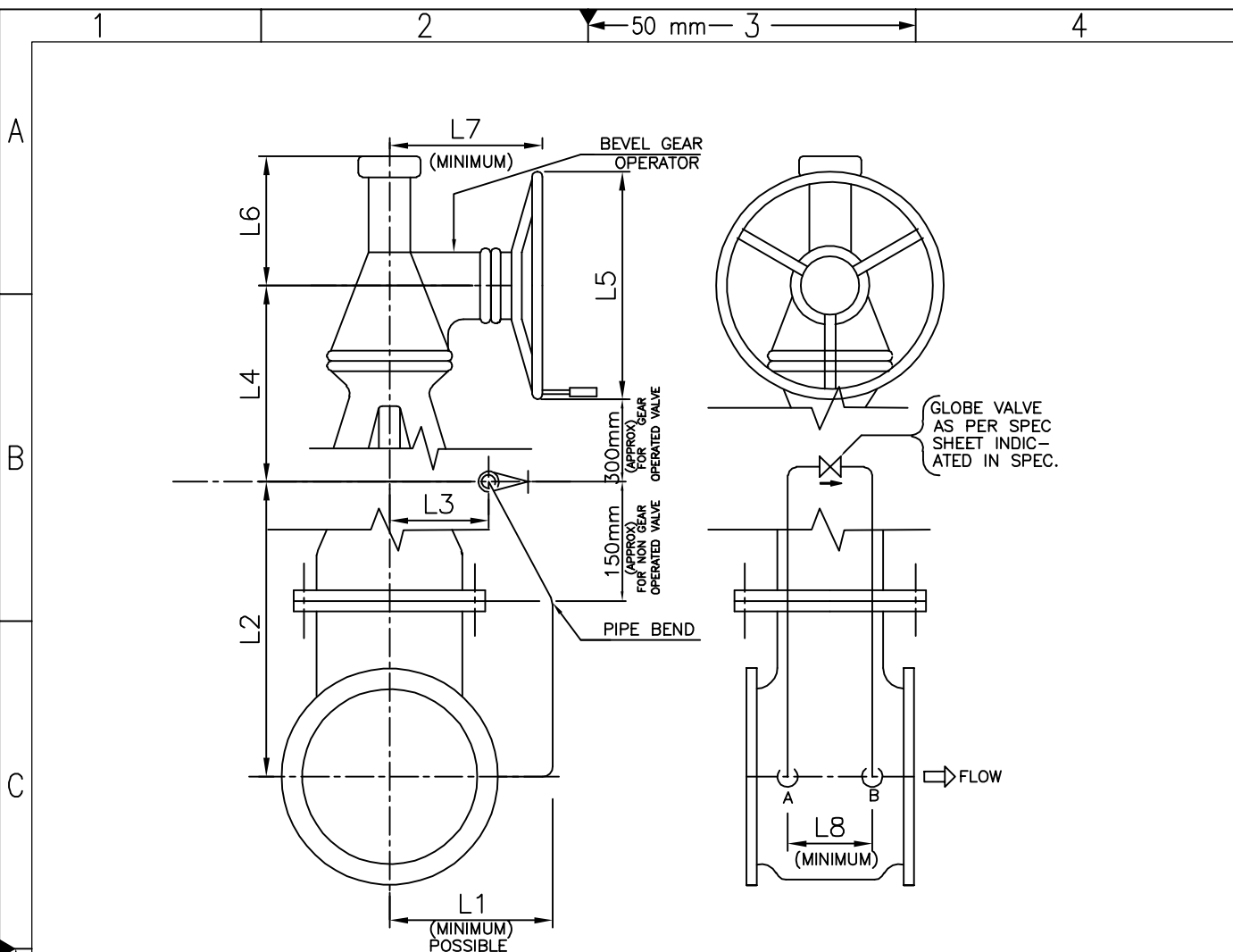
Technical Requirements for Valves

Annexure - I

TEST PRESSURE FOR VALVES

Doc. No. 6778-PIP-G0000-EC-0015
Page 2 of 2

Body & Seat Test Pressures of valves (Except Diaphragm valves)																								
			CL.150			CL.300			CL.600			CL.800			CL.900			CL.1500			CL.2500			
Sr. No.	Matl. Group	Material	Rated Pr.	Seat Test Pr.	Body Test Pressure	Rated Pr.	Seat Test Pr.	Body Test Pressure	Rated Pr.	Seat Test Pr.	Body Test Pressure	Rated Pr.	Seat Test Pr.	Body Test Pressure	Rated Pr.	Seat Test Pr.	Body Test Pressure	Rated Pr.	Seat Test Pr.	Body Test Pressure	Rated Pr.	Seat Test Pr.	Body Test Pressure	
			(Psi)	(Kg/Cm2)	(Kg/Cm2)	(Psi)	(Kg/Cm2)	(Kg/Cm2)	(Psi)	(Kg/Cm2)	(Kg/Cm2)	(Psi)	(Kg/Cm2)	(Kg/Cm2)	(Psi)	(Kg/Cm2)	(Kg/Cm2)	(Psi)	(Kg/Cm2)	(Kg/Cm2)	(Psi)	(Kg/Cm2)	(Kg/Cm2)	
24		Cast Iron lined, CL.125		13	18																			
Body & Seat Test Pressures of Diaphragm valves																								
	The Test pressure for diaphragm valve depends on type and sizes which shall be as listed below																							
		Material	Sizes	Seat Kg/Cm2	Body Kg/Cm2																			
1		All Material Weir type, CL.125/150	upto 2"	11	24																			
		-"	21/2" -6",	9	12																			
		-"	8"	6.6	9																			
		-"	10"	5.5	7.5																			
		-"	12"	4.3	6.5																			
2		All Material straight through-type, CL.125/150	upto 4"	10	15																			
		-"	6",	6.6	9																			
		-"	8" -12"	4	5.2																			
		-"	14"	1.7	2.6																			
Pneumatic testing of seat																								
Pneumatic test wherever specified shall be carried out at the pressure of 6 – 7 Bar(g).																								
Note : For sleeved (lined) butterfly valves the hydro test pressure for body & seat shall be 1.5 times / 1.1 times the design pressure of the fluid. However vendor to specify in his offer max. hydro test pressure for body & seat that the offered valves shall with stand.																								



- NOTES:
1. THE ORIENTATION & LOCATION OF HAND WHEEL OF BEVEL GEAR OPERATOR & THE BY-PASS ARRANGEMENT SHALL BE STRICTLY AS PER THIS SKETCH.
 2. THE BYPASS PIPE ENDS SHALL BE SOCKET/BUTT WELDED TO THE BODY WALL OF THE MAIN VALVE.
 3. THE BYPASS ARRANGEMENT SHALL BE PROPERLY CLAMPED & SUPPORTED BY THE BODY OF MAIN VALVE.
 4. BASIC DESIGN OF BY PASS SHALL BE TO MSS-SP-45 & ASME B16.34
 5. MATERIAL OF BY PASS PIPE & 90° ELBOWS SHALL BE SAME OR EQUIVALENT TO THE BODY MATERIAL.
 6. THIS SKETCH IS APPLICABLE FOR BOTH GEAR & NON-GEAR OPERATED VALVES.

Code		Contract No.		Document ID				6778-PIP-G0000-EC-0015		Part	Rev.
03	28.07.22	DSB	SHK	28.07.22	NNG	28.07.22	APK	REVISED AND ISSUED FOR REFERENCE	-	Cat. Code	01
Rev.	Date	Name	Date	Name	Date	Name	Description	Acc. Code	-	Acc. Code	Status
BAR-Code								Store Location: Server/Share			
								Store Location: Folder			
								Store Name			
								Pro. Unit	TON	Group	Type of Document
								-	-	-	Sheet
								Con. Unit	Scale	Order No.	1/1
								thyssenkrupp			
								Description			
								ANNEXURE - II :BY PASS ARRANGEMENT DETAILS FOR VALVES			
Date		Name									
Drawn	28.07.22	DSB									
Prepared	28.07.22	SHK									
Checked	28.07.22	NNG									
Approved	28.07.22	APK									

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PURCHASE SPECIFICATION
Turbines & Compressors Engineering

TC - 5- 6712

REV. NO. 01

Page 1 of 03

LOW PRESSURE DROP NON SLAM CHECK VALVE

1. SCOPE OF SUPPLY:

1.1 This standard specifies the requirement of LOW PRESSURE DROP AXIAL NON SLAM CHECK VALVES

1.2 This standard shall be supplemented by AA0851403 for technical delivery conditions

2. SIZES AND DIMENSION:

Size, rating and design parameters shall be as per below table

3. DESIGN PARAMETERS AND MATERIAL OF CONSTRUCTION:

	Variant-01		Variant-02		Variant-03	
Size	24"		24"		18"	
Rating and End Connection	#150 RF		#150 RF		#300 RF	
Type of valve	Axial Noz check valve		Axial Noz check valve		Axial Noz check valve	
Medium	Propylene		Propylene		Propylene	
Operating pressure (kg/Cm2(A))	Normal	Rated	Normal	Rated	Normal	Rated
	1.66	1.87	5.6	6.09	20.18	20.18
Operating Temperature (°C)	Normal	Rated	Normal	Rated	Normal	Rated
	-30.6	-30.6	12.18	11.67	80.34	76.55
Gas Density (Kg/m ³)	Normal	Rated	Normal	Rated	Normal	Rated
	3.59	4.08	10.91	12.07	35.24	35.98
Flow (Am3/hr)	Normal	Rated	Normal	Rated	Normal	Rated
	21121	22515	17674	19322	5473	6481
Design Pressure (kg/Cm2(A))	Corresponding to pressure class		Corresponding to pressure class		Corresponding to pressure class	
Design Temperature(°C) (min/max)	-45/100		10/100		10/100	

FORMAT TD-201 REV-00	Prepared : BNR	Approved : PM	Date 10.08.24
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PURCHASE SPECIFICATION
Turbines & Compressors Engineering

TC - 5- 6712

REV. NO. 01

Page 2 of 03

Tag no	P-01	P-02	P-03
Line no	24"-P-11520-0301-A2A	24"-P-11520-0421-A1D	18"-P-11520-0102-B1D
MOC			
Body	A352,GR.LCB	A216,GR.WCB	A216,GR.WCB
Trim	No. 12 (316 and HF)	No. 8 (13Cr and Co-Cr A T410)	No. 8 (13Cr and Co-Cr A T410)
Spring Material	Inconel X750	Inconel X750	Inconel X750
Certificate	EN 10204, Type 3.1	EN 10204, Type 3.1	EN 10204, Type 3.1
others	Enclosure for valves	Enclosure for valves	Enclosure for valves
Design Standard	API594	API 594	API594
Testing Standard	API598	API598	API598

4 General requirements:

- 1) Pressure drop across the valve should mentioned and certified in the offer by vendor
- 2) All casting shall be of radiographic quality. This requirement to be ensured by sample radiography before proceeding with the actual production
- 3) Radiography procedure, areas of casting to be radiographed, and the acceptance criteria shall be as per ASME/ANSI B16.34.
- 4) 100% radiography on weld joints and Casting.
- 5) When specification requires that the carbon content of the base metal be determined so that "L" (Low Carbon) or "H" (High Carbon) grades may be distinguished, chemical analysis for carbon shall be conducted in accordance with ASTM E1086.
- 6) **HPL document 6778-PIP-G0000-EC-0015 shall be complied for all the Technical requirement of Valves.**

FORMAT
TD-201
REV-00

Prepared :

BNR

Approved :

PM

Date

10.08.24

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TC-6

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PURCHASE SPECIFICATION
Turbines & Compressors Engineering

TC - 5- 6712

REV. NO. 01

Page 3 of 03

Tests for LTCS Items:

- 1) Charpy-V Notch impact testing shall be carried out in accordance with paragraph UG-84 of ASME Section VIII, Div-1 for weld metal and base metal from the thickest item per heat of material and per heat treating batch. Impact
- 2) Test specimen shall be in complete heat treated condition and in accordance with ASTM A370. Impact energies at 0 C shall average greater than 27J (20 ft-lb) per set of 3 specimens, with a minimum of 19J (15 ft-lb).
- 3) If welding is used in manufacture, impact test of Heat Affected Zone (HAZ) and weld metal shall also be carried out.
- 4) Cryogenic testing as per BS 6364 shall be carried out at temperature (-45°C), (-100°C) & (-196°C) for "LTCS", 31/2 Ni steel & austenitic stainless steel valves respectively.
- 5) Supplier shall strictly comply with this standard in all respects. No deviation shall be allowed unless written permission of BHEL is obtained before finalization of the order
- 6) Vendor shall submit the GAD with BOM and relevant datasheets along with offer for technical scrutiny

Piping Material class Index

Pipe Class	ASME Flange Rating	Corrosion Allowance (mm)	Basic MOC	ASME Category	Service
A2A	150 RF	1.5	LTCS	CAT-NF	L.T. HYDROCARBON COLD FLARE, LIQUID DRAIN, PPL REFRIGERANT
A1D	150 RF	1.5	CS	CAT-NF	Water/Acetone Drain , HYDROCARBON, HYDROCARBON (WITH <5% BENZENE)
B1D	300 RF	1.5	CS	CAT-NF	Water/Acetone Drain , HYDROCARBON, HYDROCARBON (WITH <5% BENZENE)

Variant table :

Material Code	Description	Variant
TC9756712015	LOW DP AXIAL NRV 24"#150RF A352 GR-LCB	01
TC9756712023	LOW DP AXIAL NRV 24"#150RF A216 GR-WCB	02
TC9756712031	LOW DP AXIAL NRV 18"#300RF A216 GR-WCB	03

FORMAT TD-201 REV-00	Prepared : BNR	Approved : PM	Date 10.08.24
REF-DOC TC-6	COPYRIGHT AND CONFIDENTIAL The information on this document is the property of BHEL. It must not be used directly or indirectly in any way detrimental to the interest of the company.		

Vendor's Name & Address:		VENDOR MANUFACTURING QUALITY PLAN							QP. No.:				
		Customer : BHEL, HYDERABAD -32				BHEL P. O .No.:			Rev.:		Date :		
		Project :				P.O.Date :			Page 1 of 1				
Product :				BHEL Spec :			Rev :						
SL NO	COMPONENTS	CHARACTERISTICS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK	REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD	* D	AGENCY			REMARKS
										P	W	V	
1.0	RAW MATERIALS & BOUGHT OUT ITEMS												
2.0	INPROCESS INSPECTION												
3.0	FINAL INSPECTION & TESTING												
4.0	SURFACE PREPARATION & PAINTING												
5.0	PRESERVATION & PACKING												

Notes:

1. Drawing / Data Sheet / Specification shall prevail over Quality Plan in case of any contradiction.
2. Latest revision of Drawing / Specification shall be applicable.
3. All Manufacturing equipment, inspection equipment, heat treatment furnace / equipment shall be calibrated with applicable validity on the date of manufacture / inspection.

VENDOR TO NOTE (DO NOT SHOW THIS IN QP) THIS FORMAT IS IN MICROSOFT WORD. HEADER & FOOTER SHALL BE AVAILABLE IN EACH PAGE OF QP. QP SHALL BE IN LANDSCAPE & A4 SIZE ONLY. FONT SIZE SHALL BE MIN 10. VENDOR SHALL SIGN & STAMP IN EACH PAGE OF QP. LOI REF & DATE ARE NOT ACCEPTABLE. P.O.NO. & DATE SHALL BE INDICATED. QP NO. SHOULD BE UNIQUE AND SHALL NOT REPEAT. ALL THE TESTS / CHECKS INDICATED IN THE BHEL SPEC. SHALL BE INDICATED IN THE QP.

LEGEND: P : PERFORM, W : WITNESS, V : VERIFICATION. INDICATE 1 : BHEL / BHEL NOMINATED INSPECTION AGENCY , 2 : VENDOR , 3 : SUB-VENDOR , 4 : BHEL'S CUSTOMER / CONSULTANT AS APPROPRIATE AGAINST EACH COMPONENT / CHARACTERISTICS UNDER THE COLUMNS P W & V. * FOR ITEMS MARKED ✓ (TICK) UNDER COLUMN 'D', TEST CERTIFICATES SHALL BE SUBMITTED TO BHEL FOR RECORDS.	PREPARED BY	REVIEWED BY	APPROVED BY	APPROVED BY
	VENDOR'S SIGNATURE & STAMP	BHEL QA SIGNATURE & STAMP		CUSTOMER'S SIGNATURE & STAMP

Vendor's Name & Address:			VENDOR MANUFACTURING QUALITY PLAN						QP. No.:				
			Customer : BHEL, HYDERABAD -32			BHEL P. O .No.:			Rev.:	Date :			
			Project :			P.O.Date :			Page 1 of 1				
Product :			BHEL Spec :			Rev :							
SL NO	COMPONENTS	CHARACTERISTICS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK	REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD	* D	AGENCY			REMARKS
										P	W	V	

Annexure – I

Notes:

1. PRE-DESPATCH INSPECTION PHOTOGRAPHS OF THE EQUIPMENT/ITEM SHALL BE INCLUDED IN QUALITY DOCUMENTATION.
2. LATEST VERSION OF STANDARDS/DRAWINGS /TOLERANCES ETC TO BE MENTIONED IN QUALITY PLAN/DRAWING. THIS QP SHOULD BE READ ALONG WITH BHEL SPEC, BHEL DRAWINGS / APPROVED DRAWINGS, DATA SHEET, BOM AND PO.
3. DRAWING / DATA SHEET/ SPECIFICATION SHALL PREVAIL OVER QUALITY PLAN IN CASE OF ANY CONTRADICTION.
4. BHEL RESERVES THE RIGHT FOR CONDUCTING REPEAT TEST, IF REQUIRED.
5. BHEL APPROVED INSPECTION ENGINEERS TO BE DEPLOYED FOR INSPECTION.
6. ONLY LEVEL II & ABOVE QUALIFIED PERSON IN RESPECTIVE NDE TO VERIFY OR WITNESS THE NDT TEST REPORT/RESULTS.
7. INSPECTION TO BE OFFERED ONLY AFTER ENSURING THAT ALL DOCUMENTS (QUALITY PLAN, DRAWINGS, DATA SHEET, PURCHASE SPECIFICATIONS, ETC) ARE AVAILABLE AS PER PURCHASE ORDER.
8. VENDOR TO OFFER ORIGINAL TEST CERTIFICATES ISSUED BY THIRD PARTY LABORATORIES OR SUPPLIERS.
9. VENDOR TO ENSURE WITH TPIA THAT A NOTE 'COMPARED WITH ORIGINAL TEST CERTIFICATE. REVIEWED, VERIFIED AND FOUND IN ORDER' SHALL CONTAIN WITH EVERY INSPECTION REPORT.
10. ONLY VALID AND CALIBRATED MEASURING INSTRUMENTS AND EQUIPMENT SHALL BE USED – TPIA TO VERIFY.
11. VENDOR TO ENSURE WITH TPIA THAT MATERIAL TEST CERTIFICATE & TRACEABILITY RECORDS ARE AVAILABLE FOR USE OF CORRECT MATERIAL.
12. QUALIFICATION OF EQUIPMENT, PROCESS & PERSONNEL FOR SPECIAL PROCESSES LIKE WELDING, BRAZING, PAINTING & METAL COATING ETC. (AS APPLICABLE AS PER PO) SHALL BE ENSURED.
13. VENDOR TO ENSURE THAT ALL CERTIFICATES ARE ENDORSED BY TPIA WITH COMMENTS (WITNESSED OR VERIFIED) AS PER QUALITY PLAN.
14. VENDOR SHALL OFFER LOG SHEETS CONTAINING ACTUAL MEASURED VALUES INSTEAD OF SAYING OK/NOT OK TO TPIA.
15. VENDOR SHALL SUBMIT COMPLETE INSPECTION AND TEST DOCUMENTATION WHICHEVER IS IDENTIFIED WITH (v) UNDER COLUMN 'D' OF APPROVED QUALITY PLAN SHALL BE ENCLOSED WITH THE INSPECTION REPORT.
16. VENDOR SHALL SUBMIT ORIGINAL COPIES OF ALL INSPECTION AND TEST DOCUMENTS AUTHENTICATED BY TPIA.

LEGEND: P : PERFORM, W : WITNESS, V : VERIFICATION. INDICATE 1 : BHEL / BHEL NOMINATED INSPECTION AGENCY , 2 : VENDOR , 3 : SUB-VENDOR , 4 : BHEL'S CUSTOMER / CONSULTANT AS APPROPRIATE AGAINST EACH COMPONENT / CHARACTERISTICS UNDER THE COLUMNS P W & V. * FOR ITEMS MARKED ✓ (TICK) UNDER COLUMN 'D', TEST CERTIFICATES SHALL BE SUBMITTED TO BHEL FOR RECORDS.	PREPARED BY	REVIEWED BY	APPROVED BY	APPROVED BY
	VENDOR'S SIGNATURE & STAMP	BHEL QA SIGNATURE & STAMP		CUSTOMER'S SIGNATURE & STAMP
Format no. : HYQA/QP/VMQP Rev.03				

Guidelines to vendors for preparation of Quality Plan

Page 1 of 2

1. QAP shall be made in landscape mode on A4 size paper as per the format enclosed.
Font size shall be minimum 10.
2. Each page of QAP shall contain the following information.
 - a) Vendor's name & address.
 - b) Customer : BHEL, Hyderabad.
 - c) Project : as indicated in P.O.
 - d) BHEL Product Standard Number/revision number as indicated in P.O.
 - e) BHEL Purchase Order Number & Date. LOI Ref. No. is not acceptable.
 - f) Product : as per P.O. description.
 - g) QAP Number (shall be unique & shall not repeat) / Revision number / date.
 - h) Page number and number of pages
 - i) Vendor signature & stamp
3. QAP shall contain four parts / stages as follows.
 - a) Raw materials and bought out items.
 - b) In-process Control / Inspection.
 - c) Final assembly, Inspection & Testing.
 - d) Painting, preservation & packing.
4. Under 'Component', indicate name of the component (say casing, rotor, pressure gauge, etc).
5. Under 'Characteristics', indicate appropriately (say chemical analysis, mechanical properties, NDT (UT,DP etc), Hydrostatic test, calibration check etc.)
6. Under 'Class', indicate minor, major or critical depending on the importance of characteristic.
7. Under 'Type of check', indicate appropriately (say chemical, mechanical, UT, DP etc.)
8. Under 'Quantum of check', indicate appropriately (say 100%, 10%, sample, per melt, per heat, all pieces etc.)
9. Under 'Reference document' and 'Acceptance norms', appropriate National / International standards, BHEL standards, approved drg references etc should be indicated. It is not correct to mention as "Vendor's internal standards or Vendor's standard practise etc". If vendors' internal standards are referred, same shall be in line with BHEL Spec. indicated in the P.O. These may require review & approval by our Engineering dept.
10. Under 'Format of record', indicate appropriately supplier's Test certificate, calibration certificate, lab report, inspection report etc.
11. Please refer 'Agency' in QAP format.
"Under P: Perform, W: Witness, V: Verify
Indicate against each characteristic 1: (BHEL / BHEL Nominated inspection agency),
OR 2: (Vendor / Sub-Vendor)
Note: Performing agency is normally vendor or his sub vendor (Legend 2). Where witness points are indicated in specification, P.O., Drawing etc., for such operations, under Witness (W) column use 1. Under 'Verify' column, use code 1
12. Under 'D' please put (✓ Tick) against each characteristic where vendor proposes to submit test certificate / report etc OR as required as per BHEL Spec.
13. Vendor's signature & stamp should be available on each page of QAP.
14. Vendor should read the BHEL Product Standard thoroughly and QAP should be made only in line and relevant to the Specification & Approved Drgs.

Guidelines to vendors for preparation of Quality Plan

Page 2 of 2

15. The following operations / characteristics / check points may be included (**As Appropriate**)

- a) Visual check
- b) Dimensional check
- c) Mechanical and Chemical properties.
- d) Surface preparation before painting (by chemical cleaning, sand blasting, shot blasting etc as the case may be.)
- e) Painting check for shade, finish, Dry Film Thickness (DFT), Adhesion / peel-off test etc.
- f) Check for correctness for all components mounted as per General arrangement Drg, Bill Of Materials (BOM), etc for range, rating, make, colour, size, location as per GA, quantity, label description including tag nos., annunciator facia, loose components, accessories, spares etc.
- g) Verification of test certificate for protection class for the enclosures.
- h) Mechanical functioning of switches.
- i) Continuity of earthing and provision of earth points.
- j) Colour coding of wiring, size, tightness & dressing of wiring.
- k) Review of test certificates of assembled items, raw materials, internal test reports etc.
- l) Witness of functional checks, which may include mechanical run & electrical run, H.V. test, IR measurement, Electrical and Mechanical tests etc.
- m) PQR, WPS, Welder Qualification Record, welding records (fit up, DP) etc.
- n) Material identification (for punch marks of serial numbers, Heat No, Melt No, Inspector's stamp etc)
- o) Hydraulic Pressure Test, Pneumatic Pressure Test, Liquid Penetration Examination and other Non Destructive Tests.
- p) Tests on Galvanised items (Visual, Hammer Test, Knife Test, Thickness, Preece Test (Copper sulphate test), Hydrogen evaluation test, Stripping test (for Mass of Zinc coating)
- q) All tests as per BHEL Product Standard & approved drawings including Type tests and Routine tests on individual items and on System as a whole.
- r) Packing and Preservation.

BHEL/HPEP, R.C.PURAM, HYDERABAD.

TC-PURCHASE

PRICE BID FORMAT

This format, duly filled in, can be sent by email as an attachment to <pricebid_hyd@bhel.in>

TWO PART BID/ SINGLE PART BID		TWO PART BID		NO.OF ENQUIRY ITEMS : as below			
ENQUIRY NO.	B7B1X59054	NAME OF THE SUPPLIER				SUPPLIER'S OFFER NO.	
		CONTACT PERSON NAME					
		E-MAIL ID				OFFER DATE	
		PHONE NO:					

The date for the Price Bid opening shall be intimated to all the Techno-commercially qualified bidders before the Price Bid is opened

TC-PURCHASE								SUPPLIERS OFFER				
ITEM SL. NO	PR	MATERIAL CODE	DESCRIPTION	QTY/EA	SPECIFICATION / VAR	MAKE DETAILS/ HSN CODE	DELIVERY REQUIRED	CONFIRMATION ON OEM P/N [YES/NO]	CONFIRMATION ON MAKE [YES/NO]	UNIT PRICE	UNIT PRICE [IN WORDS]	CURRENCY
1	1900159054	TC9756712015	LOW DP AXIAL NRV 24"#150RF A352 GR-LCB	1	TC56712-01	84813000	12 WEEKS FROM SAP PO DATE					
2	1900159055	TC9756712023	LOW DP AXIAL NRV 24"#150RF A216 GR-WCB	1	TC56712-02	84813000						
3	1900159056	TC9756712031	LOW DP AXIAL NRV 18"#300RF A216 GR-WCB	1	TC56712-03	84813000						

NOTE:
ONLY BASIC PRICE SHOULD BE QUOTED IN PRICE BID.ALL OTHER CHARGES SHOULD BE INDICATED IN THE TECHNO COMMERCIAL BID FORMAT:
INSTRUCTION TO BIDDER (ITB) AND SPECIAL CONDITIONS OF CONTRACT (SCC).

PRICE VALIDITY: OFFER SHALL BE VALID FOR A PERIOD OF 90 DAYS FROM THE DATE OF BID OPENING [TECHNICAL BID/PART-I IN CASE OF TWO PART BID]

Cells Shaded in yellow alone need be filled by the bidder