



An ISO 9001  
Company

## Bharat Heavy Electricals Limited

(High Pressure Boiler Plant)

Tiruchirappalli – 620014, TAMIL NADU, INDIA

MATERIALS MANAGEMENT

<b>TITLE</b> <b>Supply of Sealing Rings</b>	Phone: +91 431 257 7897 Fax : +91 431 252 0719 Email : <a href="mailto:sachinsaini@bheltry.co.in">sachinsaini@bheltry.co.in</a>
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	<b>Reference Number:</b> <b>Enquiry 1801501048</b>	<b>Enquiry Date:</b> <b>10.09.2015</b>	<b>Due date for submission of quotation: 12.10.2015</b>
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You are requested to quote the Enquiry number date and due date in all your correspondences. This is only a request for quotation and not an order

**BHEL/Trichy is looking for empanelment of new vendors for supply of Sealing Rings as per attached technical specifications.**

BHEL commercial terms & conditions with Price Bid formats and all annexure can be downloaded from BHEL web site <a href="http://www.bhel.com">http://www.bhel.com</a> or from the Government tender website <a href="http://tenders.gov.in">http://tenders.gov.in</a> (public sector units) Bharath Heavy Electricals Limited) under enquiry reference "XXXXXXXXXX "	
Tenders should be submitted online before 12:30 hours on the due date Technical bid will be opened at 13:00 hours on the due date	Yours faithfully, For <b>Bharath Heavy Electricals Limited</b>  <b>DGM / MM</b>



TRICHY, BHEL, TRICHY, POSTAL CODE :620014, TIRUCHIRAPALLI, TAMIL NADU, INDIA

**RFQ/NIT HEADER DETAIL**

ORGANIZATION NAME	TRICHY, BHEL	PROCUREMENT CATEGORY	PROCUREMENT CATEGORY
RFQ/NIT REFERENCE	1801501048	RFQ OWNER/NIT	MR Sachin Saini(ENGR/PUR)
CODE/ENQUIRY NO		OFFICER/ENQUIRY OWNER	
NUMBER OF ITEMS ALREADY	12		
ATTACHED			
CURRENCY	INR - INDIAN RUPEE		
DESCRIPTION	Supply of Sealing Rings to BHEL Trichy		
DETAILED DESCRIPTION	Supply of Sealing Rings to BHEL Trichy as per TDC:6:380 Rev 02 and Drawing no 2-90-628 -00573/Rev 03		
NUMBER OF BID PART(S)	2	PUBLISHED DATE	10/09/2015 03:44:18 PM

**ATTRIBUTE (S)**

ATTRIBUTE NAME	ATTRIBUTE VALUE
Delivery at	FOR BHEL Trichy Stores
Inspection By	By BHEL/BARC
Validity of the Offer	PRICE SHOULD BE FIXED AND VALID FOR 60 DAYS FROM THE DATE OF OFFER
Inspection	AT VENDOR WORKS

**DATE-TIME DETAIL (S)**

BID START DATE	Sep 10, 2015	BID DUE DATE	Oct 12, 2015 12:30:00:PM
BID OPEN DATE (SCHEDULED)	Oct 12, 2015 01:00:00:PM		

**PRE-BID DISCUSSION DETAILS**

PRE-BID DISCUSSION TYPE NOT REQUIRED

**ALTERNATE BID DECRYPTOR (S)**

USER DETAILS
MR B. SANJEEVI (DGM/PUR)
MR KRISHNAMURTHY S (DGM/PUR)
MR Sachin Saini(ENGR/PUR)
MR SELVARAJU S (SM/PUR)
MR GOVINDA MAHATO (AE1/PUR)

**SELLER DETAIL (S)**

CODE	ORGANIZATION NAME
023505	TEST (Mr test ot test)

**TERM AND CONDITION DETAIL (S) - SPECIAL TERM(S)**

SL. NO.	CATEGORY	DESCRIPTION
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1	SPECIAL TERM(S)	SPECIAL TERM(S) NOTE:  1) The offer has to be submitted in two part bid system i.e technical bid & price bid separately through e-procurement route only. Refer Section XIV of tender enquiry document (TED) for documents to be attached.  2) Price should be quoted on FOR BHEL Trichy basis only. Price to be quoted as per Section VIII to TED  3) The tender will be evaluated on total package cost to BHEL basis.  4) Please confirm our Section XII attached herewith, duly filled in, sealed & signed.  5) This is an open tender and same has been published on BHEL (www.bhel.com) & Government (www.tenders.gov.in) website. Any corrigendum will be notified on these websites only and no separate communication will be sent to any vendor.  <b>The bidder along with its associate/ collaborators/ sub-contractors/ sub-vendors/ consultants/ serviceproviders shall strictly adhere to BHEL fraud prevention policy displayed on BHEL website <a href="http://www.bhel.com">http://www.bhel.com</a> and shall immediately bring to the notice of BHEL management about any fraud or suspected fraud as soon as it comes to their notice.</b>
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**RFQ/NIT ITEM DETAILS**

SL. NO.	CODE	DESCRIPTION																		
10	D14930684001	Sealing Ring Var 01 As per drg.no. 2-90-628-00573/Rev 03																		
168.00	NUMBER	NUMBER																		
	ATTRIBUTE DETAILS	<table border="1"> <thead> <tr> <th>ATTRIBUTE NAME</th> <th>ATTRIBUTE VALUE</th> </tr> </thead> <tbody> <tr> <td>MATERIAL CODE:</td> <td>D14930684001</td> </tr> <tr> <td>MATERIAL GROUP:</td> <td>ZINACTIVE</td> </tr> <tr> <td>KILOGRAM PER UNIT:</td> <td>0.038 (PERCENTAGE)</td> </tr> <tr> <td>Cenvatable (Yes / No)</td> <td>Yes</td> </tr> <tr> <td>Delivery Location</td> <td>TAMIL NADU</td> </tr> <tr> <td>Vatable (Yes / No)</td> <td>Yes</td> </tr> <tr> <td>Delivery Date (i) :</td> <td>16-JAN-2016</td> </tr> <tr> <td>Delivery Qty (i) :</td> <td>168</td> </tr> </tbody> </table>	ATTRIBUTE NAME	ATTRIBUTE VALUE	MATERIAL CODE:	D14930684001	MATERIAL GROUP:	ZINACTIVE	KILOGRAM PER UNIT:	0.038 (PERCENTAGE)	Cenvatable (Yes / No)	Yes	Delivery Location	TAMIL NADU	Vatable (Yes / No)	Yes	Delivery Date (i) :	16-JAN-2016	Delivery Qty (i) :	168
ATTRIBUTE NAME	ATTRIBUTE VALUE																			
MATERIAL CODE:	D14930684001																			
MATERIAL GROUP:	ZINACTIVE																			
KILOGRAM PER UNIT:	0.038 (PERCENTAGE)																			
Cenvatable (Yes / No)	Yes																			
Delivery Location	TAMIL NADU																			
Vatable (Yes / No)	Yes																			
Delivery Date (i) :	16-JAN-2016																			
Delivery Qty (i) :	168																			
20	D14930684002	Sealing Ring Var 02 As per drg.no. 2-90-628-00573/Rev 03																		
44.00	NUMBER	NUMBER																		
	ATTRIBUTE DETAILS	<table border="1"> <thead> <tr> <th>ATTRIBUTE NAME</th> <th>ATTRIBUTE VALUE</th> </tr> </thead> <tbody> <tr> <td>MATERIAL CODE:</td> <td>D14930684002</td> </tr> <tr> <td>MATERIAL GROUP:</td> <td>ZINACTIVE</td> </tr> <tr> <td>KILOGRAM PER UNIT:</td> <td>0.038 (PERCENTAGE)</td> </tr> <tr> <td>Cenvatable (Yes / No)</td> <td>Yes</td> </tr> <tr> <td>Delivery Location</td> <td>TAMIL NADU</td> </tr> <tr> <td>Vatable (Yes / No)</td> <td>Yes</td> </tr> <tr> <td>Delivery Date (i) :</td> <td>16-JAN-2016</td> </tr> <tr> <td>Delivery Qty (i) :</td> <td>44</td> </tr> </tbody> </table>	ATTRIBUTE NAME	ATTRIBUTE VALUE	MATERIAL CODE:	D14930684002	MATERIAL GROUP:	ZINACTIVE	KILOGRAM PER UNIT:	0.038 (PERCENTAGE)	Cenvatable (Yes / No)	Yes	Delivery Location	TAMIL NADU	Vatable (Yes / No)	Yes	Delivery Date (i) :	16-JAN-2016	Delivery Qty (i) :	44
ATTRIBUTE NAME	ATTRIBUTE VALUE																			
MATERIAL CODE:	D14930684002																			
MATERIAL GROUP:	ZINACTIVE																			
KILOGRAM PER UNIT:	0.038 (PERCENTAGE)																			
Cenvatable (Yes / No)	Yes																			
Delivery Location	TAMIL NADU																			
Vatable (Yes / No)	Yes																			
Delivery Date (i) :	16-JAN-2016																			
Delivery Qty (i) :	44																			
30	D14930684003	Sealing Ring Var 03 As per drg.no. 2-90-628-00573/Rev 03																		
208.00	NUMBER	NUMBER																		
	ATTRIBUTE DETAILS	<table border="1"> <thead> <tr> <th>ATTRIBUTE NAME</th> <th>ATTRIBUTE VALUE</th> </tr> </thead> <tbody> <tr> <td>MATERIAL CODE:</td> <td>D14930684003</td> </tr> <tr> <td>MATERIAL GROUP:</td> <td>ZINACTIVE</td> </tr> <tr> <td>KILOGRAM PER UNIT:</td> <td>0.016 (PERCENTAGE)</td> </tr> <tr> <td>Cenvatable (Yes / No)</td> <td>Yes</td> </tr> <tr> <td>Delivery Location</td> <td>TAMIL NADU</td> </tr> <tr> <td>Vatable (Yes / No)</td> <td>Yes</td> </tr> <tr> <td>Delivery Date (i) :</td> <td>16-JAN-2016</td> </tr> <tr> <td>Delivery Qty (i) :</td> <td>208</td> </tr> </tbody> </table>	ATTRIBUTE NAME	ATTRIBUTE VALUE	MATERIAL CODE:	D14930684003	MATERIAL GROUP:	ZINACTIVE	KILOGRAM PER UNIT:	0.016 (PERCENTAGE)	Cenvatable (Yes / No)	Yes	Delivery Location	TAMIL NADU	Vatable (Yes / No)	Yes	Delivery Date (i) :	16-JAN-2016	Delivery Qty (i) :	208
ATTRIBUTE NAME	ATTRIBUTE VALUE																			
MATERIAL CODE:	D14930684003																			
MATERIAL GROUP:	ZINACTIVE																			
KILOGRAM PER UNIT:	0.016 (PERCENTAGE)																			
Cenvatable (Yes / No)	Yes																			
Delivery Location	TAMIL NADU																			
Vatable (Yes / No)	Yes																			
Delivery Date (i) :	16-JAN-2016																			
Delivery Qty (i) :	208																			
40	D14930684004	Sealing Ring Var 04 As per drg.no. 2-90-628-00573/Rev 03																		
54.00	NUMBER	NUMBER																		



	ATTRIBUTE DETAILS	<b>ATTRIBUTE NAME</b> MATERIAL CODE: MATERIAL GROUP: KILOGRAM PER UNIT: Cenvatable (Yes / No) Delivery Location Vatable (Yes / No) Delivery Date (i) : Delivery Qty (i) :	<b>ATTRIBUTE VALUE</b> D14930684004 ZINACTIVE 0.016 (PERCENTAGE) Yes TAMIL NADU Yes 16-JAN-2016 54
50	D14930684005	Sealing Ring Var 05 As per drg.no. 2-90-628-00573/Rev 03	
248.00	NUMBER	NUMBER	
	ATTRIBUTE DETAILS	<b>ATTRIBUTE NAME</b> MATERIAL CODE: MATERIAL GROUP: KILOGRAM PER UNIT: Cenvatable (Yes / No) Delivery Location Vatable (Yes / No) Delivery Date (i) : Delivery Qty (i) :	<b>ATTRIBUTE VALUE</b> D14930684005 ZINACTIVE 0.0080 (PERCENTAGE) Yes TAMIL NADU Yes 16-JAN-2016 248
60	D14930684006	Sealing Ring Var 06 As per drg.no. 2-90-628-00573/Rev 03	
64.00	NUMBER	NUMBER	
	ATTRIBUTE DETAILS	<b>ATTRIBUTE NAME</b> MATERIAL CODE: MATERIAL GROUP: KILOGRAM PER UNIT: Cenvatable (Yes / No) Delivery Location Vatable (Yes / No) Delivery Date (i) : Delivery Qty (i) :	<b>ATTRIBUTE VALUE</b> D14930684006 ZINACTIVE 0.0080 (PERCENTAGE) Yes TAMIL NADU Yes 16-JAN-2016 64
70	D14930684007	Sealing Ring Var 07 As per drg.no. 2-90-628-00573/Rev 03	
248.00	NUMBER	NUMBER	
	ATTRIBUTE DETAILS	<b>ATTRIBUTE NAME</b> MATERIAL CODE: MATERIAL GROUP: KILOGRAM PER UNIT: Cenvatable (Yes / No) Delivery Location Vatable (Yes / No) Delivery Date (i) : Delivery Qty (i) :	<b>ATTRIBUTE VALUE</b> D14930684007 ZINACTIVE 0.0060 (PERCENTAGE) Yes TAMIL NADU Yes 16-JAN-2016 248
80	D14930684008	Sealing Ring Var 08 As per drg.no. 2-90-628-00573/Rev 03	
64.00	NUMBER	NUMBER	
	ATTRIBUTE DETAILS	<b>ATTRIBUTE NAME</b> MATERIAL CODE: MATERIAL GROUP: KILOGRAM PER UNIT: Cenvatable (Yes / No) Delivery Location Vatable (Yes / No) Delivery Date (i) : Delivery Qty (i) :	<b>ATTRIBUTE VALUE</b> D14930684008 ZINACTIVE 0.0060 (PERCENTAGE) Yes TAMIL NADU Yes 16-JAN-2016 64
90	D14930684009	Sealing Ring Var 09 As per drg.no. 2-90-628-00573/Rev 03	
44.00	NUMBER	NUMBER	
	ATTRIBUTE DETAILS	<b>ATTRIBUTE NAME</b> MATERIAL CODE: MATERIAL GROUP: KILOGRAM PER UNIT: Cenvatable (Yes / No) Delivery Location Vatable (Yes / No) Delivery Date (i) : Delivery Qty (i) :	<b>ATTRIBUTE VALUE</b> D14930684009 ZINACTIVE 0.019 (PERCENTAGE) Yes TAMIL NADU Yes 16-JAN-2016 44
100	D14930684010	Sealing Ring Var 10 As per drg.no. 2-90-628-00573/Rev 03	
54.00	NUMBER	NUMBER	



	ATTRIBUTE DETAILS	<b>ATTRIBUTE NAME</b>	<b>ATTRIBUTE VALUE</b>
		MATERIAL CODE:	D14930684010
		MATERIAL GROUP:	ZINACTIVE
		KILOGRAM PER UNIT:	0.0080 (PERCENTAGE)
		Cenvatable (Yes / No)	Yes
		Delivery Location	TAMIL NADU
		Vatable (Yes / No)	Yes
		Delivery Date (i) :	16-JAN-2016
		Delivery Qty (i) :	54
110	D14930684011	Sealing Ring Var 11 As per drg.no. 2-90-628-00573/Rev 03	
64.00	NUMBER	NUMBER	
	ATTRIBUTE DETAILS	<b>ATTRIBUTE NAME</b>	<b>ATTRIBUTE VALUE</b>
		MATERIAL CODE:	D14930684011
		MATERIAL GROUP:	ZINACTIVE
		KILOGRAM PER UNIT:	0.0080 (PERCENTAGE)
		Cenvatable (Yes / No)	Yes
		Delivery Location	TAMIL NADU
		Vatable (Yes / No)	Yes
		Delivery Date (i) :	16-JAN-2016
		Delivery Qty (i) :	64
120	D14930684012	Sealing Ring Var 12 As per drg.no. 2-90-628-00573/Rev 03	
64.00	NUMBER	NUMBER	
	ATTRIBUTE DETAILS	<b>ATTRIBUTE NAME</b>	<b>ATTRIBUTE VALUE</b>
		MATERIAL CODE:	D14930684012
		MATERIAL GROUP:	ZINACTIVE
		KILOGRAM PER UNIT:	0.0030 (PERCENTAGE)
		Cenvatable (Yes / No)	Yes
		Delivery Location	TAMIL NADU
		Vatable (Yes / No)	Yes
		Delivery Date (i) :	16-JAN-2016
		Delivery Qty (i) :	64



**IMPORTANT NOTICE**

PLEASE READ THE FOLLOWING ATTACHMENT(S) [SEPARATELY DOWNLOADABLE] ALONG WITH THIS RFQ/NIT/ENQUIRY .

**RFQ/NIT/ENQUIRY - ATTACHMENTS**

<b>LABEL</b>	<b>FILE NAME</b>
Drawing	2-90-628-00573-REV 03.pdf
Technical Specifications	TDC 6 380 REV 02.pdf
TED	Tender Enquiry Document.docx
Online offer Submission Guide	Procedure for Online Registration in EPS for Open Tender Suppliers.pdf



# **INDIGENOUS OPEN TENDER ENQUIRY DOCUMENT**

(Through e-Procurement route)

FOR THE PURCHASE OF

Sealing Rings

BY BHEL TRICHY

**ENQUIRY NO: 1801501048 DATED 10.09.2015**



**BHARAT HEAVY ELECTRICALS LTD,  
TIRUCHIRAPALLI-14**

(A GOVERNMENT OF INDIA UNDERTAKING)

PHONE: 0431 257 7897

FAX: 0431 2520719

EMAIL: [sachinsaini@bheltry.co.in](mailto:sachinsaini@bheltry.co.in)

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**SECTION I**

## NOTICE INVITING LIMITED E-TENDER (NIT)

from

**BHARAT HEAVY ELECTRICALS LTD, TIRUCHIRAPALLI-14**

(A GOVERNMENT OF INDIA UNDERTAKING)

PHONE: 0431 257 7897

FAX: 0431 252 0719

EMAIL: [sachinsaini@bheltry.co.in](mailto:sachinsaini@bheltry.co.in)

For

BHEL Trichy Stores

**Enquiry No: 1801501048 date 10.09.2015****NOTICE INVITING e-TENDERS (NIT)**

- 1) Material Management/BOI, invites sealed tenders, from eligible and qualified tenderers for supply of Sealing Rings to BHEL Trichy Stores (Ward 29).

Sr. NO	Enquiry No	Item Name	Department	Quantity	EMD
1	1801501048	Sealing Ring	MM/BOI	1324 Nos	Nil

- 2) Enquiry No: 1801501048 date 10.09.2015

Sr. No	Description	Schedule
1	Cost of the Tender Enquiry Document	NIL
2	Pre-bid meeting date, time & Venue	NIL
3	Closing date & time for submission of tender fee and EMD in physical form	NA
4	Closing date & time for submission of online bids	12.10.2015 12:30 hrs IST
5	Time and date of opening of online bids	12.10.2015 13:00 hrs IST
6	Venue for :-	NA
	a. Submission of tender fee, EMD in physical form.	
	b. E-Tender Opening-Tech Bid	

BHEL Trichy has implemented e-Procurement and it is going to be the way of working in future.

**The Requirement:**

1. A PC with Internet connectivity &
2. DSC (Digital Signature Certificate)( **Class 3- SHA2- 2048 BIT- SIGNING & ENCRYPTION**)

**The following are the benefits of e-Procurement Process.**

1. Ensuring no offer is missed due to last minute submission, postal delays etc.
2. Reduced Tendering & ordering cycle time
3. Economical, smoother & speedy communication
4. Greater Transparency
5. Big step towards paperless procurement process, Minimal human error
6. No geographical barriers
7. Vendor gets alerts regarding issue of new tender enquiry, amendments, clarifications etc
8. Submission of offer from the comforts of their office from any location
9. on line clarifications
10. Direct Cost Savings such as reduced Paper costs, reduced printing costs, reduced mailing costs, Reduced telephone costs and reduced fax costs.

BHEL has finalized the e-procurement service Provider

**M/s mJunction services Limited, Kolkata**

Godrej Water Side, 3rd Floor, Tower-1, Plot-V, Block - DP  
Sector - V, Salt Lake, Kolkata-700091, West Bengal, INDIA

Please get in touch with them immediately. The contact details of the service provider is given below:

- a. DHANARAJ.P email: [panneer.dhanaraj@mjunction.in](mailto:panneer.dhanaraj@mjunction.in), Cell 9500199108
- b. HELPDESHK email: [eps.customercare@mjunction.in](mailto:eps.customercare@mjunction.in), Phone No: 033-66106426/6217/6013/6046/6176, 9163348283 / 9163348284 / 9163348285 / 9163348286 / 8584008116

The process of utilizing e-procurement necessitates usage of DSC (Digital Signature Certificate)( **Class 3- SHA2- 2048 BIT- SIGNING & ENCRYPTION**) and you are requested to procure the same immediately, if not presently available with you. Please note that only with DSC, you will be able to login the e-procurement secured site and take part in the tendering process.

The contact details of the DSC Certifying Authority as given below

1	<b>e-Mudhra</b>	<a href="http://www.e-Mudhra.com">http://www.e-Mudhra.com</a>	5	<b>NIC</b>	<a href="http://www.safescrypt.com">www.safescrypt.com</a>
2	<b>GNFC</b>	<a href="http://www.ncodesolutions.com">www.ncodesolutions.com</a>	6	<b>Safescrypt</b>	<a href="http://www.safescrypt.com">www.safescrypt.com</a>
3	<b>IDRBT</b>	<a href="http://www.idrbtca.org.in">www.idrbtca.org.in</a>	7	<b>TCS</b>	<a href="http://www.tcs-ca.tcs.co.in">www.tcs-ca.tcs.co.in</a>
4	<b>MTNLTrustline</b>	<a href="http://www.mtnltrustline.com">www.mtnltrustline.com</a>			

Vendors are requested to go through seller manual available on [www.bheleps.buyjunction.in](http://www.bheleps.buyjunction.in)

## SECTION - II

### GENERAL INSTRUCTIONS TO TENDERERS (GIT)

#### 1. Definitions and Abbreviations

The following definitions and abbreviations, which have been used in these documents shall have the meanings as indicated below:

##### a. Definitions:

- i. **“Purchaser”** means BHEL Trichy.
- ii. **“e-Tender”** means Bids / Quotation / Tender received from a Firm / Tenderer / Bidder online. And **“Tenderer”** means Bidder/ the Individual or Firm submitting tenders/ Bids / Quotation / e-Tenders.
- iii. **“Supplier”** means the individual or the firm supplying the goods and services as incorporated in the contract.
- iv. **“Goods”** means the articles, material, commodities, livestock, furniture, fixtures, raw material, spares, instruments, machinery, equipment, industrial plant etc. which the supplier is required to supply to the purchaser under the contract.
- v. **“Services”** means services allied and incidental to the supply of goods, such as transportation, installation, commissioning, provision of technical assistance, training, after sales service, maintenance service and other such obligations of the supplier covered under the contract.
- vi. **“Earnest Money Deposit”** (EMD) means Bid Security/ monetary or financial guarantee to be furnished by a tenderer along with its tender.
- vii. **“Contract”** means the written agreement entered into between the purchaser and/or consignee and the supplier, together with all the documents mentioned therein and including all attachments, annexure etc. therein.
- viii. **“Performance Security”** means monetary or financial guarantee to be furnished by the successful tenderer for due performance of the contract placed on it. Performance Security is also known as Security Deposit.
- ix. **“Consignee”** means the site/stores/ person to whom the goods are required to be delivered as specified in the Contract. If the goods are required to be delivered to a person as an interim consignee for the purpose of dispatch to another person as provided in the Contract then that “another” person is the consignee, also known as ultimate consignee.
- x. **“Specification”** means the document/standard that prescribes the requirement with which goods or service has to conform.
- xi. **“Inspection”** means activities such as measuring, examining, testing, gauging one or more characteristics of the product or service and comparing the same with the specified requirement to determine conformity.
- xii. **“Day”** means calendar day.

##### b. Abbreviations:

- (i) “TE Document” means Tender Enquiry Document
- (ii) “NIT” means Notice Inviting Tenders.
- (iii) “GIT” means General Instructions to Tenderers
- (iv) “SIT” means Special Instructions to Tenderers (SIT not applicable for this enquiry)
- (v) “GCC” means General Conditions of Contract

- (vi) "SCC" means Special Conditions of Contract
- (vii) "DGS&D" means Directorate General of Supplies and Disposals
- (viii) "NSIC" means National Small Industries Corporation
- (ix) "PSU" means Public Sector Undertaking
- (x) "CPSU" means Central Public Sector Undertaking
- (xi) "LSI" means Large Scale Industry
- (xii) "SSI" means Small Scale Industry
- (xiii) "LC" means Letter of Credit
- (xiv) "DP" means Delivery Period
- (xv) "BG" means Bank Guarantee
- (xvi) "ED" means Excise Duty
- (xvii) "CD" means Custom Duty
- (xviii) "VAT" means Value Added Tax
- (xix) "CENVAT" means Central Value Added Tax
- (xx) "CST" means Central Sales Tax
- (xxi) "RR" means Railway Receipt
- (xxii) "BL" means Bill of Lading
- (xxiii) "FOB" means Free on Board
- (xxiv) "FCA" means Free Carrier
- (xxv) "FOR" means Free On Rail
- (xxvi) "CIF" means Cost, Insurance and Freight
- (xxvii) "CIP (Destinations)" means Carriage and Insurance Paid up to named port of destination. Additionally the Insurance (local transportation and storage) would be extended and borne by the Supplier from ware house to the consignee site for a period including 3 months beyond date of delivery.
- (xxviii) "DDP" means Delivery Duty Paid named place of destination (consignee site)
- (xxix) "INCOTERMS" means International Commercial Terms as on the date of Tender Opening

## 2. Introduction

**2.1** The Purchaser has issued these TE documents for purchase of goods and related services as mentioned in Section – VI – "List of Requirements", which also indicates, *inter alia*, the required delivery schedule, terms and place of delivery.

**2.2** This section (Section II - "General Instruction Tenderers") provides the relevant information as well as instructions to assist the prospective tenderers in preparation and submission of tenders. It also includes the mode and procedure to be adopted by the purchaser for receipt and opening as well as scrutiny and evaluation of tenders and subsequent placement of contract.

**2.3** The tenderers shall also read the Special Instructions to Tenderers (SIT) related to this purchase, as contained in Section III of these documents and follow the same accordingly. Whenever there is a conflict between the GIT and the SIT, the provisions contained in the SIT shall prevail over those in the GIT.

**2.4** Before formulating the tender and submitting the same to the purchaser, the tenderer should read and examine all the terms, conditions, instructions, checklist etc. contained in the TE documents. Failure to provide and/or comply with the required information, instructions etc. incorporated in these TE documents may result in rejection of its tender.

## 3. Availability of Funds

**3.1** Expenditure to be incurred for the proposed purchase will be met from the funds available with the purchaser/consignee.

#### **4. Language of Tender**

**4.1** The tender submitted by the tenderer and all subsequent correspondence and documents relating to the tender exchanged between the tenderer and the purchaser, shall be written in the English language, unless otherwise specified in the Tender Enquiry. However, the language of any printed literature furnished by the tenderer in connection with its tender may be written in any other language provided the same is accompanied by an English translation and, for purposes of interpretation of the tender, the English translation shall prevail.

**4.2** The tender submitted by the tenderer and all subsequent correspondence and documents relating to the tender exchanged between the tenderer and the purchaser, may also be written in the Hindi language, provided that the same are accompanied by English translation, in which case, for purpose of interpretation of the tender etc, the English translations shall prevail.

#### **5. Eligible Tenderers**

**5.1** This invitation for tenders is open to all Indigenous supplies who fulfil the eligibility criteria specified in these documents.

#### **6. Eligible Goods and Services**

**6.1** All goods and related services to be supplied under the contract shall have their origin in India or any other country with which India has not banned trade relations. The term "origin" used in this clause means the place where the goods are mined, grown, produced, or manufactured or from where the related services are arranged and supplied.

#### **7. Tendering Expense**

**7.1** The tenderer shall bear all costs and expenditure incurred and/or to be incurred by it in connection with its tender including preparation, mailing and submission of its tender and for subsequent processing the same. The purchaser will, in no case be responsible or liable for any such cost, expenditure etc regardless of the conduct or outcome of the tendering process.

#### **8. Content of Tender Enquiry Documents**

**8.1** In addition to

Section I	Notice inviting e-Tender" (NIT), the TE documents include:
Section II	General Instructions to Tenderers (GIT)
Section III	General conditions of contract (GCC)
Section IV	Special conditions of contract (SCC)
Section V	List of Requirements
Section VI	Technical and Quality Specifications
Section VII	Tender Form
Section VIII	Price bid Formats
Section IX	Reverse Auction
Section X	Bank Guarantee Format for Performance (PBG)
Section XI	Loading Criteria
Section XII	Special & Commercial terms
Section XIII	Supplier Registration Form
Section XIV	Guidelines for submitting tender

**8.2** The relevant details of the required goods and services, the terms, conditions and procedure for tendering, tender evaluation, placement of contract, the applicable contract terms and, also, the standard formats to be used for this purpose are incorporated in the above-mentioned documents. The interested tenderers are expected to examine all such details etc to proceed further.

## 9. Amendments to TE documents

**9.1** At any time prior to the deadline for submission of tenders, the purchaser may, for any reason deemed fit by it, modify the TE documents by issuing suitable amendment(s) to it.

**9.2** Such an amendment will be notified only online through E-procurement along with amendment notifications on BHEL ([www.bhel.com](http://www.bhel.com)) / government ([www.tenders.gov.in](http://www.tenders.gov.in)) tenders website

**9.3** In order to provide reasonable time to the prospective tenderers to take necessary action in preparing their tenders as per the amendment, the purchaser may, at its discretion extend the deadline for the submission of tenders and other allied time frames, which are linked with that deadline.

## 10. Clarification of TE documents

**10.1** A tenderer requiring any clarification or elucidation on any issue of the TE documents may take up the same with the purchaser in writing. The purchaser will respond in writing to such request provided the same is received by the purchaser ON OR BEFORE THE PRE BID MEETING (unless otherwise specified in the SIT). Representation sent after the pre bid meeting date will not be taken into cognizance.

## 11. Documents Comprising the e-Tender

11.1 The tender shall be submitted online ~~ONLY EXCEPT TENDER FEE & EMD (in physical form)~~ as mentioned below:

- (i) **Technical Bid** (Consisting of Eligibility Criteria & Technical Specifications viz. Product Specification Sheets/Brochures, OEM Certificate etc.) Bidders may name the files indicating the nature of content in pdf/zip format which would be required to be attached in e-tender.
- (ii) **Price Bid** (To be filled up in the Proforma, Signed, Stamped, and Scanned to pdf mode & attach under PRICE BID.

### **DO NOT'S**

Bidders are requested **NOT** to submit the hard copy of Financial Bid along with the physical form of tender. In case the hard copy of financial bid is submitted in physical form, the tender may be rejected. Also, uploading of the price bid in prequalification bid or technical bid may RESULT IN REJECTION of the tender.

### **A) Technical Tender (UN priced Tender)**

All Technical details (eg. Eligibility Criteria requested (as mentioned below)) should be attached in e-tendering module, failing which the tender stands invalid & may be REJECTED. Bidders shall furnish the following information along with technical tender (preferably in pdf format):

- ~~(i) Earnest money Deposit (EMD) furnished in accordance with GIT clause 16.1 alternatively, documentary evidence as per GIT clause 16.2 for claiming exemption from payment of earnest money.~~
- (ii) Technical Bid (without indicating any prices).
- (iii) Tenderer/Agent who quotes for goods manufactured by other manufacturer shall furnish Manufacturer's Authorization Form. While giving authorization to agent, to quote on their behalf, manufacturer has to give the reasons for not quoting directly against this tender.

### **B) Price Bid:**

1. Prices are to be quoted in the attached Price Bid format online on e-tender portal in pdf format & apply digital signature certificate.

2. The price should be quoted for the accounting unit indicated in the e-tender document.

Note: It is the responsibility of tenderer to go through the TE document to ensure furnishing all required documents in addition to above, if any. Any deviation would result in REJECTION of tender and would not be considered at a later stage at any cost by BHEL.

**11.2** A person signing (manually or digitally) the tender form or any documents forming part of the contract on behalf of another shall be deemed to warrantee that he has authority to bind such other persons and if, on enquiry, it appears that the persons so signing had no authority to do so, the purchaser may, without prejudice to other civil and criminal remedies, cancel the contract and hold the signatory liable for all cost and damages.

**11.3** A tender, which does not fulfil any of the above requirements and/or gives evasive information/reply against any such requirement, shall be liable to be ignored and rejected.

**11.4** In case of e-Tender, offer sent by fax/telex/cable/electronically shall be ignored.

## 12. Tender currencies

**12.1** The tenderer supplying indigenous goods or already imported goods shall quote only in Indian Rupees(INR).

~~**12.2** For imported goods if supplied directly from abroad, prices shall be quoted in any freely convertible currency say US Dollar, Euro, GBP or Japanese Yen. As regards price(s) for allied services, if any required with the goods, the same shall be quoted in Indian Rupees only (INR); if such services are to be performed /undertaken in India. Exchange rate for converting such offers to INR will as SBI TT selling rate as on the date of Technical/Un-priced bid opening date.~~

## 13. Tender Prices

**13.1** The Tenderer shall indicate on the Price bid format provided under Section VIII all the specified components of prices shown therein including the unit prices and total tender prices of the goods and services it proposes to supply against the requirement. All the columns shown in the price bid should be filled up as required. If any column does not apply to a tenderer, same should be clarified as "NA" by the tenderer.

**13.2** While filling up the columns of the Price Schedule, the following aspects should be noted for compliance:

**13.3.1** For domestic goods or goods of foreign origin located within India, the prices in the corresponding price schedule shall be entered separately in the following manner:

- a. The price of the goods, quoted ex-factory/ ex-showroom/ ex-warehouse/ off-the-shelf, as applicable, including all taxes and duties like sales tax, CST VAT, CENVAT, Custom Duty, Excise Duty etc. already paid or payable on the components and raw material used in the manufacture or assembly of the goods quoted ex-factory etc. or on the previously imported goods of foreign origin quoted ex-showroom etc;
- b. Any sales or other taxes and any duties including excise duty, which will be payable on the goods in India if the contract is awarded;
- c. Charges towards Packing & Forwarding, Inland Transportation, Insurance (local transportation and storage), and Loading & Unloading etc. would be borne by the Supplier from ware house to the consignee site.

~~**13.3.2** For goods offered from abroad, the prices in the corresponding price schedule shall be entered separately in the following manner:~~

- ~~a. The price of goods quoted FOB/FCA port of shipment, as indicated in the List of Requirements and Price Schedule;~~
- ~~b. Freight and insurance charges.~~

- ~~c. The price of goods quoted CIP (name port of destination) in India as indicated in the List of Requirements, Price Schedule and Consignee List~~
- ~~d. The charges for Insurance (local transportation and storage) would be extended and borne by the Supplier from ware house to the consignee site for a period including 3 months beyond date of delivery. Other local costs and Incidental costs, as specified in the List of Requirements and Price Schedule;~~
- ~~e. The charges for Incidental Services, as in the List of Requirements and Price Schedule;~~

### **13.4 Additional information and instruction on Duties and Taxes:**

**13.4.1** If the Tenderer desires to ask for excise duty, sales tax/VAT, Service Tax, Works Contract Tax etc. to be paid extra, the same must be specifically stated. In the absence of any such stipulation the price will be taken inclusive of such duties and taxes and no claim for the same will be entertained later.

#### **13.4.2 Excise Duty:**

- a) If reimbursement of excise duty is intended as extra over the quoted prices, the supplier must specifically say so also indicating the rate, quantum and nature of the duty applicable. In the absence of any such stipulation it will be presumed that the prices quoted are firm and final and no claim on account of excise duty will be entertained after the opening of tenders.
- b) If a Tenderer chooses to quote a price inclusive of excise duty and also desires to be reimbursed for variation, if any, in the excise duty during the time of supply, the tenderer must clearly mention the same and also indicate the rate and quantum of excise duty included in its price. Failure to indicate all such details in clear terms may result in rejection of that tender.
- c) Subject to sub clauses **13.4.2** (a) & (b) above, any change in excise duty upward/downward as a result of any statutory variation in excise duty taking place within contract terms shall be allowed to the extent of actual quantum of excise duty paid by the supplier. In case of downward revision in excise duty, the actual quantum of reduction of excise duty shall be reimbursed to the purchaser by the supplier. All such adjustments shall include all reliefs, exemptions, rebates, concession etc. if any obtained by the supplier.

#### **13.4.3 Sales Tax:**

If a tenderer asks for sales tax/ VAT, Service Tax and Works Contract Tax to be paid extra, the rate and nature of sales tax applicable should be shown separately. The sales tax / VAT, Service Tax and Works Contract Tax will be paid as per the rate at which it is liable to be assessed or has actually been assessed provided the transaction of sale is legally liable to sales tax / VAT, Service Tax and Works Contract Tax and is payable as per the terms of the contract. If any refund of Tax is received at a later date, the Supplier must return the amount forth-with to the purchaser.

**13.5.4 Octroi Duty and Local Duties & Taxes:** Normally, goods to be supplied to government departments against government contracts are exempted from levy of town duty, Octroi duty, terminal tax and other levies of local bodies. However, if such taxes/duties are applicable same shall be clearly mentioned in the price bid/offer.

~~**13.4.5 Customs Duty:** The Purchaser will pay the Customs duty wherever applicable provided was mentioned the price bid/offer.~~

### **14. 14 Payment of Agency Commission to Indian Agent (for foreign purchase):**

- ~~i. BHEL shall deal directly with foreign vendors, wherever required, for procurement of goods. However, if the foreign principal desires to avail of the services of an Indian agent, then the foreign principal should ensure compliance to regulatory guidelines which require mandatory submission of an Agency Agreement.~~

- ~~II. It shall be incumbent on the Indian agent and the foreign principal to adhere to the relevant~~
- ~~III. Guidelines of Government of India, issued from time to time.~~
- ~~IV. The Agency Agreement should specify the precise relationship between the foreign OEM/ foreign principal and their Indian agent and their mutual interest in the business. All services to be rendered by agent/ associate, whether of general nature or in relation to the particular contract, must be clearly stated by the foreign supplier/ Indian agent. Any payment, which the agent or associate receives in India or abroad from the OEM, whether as commission or as a general retainer fee should be brought on record in the Agreement and be made explicit in order to ensure compliance to laws of the country.~~
- ~~V. Any agency commission to be paid by BHEL to the Indian agent shall be in Indian currency only.~~
- ~~VI. Tax deduction at source is applicable to the agency commission paid to the Indian agent as~~
- ~~VII. per the prevailing rules.~~
- ~~VIII. In the absence of any agency agreement, BHEL shall not deal with any Indian agent (authorized representatives / associate / consultant, or by whatever name called) and shall deal directly with the foreign principal only for all correspondence and business purposes.~~
- ~~IX. The supply and execution of the Purchase Order (including indigenous supplies/ service) shall be in the scope of the OEM/ foreign principal. The OEM/ foreign principal should submit their offer inclusive of all indigenous supplies/ services and evaluation will be based on 'total cost to BHEL'. In case OEM/ foreign principal recommends placement of order(s) towards indigenous portion of supplies/ services on Indian supplier(s)/ agent on their behalf, the credentials/ capacity/ capability of the Indian supplier(s)/ agent to make the supplies/ services shall be checked by BHEL as per the extant guidelines of Supplier Evaluation, Approval & Review Procedure (SEARP), before opening of price bids. It will be the responsibility of the OEM/ foreign principal to get acquainted with the evaluation requirements of Indian supplier/ agent as per SEARP available on [www.bhel.com](http://www.bhel.com) OR <http://vis.bheltry.co.in/olsa/>.~~
- ~~X. The responsibility for successful execution of the contract (including indigenous supplies/ services) lies with the OEM/ foreign principal. All bank guarantees to this effect shall be in the scope of the OEM/ foreign principal.~~

## **15. 15. Firm Price**

**15.1** Unless otherwise specified in the GIT, prices quoted by the tenderer shall remain firm and fixed during the currency of the contract and not subject to variation on any account.

**15.2** However, as regards taxes and duties, if any, chargeable on the goods and payable, will be paid extra as applicable on the date of dispatch.

## **~~16. 16. Earnest Money Deposit (EMD)~~**

~~**16.1** Pursuant to GIT (i) the tenderer shall furnish along with its tender, earnest money for amount as shown in the List of Requirements. The earnest money is required to protect the purchaser against the risk of the tenderer's unwarranted conduct as amplified under sub-clause 16.7 below.~~

~~**16.2** The tenderers who are currently registered and, also, will continue to remain registered during the tender validity period with Directorate General of Supplies & Disposals or with National Small Industries Corporation, New Delhi for the specific goods as per tender enquiry specification shall be eligible for exemption from EMD. In case the tenderer falls in these categories, it should furnish copy of its valid registration details (with DGS&D or NSIC, as the case may be).~~

~~**16.3** The earnest money shall be denominated in Indian Rupees or equivalent currencies as per GIT clause 12.2. The earnest money shall be furnished in one of the following forms:~~

- i) ~~Account Payee Demand Draft~~
- ii) ~~Banker's cheque and~~
- iii) ~~Bank Guarantee~~

~~16.4 The demand draft or banker's cheque shall be drawn on any commercial bank in India or country of the tenderer, in favour of the "Bharat Heavy Electricals Limited" payable at Trichy India. In case of bank guarantee, the same is to be provided from any commercial bank in India or country of the tenderer as per the format specified under Section XI in these documents.~~

~~16.5 The earnest money shall be valid for a period of forty-five (45) days beyond the validity period of the tender. As validity period of Tender as per Clause 17 of GIT is 60 days, the EMD shall be valid for 105 days from Techno — Commercial Tender opening date.~~

~~16.6 Unsuccessful tenderers' earnest money will be returned to them without any interest, after expiry of the tender validity period, but not later than thirty days after conclusion of the resultant contract. Successful tenderer's earnest money will be returned without any interest, after receipt of performance security from that tenderer.~~

~~16.7 Earnest Money is required to protect the purchaser against the risk of the Tenderer's conduct, which would warrant the forfeiture of the EMD. Earnest money of a tenderer will be forfeited, if the tenderer withdraws or amends its tender or impairs or derogates from the tender in any respect within the period of validity of its tender or if it comes to notice that the information/documents furnished in its tender is incorrect, false, misleading or forged without prejudice to other rights of the purchaser. The successful tenderer's earnest money will be forfeited without prejudice to other rights of Purchaser if it fails to furnish the required performance security within the specified period.~~

~~16.8 In the case of Bank Guarantee furnished from banks outside India (i.e. foreign Banks), it should be authenticated and countersigned by any nationalized bank in India by way of back-to-back counter guarantee and the same should be submitted along with the bid.~~

## 17. Tender Validity

17.1 If not mentioned otherwise in the SIT, the tenders shall remain valid for acceptance for a period of 60 days (Sixty days) after the date of tender opening prescribed in the TE document. Any tender valid for a shorter period shall be treated as unresponsive and rejected.

17.2 In exceptional cases, the tenderers may be requested by the purchaser to extend the validity of their tenders up to a specified period. Such request(s) and responses thereto shall be conveyed by e-mail/EPG message or by fax/ telex/cable. The tenderers, who agree to extend the tender validity, are to extend the same without any change or modification of their original tender and they are also to extend the validity period of the EMD accordingly. A tenderer, who may not agree to extend its tender validity after the expiry of the original validity period the EMD furnished by them shall not be forfeited.

17.3 In case the day up to which the tenders are to remain valid falls on/ subsequently declared a holiday or closed day for the purchaser, the tender validity shall automatically be extended up to the next working day.

## 18. Digital Signing of e-Tender

18.1 The tenderers shall submit their tenders as per the instructions contained in GIT Clause 11. Tenders shall be uploaded with all relevant PDF/zip format. The relevant tender documents should be uploaded by an authorized person having Class 3- SHA2- 2048 BIT-SIGNING & ENCRYPTION digital signature certificate (DSC).

## 19. Submission of Tenders

19.1 The tender shall be submitted online only.

**(i) Pre-qualification and Technical compliance** as per following documents (ONLY Online submissions for all the documents.)

- a) Manufacturer's authorization in case bid is submitted by an Indian agent (A declaration must be attached here in case directly quoted by a manufacturer or a document establishing the relation of the Indian office with the manufacturer in case quoted by Indian office of the manufacturer).
- b) Tender Form as per section VII.
- c) Compliance of all terms and conditions of TED like- warranty, delivery period, delivery terms, payment terms etc
- d) Declaration regarding Fall Clause and Deregistration, debarment from any Govt. Dept/ Agencies

**(ii) PRICE BID (ONLY ONLINE).**

**19.2** The tenderers must ensure that they submit the on-line tenders not later than the closing time.

## **20. Late Tender**

**20.1** There is NO PROVISION of uploading late tender beyond stipulated date & time in the e-tendering system.

## **21. Alteration and Withdrawal of Tender**

**21.1** The tenderer, is permitted to change, edit or withdraw it's bid on or before the end date & time only.

## **22. Opening of Tenders**

**22.1** The purchaser will open the e-tenders at the specified date and time and at the specified place as indicated in the NIT. In case the specified date of tender opening falls on / is subsequently declared a holiday or closed day for the purchaser, the tenders will be opened at the appointed time and place on the next working day.

~~**22.2** Authorized representatives of the tenderers, who have submitted tenders on time may attend the tender opening provided they bring with them letters of authority from the corresponding tenderers.~~

~~**22.3** Two - Tender system will be as follows. The Techno - Commercial Tenders are to be opened in the first instance, at the prescribed time and date as indicated in NIT. These Tenders shall be scrutinized and evaluated by the competent committee/ authority with reference to parameters prescribed in the TE document. During the Techno - Commercial Tender opening, the tender opening official(s) will read the salient features of the tenders like brief description of the goods offered, delivery period, Earnest Money Deposit and any other special features of the tenders, as deemed fit by the tender opening official(s). Thereafter, in the second stage, the Price Tenders of only the Techno - Commercially acceptable offers (as decided in the first stage) shall be opened for further scrutiny and evaluation on a date notified after the evaluation of the Techno - Commercial tender. The prices, special discount if any of the goods offered etc., as deemed fit by tender opening official(s) will be read out.~~

## **23. Basic Principle for Tender evaluation**

**23.1** Tenders will be evaluated on the basis of the terms & conditions already incorporated in the TE document, based on which tenders have been received and the terms, conditions etc. mentioned by the tenderers in their tenders. No new condition will be brought in while scrutinizing and evaluating the tenders.

## **24. Scrutiny of Tenders**

**24.1** The Purchaser will examine the Tenders to determine whether they are complete, whether any computational errors have been made, whether required sureties have been furnished, whether the documents have been properly signed stamped and whether the Tenders are generally in order.

**25. Discrepancies in Prices**

- i If, in the price structure quoted for the required goods! services works, there is discrepancy between the unit price and the total price (which is obtained by multiplying the unit price by the quantity), the unit price shall prevail and the total price corrected accordingly, unless in the opinion of the purchaser there is an obvious misplacement of the decimal point in the unit price, in which case the total price as quoted shall govern and the unit price corrected accordingly.
- ii If there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected; and
- iii If there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject of (i) and (ii) above.
- iv If there is such discrepancy in an offer, the same shall be conveyed to the bidder with target date upto which the bidder has to send his acceptance on the above lines and if the bidder does not agree to the decision of the purchaser, the bid is liable to be ignored.

**SECTION - III****GENERAL CONDITIONS OF CONTRACT (GCC)****26. 1. Application**

**26.1** The General Conditions of Contract incorporated in this section shall be applicable for this purchase to the extent the same are not superseded by any Special Conditions of Contract prescribed anywhere in this TE document.

**27. Use of contract documents and information**

**27.1** The supplier shall not, without the purchaser's prior written consent, disclose the contract or any provision thereof including any specification, drawing, sample or any information furnished by or on behalf of the purchaser in connection therewith, to any person other than the person(s) employed by the supplier in the performance of the contract emanating from this TE document. Further, any such disclosure to any such employed person shall be made in confidence and only so far as necessary for the purposes of such performance for this contract.

**27.2** Further, the supplier shall not, without the purchaser's prior written consent, make use of any document or information mentioned in GCC sub-clause 27.1 above except for the sole purpose of performing this contract.

**27.3** Except the contract issued to the supplier, each and every other document mentioned in GCC sub-clause 27.1 above shall remain the property of the purchaser and, if advised by the purchaser, all copies of all such documents shall be returned to the purchaser on completion of the supplier's performance and obligations under this contract.

**28. Patent Rights**

**28.1** The supplier shall, at all times, indemnify and keep indemnified the purchaser, free of cost, against all claims which may arise in respect of goods & services to be provided by the supplier under the contract for infringement of any intellectual property rights or any other right protected by patent, registration of designs or trademarks. In the event of any such claim in respect of alleged breach of patent, registered designs, trademarks etc. being made against the purchaser, the purchaser shall notify the supplier of the same and the supplier shall, at his own expenses take care of the same for settlement without any liability to the purchaser.

**29. Country of Origin**

**29.1** All goods and services to be supplied and provided for the contract shall have the origin in India or in the countries with which the Government of India has trade relations.

**29.2** The word "origin" incorporated in this clause means the place from where the goods are mined, cultivated, grown, manufactured, produced or processed or from where the services are arranged.

**29.3** The country of origin may be specified in the Price bid format.

**30. Technical Specifications and Standards**

**30.1** The Goods & Services to be provided by the supplier under this contract shall conform to the technical specifications and quality control parameters mentioned in „Technical Specification and „Quality Control Requirements as mentioned in this document.

**31. Packing and Marking**

**31.1** The packing for the goods to be provided by the supplier should be strong and durable enough to withstand, without limitation, the entire journey during transit including transshipment (if any), rough handling, open storage etc. without any damage, deterioration etc. As and if necessary, the size, weights and volumes of the packing cases shall also take into consideration, the remoteness of the final destination of the goods and availability or otherwise of transport and handling facilities at all points during transit up to final destination as per the contract.

**31.2** The quality of packing, the manner of marking within & outside the packages and provision of accompanying documentation shall strictly comply with the requirements as provided in Technical Specifications and Quality Control Requirements. In case the packing requirements are amended due to issue of any amendment to the contract, the same shall also be taken care of by the supplier accordingly.

**31.3** Packing instructions: Unless otherwise mentioned in the Technical Specification and Quality Control Requirements, the supplier shall make separate packages for each consignee (in case there is more than one consignee mentioned in the contract) and mark each package on three sides with the following with indelible paint of proper quality:

- a. Purchase Order number and date
- b. brief description of goods including quantity
- c. packing list reference number
- d. country of origin of goods
- e. consignees name and full address and
- f. suppliers name and address
- g. Any other information as per Purchase order/dispatch instructions.

## **32. Inspection, Testing and Quality Control**

**32.1** Goods/Materials shall be made ready as per the specifications mentioned in the purchase order and approved quality plan shall be followed in each stage of manufacturing the ordered materials. Ready materials shall be inspected by BHEL/BHEL TPI/ NTPC or BHEL Customer as per the purchase order. Tenderer shall inform well in advance the readiness of the materials so that the purchaser can arrange for Inspection, Testing and Quality evaluation of the ready materials.

**32.2** Goods accepted by the purchaser/consignee and/or its inspector at initial inspection and in final inspection in terms of the contract shall in no way dilute purchaser's/consignee's right to reject the same later, if found deficient in terms of the warranty clause of the contract, as incorporated under GCC Clause 34.

## **33. Terms of Delivery**

**33.1** Goods shall be delivered by the supplier in accordance with the terms of delivery and as per the delivery period specified in the schedule of requirement. Please note that the time shall be the essence of the contract.

## **34. WARRANTY**

**34.1** The supplier warrants comprehensively that the goods supplied under the contract is new, unused and incorporate all recent improvements in design and materials unless prescribed otherwise by the purchaser in the contract. The supplier further warrants that the goods supplied under the contract shall have no defect arising from design, materials, manufacturing or workmanship or from any act or omission of the supplier that may develop under normal use of the supplied goods under the conditions prevailing in India.

**34.2** The warranty shall remain valid for the period as mentioned in the list of requirement/ General Technical specification, after the goods or any portion thereof as the case may be, have been delivered, installed and commissioned at the final destination.

- a. No conditional warranty will be acceptable.
- b. Replacement and repair will be under taken for the defective goods.
- c. Proper marking has to be made for all spares for identification like printing of installation and repair dates.

**34.3** In case of any claim arising out of this warranty, the Purchaser/Consignee shall promptly notify the same in writing to the supplier. The period of the warranty will be as per G.C.C clause number 34.2 above irrespective of any other period mentioned elsewhere in the bidding documents.

**34.4** Upon receipt of such notice, the supplier shall, within 8 hours on a 24(hrs) X 7 (days) X 365 (days) basis respond to take action to repair or replace the defective goods or parts thereof, free of cost, at the ultimate destination. The supplier shall take over the replaced parts/goods after providing their replacements and no claim, whatsoever shall lie on the purchaser for such replaced parts/goods thereafter. The penalty clause for non-rectification will be applicable as per tender conditions

**34.5** In the event of any rectification of a defect or replacement of any defective goods during the warranty period, the warranty for the rectified/replaced goods shall be extended till the completion of the original warranty period of the main equipment.

**34.6** If the supplier, having been notified, fails to respond to take action to repair or replace the defect(s) within 8 hours on a 24(hrs) X 7 (days) X 365 (days) basis, the purchaser may proceed to take such remedial action(s) as deemed fit by the purchaser, at the risk and expense of the supplier and without prejudice to other contractual rights and remedies, which the purchaser may have against the supplier.

**34.7** During Warranty period, the supplier is required to visit at each consignee's site at least once in 6 months commencing from the date of the installation for preventive maintenance of the goods (if required).

## **35. ASSIGNMENT**

**35.1** The Supplier shall not assign, either in whole or in part, its contractual duties, responsibilities and obligations to perform the contract, except with the Purchaser's prior written permission.

## **36. PRICES**

**36.1** Prices to be charged by the supplier for supply of goods and provision of services in terms of the contract shall not vary from the corresponding prices quoted by the supplier in its tender and incorporated in the contract.

## **37. TAXES AND DUTIES**

**20.1** Supplier shall be entirely responsible for all taxes, duties, fees, levies etc. incurred until delivery of the contracted goods to the purchaser.

## **38. TERMS AND MODE OF PAYMENT**

### **38.1 Payment Terms**

Payment shall be made subject to recoveries, if any, by way of liquidated damages or any other charges as per terms & conditions of contract in the following manner.

#### **For Indian Vendors –**

- a. Payment term is 100% direct payment after 45 days from the date of dispatch against site acknowledgement. (or)
- b. Payment term is 90% direct payment after 45 days from the date of dispatch against submission of dispatch documents and balance 10% against site acknowledgement. For this option –(b), a loading of 2% on the 90% of the offered value shall be made.

**For Foreign Vendors –**

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

~~Any deviation in the above payment term will attract loading as mentioned below.~~

~~“Base rate of SBI (as applicable on the date of bid opening. Techno-commercial bid opening in case of two part bids) + 6% shall be considered for loading for the period of relaxation sought by bidders.~~

- ~~a. In the case of Usance LCs the loading will be considered @ 1.5% on the offered Value.~~
- ~~b. For LC at sight the loading will be considered @ 3.5% on the offered Value.~~
- ~~c. Normally CAD at sight and Confirmed LCs are liable for rejection.~~

**39. Delivery**

**39.1** The supplier shall deliver the goods and perform the services under the contract within the time schedule specified by the Purchaser/Consignee in the List of Requirements and as incorporated in the contract. The time for and the date of delivery of the goods stipulated in the schedule shall be deemed to be of the essence of the contract and the delivery must be completed not later than the date (s) as specified in the contract.

**39.2** Subject to the provision under GCC clause 26, any unexcused delay by the supplier in maintaining its contractual obligations towards delivery of goods and performance of services shall render the supplier liable to any or all of the following sanctions:

- (i) imposition of liquidated damages,
- (ii) forfeiture of its performance security and
- (iii) Termination of the contract for default.

**39.3** If at any time during the currency of the contract, the supplier encounters conditions hindering timely delivery of the goods and performance of services, the supplier shall promptly inform the Purchaser/Consignee in writing about the same and its likely duration and make a request to the Purchaser/Consignee for extension of the delivery schedule accordingly. On receiving the supplier's communication, the Purchaser/Consignee shall examine the situation as soon as possible and, at its discretion, may agree to extend the delivery schedule, with or without liquidated damages for completion of supplier's contractual obligations by issuing an amendment to the contract.

**39.4** When the period of delivery is extended due to unexcused delay by the supplier, the amendment letter extending the delivery period shall, inter alia contain the following conditions:

**(a)** The Purchaser/Consignee shall recover from the supplier, under the provisions of the clause 40 of the General Conditions of Contract, liquidated damages on the goods and services, which the Supplier has failed to deliver within the delivery period stipulated in the contract.

**(b)** That no increase in price on account of any ground, whatsoever, including any stipulation in the contract for increase in price on any other ground and, also including statutory increase in or fresh imposition of customs duty, excise duty, sales tax/ VAT, Service Tax and Works Contract Tax or on account of any other tax or duty which may be levied in respect of the goods and services specified in the contract, which takes place after the date of delivery stipulated in the contract shall be admissible on such of the said goods and services as are delivered and performed after the date of the delivery stipulated in the contract.

**(c)** But nevertheless, the Purchaser/Consignee shall be entitled to the benefit of any decrease in price on account of reduction in or remission of customs duty, excise duty, sales tax/ VAT, Service Tax and Works Contract Tax or any other duty or tax or levy or on account of any other grounds, which takes place after the expiry of the date of delivery stipulated in the contract.

**39.5** The supplier shall not dispatch the goods after expiry of the delivery period. The supplier is required to apply to the Purchaser/Consignee for extension of delivery period and obtain

the same before dispatch. In case the supplier dispatches the goods without obtaining an extension, it would be doing so at its own risk and no claim for payment for such supply and / or any other expense related to such supply shall lie against the purchaser.

#### **40. LIQUIDATED DAMAGES**

**40.1** Subject to GCC clause 26, if the supplier fails to deliver or install /commission any or all of the goods or fails to perform the services within the time frame(s) incorporated in the contract, the Purchaser/Consignee shall, without prejudice to other rights and remedies available to the Purchaser/Consignee under the contract, deduct from the contract price, as liquidated damages, a sum equivalent to 0.5% per week of delay or part thereof on total order value of goods, installation, commissioning and/or services until actual delivery or performance subject to a maximum of 10% of the contract price. Once the maximum is reached Purchaser/Consignee may consider termination of the contract as per GCC 41. During the above-mentioned delayed period of supply and / or performance, the conditions incorporated under GCC sub-clause 39.4 above shall also apply.

#### **41. TERMINATION FOR DEFAULT**

**41.1** The Purchaser/Consignee, without prejudice to any other contractual rights and remedies available to it (the Purchaser/Consignee), may, by written notice of default sent to the supplier, terminate the contract in whole or in part, if the supplier fails to deliver any or all of the goods or fails to perform any other contractual obligation(s) within the time period specified in the contract, or within any extension thereof granted by the Purchaser/Consignee pursuant to GCC sub-clauses 39.

**41.2** In the event of the Purchaser/Consignee terminates the contract in whole or in part, pursuant to GCC sub-clause 41.1 above, the Purchaser/Consignee may procure goods and/or services similar to those cancelled, with such terms and conditions and in such manner as it deems fit and the supplier shall be liable to the Purchaser/Consignee for the extra expenditure, if any, incurred by the Purchaser/Consignee for arranging such procurement.

**41.3** Unless otherwise instructed by the Purchaser/Consignee, the supplier shall continue to perform the contract to the extent not terminated.

#### **42. FORCE MAJEURE**

**42.1** Notwithstanding the provisions contained in GCC clauses 39, 40 and 41, the supplier shall not be liable for imposition of any such sanction so long the delay and/or failure of the supplier in fulfilling its obligations under the contract is the result of an event of Force Majeure.

**42.2** For purposes of this clause, Force Majeure means an event beyond the control of the supplier and not involving the supplier's fault or negligence and which is not foreseeable and not brought about at the instance of , the party claiming to be affected by such event and which has caused the non – performance or delay in performance. Such events may include, but are not restricted to, wars or revolutions, hostility, acts of public enemy, civil commotion, sabotage, fires, floods, explosions, epidemics, quarantine restrictions, strikes excluding by its employees , lockouts excluding by its management, freight embargoes and Acts of God.

**42.3** If a Force Majeure situation arises, the supplier shall promptly notify the Purchaser/Consignee in writing of such conditions and the cause thereof within twenty one days of occurrence of such event. Unless otherwise directed by the Purchaser/Consignee in writing, the supplier shall continue to perform its obligations under the contract as far as reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.

**42.4** If the performance in whole or in part or any obligation under this contract is prevented or delayed by any reason of Force Majeure for a period exceeding sixty days, either party may at its option terminate the contract without any financial repercussion on either side.

**42.5** In case due to a Force Majeure event the Purchaser/Consignee is unable to fulfil its contractual commitment and responsibility, the Purchaser/Consignee will notify the supplier accordingly and subsequent actions taken on similar lines described in above sub-paragraphs.

#### **43. TERMINATION FOR CONVENIENCE**

**43.1** The Purchaser/Consignee reserves the right to terminate the contract, in whole or in part for its (Purchaser's/Consignee's) convenience, by serving written notice on the supplier at any time during the currency of the contract. The notice shall specify that the termination is for the convenience of the Purchaser/Consignee. The notice shall also indicate interalia, the extent to which the supplier's performance under the contract is terminated, and the date with effect from which such termination will become effective.

**43.2** The goods and services which are complete and ready in terms of the contract for delivery and performance before the supplier's receipt of the notice of termination shall be accepted by the Purchaser/Consignee following the contract terms, conditions and prices. For the remaining goods and services, the Purchaser/Consignee may decide:

- a) To get any portion of the balance completed and delivered at the contract terms, conditions and prices; and / or
- b) To cancel the remaining portion of the goods and services and compensate the supplier by paying an agreed amount for the cost incurred by the supplier towards the remaining portion of the goods and services.

#### **44. GOVERNING LANGUAGE**

**44.1** The contract shall be written in English language following the provision as contained in GIT clause 4. All correspondence and other documents pertaining to the contract, which the parties exchange, shall also be written accordingly in that language.

#### **45. Notices**

**45.1** Notice, if any, relating to the contract given by one party to the other, shall be sent in writing or by cable or telex or facsimile and confirmed in writing. The procedure will also provide the sender of the notice, the proof of receipt of the notice by the receiver. The addresses of the parties for exchanging such notices will be the addresses as incorporated in the contract.

**45.2** The effective date of a notice shall be either the date when delivered to the recipient or the effective date specifically mentioned in the notice, whichever is later.

#### **46. RESOLUTION OF DISPUTES**

**46.1** If dispute or difference of any kind shall arise between the Purchaser/Consignee and the supplier in connection with or relating to the contract, the parties shall make every effort to resolve the same amicably by mutual consultations.

**46.2** If the parties fail to resolve their dispute or difference by such mutual consultation within 30 days of its occurrence, then, unless otherwise provided in the contract, either the Purchaser/Consignee or the supplier may give notice to the other party of its intention to commence arbitration, as hereinafter provided the applicable arbitration procedure will be as per the Arbitration and Conciliation Act, 1996 of India. In the case of a dispute or difference arising between the Purchaser/Consignee and a domestic Supplier relating to any matter arising out of or connected with the contract, such dispute or difference shall be referred to the sole arbitration of an officer in BHEL Trichy, appointed to be the arbitrator by the General Manager/MM/RM BHEL Trichy. The award of the arbitrator shall be final and binding on the parties to the contract.

**46.3** Venue of Arbitration: The venue of arbitration shall be the place from where the contract has been issued, i.e., BHEL Trichy.

**46.4** Jurisdiction of the court will be from the place where the tender enquiry document has been issued, i.e., Trichy India

**47. APPLICABLE LAW**

The contract shall be governed by and interpreted in accordance with the laws of India for the time being in force.

**48. Withholding and Lien in respect of sums claimed**

Whenever any claim for payment arises under the contract against the supplier the purchaser shall be entitled to withhold and also have a lien to retain such sum from the security deposit or sum of money arising out of under any other contract made by the supplier with the purchaser, pending finalization or adjudication of any such claim. It is an agreed term of the contract that the sum of money so withheld or retained under the lien referred to above, by the purchaser, will be kept withheld or retained till the claim arising about of or under the contract is determined by the Arbitrator or by the competent court as the case may be, and the supplier will have no claim for interest or damages whatsoever on any account in respect of such withholding or retention.

**49. Replacement of defective work or material**

If during the progress of the work, the Purchaser or his representative shall decide and notify in writing to the contractor that the contractor has executed any unsound or imperfect work or has supplied any plant or material inferior in quantity or quality to those specified, the contractor on defects or deficiency shall, at his own expense, within fifteen days' of his receiving the notice, or otherwise within such time as may be reasonably necessary for making in good, proceed to alter, reconstruct, or remove such work, or supply fresh materials up to the standard of the particulars and in case the Contractor shall fail to do so, the Purchaser may, on giving the Contractor fifteen days' notice in writing of his intention to do so, proceed to remove the work or materials complained of, and at the cost of the Contractor perform all such work or supply all such materials, provided that nothing in this clause shall be deemed to deprive the purchaser of or affect, any rights under the contract which he may otherwise have in respect of such defects or deficiencies. BHEL reserves the discretion to levy storage charges for material not lifted within the reasonable period.

**50. Rectification of Defects**

Any defects which in the opinion of the Inspector may be apparent after erection and testing as mentioned in the specification, shall be rectified by the Contractor to the satisfaction of the Inspector at the expense of the Contractor and it shall be in his power to direct that further test shall be made at the expense of the Contractor after the said defects have been rectified to the satisfaction of the Inspector. If, after a reasonable time for rectifying defects shall have been allowed to the contractor the Inspector shall be of opinion that the defect cannot satisfactorily be rectified, and that the material/component/machinery supplied is unsuited for or incapable of performing the work required, the Purchaser may, if he shall think fit (without prejudice, and in addition to any other remedy he may have in the premises) determine this contract, and thereupon all money paid to the Contractor under the contract in respect thereof shall upon demand be repaid by them to the purchaser, and they shall be liable for all damages heretofore provided for non-fulfilment of contract

**51. SECRECY**

The contractor shall take all reasonable steps necessary to ensure that all persons employed in any work in connection with the contract, have full knowledge of the Official Secrets Act and any Regulations framed thereunder. Any information obtained in the course of the execution

of the contract by the contractor, his servants or Agents or any person so employed, as to any matter whatsoever; which would or might be directly or indirectly of use to any competitor of BHEL or enemy of India must be treated as Secret and shall not at any time be communicated to any person. Any breach of the aforesaid condition shall entitle BHEL to cancel the contract and to purchase or authorize the purchase of the materials/goods at the risk and cost of the contractor invoking risk purchase clause.

## **52. Fraud Prevention**

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

## **53. Vendor Works/Location**

Vendors having multiple works/locations shall indicate in the technical bid the location from where there are going execute the order if placed, and the said works/location must be approved by BHEL/BHEL customer as may be the case.

## **54. GENERAL/ MISCELLANEOUS CLAUSES**

- i Any Purchase Order resulting from this enquiry shall be governed by these general terms and conditions listed above (1-53) and special terms and conditions, if any, along with this enquiry of Bharat Heavy Electricals Limited, BHEL HPBP, Trichy-620014 (hereinafter referred to as BHEL Trichy).
- ii Any of the terms and conditions not acceptable to supplier, shall be explicitly mentioned in the quotation. Otherwise, it will be treated as that all terms and conditions of this enquiry are acceptable.
- iii If counter terms and conditions are offered by supplier, BHEL Trichy shall not be governed by such terms and conditions, unless it is agreed and incorporated in the Purchase Order of BHEL Trichy.
- iv Any deviation to the terms and conditions not mentioned in the quotation by supplier in response to this enquiry will not be considered, if put forth subsequently or after issue of order, unless clarification is sought for by BHEL TRICHY and agreed upon in the Purchase Order of BHEL TRICHY.
- v BHEL TRICHY reserves the right to adopt Reverse Auction for the enquiry sent, at its discretion.
- vi BHEL TRICHY shall be at liberty to cancel the tender at any time, before ordering, without assigning any reason.
- vii The correspondence exchanged against the tender from both tenderer and BHEL through email are considered as valid document legally though it is not signed. It is treated as valid confirmations made on behalf of the respective company and very much comes under the legal ambit of the business transaction and hence it is binding on both the parties to the business.
- viii Banned Firms - The offers of the bidders who are on the banned list as also the offer of the bidders, who engage the services of the banned firms, shall be rejected. The list of banned firms is available on BHEL website [www.bhel.com](http://www.bhel.com).
- ix Bidders participating in the tender should declare in their technical bid that whether they have been black-listed / kept on hold for a specified period / given Business

holiday for a specified period by any Public sector undertaking or Government departments. The reasons for such action with details and the current status of such hold shall be clearly furnished to BHEL. If no such details are mentioned in the offer then it will be construed that the subject bidder is not under any such hold. But at a later date if it comes to the notice of BHEL about any such hold under enforcement on the subject bidder, BHEL will have every right to reject the offer of such vendors at any point of time and also under any stage of the finalization of the subject tender irrespective of the status of the subject bidder in that tender. Such bidders will not be permitted to participate in the further tender proceedings and will be communicated suitably. They will not be also considered for any ongoing tenders even if participated till the hold is officially lifted and confirmed in writing.

- x Risk purchase: - If the supplier fails to deliver the goods within the delivery specified in the Purchase Order, BHEL will be entitled to terminate the contract and to purchase elsewhere at the risk and cost of the seller either the whole of the goods or any part which the supplier has failed to deliver or dispatch within the delivery period mentioned in the Purchase Order.
- xi The court of the place from where the purchase order is issued shall alone have jurisdiction to decide any dispute arising out of or in connection with the purchase order.
- xii Cartel Formation: - All the firms should desist from forming cartel as the practice is prohibited under Section 3(3) (a) & (d) of the competition Act 2002. If any such instance is observed during this tender will attract disciplinary action as per BHEL policies.

**SECTION – IV****SPECIAL CONDITIONS OF CONTRACT (SCC)**

1. Price may be finalized thro “On line Reverse Auction Process” using internet. BHEL reserves the right to go for Reverse Auction (RA) instead of opening the sealed envelope price bid, submitted by the bidder. This will be decided after techno-commercial evaluation. All bidders to give their acceptance for participation in RA. Non-acceptance to participate in RA may result in non-consideration of their bids, in case BHEL decides to go for RA.  
In case BHEL decides to go for Reverse Auction, only those bidders who have given their acceptance to participate in RA will be allowed to participate in the Reverse Auction. Those bidders who have given their acceptance to participate in Reverse Auction will have to necessarily submit online sealed bid” in the Reverse Auction. Non submission of online sealed bid” by the bidder will be considered as tampering of the tender process and will invite action by BHEL as per extant guidelines in vogue. **Refer section IX for details.**
2. Loading of Price Bids – Loading will be applicable for any deviations taken by **tenderer as per Section XI** to this TE document.
3. **Testing and Inspection by BHEL/BARC for indigenous supply.**
4. **TDC:6:380 Rev 02, clause by clause confirmation is required.**  
Supplier has to clearly mention against each TDC and respective sub clauses (**1.0 Introduction, 2.0 Scope, 3.0 Material Requirement, 4.0 Quality Requirements, 5.0 Testing & Inspection, 6.0 Storage, Handling, Packing & Shipping**) whether it is acceptable/not acceptable/deviation (if any).
5. A set of additional dialects containing test certificates, copies of the approved procedure, DCR and Drawing etc. apart from contractual requirements are required.

**SECTION – V****List of Requirements****PART - I**

Sr. No	Item	Qty (Nos)
<b>Package 1</b>	Sealing Rings as per TDC:6:380 Rev 02 & drawing no 2-90-628- 00573/Rev 03	1324

**PART – II Required Delivery Schedule:**

- i. Package within 90 days from manufacturing clearance from BHEL.

**PART – III Delivery Location**

Materials shall be delivered at Ward 29, BHEL Trichy Stores.

**PART – IV Guarantee**

18 months form the date of receipt and acceptance of materials at BHEL Trichy stores.

**SECTION – VI**  
**Technical and Quality Specifications**

Materials shall be manufactured as per TDC:6:380 Rev 02 and Drawing no 2-90-628-00573/Rev 03 attached to this tender enquiry document.

Sr. No	Item	Qty (nos)
1	Sealing Ring Var 01	168
2	Sealing Ring Var 02	44
3	Sealing Ring Var 03	208
4	Sealing Ring Var 04	54
5	Sealing Ring Var 05	248
6	Sealing Ring Var 06	64
7	Sealing Ring Var 07	248
8	Sealing Ring Var 08	64
9	Sealing Ring Var 09	44
10	Sealing Ring Var 10	54
11	Sealing Ring Var 11	64
12	Sealing Ring Var 12	64
<b>TOTAL</b>		<b>1324</b>

Since the tender will be evaluated as a package, all items have to be necessarily quoted. Partial items/quantities will not be accepted and the offer with partial items/quantities is liable to be rejected.

**SECTION – VII**

**Tender Form**

**(to be submitted on company letterhead)**

To

GM/MM/RM

BHEL Trichy

Ref. Your TE document No. 1801501048 dated 10.09.2015

We, the undersigned have examined the above mentioned TE document, including amendment/corrigendum No. \_\_\_\_\_, dated \_\_\_\_\_ (if any), the receipt of which is hereby confirmed.

We now offer to supply and deliver \_\_\_\_\_ (Description of goods and services) in conformity with your above referred document for the sum as shown in the price schedules attached herewith and made part of this tender. If our tender is accepted, we undertake to supply the goods and perform the services as mentioned above, in accordance with the delivery schedule specified in the List of Requirements. We further confirm that, if our tender is accepted, we shall provide you with a performance security of required amount in an acceptable form in terms of GCC clause 34, read with modification, if any, in Section - IV – “Special Conditions of Contract”, for due performance of the contract.

We agree to keep our tender valid for acceptance as required in the GIT clause 17, read with modification, if any as per clause 9 of GIT or for subsequently extended period, if any, agreed to by us. We also accordingly confirm to abide by this tender up to the aforesaid period and this tender may be accepted any time before the expiry of the aforesaid period.

We further confirm that, until a formal contract is executed, this tender read with your written acceptance thereof within the aforesaid period shall constitute a binding contract between us. We further understand that you are not bound to accept the lowest or any tender you may receive against your above-referred tender enquiry. We confirm that we do not stand deregistered/banned/blacklisted by any (GOI) Govt. Authorities/PSUs.

We confirm that we fully agree to the terms and conditions specified in above mentioned TE document, including amendment/ corrigendum if any

(Signature with date)

(Name and designation)

**SECTION – VIII****Price bid Formats****For Indian Vendors**

<b>Sr. No</b>	<b>Item</b>	<b>Qty (nos)</b>	<b>Rate/unit</b>	<b>Amount = BxC</b>	<b>EXCISE DUTY on D</b>	<b>CST/VAT on D+E</b>	<b>Freight</b>	<b>Insurance 0.07% of D+E+G</b>	<b>Total Amount D+E+G+F</b>
	<b>(A)</b>	<b>(B)</b>	<b>(C)</b>	<b>(D)</b>	<b>(E)</b>	<b>(F)</b>	<b>(G)</b>	<b>(F)</b>	
<b>1</b>	Sealing Ring Var 01	168							
<b>2</b>	Sealing Ring Var 02	44							
<b>3</b>	Sealing Ring Var 03	208							
<b>4</b>	Sealing Ring Var 04	54							
<b>5</b>	Sealing Ring Var 05	248							
<b>6</b>	Sealing Ring Var 06	64							
<b>7</b>	Sealing Ring Var 07	248							
<b>8</b>	Sealing Ring Var 08	64							
<b>9</b>	Sealing Ring Var 09	44							
<b>10</b>	Sealing Ring Var 10	54							
<b>11</b>	Sealing Ring Var 11	64							
<b>12</b>	Sealing Ring Var 12	64							
	<b>TOTAL</b>	<b>1324</b>							

**\*\*One copy of this format to be attached with technical bid without prices mentioning ED, CST/VAT & Freight as percentages of Basic cost.**

Vendor Sign &amp; Seal

## SECTION – IX

### Reverse Auction

Against this enquiry for the subject item/ system with detailed scope of supply as per Tender enquiry specifications, BHEL may resort to “REVERSE AUCTION PROCEDURE” i.e ON LINE BIDDING (THROUGH A SERVICE PROVIDER). The philosophy followed for reverse auction shall be English Reverse (No ties).

1. For the proposed reverse auction, technically and commercially acceptable bidders only shall be eligible to participate.
2. Those bidders who have given their acceptance for Reverse Auction (quoted against this tender enquiry) will have to necessarily submit sealed bid for any of the eligible items for which techno-commercially qualified, will be considered as tampering of the tender process and will invite action by BHEL as per extant guidelines in vogue.
3. BHEL will engage the services of a service provider who will provide all necessary training and assistance before commencement of on line bidding on internet.
4. In case of reverse auction, BHEL will inform the bidders the details of Service Provider to enable them to contact & get trained.
5. Business rules like event date, time, bid decrement, extension etc. also will be communicated through service provider for compliance.
6. Bidders have to fax the Compliance form (annexure IV) before start of Reverse auction. Without this, the bidder will not be eligible to participate in the event.
7. In line with the NIT terms, BHEL will provide the calculation sheet (e.g., EXCEL sheet) which will Packing & forwarding charges, Taxes and Duties, Freight charges, Insurance, Service Tax for Services and loading factors (for noncompliance to BHEL standard Commercial terms & conditions) for each of the bidder to enable them to fill-in the price and keep it ready for keying in during the Auction.
8. Reverse auction will be conducted on scheduled date & time.
9. At the end of Reverse Auction event, the lowest bidder value will be known on auction portal.
10. The lowest bidder has to fax/e-mail the duly signed and filled-in prescribed format for price breakup including that of line items, if required, (Annexure VII) as provided on case-to-case basis to Service provider within two working days of Auction without fail.
11. In case BHEL decides not to go for Reverse Auction procedure for this tender enquiry, the Price bids and price impacts, if any, already standard practice.
12. Bidders shall the auctions site of Service provider, using the Login IDs and passwords given to them by the service provider before reverse auction event. Bidders should acquaint themselves of the business rules of Reverse Auction, which will communicated before the Reverse Auction.
13. If the Bidder or any of his representatives are found to be involved in Price manipulation/ cartel formation of any kind, directly or indirectly by communicating with other bidders, action as per extant BHEL guidelines, shall be initiated by BHEL and the results of the RA scrapped/ aborted.
14. The Bidder shall not divulge either his Bids or any other exclusive details of BHEL to any other party.
15. In case BHEL decides to go for reverse auction, the H1 bidder (whose quote is highest in online sealed bid) may not be allowed to participate in further RA process.

**SECTION – X**

**Bank Guarantee Format for Performance (PBG)**

(TO BE STAMPED IN ACCORDANCE WITH STAMP ACT AND THE EXPIRY DATE OF BG MUST BE AFTER 60 DAYS FROM THE DATE OF COMPLETION OF WARRANTY PERIOD)

In accordance of M/s. Bharat Heavy Electricals Limited (A Government of India undertaking, a company incorporated under the Companies Act 1956 having its Registered Office at “BHEL House”, SIRI Fort, New Delhi 110 049) through its High Pressure Boiler

Plant Division located at Tiruverumbur, Tiruchirapalli- 620 014 (hereinafter called ‘the Company’) having entered into a contract with .....hereinafter called ‘ the said contractor ‘ which term includes ‘suppliers’ for the purpose of this Bond and under the terms and conditions of the contract No..... Dt ..... Between BHEL, Trichy and as per the contract, the contractor / supplier is to furnish a performance Bank guarantee for Rs. .... for the due performance of the equipment to be supplied under the above referred contract and for the fulfillment of all the terms and conditions of the contract, We .....(indicate the name of the bank) (herein after referred to as the bank) at the request of ..... (Contractor(s) ) do here by undertake to pay the company an amount not exceeding Rs.....against any loss or damage caused to or suffered or would be caused to or suffered by the company by reason of any breach by the said contractor (s) of any of the terms and conditions contained in the said agreement.

2. We .....(indicate the name of the bank with full address), do hereby undertake to pay the amounts due and payable under this guarantee without any demur, merely on a demand from the Company stating that the amount claimed is due by way of loss or damage caused to or would be caused to or suffered by the Company by reason of breach by the said Contractor(s) of any of the terms and conditions contained in the said Agreement or by the reason of the contractor(s) ‘failure to perform’ the said agreement. Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs.\_\_\_\_\_.

3. We undertake to pay unconditionally to the Company any money so demanded notwithstanding any dispute(s) raised by the Contractor in any suit, or proceedings pending before any Court or Tribunal or Arbitration or before any other authority relating thereto our liability under this present being absolute and unequivocal. The payment under this guarantee would not wait till the disputes have been decided by any Court or Tribunal or in the arbitration proceedings or by any other authority. The payment so made by us under this Bond shall be a valid discharge of liability for payment thereunder and the Contractor(s) shall have no claim against us for making such payment.

4. We.....( indicate the name of Bank), further agree that the guarantee herein contained shall remain in full force and effect during the period that would

be taken for the performance of the said Agreement and that it shall continue to be enforceable till all the dues of the Company under or by virtue of the said Agreement have been fully paid and its claims satisfied or discharged or till \_\_\_\_\_ Office / Department/ Division of the Company certifies that the terms and conditions of the said Agreement have been fully and properly carried out by the said Contractor(s) and accordingly discharges this guarantee.

5. (I) Unless a demand or claim under this guarantee is made on us in writing on or before the \_\_\_\_\_ we shall be discharged from all the liability under this guarantee thereafter. But where such claim or demand has been preferred by the Company with the Bank before the expiry of the said date, the claim shall be enforceable notwithstanding the fact that the said enforcement is effected after the said date.

(ii) For the purpose of this clause, any letter making demand on the Bank by M/s. BHEL dispatched by Registered Post with Ack.Due or by Telegram or by any Electronic media addressed to the above mentioned address of the Bank shall be deemed to be the claim / demand in writing referred to above irrespective of the fact as to whether and when the said letter reaches the Bank, as also any letter containing the said demand or claim is lodged with the bank personally.

6. We .....(indicate the name of Bank), further agree with the company that the Company shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said agreement or to extend time of performance by the said Contractor (s) from time to time or to postpone for any time or from time to time any of the powers exercisable by the Company against the said Contractor(s) and to forbear or enforce any of the terms and conditions relating to the said Agreement and we shall not be relieved from our liability by any reason of any such variation or extension being granted to the said Contractor(s) or for any forbearance, act or omission on the part of the company or any indulgence by the company to the said Contractor(s) or by any such matter or thing whatsoever which under the law relating would, but for this provision, have effect of not so relieving us.

7. This guarantee will not be discharged due to the change in the constitution of the Bank or the Contractor(s).

8. It shall not be necessary for the company to proceed against the contractor before proceeding against the guarantor-bank and the guarantee herein contained shall be enforceable against them notwithstanding any security, which the company may have obtained or obtain from the Contractor shall, at the time when proceedings are taken against the guarantor hereunder be outstanding or unrealised.

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

10. The guarantor hereby declare that it has power to execute this guarantee and the executant has full powers to do so on its behalf under the proper authorities granted to him/them by the guarantor.

11. We .....(indicate the name of Bank) lastly undertake not to revoke this guarantee during its currency except with the previous consent of the company in writing.

In witness whereof we....., (indicate the name of Bank) have hereunto setout Bank Seal the \_\_\_\_\_ day \_\_\_\_\_ month 200

BANK E-MAIL ID:

BANK PHONE NO.

BANK FAX NO:

**SECTION – XI**  
**LOADING CRITERIA**

<b>Payment Term (Indigenous)</b>	
<b>If materials are receivable at Project Sites without PBG</b>	<p><b><u>Option-1:</u></b> Payment term is 100% direct payment after 45 days from the date of dispatch against site acknowledgement</p> <p><b><u>Option-2: (REVISED)</u></b></p> <p>a) Payment term is 100% direct payment after 45 days from the date of dispatch against site acknowledgement.</p> <p style="text-align: center;"><b>(or)</b></p> <p>b) Payment term is 90% direct payment after 45 days from the date of dispatch against submission of dispatch documents and balance 10% against stores acknowledgement. <b>For this option –(b), a loading of 2% on the 90% of the offered value shall be made.</b></p>

<b>Payment Term (Imports) -</b>
BHEL Payment term is 100% payment on CAD basis after 45 days from the date of receipt of documents, specified in PO, at BHEL bank. Respective bank charges to respective account.
<b><del>Any deviation in the above payment term will attract loading as mentioned below. "Base rate of SBI (as applicable on the date of bid opening. Techno-commercial bid opening in case of two part bids) + 6% shall be considered for loading for the period of relaxation sought by bidders.</del></b>
<ul style="list-style-type: none"> <li><del>• In the case of Usance LCs the loading will be considered @ 1.5% on the offered Value.</del></li> <li><del>• For LC at sight the loading will be considered @ 3.5% on the offered Value.</del></li> <li><del>• Normally CAD at sight and Confirmed LCs are liable for rejection.</del></li> </ul>

<b>Liquidated Damages / Penalty - To be incorporated in all NITs addressed to both Indigenous and Import Suppliers</b>
Liquidated damages shall be 0.5% of the total order value per week or part thereof subject to a maximum of 10% of the total order value.
For staggered delivery schedule, LD shall be 0.5% of the undelivered portion per week of the delay or part thereof subject to a maximum of 10% of the total order value.
Any deviation from the above LD clause, loading will be applied to the extent to which it is not agreed by the bidder (at offered value).

**SECTION – XII**  
**SPECIAL & COMMERCIAL TERMS**

<b>Special terms</b>		
<b>Sl.no</b>	<b>Conditions</b>	<b>Vendor conformation</b>
1	Offer shall be submitted in <b>TWO PART</b> bid i.e Technical offer with commercial terms & conditions in one envelope & price bid in another envelope, duly sealed.	
2	Price may be finalized thro <b>"On line Reverse Auction Process"</b> using internet. Refer annexure I.	
3	Offer should be valid for a minimum period of 90 days, from the date of Price Bid Opening/Reverse Auction.	
4	Tender will be finalized on the basis of "Total cost of package basis to BHEL".	
5	"Rate per number" to be quoted on "FOR Trichy Stores" basis with price breakup indicating basic price, P&F, ED,CST/VAT, freight charges separately. Insurance will be in BHEL scope.	
6	If the vendor is not conforming to our technical / drawing requirements in total, their offer will not be considered for further evaluation in this tender.	
7	Liquidated damages shall be 0.5% of the total order value per week or part thereof subject to a maximum of 10% of the total order value.	
8	Lowest Prices received against BHEL tender need not be the technically acceptable one and in that case BHEL reserve the right not to consider the same	
9	Guarantees shall be given for Eighteen months from the date of receipt of the material at Trichy Stores.	
10	BHEL reserves the right to increase or decrease the tendered quantity.	
11	Contact Details:- Name: _____ Designation: _____ Mobile: _____ Email: _____ Phone No: _____	

(Vendor Sign & Seal)

<b>Commercial Terms</b>			
SL NO	CONDITIONS	BHEL TERMS	Accepted/Not Accepted
1	Delivery Terms	FOR Trichy Stores	
2	Delivery period	90 days from PO	
3	ED	Vendor to quote	
4	CST/VAT	Vendor to quote	
5	Freight	Vendor Scope	
6	Insurance	BHEL Scope	
7	LD	Delay in dispatches shall attract a penalty of Liquidated damages (LD) @ 0.5% of the total order value per week, subject to maximum of 10% on total PO value	
8	Risk Purchase	Applicable	
9	PBG	Not Applicable	
10	Payment terms	100% payment will be made in 45 days from the date of receipt of material at trichy stores.	
11	Validity	90 days from the date of RA/Price bid opening	
12	Firm Price	Firm Price	
13	PVC	Not Applicable	
14	Packing Forwarding	Vendor Scope	
15	Guarantee/Warranty	Guarantees shall be given for Eighteen months from the date of receipt of the material at Trichy Stores. 10% Performance Bank Guarantee to be furnished in case of ordering.	

(Vendor Sign &amp; Seal)

**SECTION – XIII****Supplier Registration Form**

Unregistered vendors may get registered with BHEL by filling SRF. Supplier Registration Form (SRF) has to be duly filled up online and send one copy with all the documents as mentioned in SRF.

URL for online Registration form is as below

<http://supplier.bhel.in/>

For any help regarding filling of SRF, you may contact following

<http://supplier.bhel.in/contact.jsp>

Name	Designation	Phone No.	Mail
Mrs. Nalini Subramanian	PURCHASE OFFICER	0431-2577301	nalini@bheltry.co.in
Mr. LJEYAPIRAGASH	SR MANAGER	0431-2577121	ljp@bheltry.co.in
Mr. M EBINESAN	DGM	0431-257448	ebi@bheltry.co.in
Mr. SIVASUBRAMANIAN P	SR MANAGER	0431-2577939	psivasub@bheltry.co.in
Mr. CHINNATHAMBI S	MANAGER	0431-2574215	scthambi@bheltry.co.in
Mr. SEKAR V.M	SR MANAGER	0431-2574608	vmsekar@bheltry.co.in

**Address**

DGM / SDC & ADMN /MM / MFG  
IV FLOOR, 24 BLDG  
UNIT:HPBP, BHEL  
TIRUCHIRAPALLI- 620014  
TAMIL NADU

For any queries regarding tender you may contact

Mr. Sachin Saini  
Engineer/MM/BOI  
BHEL Trichy  
0431-2577897

[sachinsaini@bheltry.co.in](mailto:sachinsaini@bheltry.co.in)

## SECTION – XIV

### Guidelines for tender Submission

#### **For Part 1 (Techno-Commercial Part)**

Submit following signed documents along with Part 1 of your tender

1. Tender Form as per Section VII
2. Confirmation to TDC & Drawing
3. Deviations taken (if any)
4. Unpriced price format duly sealed & signed as per section VIII
5. Commercial & Special terms duly sealed & signed as per section XII
6. Confirmation of submitting online supplier registration form
7. Any other relevant documents

#### **For Part 2 (Techno-Commercial Part)**

Submit following signed documents along with Part 2 of your tender

1. Filled up price format duly sealed & signed as per section VIII

#### **Requirements for uploading offer on BHEL's e-procurement system**

Suppliers interested for registration for BHEL Open Tenders should have a valid DSC before proceeding forward for Registration. Herein a Valid DSC refers to an Active and unexpired Signing and Encryption Certificate, with specification Class III SHA 2 2048 bit.

Refer following links for more details

1. [Procedure for Online Registration in EPS for Open Tender Suppliers](#)
2. [Supplier Manual](#)

For any assistance, please feel free to get in touch with EPS Toll Free Customer care: 180041920001 (9am To 5.30 pm, Monday to Saturday) or write to us at [eps.customercare@mjunction.in](mailto:eps.customercare@mjunction.in)

#### **E-Procurement Help Desk**

033-6601 1717 (From 9:30am to 5:30pm)

9163348283 - 86/8584008116 (From 5:30pm to 8:30pm)

## Procedure for Online Registration in EPS for Open Tender Suppliers

1. Click Register Button(Top of the Screen)
2. Please input your organization PAN No
3. Click on **INTERESTED** Button against the respective Client/Plant
4. Fill up all the field as desire and Click "NEXT" Button
5. Please select one procurement category and press Submit Button.
6. One link will be appear in your screen and click this link
7. Generate the PDF Format and save it.
8. Take print out the PDF format of the EPS Declaration Form on your Organizational Letterhead.  
[Only 4 pages (2 pages of your organization profile +2 pages of Terms & condition of respective client, i.e HCL)
9. Please attach 1 Photocopy of your Organization PAN Card
10. Duly Sign & Stamp on each page of the filled up Form
11. eMail the PDF Copy (5 pages) to the following id at the earliest:  
[eps.customercare@mjunction.in](mailto:eps.customercare@mjunction.in)
12. Courier the hard copy to the below mentioned address.

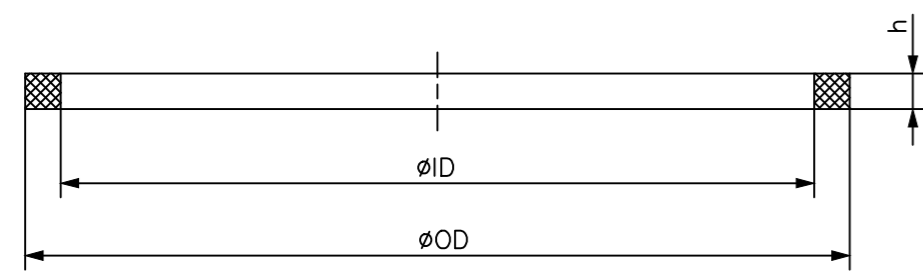
To  
EPS Customer Care Team  
mjunction services ltd  
Godrej Waterside, Tower-I, 3rd Floor  
Plot No. 5, Block-DP  
Sector-V, SaltLakeCity .  
Kolkata-700091, WestBengal, India.

Upon receipt and verification of your properly filled up Declaration Form, along with a photocopy of your organization PAN Card, we would be registering and issuing Bidding Password and intimating you through an automated email to the email id as mentioned in the declaration form.

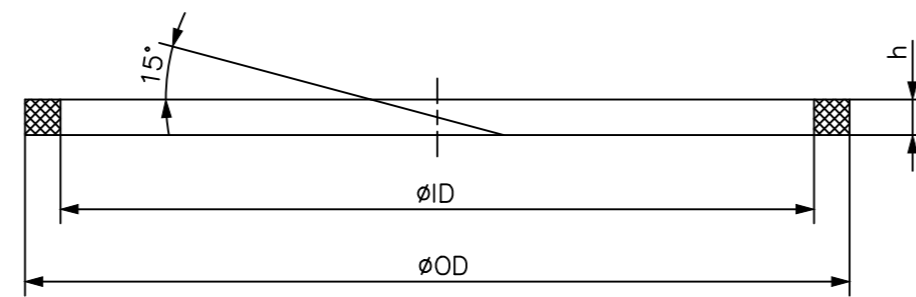
For any assistance, please feel free to get in touch with EPS Toll Free Customer care : 180041920001 (9am To 5.30 pm, Monday To Saturday ) or write to us at [eps.customercare@mjunction.in](mailto:eps.customercare@mjunction.in)

DRAWING NO. 2-90-628-00573

ALL DIMENSIONS ARE IN MILLIMETERS



DIE-FORMED ENDLESS



SQUARE BRAIDED

NOTES: -

1. THE MATERIAL SHALL BE PROCURED AND FABRICATED THROUGH APPROVED TDC No. TDC: 6: 380.
2. OVER TWISTING OF THE CORD DURING LAYING IN MOULD IS NOT PERMITTED. IT IS NOT PERMITTED TO MAKE THE RING OUT OF SECTIONS.
3. DIMENSION GIVEN FOR FABRICATION OF THE MOULD. MOULDS SHALL BE OF SS MATERIAL AND MANUFACTURED AS PER APPROVED DRAWINGS.
4. SIMULTANEOUS MOLDING OF SEVERAL RINGS IN ONE MOULD IS NOT PERMITTED.
5. MARKING ON A TAG.
6. DIMENSION 'h' AFTER COMPLETION OF PRESSING IN THE MOULD SHALL BE RECORDED AT MINIMUM FOUR ORIENTATIONS.
7. ALL REMAINING REQUIREMENTS OF APPROVED TDC:6:380 SHALL BE MET.

LEGEND:

SPT (SIMULATED PERFORMANCE TEST)

DESIGNATION	OD (mm)	ID (mm)	h (mm)	CONSTRUCTION AS PER	QUANTITY (MINIMUM)	ADDITIONAL QUANTITY (MARGIN&SPT)
VAR-01 (EPN)	275 <sup>+0</sup> <sub>-0.25</sub>	265 <sup>+0.25</sup> <sub>0</sub>	5±0.4	DIE FORMED ENDLESS	32	40
VAR-02 (EPN)	275 <sup>+0</sup> <sub>-0.25</sub>	265 <sup>+0.25</sup> <sub>0</sub>	5±0.4	SQUARE BRAIDED	8	12
VAR-03 (GDN)	116 <sup>+0</sup> <sub>-0.25</sub>	106 <sup>+0.25</sup> <sub>0</sub>	5±0.4	DIE FORMED ENDLESS	40	48
VAR-04 (GDN)	116 <sup>+0</sup> <sub>-0.25</sub>	106 <sup>+0.25</sup> <sub>0</sub>	5±0.4	SQUARE BRAIDED	10	14
VAR-05 (IN1&2)	58 <sup>+0</sup> <sub>-0.25</sub>	48 <sup>+0.25</sup> <sub>0</sub>	5±0.4	DIE FORMED ENDLESS	48	56
VAR-06 (IN1&2)	58 <sup>+0</sup> <sub>-0.25</sub>	48 <sup>+0.25</sup> <sub>0</sub>	5±0.4	SQUARE BRAIDED	12	16
VAR-07 (IN3)	46 <sup>+0</sup> <sub>-0.25</sub>	36 <sup>+0.25</sup> <sub>0</sub>	5±0.4	DIE FORMED ENDLESS	48	56
VAR-08 (IN3)	46 <sup>+0</sup> <sub>-0.25</sub>	36 <sup>+0.25</sup> <sub>0</sub>	5±0.4	SQUARE BRAIDED	12	16
VAR-09 @ OPTIONAL	275 <sup>+0</sup> <sub>-0.25</sub>	265 <sup>+0.25</sup> <sub>0</sub>	2.5±0.4	SQUARE BRAIDED	8	12
VAR-10 @ OPTIONAL	116 <sup>+0</sup> <sub>-0.25</sub>	106 <sup>+0.25</sup> <sub>0</sub>	2.5±0.4	SQUARE BRAIDED	10	14
VAR-11 @ OPTIONAL	58 <sup>+0</sup> <sub>-0.25</sub>	48 <sup>+0.25</sup> <sub>0</sub>	2.5±0.4	SQUARE BRAIDED	12	16
VAR-12 @ OPTIONAL	46 <sup>+0</sup> <sub>-0.25</sub>	36 <sup>+0.25</sup> <sub>0</sub>	2.5±0.4	SQUARE BRAIDED	12	16

@ REFER LATEST APPROVED TECHNICAL DELIVERY CONDITION (TDC)

VARIANT NUMBER	ITEM NUMBER	DESCRIPTION	STD	DRAWING NUMBER	ITEM NO	MATERIAL CODE	UNIT	UNIT WEIGHT
VAR NO	MATERIAL SPECN	A/C	DI	QUANTITY				
03	12	RING-12				GRAFLEX/GRAFDIL		0.003
03	11	RING-11				GRAFLEX/GRAFDIL		0.004
03	10	RING-10				GRAFLEX/GRAFDIL		0.008
03	09	RING-9				GRAFLEX/GRAFDIL		0.019
	08	RING-8				GRAFLEX/GRAFDIL		0.006
	07	RING-7				GRAFLEX/GRAFDIL		0.006
	06	RING-6				GRAFLEX/GRAFDIL		0.008
	05	RING-5				GRAFLEX/GRAFDIL		0.008
	04	RING-4				GRAFLEX/GRAFDIL		0.016
	03	RING-3				GRAFLEX/GRAFDIL		0.016
	02	RING-2				GRAFLEX/GRAFDIL		0.038
	01	RING-1				GRAFLEX/GRAFDIL		0.038

TOLERANCE IF UNSPECIFIED SHALL BE AS PER IS:2102-1969 (FOR MACHINED PARTS) ALL DIMENSIONS ARE IN MM UNLESS SPECIFIED OTHERWISE					
LINEAR			ANGULAR		
DIMENSIONS	TOL	DIMENSIONS	TOL	DIMENSIONS	TOL
UP TO 6	±0.1	315 TO 1000	±0.8	UP TO 10	±1'
6 TO 30	±0.2	1000 TO 2000	±1.2	10 TO 50	±30'
30 TO 120	±0.3	2000 TO 4000	±2.0	50 TO 120	±20'
120 TO 315	±0.5	4000 TO 8000	±3.0	120 TO 400	±10'
RADI AND CHAMFERS	0.5 TO 3	3 TO 6	6 TO 30	400 UPWARDS	±5'
TOLERANCE	±0.2	±0.5	±1.0	PERMISSIBLE DEVIATIONS FOR RANGE OF LENGTHS IN MILLIMETERS, OF THE SHORTER SIDE OF THE ANGLE CONCERNED	

CAUTION: The information on this document is the property of BHARAT HEAVY ELECTRICALS LTD. It must not be used directly or indirectly in any way detrimental to the interest of the company.

TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT: **RPV-B2 TOP COVER**  
**W.O.D149 & D150**  
 REF: B2/04M-53/SK  
 PROD.N.DRG

DEPT	NC	GRADE OF UNTO DIM C/M/F	SCALE	WEIGHT (Kg)	REF TO ASSY / OLD DWG	ITEM NO	No OF ITEMS
CODE	150		1:1	--	0-90-628-00292	20 TO 27	

Signature: K.R. (DRN), RRV/E ARUN (CHD), A.S. (APPD)  
 DATE: 140213  
 UNIT: U 01  
 DRAWING NO: 2-90-628-00573  
 REV: 03

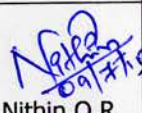
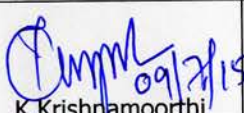


REV	DATE	ALTERED :	REV	DATE	ALTERED :	REV	DATE	ALTERED :
03	300515	CHD&APPD	02	070515	CHD&APPD	01	090413	CHD&APPD

TABLE REARRANGED. VAR-09 TO 12 ADDED. NOTES MODIFIED BASED ON CUSTOMER'S COMMENT.  
 OPTION-1&2 ADDED. TABLE MODIFIED. NOTES ALTERED.  
 TABLE MODIFIED. NOTE-1 ADDED. NOTE-2,3,7,8&9 MODIFIED. W.O. NOS. CHANGED.



## Technical Specification of Thermo-Expanded Graphite Sealing Rings

(D149&D150-Top Cover Assembly-B2)

Rev	Date	Nature of Revision	BHEL			BARC
			Prepared	Reviewed	Approved	Approved
00	04-05-15	Fresh	Nithin.O.R	K.Krishnamoorthi	M.Ponnusamy	AN
01	17-06-15	i) Clause 1.3&3.14 - added& Clause 2.2 - altered. ii) A1,B1,A2&B2 stages -Deleted.	Nithin.O.R	K.Krishnamoorthi	M.Ponnusamy	AN
02	09-07-15	Pressure& Temperature in clause 5.8.1-Altered as per customer comment in Rev01.	 Nithin.O.R	 K.Krishnamoorthi	 M.Ponnusamy	 AN

(C.N.Ravi)  
BARC.



## 1.0 INTRODUCTION

- 1.1 This specification covers technical requirements of Thermo-Expanded Graphite (TEG) sealing rings.
- 1.2 Definitions: -
- a) Sample rings – Rings manufactured and tested as per this specification prior to actual supply.
  - b) Production Test (PT) rings – Rings manufactured concurrently with actual supply and used for testing.
  - c) Batch – All finished sealing rings of one type, grade, and quality produced in a continuous run or at the same time under essentially the same conditions.
  - d) SPT – Simulated Performance Test as per paragraph 5.8 of this document.
- 1.3 Applicable Documents:
- a) Drg No:2-90-628-00573/Latest
  - b) ASTM F2191-02(Reapproved 2008)
  - c) ASTM F2168-13

## 2.0 SCOPE

- 2.1 Scope of work is as under: -
- a) Tooling and fixtures
  - b) Manufacture and Testing of Sample rings
  - c) Manufacture of sealing rings for supply and Testing of PT rings
  - d) Documentation, Packing and Shipping
- 2.2 Size and quantity of sealing rings to be procured shall be as per Drg:2-90-628-00573/latest.
- 2.3 Requirement of reduced thickness (2.5 mm thk.) sealing rings shall be decided based on results of SPT carried out on PT rings as per paragraph 5.8 of this document.

## 3.0 MATERIAL REQUIREMENTS

- 3.1 Material of sealing rings (both die-formed endless and braided construction) shall be ultra pure graphite meeting requirements of chemistry as per Table-1.
- 3.2 Chemical analysis of sealing rings shall be carried out on Sample rings and PT rings at an NABL accredited laboratory only.
- 3.3 Test methods suggested in ASTM F2168, ASTM F2191 or any other alternate methods of equal or improved accuracy and precision shall be used. Any alternate test method



suggested by the Supplier shall be reviewed by Purchaser. Decision of Purchaser in all cases shall be final.

- 3.4 Prohibited additions – Sb, As, Bi, Cd, Ga, In, Pb, Ag, Sn and Zn shall be controlled to trace levels and reported.
- 3.5 The packing shall not contain corrosion inhibiting additives.
- 3.6 Mercury exclusion – During manufacture, handling and packing, sealing rings or packing material shall not come in contact with mercury or mercury containing compounds.
- 3.7 Physical properties of finished sealing rings shall be as per Table-2.
- 3.8 Square plait braided rings shall be made from continuous graphite yarns.
- 3.9 Difference in thickness of sealing rings along the ring circumference after pressing shall not be more than 0.5 mm.
- 3.10 All surfaces of dies which come in contact with sealing rings during pressing shall be thoroughly cleaned by acetone and shall clear white cloth swab test prior to placing of sealing rings. Dies shall be thoroughly inspected prior to die-forming.
- 3.11 During initial pressing of sealing rings, only one ring shall be pressed in the compression mould at a time.
- 3.12. For braided variants, rings shall be formed by compressing the braided rope having 15° chamfered ends in dies. Use of two half rings is not permitted.
- 3.13 Compacting load applied and holding duration for die-forming of sealing rings shall be sufficient to achieve the specified density. These values shall be reported for each sealing ring.
- 3.14 Supplier shall confirm meeting requirements of clause 3.4,3.5,3.6,3.8,3.10,3.11,3.12 & 3.13 in test certificates.

#### **4.0 QUALITY REQUIREMENTS**

- 4.1. Manufacture of sealing rings shall be carried out as per approved QAP to be submitted by the Supplier for approval of Purchaser clearly identifying all testing/inspection stages with witness and HOLD points.
- 4.2. Sealing rings shall be handled at all times with clean gloves and stored in greaseproof polythene covers secured by pressure-sensitive tapes in dust free environment to avoid contaminations by injurious and undesirable foreign matter during all stages of manufacture.

- 4.3. All the requirements of this specification shall be first established on Sample rings, which will be tested and inspected as per paragraph 5.3, 5.4, 5.5, 5.6 and 5.7 of this document. Number of Sample rings shall be sufficient to carry out testing and inspection.
- 4.4. Manufacture of actual supply rings shall be carried out only after acceptance of test results on Sample sealing rings by Purchaser.
- 4.5. Process log records shall be maintained for all activities in proper format. Process log records shall be maintained for all manufacturing activities.
- 4.6. PT rings shall be manufactured along with the actual supply and shall meet all the requirements of this specification. PT rings shall be subjected to testing and inspection as per paragraph 5.0 of this document. Number of PT rings shall be sufficient to carry out testing and inspection.
- 4.7. All sealing rings (Sample and PT rings included) shall be properly identifiable with a tag to avoid mix-up with other material / supplies. Sample and PT rings after testing & inspection shall be properly labelled and packed.
- 4.8. Approval of documents, process, raw materials and equipment implies no guarantee of acceptance of the test results. Acceptance of the test results for PT rings does not guarantee acceptance of final product and final product will be accepted only after complete inspection of the same.
- 4.9. No deviation from the specification is permitted without prior approval of Purchaser. All non-conformances must be recorded & submitted for approval. Repair of sealing rings is not permitted.
- 4.10. Sampling inspection, if authorised by Purchaser, is acceptable to ascertain conformance to requirements, however, this does not authorise submission of known defective material, nor does it commit the Purchaser to accept defective material.

## **5.0 TESTING & INSPECTION**

- 5.1. Supplier shall confirm that the product complies with this specification. All log records and inspection reports shall be submitted to Purchaser for review at the time of inspection. All testing and inspection shall be conducted in the presence of Purchaser.
- 5.2. In case of non-acceptable results, retesting shall be carried out on double the number of samples in consultation with Purchaser. Test specimens shall be used only once and then preserved for records.

### 5.3. Visual Examination

5.3.1. Each sealing ring shall be selected for visual and dimensional inspection. Sealing rings shall be free of any visual defects that may affect serviceability.

5.3.2. Acceptance for visual inspection – Any packing containing the following visual defects are liable to be rejected –

- Holes or voids
- Particulate or extraneous matter on surface that is not easily removed without damaging the packing
- Delaminations
- Gouges (> 0.12 mm in depth)
- Cracking
- Crevices

5.4 Dimensions of sealing rings shall be as per Drg:2-90-628-00573/Latest.

5.5 Chemical and physical properties of Sealing rings shall meet requirements of Tables 1 & 2.

5.6 Braid geometry retention for braided sealing rings – Un-taped, cut ends shall not unravel more than 3 mm with the sealing ring dry or wet. Procedure – Cut a  $50 \pm 1.5$  mm length packing (the ends shall not be taped prior to or after cutting). Soak the test piece in room temperature water for 15 minutes minimum. The packing shall not unravel at the ends more than 3 mm at either end.

5.7 Compression recovery test - This test shall be conducted as per paragraph 13.10 of ASTM standard F2191-02 (2008) or ASTM F36 for each size of sealing rings. Compression recovery shall meet requirements of Table 2.

### **5.8 Simulated Performance Test (SPT)**

5.8.1 Each size of Test rings in combination (4 Die-formed endless and 1 Square plait braided) shall be subjected to pneumatic test at  $5^{+1}$  bar & RT for a total duration of 30 minutes minimum. If needed, reduced thickness rings (2.5 mm thick) shall be introduced to meet the requirement of paragraph 5.8.5 of this document.

5.8.2 Test loop, simulated gland box chambers and fixtures shall be manufactured as per drawings submitted by Supplier and approved by Purchaser. Simulated gland box chambers and nozzles (4 sizes) shall be designed to simulate actual conditions.

5.8.3. Sealing surfaces of simulated gland box chamber and simulated nozzles shall have finish better than  $Ra\ 0.8\ \mu$ . The surfaces which come in contact with sealing rings shall be cleaned using acetone and shall pass white cloth swab test. The surfaces shall be free of dents, lines, scratches, burrs, metal filings, scale or other foreign matter.

- 5.8.4. Temporary fasteners (M10x1.5) of the gland box shall be tightened at  $30^{+2.5}$  Nm [ $3^{+0.25}$  kgf.m] with a calibrated torque wrench in proper tightening sequence. Tightening torque shall be applied in steps 50%, 80% and 100% of final load. Ensure uniform pressing of the flange on all orientations. Start of holding duration shall be counted from the time of last of tightening. All such gland adjustments shall be recorded.
- 5.8.5. After the completion of 24 hours holding duration, all the fasteners shall be retightened using the final torque. Requirement of gap as 7(-2) mm shall be met.
- 5.8.6. Simulated performance of the sealing rings can be considered satisfactory on following observations: -
- No leakage from the packing gland during the test
  - No corrosion or degradation of the packing gland at the completion of test
  - Requirement of Gap 7(-2) shall be met between flange bottom and top face of Gland box chamber Assembly are met and
- 5.8.7. Following shall be recorded during the test: -
- Final torque for tightening fasteners during simulated performance.
  - Gap between flange bottom and top face of gland box chamber after torque tightening and before pressure test
  - Gap between flange bottom and top face of gland box chamber after pressure test and re-tightening to same torque.
- 5.8.8. Repeat testing, if required, shall be carried out with approval of Purchaser.

## 6.0 STORAGE, HANDLING, PACKING & SHIPPING

- 6.1. Adequate care shall be exercised during storage, handling, packing & shipping. Sealing rings shall be protected at all times from damage, distortion and ingress of moisture or chlorides.
- 6.2. Sealing rings shall be protected by placing a wrap of grease-proof barrier material over the material. Dimensional stability of the rings shall be ensured by use of proper packaging (bangle stacking etc.). The wrap shall be secured utilising pressure-sensitive tape. Precautions and instructions for installation shall be furnished with each unit package. Different sizes and batches shall be packed separately and properly labelled.
- 6.3. Following completed documents shall be supplied: -
- QAP, Test procedures, Fixture drawings/sketches
  - Process parameter log records
  - Inspection and Testing records
- 6.4. Shipping shall take place only after clearance / approval from Purchaser. Parts/articles cleared for shipment but found damaged on receipt shall be accounted as "Rejected" and shall not form part of supply.

**TABLES**
**Table-1 Chemistry of sealing rings**

Characteristic	Acceptance	Method of determination
Carbon assay, Graphitic	≥ 99.8%	ASTM D3178 after drying to a constant mass at 149±3°C
Ash content	≤ 0.2%	ASTM C561
Moisture content	≤ 2.5 %	ASTM C562
Leachable chloride	≤ 10 ppm	ASTM F1277
Total chlorides	≤ 20 ppm	Pyrohydrolysis (ASTM C889) or Ion Chromatographic analysis or ASTM D129 or ASTM D512
Sulphur content	≤ 450 ppm	High temperature combustion in 100% Oxygen or Nondispersive infrared analysis or Ion Chromatographic analysis or ASTM C816 or ASTM D4239 Method 3
Total Fluorides	≤ 10 ppm	Pyrohydrolysis (ASTM C889) or Selective Ion Electrode or Ion Chromatographic analysis or ASTM D129 or ASTM D1179 or ASTM D3761
Mercury (Hg)	≤ 1 ppm	Direct analysis of volatile elements by emission spectrographic method or Direct analysis of volatile elements by atomic absorption as per D3684
Total Halogens (Cl, Br, F)	≤ 40 ppm	Test method of sufficient accuracy and precision shall be used with the approval of Purchaser.
Total Nitrates	≤ 10 ppm	
Total Nitrites	≤ 1 ppm	
Phosphorus (P)	≤ 30 ppm	
Aluminium (Al)	≤ 15 ppm	
Copper (Cu)	≤ 10 ppm	

**Table-2 Physical properties**

Characteristic	Acceptance value	No. samples of size per batch	Method of determination
Bulk density	1.6-1.8 g/cc minimum	3 nos.	ASTM C559
Compression recovery	25% minimum	3 nos.	ASTM F36/ASTM F2191