

| BHEL :: BAP :: RANIPET                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |         |               |                                                                            |      |      |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------------|----------------------------------------------------------------------------|------|------|
| PURCHASE DEPARTMENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |         |               |                                                                            |      |      |
| NOTICE INVITING TENDER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |         |               |                                                                            |      |      |
| ANNEXURE-A TO OPEN TENDER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |         |               |                                                                            |      |      |
| Tenders are invited from prospective manufacturers for supply of Interlocks for various projects with technical specification<br>TEP:GEN:INT:0111:REV 01.                                                                                                                                                                                                                                                                                                                                                                                            |         |               |                                                                            |      |      |
| Set                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | ENQ SNO | Material Code | Material Description                                                       | Qty  | UNIT |
| Set 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 001     | R79433990001  | ROTARY SWITCH WITH KEY 2POLE 415V,5A,AC FOR ELECTRONIC CONTROL PANNEL DOOR | 128  | NO   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 002     | R79433990002  | INTERLOCK WITHOUT KEY                                                      | 1184 | NO   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 003     | R79433990003  | INTERLOCK WITH KEY                                                         | 128  | NO   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 004     | R79433990004  | MASTER KEY                                                                 | 16   | NO   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 005     | R79433990005  | ENCLOSURE BOX WITH KEY EXCHANGE BOX (SL.NO.02,03,04 &05)                   | 8    | NO   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 006     | R79433990006  | ENCLOSURE BOX WITH KEY EXCHANGE BOX (SL.NO.06,07&08)                       | 16   | NO   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 007     | R79433990007  | ENCLOSURE BOX WITH KEY EXCHANGE BOX (SL.NO.09,10&11)                       | 8    | NO   |
| Set 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 008     | R79537130001  | ROTARY SWITCH WITH KEY 2POLE 415V,5A,AC FOR ELECTRONIC CONTROL PANNEL DOOR | 72   | NO   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 009     | R79537130002  | INTERLOCK WITHOUT KEY                                                      | 664  | NO   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 010     | R79537130003  | INTERLOCK WITH KEY                                                         | 72   | NO   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 011     | R79537130004  | MASTER KEY                                                                 | 8    | NO   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 012     | R79537130005  | ENCLOSURE BOX WITH KEY EXCHANGE BOX (SL.NO.02,03, 04 &05)                  | 4    | NO   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 013     | R79537130006  | ENCLOSURE BOX WITH KEY EXCHANGE BOX (SL.NO.06 &07)                         | 8    | NO   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 014     | R79537130007  | ENCLOSURE BOX WITH KEY EXCHANGE BOX (SL.NO.08 &09)                         | 4    | NO   |
| Set 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 016     | R79637520001  | ROTARY SWITCH WITH KEY 2POLE 415V,5A,AC FOR ELECTRONIC CONTROL PANNEL DOOR | 72   | NO   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 017     | R79637520002  | INTERLOCK WITHOUT KEY                                                      | 664  | NO   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 018     | R79637520003  | INTERLOCK WITH KEY                                                         | 72   | NO   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 019     | R79637520004  | MASTER KEY                                                                 | 8    | NO   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 020     | R79637520005  | ENCLOSURE BOX WITH KEY EXCHANGE BOX (SL.NO.02,03, 04 &05)                  | 4    | NO   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 021     | R79637520006  | ENCLOSURE BOX WITH KEY EXCHANGE BOX (SL.NO.06 &07)                         | 8    | NO   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 022     | R79637520007  | ENCLOSURE BOX WITH KEY EXCHANGE BOX (SL.NO.08 &09)                         | 4    | NO   |
| <b>Note:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |         |               |                                                                            |      |      |
| 1. Pointwise specific confirmation to BHEL SPECIFICATION to be given in the Techno-Commercial Bid without fail; otherwise offer may not be considered.                                                                                                                                                                                                                                                                                                                                                                                               |         |               |                                                                            |      |      |
| 2. In case of supplies from any new foreign suppliers, who are not in BHEL Product Material Directory, material inspection shall be carried out by Third Party Inspection Agency like Lloyds or SGS or BVQI prior to shipment at Supplier's work and total inspection charges shall be borne by the supplier only. (Quoted price shall be inclusive of TP inspection charges). For indigenous suppliers, first inspection will be carried out by BHEL only and subsequent inspections will be by BHEL/BHEL approved Third Party Inspection Agencies. |         |               |                                                                            |      |      |
| 3. Offer to be submitted through Enterprise Procurement System (EPS) only .In case of direct hard copy offers, the same will be returned to the supplier without opening.                                                                                                                                                                                                                                                                                                                                                                            |         |               |                                                                            |      |      |
| <b>4. Pre Qualification Criteria</b> - (1) The supply shall be as per our Technical Specn: TEP:GEN:INT:011:REV 01 Dated 22.03.2014 drawing and quality requirement as QP:E:834 Rev 01, deviation if any, the "deviation summary " shall be submitted for our technical evaluation.<br>(2) The new supplier/First time supplier to BHEL Ranipet shall fill all the details as called in the Supplier's Registration Form through online as stated above.                                                                                              |         |               |                                                                            |      |      |
| 5.BHEL reserves the right to verify the information provided by vendor. In case the information provided by vendor is found to be false / incorrect, the offer shall be rejected.                                                                                                                                                                                                                                                                                                                                                                    |         |               |                                                                            |      |      |
| 6. Enquiry serial number 001 to 007 pertaining to project Ennore is to be considered as SET 1 , Sl.no.008 to 014 pertaining to project Vijayawada is to be considered as SET 2 and serial number 016 to 022 pertaining to project Krishnapatinam is to be considered as SET 3. Interlock for a particular project to be procured from a single source as a single set.Evaluation shall be done on set basis.                                                                                                                                         |         |               |                                                                            |      |      |
| Incase of any clarification, kindly email to gravi@bhelrpt.co.in / psureshkumar@bhelrpt.co.in / 04172 284031 / 284958 between 0830 hrs to 1630 hrs                                                                                                                                                                                                                                                                                                                                                                                                   |         |               |                                                                            |      |      |

**Annexure–A1 to Enquiry**  
**Essential Commercial Terms & Conditions**  
**(To be filled in full and to be submitted along with offer)**

| SL. NO. | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | BHEL'S REQUIREMENT                                                                                                                                                                                                                                                                                                                                                                                                                                                         | SUPPLIER'S COMMENTS |
|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| 01.     | PRICE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Firm till completion of order.[offer with <b>Price Variation Clause</b> is not acceptable]                                                                                                                                                                                                                                                                                                                                                                                 |                     |
| 02.     | DELIVERY TERMS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | FOR DESTINATION                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                     |
| 03.     | DELIVERY PLACE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | ENNORE SITE, KRISHNAPATINAM SITE , VIJAYAWADA SITE.                                                                                                                                                                                                                                                                                                                                                                                                                        |                     |
| 04.     | PACKING&FORWARIDING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | To be included. [ if extra indicate in % ]                                                                                                                                                                                                                                                                                                                                                                                                                                 |                     |
| 05.     | FREIGHT & INSURANCE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | To be included. [ if extra indicate in % ]                                                                                                                                                                                                                                                                                                                                                                                                                                 |                     |
| 06.     | EXCISE DUTY in %                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | To be indicated by vendor. [ CENVAT Copy to be provided along with supply]                                                                                                                                                                                                                                                                                                                                                                                                 |                     |
| 07.     | SALES TAX in %                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | To be indicated by vendor. [concessional form 'C' will be given]                                                                                                                                                                                                                                                                                                                                                                                                           |                     |
| 08.     | OCTROI: If any, to supplier's account only. [since enquiry Destination has been given, vendor has to ascertain the applicability of OCTROI].                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                     |
| 09.     | PAYMENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 100% within 45 days (for registered MSE vendors) / 90 days (for non MSE vendors) after receipt & acceptance of materials at our end. Please confirm your acceptance for the same. In the event of any deviation in the above payment terms the following loading on your base rate will be done as below." Base rate of SBI (as applicable on the date of techno commercial bid opening) + 6% shall be considered for loading for the period of relaxation sought by you") |                     |
| 10.     | DELIVERY PERIOD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | To be indicated by vendor                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                     |
| 11.     | L.D. CLAUSE: As indicated in Enquiry (as per IMPORTANT NOTE) Confirmation L.D. Clause as indicated in Enquiry @0.5% per week subject to a maximum of 10% for the delayed delivery. (In case any bidder is not accepting the above penalty for delayed supply, the offer of bidder shall be loaded to the extent to which it is not agreed by the bidder. Example: If the supplier has accepted for maximum 5 % penalty clause, then balance 5% will be loaded for evaluating lowest bidder)                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                     |
| 12.     | OFFER VALIDITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Minimum 90 days from the date of tender opening.                                                                                                                                                                                                                                                                                                                                                                                                                           |                     |
| 13.     | INSPECTION BEFORE DESPATCH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Will be done at Vendor's Works before Dispatch by BHEL / BHEL's customer / BHEL's authorized Inspection agency                                                                                                                                                                                                                                                                                                                                                             |                     |
| 14.     | TEST CERTIFICATE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Required                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                     |
| 15.     | <b>BHEL Standard Guarantee Clause:</b> Your confirmation to our standard Guarantee clause that the materials are to be guaranteed for satisfactory performance for a period of twelve months from the date of commissioning / putting into use (or) eighteen months from the dispatch which ever is earlier and if any defect is noticed during the above period, the same shall be rectified/replaced free of cost on Ranipet/ Destination basis within a reasonable time. To this effect a Guarantee certificate should be sent along with the dispatch documents in the event an order |                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                     |
| 16.     | <b>Risk Purchase Clause:</b> The purchaser at his option 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 seller has failed to deliver or dispatch within the time stipulated as aforesaid or if the same were not available, the best and the nearest available substitute thereof. The seller shall be liable for all losses and extra expenditure which the purchaser may sustain by reason of such risk purchases in addition to penalty at the rates of LD clause agreed. |                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                     |
| 17.     | Place of Manufacture & supply ( Along with State)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                     |
| 18.     | Vendor status like Micro / Small / Medium (Latest copy of supporting document shall be furnished along with offer)                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                     |
| 19.     | RA terms & conditions as given in Annexure C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                     |

The above format shall be completely filled and deviation if any shall be clearly spelt out. The columns which are not applicable shall be mentioned as "Not applicable". No column should be left without filled up and this may be liable for rejection of offer.

Date:

SIGNATURE WITH SEAL

**ANNEXURE – A2 TO ENQUIRY**  
**REQUIREMENT OF TECHNICAL DETAILS /CONFIRMATION**  
**(To be filled in full and to be submitted along with offer)**

| S.NO | DESCRIPTION                                             | BHEL'S REQUIREMENT                                                                                                                                                                                               | SUPPLIER'S COMMENTS |
|------|---------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| 01   | SPECIFICATION                                           | Clause wise / Point wise confirmation to be given in TOTO for all specifications& to be submitted along with offer. (i.e. Xerox copy of specn duly filled with your acceptance / comments duly signed & sealed). |                     |
| 02   | Specification                                           | TEP:GEN:INT:011:REV 01                                                                                                                                                                                           |                     |
| 03   | Quality specification                                   | QP:E:834 REV 01                                                                                                                                                                                                  |                     |
| 04   | Drawings                                                | 2-00-114-30178, 2-00-114-30106, 2-00-114-29964.                                                                                                                                                                  |                     |
| 05   | SPECIFICATION<br>DEVIATION DISPOSITION<br>REPORT (SDDR) | Attached SDDR to be filled & submit along with offer.[ In case of NO deviation is taken, NIL report to be submitted ]                                                                                            |                     |

Date:

VENDOR's SIGNATURE WITH SEAL

**(To be submitted along with the offer)**

| SPECIFICATION DEVIATION DISPOSITION REPORT                                        |        |                                  |                     |
|-----------------------------------------------------------------------------------|--------|----------------------------------|---------------------|
| Specn                                                                             |        |                                  | Item                |
| Enq.No & Date                                                                     |        |                                  |                     |
| Vendor Name                                                                       |        |                                  |                     |
| SPECN                                                                             |        |                                  |                     |
| Page                                                                              | Clause | Details Of Deviation With Reason | Disposition By Bhel |
|                                                                                   |        |                                  |                     |
| Signature Of Vendor                                                               |        |                                  | Reviewed By         |
|                                                                                   |        |                                  |                     |
| "AGREED DEVIATION "<br>if any to be incorporated in the PO in the event of order. |        |                                  | APPROVED BY         |
|                                                                                   |        |                                  |                     |

**The above Commercial Terms and Conditions are confirmed by us for this tender. In case there is a variance between the conditions confirmed above and the main offer, we certify that the Commercial Terms and Conditions given above is applicable. Such Commercial Terms and Conditions in the main offer may be considered null and void by the Purchaser and this is accepted by us.**

Date:

VENDOR's SIGNATURE WITH SEAL

**ANNEXURE –B**  
**GENERAL TERMS & CONDITIONS**  
**(FOR GUIDANCE TO THE SUPPLIERS)**

**A] Submission of Offer**

**a) Invitation for bid**

Tenders are invited through electronic mode from eligible suppliers in case of open tenders and from suppliers to whom the enquiry is addressed in case of Limited / Single Tender.

The offers shall be posted into the system before the date and time specified in the tender.

The offer shall be sent on single part / two part / three part basis as specified in the main tender document.

Bids shall be submitted through e-Procurement portal, <https://bheleps.buyjunction.in>, of M/s mJunction Services Limited who are our solution provider.

**b) Hardware and Software requirements for participating in e-tender**

Requirement for participating in e-Procurement is as under:

- i) A Computer with internet connectivity (Internet Explorer Version 9 and above).
- ii) Digital Signature Certificate (Class 3- SHA2-2048 BIT- with both Signing and Encryption component separately).
- iii) JAVA (Version 1.8 Update 45).

**c) Instructions for Registered Suppliers**

For all types of tenders (Single / Limited / Open) an automated email alert regarding issue of the Tender will be sent by the e-procurement portal to all Suppliers registered with BHEL, Ranipet for the item/s for which the tender is issued.

In case of open tenders, Registered suppliers with registered DSC will have to login with their user id/password & DSC and search for the Open Tender. On clicking the “Interest” button, they will get attached to that particular Open Tender.

Registered suppliers without DSC will have to first register themselves in <https://bheleps.buyjunction.in> as new supplier by clicking the “New Supplier” button.

To know the procedure for obtaining Digital Signature Certificate (DSC), suppliers who are not having the DSC are advised to visit our website [www.bhel.com](http://www.bhel.com) → Tender Notifications → Sample Checklist.

**d) Instructions for new suppliers wishing to bid against open tenders**

New, unregistered suppliers wanting to bid against open tender/s will have to first register themselves in <https://bheleps.buyjunction.in> as new supplier by clicking the “New Supplier” button.

After entering the Income Tax Permanent Account Number (PAN) details and pressing “Enter”, they have to click the “Interested” button against the respective BHEL Unit for which they want to participate in the Open Tender and also fill up other relevant Company information as a one-time activity.

Then, a box for filling in a “preferred login id” will appear at the top of the page. After giving the “preferred login id” and then clicking the “Next” button, Supplier would have to map their DSC (which will be activated by M/s mJunction Services Limited), if available. Or else, by pressing “skip” button and selecting relevant procurement category from the list available in the next page and “agreeing” to the BHEL’s terms & conditions, user id and password will be generated/activated once in 2 hours and mailed to their registered

email id. Using this user id and password, Supplier has to login and map the Digital Signature Certificate they have purchased to their code. The DSC will then be activated by M/s mJunction Services Limited.

As required by the tender, the necessary documents have to be filled-in online, in the provided template. Additional documents required are to be scanned and uploaded as .pdf file. Suppliers are advised to take note that the maximum space that is provided for uploading the documents that are to be attached is 300 MB. However the size of an individual document cannot exceed 10 MB. For any clarification on submission of offer on line, attention of the Supplier/s is invited to our document “Supplier Manual” hosted in the home-page of the e-procurement portal. During normal business hours, helpline maintained by the service provider mJunction is available for clarifying any doubts of supplier/s. The helpline numbers are 09840704941 or 09500199108.

**Typical documents that would be required as part of tender submission would be**

- a) **Complete technical Offer** with details, catalogues, as applicable.
- b) **Un-priced bid** (i.e. Bid without the Price) as per given format, if any.
- c) **Filled-in BHEL’s Standard Terms & Conditions** as per Annexure enclosed with the Tender Document,
- d) **Deviation summary** submitted in two parts – giving the summary of technical deviations separately and the commercial deviations separately, if any and
- f) **Supporting documents** to substantiate equivalent material specifications / sections, where quoted for.
- g) Where asked for, **Client list** with their full address including detail of contact person with phone no., fax no. & e-mail ID (if any) to whom the same / similar items are supplied in the past two years. The date of supply may also be indicated, against each client.
- h) **Bidders who are not already registered with BHEL Ranipet** are requested to submit the Supplier Registration Form (SRF) online. The Supplier Development Cell (SDC) of BHEL, Ranipet would process the SRF for evaluation / registering the Supplier.

Suppliers can also upload their credentials by way of submission of Performance certificate/s issued by their customer/s detailing the quantity supplied and specification along with the un-priced PO copies and proof of supply along with the offer.

**Technical acceptance of offer by BHEL shall be based on the evaluation of offer and the submitted documents.**

**Note**

- (i) The materials offered, shall conform to the specification and scope attached in the tender.
- (ii) In case the offered materials are not conforming to the Enquiry material Specification, such offers would not be considered for evaluation and would be rejected.

Where equivalent specifications are offered, considering such offers will be at the sole discretion of BHEL. Wherever alternative standards / specifications are offered by Bidder, the Bidder shall provide sufficient documentary evidence to ensure equivalence to the designated standards / specifications, failing which the offer would be considered as not technically acceptable and hence shall stand rejected.

- (iii) All taxes and duties payable as extra to the quoted price should be specifically stated in offers (as appearing in the online template).



Offer/s from within India shall be submitted along with CST & TIN No. / Tariff No. etc, failing which the purchaser will not be liable for payment of such taxes and duties. Our TIN No. 33024364741, CST No. 1141686/01.07.2014, BHEL ECC No. AAACB4146PXM008.

(iv) The un-priced bid shall be used to indicate relevant commercial terms such as scope of freight and insurance, applicability of duties and taxes etc. All Commercial terms are to be indicated clearly in the offer.

(vi) No changes shall be entertained once the bid is opened unless otherwise specifically agreed to in writing by BHEL.

(vii) Money values other than for those items appearing in the un-priced bid template shall not be indicated anywhere in the un-priced bid.

(viii) Time required for inspection (at Supplier's works), should be clearly given in terms of numbers of working days.

(x) **Offers sent by FAX / E-mail:** would not be entertained.

**Price Bid** in conformance with the specification and terms as given in the Un-Priced bid document.

**Caution:**

*The suppliers are severely cautioned to note that the price bid document accepts the price in figures only. It does not allow the supplier to write the value by words. Therefore all care shall be exercised by the supplier while filling in the figures. Once the price bid is opened no option is available for the supplier to retract the offer under any grounds. If a supplier, for any reason whatsoever approaches BHEL with a request for change in the price, it would be treated as going back on the offer submitted. In such cases, action would be initiated by BHEL for suspending further business dealings with such suppliers as per policy of BHEL which prevails at that point of time.*

**Foreign / Overseas suppliers are hereby informed that offers with differential currencies are not permitted for a given tender document.**

**Note**

(i) The price break-up should be in line with technical specification / scope of the tender. (Cost of material, packing charges, forwarding charges, freight and insurance charges shall be shown appropriately, as applicable).

(ii) Unless otherwise specified as a part of the tender condition, No Price Variation Clause will be entertained and No advance payment will be made by BHEL.

(iii) In case, there is a discrepancy in the term quoted in techno-commercial bid and price bid, the term as per the techno-commercial bid (Part I) shall hold good and the commercial term quoted in the Price Bid (Part II) shall not be considered.

(iv) In their own interest, all Tenderers are advised to double check their prices, applicable duties and taxes.

(v) The quotation should be valid at least for a period of 90 days from the tender opening date.

(vi) Indian bidders should submit the prices in Indian Rupees only.

(vii) Foreign bidders may submit their bid in foreign currency. The currency for quoting shall be selected from the drop-down menu provided.

(x) Indian Suppliers shall quote on FOR Destination basis only. Destination is BHEL, Ranipet Stores or BHEL Project Site as specified in the tender requirement. Foreign Suppliers shall quote on CFR Chennai Seaport Delivery and Insurance will be in BHEL's scope. No other delivery terms shall be acceptable. Shipment shall be arranged by the Seller on *Liner in / Liner out basis*. As per Government of India guidelines, BHEL Ranipet being a Government of India Undertaking the Bill of Lading shall be made with the Shipper as "Government of India". This shall be specifically confirmed by the Bidder.

(xi) Where the cargo is containerized, Container washing charges, stuffing charges and / or any other such charges would be to the account of the supplier, where the containers are to be stuffed at the works of the supplier.

## **B] Opening of Offers**

a) **Tenders can be submitted up to 1400 Hours on tender opening due date. Part I will be opened on the same day at 1430 Hours. Results of the tender opening will be available for viewing for upto 7 days from the date of opening.**

**b) Requests by Bidders for extension of due date will not be entertained by BHEL.**

c) Price Bid opening will be done through e-mode / Reverse Auction method ( English method) **which will be decided after techno-commercial bid evaluation is completed.** All tenderers would have to specifically give their acceptance for this in their bid/s.

## **Note**

(i) Bids including all enclosures and supporting documents like catalogues, pamphlets, etc., shall be provided in ENGLISH language only.

(ii) In exceptional circumstances, at its option, BHEL may consider extending the due date/s for the tender openings for reasons such as (but not limited to) paucity of offers etc. However, sufficient notice would be given by BHEL for such extension.

(iii) Deviations shall be summarized and provided in a "Deviation Statement", listing the points and the deviation against each point.

(iv) BHEL reserves the right to increase or decrease the tendered quantity and to order on more than one vendor at the lowest acceptable price to BHEL. In ordering on more than one source, the ratio of quantity split will be as specified in the tender terms.

If not explicitly specified, BHEL reserves the right to split the quantity of the enquiry as follows: 70% quantity being ordered on the original lowest bidder (L1) and balance 30% on the next higher bidder/s excluding H1, who accepts the L1 price. However, the final decision to split the order rests with BHEL only.

In the event that the other than L1 suppliers do not accept the L1 price, then the balance will be reverted to the original L1 and the original L1 shall be bound to accept the balance of the enquiry quantity kept reserved for order splitting. This decision would be given by BHEL within 60 days of the price bid opening.

Notwithstanding the quantum of split that may be indicated in the main body of the enquiry, bidders are advised to note that the splitting of the orders will be decided by BHEL after the evaluation of the techno-commercial and price bids.

(v) Offers for part quantities on item level basis are not acceptable to BHEL. While tenderers can quote for some or all the tendered items, no supplier shall quote for partial quantity of any given enquiry item. Such

partial offer would not be considered in the enquiry for that item. Suppliers are to note that the evaluation unless otherwise specified will be on item level and not for the tendered items as a whole.

### **C] Evaluation of Offers**

- a) The price bids including the impact price (if any) of the technically acceptable offers alone shall be opened.
- b) Offers with pre-conditions (like conditional discounts) for price are liable to be not considered / rejected. For evaluation such conditions would be removed and only the base offer would be considered for evaluation and comparison.
- d) In the event of any change in scope / quantity arising out of the discussions, offerers would be given a chance to submit their revised offer / Impact bids. The option for the revised offer / impact offer will be triggered by BHEL. The Supplier then will have the facility to feed-in the revised price / impact price as per the provision given by BHEL. The impact price can be positive or negative (or nil). The impact price option shall contain only the price addition / deletion for such change in the scope / quantities, over and above the original scope and price quoted. The original price quoted would remain unchanged. The total price would then be computed by the arithmetic addition of the original price and the impact price. Where BHEL gives the option of submitting the revised offer, the impact would be computed as the arithmetic difference of the revised price and the original price.
- e) For evaluating the overseas offers, CFR Chennai Sea Port price quoted will be taken into account. The cost to BHEL will be arrived at by loading the applicable customs duty project wise, insurance charges, inland transportation charges to BHEL stores and LC charges etc.,
- f) For suppliers within Tamil Nadu state, as per prevailing VAT Act, VAT input credit is currently 5%.
- g) BHEL reserves the right to reject without assigning any reasons / load any offer with factors other than already specified for such offers having deviations to BHEL Specifications, Standard Terms & Conditions at its discretion. The decision of BHEL in this regard shall be final.
- h) BHEL reserves the right to reject an offer due to unsatisfactory past performance during tender finalisation / execution of a contract at any of BHEL projects / units or if unsatisfactory performance report is received from the party/s referenced by the supplier at any time during tender finalisation.
- i) BHEL reserves the right to operate Purchase / Price preference to Government of India Undertakings, which shall be given as per the guidelines of Government of India given from time to time and / or relax the Terms and Conditions of the tender.
- j) For the purpose of comparing prices, tender prices shall be converted to Indian rupees and the conversion shall be made by using the TT Selling rate of State Bank of India (SBI) prevailing on the date of opening of Techno-Commercial / Unpriced bids. If the relevant day happens to be a bank holiday, then the forex rate as on the previous bank (SBI) working day shall be taken. This exchange rate will be followed till placement of order. Tenderers may please note that even if an impact price is taken as in (d) for purpose of price evaluation and arriving at the rank; the exchange rate will be taken as explained above.
- k) Unless otherwise specified, evaluation will be on individual line item basis only and ordering will be on respective L1 vendors.

l) BHEL reserves the right to conduct negotiations on the “Price” and “Other Commercial Terms and Conditions” with the lowest ranked offerer at any time after the bid opening but before the release of the Purchase Order and If so required by BHEL, Supplier may have to share their costing sheet with BHEL.

m) Bidders are required to confirm in writing in their techno-commercial document that other than themselves (the bidder) none of its group companies, concerns or affiliates etc., are participating in the tender either directly or indirectly or through any other agency under the same proprietor / common partner(s)/ common Directors. If during the evaluation of the bids it is found that the bidder has submitted the offer in violation of this condition then all the offers received from the group companies would stand rejected. If such relationship is found at a later date where the Purchase Order has been issued, then BHEL would cancel the Purchase Order and initiate suitable action/s under the contract/s including but not limited to invoking the Risk Purchase clause of the order and other applicable legal provisions / guidelines of BHEL including guidelines on suspension of business dealings. (Please see clause L sub-clause c).

#### **D] Execution of the Order**

a) BHEL will have the option to pre-inspect the materials at Supplier's works by BHEL's own inspector or by third party agency appointed by BHEL or BHEL's end customer/s. The mere act of the pre-dispatch inspection (PDI) does not absolve the Supplier from giving the specifications as agreed upon in the Purchase Order. In the case of inspection being carried out by a third party inspector (TPI) as per the extant practice, the TPI would forward the Inspection Report (IR) along with Test Certificates and other related documents to the Quality Assurance (QA) Department of BHEL. The QA department after scrutinising the report/s submitted by the TPI would issue the Material Dispatch Clearance Certificate (MDCC). Suppliers are hereby informed that materials should be dispatched only after getting the MDCC, failing which the materials may be rejected on receipt at BHEL Stores.

b) In the case of overseas suppliers Inspection call for carrying out the inspection shall be given 30 days before the scheduled contract delivery date. The Inspection date/s given by the Supplier shall be on firm basis. For local Suppliers the Notice period of Inspection shall be 10 working days.

c) Deviations, if any pointed out by the visiting Inspection team of BHEL shall be corrected and the items as per specification shall be dispatched on or before the contract delivery date after getting the MDCC.

d) The final inspection for acceptance will, however be carried out at BHEL's works at Ranipet.

**e) The contract delivery date is the date of receipt at BHEL Stores for suppliers in India, applicable in the case of FOR Destination Contracts.**

**For ex-works contracts or FOR dispatching station indigenous contracts, the date of the Lorry way bill issued by the authorised transport carriers of BHEL / Railway Receipt / Courier Way bill / Airway bill or any such dispatch documents of carriage approved by BHEL would be considered as the Contract Delivery Date. In the case of CFR contracts with overseas suppliers, the B/L date shall be taken as the Contract Delivery Date**

f) Travel & other local stay cost for the Inspectors sent by BHEL will be to BHEL account, but other Inspection Charges, if any shall be to the account of the Seller only.

g) The supplier shall arrange for packing suitably in all respects for normal transport by sea / rail / road and Materials shall be suitably protected against effect of tropical salt laden atmosphere in the event of shipment being delayed at ports / store yards and as per BHEL TDC.

h) Foreign suppliers shall dispatch on CFR agreed Sea-Port basis, according to the contract conditions. Indian suppliers shall dispatch on free delivery (door-delivery) at BHEL stores basis only. Unloading the materials at BHEL Stores would be to the account of BHEL only.

i) In the event of any short supply, it shall be the responsibility of the supplier to deliver such short supplied/ missing items on Free-of-Cost basis at BHEL stores, including customs clearances at Indian Ports in the case of foreign suppliers.

k) Terms of payment:

k.1) For Indigenous Suppliers: Unless otherwise agreed to by BHEL, the standard payment terms of BHEL shall be: For non-MSE suppliers 100% payment made directly through EFT within 90 days from the date of receipt and acceptance of materials at BHEL Stores, Ranipet or 90 days from the date of acknowledgement of receipt of materials at destination specified. If any supplier asks for payment terms other than the above specified, then suitable loading on cost will be considered. **Loading of any deviation in the payment terms w.r.t tender terms will be “Base rate of State Bank of India (SBI) (as applicable on the date of bid opening: Techno-commercial bid opening in case of two part bids) + 6%, will be considered for loading for the periods of relaxation sought by bidders.**

k.2) For MSE vendors (under Micro & Small category alone) 100% payment will be made within 45 days from the date of receipt and acceptance of materials at BHEL Stores, Ranipet or 45 days from the date of acknowledgement of receipt of materials at destination specified.

l) NOTE:

Where the destination specified is other than BHEL Stores Ranipet, for claiming payment, Supplier has to submit proof of receipt of the materials at the destination by furnishing a copy of the acknowledged despatch document (LR/RR/Courier receipt etc.) .

If the Bidder is bidding for the first time and wants to be considered as an MSE then, the Bidder shall submit document evidencing that they are an MSE along with a certificate from a Chartered Accountant certifying the status of their Unit / Works clearly specifying the address of the works which is to be considered as MSE and send the same to BHEL, Ranipet either before the tender opening date or upload it as a part of the tender document in the e-procurement portal. Where the document is submitted electronically a hard copy shall invariably be sent within a reasonable period (not exceeding 30 days) from the bid opening date for the purpose of BHEL's records. If the hard copy is not received within this specified time, then the supplier would be treated as a non-MSE. BHEL will not be responsible for any postal / courier / delivery delays.

For approved vendors the status as on the date of the bid opening as available with BHEL Ranipet's records shall be used for reckoning the status of the Bidder as an MSE or otherwise.

Offer/s received without these documents will be treated as non-MSE and order finalization will be done based on this premise. Documents submitted after Bid-opening will not be considered in this tender. This provision for MSE will apply subject to the condition that the participating MSE meets the tender requirements.

For approved suppliers, in case of any change in the MSE status, it shall be the responsibility of the Bidder to notify the change as a part of the Bid document. If at a later date it comes to the knowledge of BHEL, Ranipet that the change in the status has not been intimated by the Bidder and the order is obtained under the premise of an MSE then BHEL would cancel the pending order against this tender and take necessary steps for suspension of the business dealing with the Bidder as per the procurement policy of BHEL. Similarly if a supplier claims MSE status after the Part I bid opening, then the same would not be considered in the tender.

In case after the bid opening it is seen that no MSE has become L1, then depending on the nature of the item, if it is not possible to split the tendered items / quantities on account of reasons like customer contract

requirements of supplying one make for a given project or technical reasons like the tendered item being a system etc. then BHEL would not counter offer the L1 prices even though there may be MSE bidders within the +15% band of L1.

Other concessions for MSEs / Reserved sectors

In addition to the concessions specified above, MSE suppliers will be eligible for such other concessions as per the MSME Act 2006 and any other benefits / concessions that may be announced by the Government of India from time to time.. However, such concessions as applicable at the time of tender opening alone will be applicable. Any concessions advised after tender opening will not be considered for the current tender.

Items that are reserved for MSE and for any other items for which reservations for Indian manufacturers are notified by the Govt. Of India, such concessions as prevailing on the date of tender opening shall apply as a part of this tender conditions.

ii) Foreign Suppliers “100% thru’ irrevocable & unconfirmed LC at sight within 3 weeks from the PO date through any one of our Bankers listed elsewhere in the tender conditions for 100% value (less Agency Commission, if any ) valid up to the PO delivery period and 15 days thereafter for negotiation. All bank charges in India to BHEL's account and all other charges outside India to Supplier's account. **BHEL would load the price of foreign suppliers in order to bring them on common platform as per Indigenous Suppliers on the account of differential payment terms to Indigenous Suppliers. Loading of payment terms will be “Base rate of State Bank of India (SBI) (as applicable on the date of bid opening: Techno-commercial bid opening in case of two part bids) + 6%, will be considered for loading for the periods of relaxation compared to indigenous suppliers i.e. 90 days.**

m) Any incidence of tax like Income tax, Service Tax and Withholding any other similar tax / duties /levies imposed by the Government of India, or the State Government, where the BHEL Unit is located, deductible at Source, during the tenure of the Order shall be deducted by BHEL and necessary certification of the deduction (Tax deduction at Source) would be given. This is subject to the supplier fulfilling the necessary documentation as specified by the Government of India. (e.g. Tax Residency Certificate, PAN Number etc.)

n) The Guarantee period shall start from the “Date of receipt and acceptance of the materials at BHEL Stores.”

***o) Where any bidder gives extended credit period over and above that offered by BHEL, then all other Non-MSE bidders and foreign bidders would have to match the extended period of payment terms. This information would be given to such bidders after opening of the techno-commercial bids; but before opening the price bids. However bidders would not be allowed to change their price bid for purpose of confirming the extended credit period. In the event such bidder/s do not accept the extended credit period for payment, then their offer would be loaded to the extent of the differential between their offered payment terms and the revised payment terms offered by BHEL as explained above.***

#### **E] Liquidated Damages Clause:**

BHEL will levy penalty as Liquidated Damages (LD), for delay in delivery. The damages shall be at the rate of ½% per week or part thereof subject to a maximum of 10%. The contract delivery date for purpose of L.D is the date of receipt at BHEL Stores for suppliers in India for F.O.R. Destination Contract and the date of dispatch clearance given by BHEL for overseas suppliers. For ex-works or F.O.R dispatching station contracts, the date of the dispatch document will be reckoned as the date of delivery for computing the LD. Supplier shall deduct the applicable LD from the first payment when raising the claim for the same. The applicable LD if any would be communicated by BHEL along with the dispatch clearance. It is taken by BHEL that Foreign Suppliers have confirmed their acceptance to BHEL for opening the LC for value which

is the value of the order reduced by the applicable LD. The LD would apply on the undelivered portion only. In case of reasons attributable to BHEL for the delay in delivery (for e.g. delay in arranging the pre-inspection) then the delivery time would be reset to the extent of the time delay attributable to BHEL, with waiver of the LD. Delivery being the essence of BHEL's contract requirements, Unless otherwise specified the LD would apply on the undelivered portion of the contracted items. In the event that a **Supplier does not accept the LD condition above, the offer would be loaded to the extent of the shortfall with respect to upper limit specified above.**

## **F) Miscellaneous**

### **i) Role of Agents:**

BHEL will deal directly with indigenous manufacturers only.

BHEL strongly discourages the engagement of Agents in India by foreign principals, to deal with BHEL, in BHEL's tenders.

BHEL will not enter into any correspondence with an Indian Agent.

The Indian Agent will not be extended the privilege given to the principals, such as that of attending the tender openings, attending technical discussions, commercial discussions or price negotiations and such like. In case, in spite of the above, a foreign principal insists on engaging an Indian Agent, It is made clear by BHEL that:

It is the sole responsibility of the foreign principal to ensure the Agent does not represent any other foreign principal in a given tender.

An undertaking to this effect shall be given by the foreign principal that his / her Agent does not represent any other foreign principal in the tender. This document shall form a part of the techno-commercial offer.

If at any stage of the tender, BHEL finds that an Indian Agent has represented more than one foreign principal, all such offers of and all the foreign principals would be disqualified summarily in the tender inquiry.

BHEL will only give an intimation of notice of the disqualification. No correspondence would be entertained by BHEL, on their decision. Such decision of BHEL shall be irrevocable, firm and final and shall be binding on the tenderer.

BHEL, due to business reasons would ban, would have banned Indian agents from dealing with BHEL.

Any foreign principal who engages such a banned agent, or an employee of the banned agency, or any other person connected with the banned agency, at any time during the tender proceedings, would be disqualified from the tender proceedings. The decision of BHEL in this regard shall be final and be binding on the OEM. Hence in their own interests, prospective tenderers may check with BHEL, the status of their proposed agent vis-à-vis BHEL.

In view of the requirement of BHEL, it is strongly suggested that in their own interest, foreign principals may desist from engaging any Indian agent and deal with BHEL directly and it is stressed that any Main producer proposing to deal with BHEL by engaging and through an Indian Agent does so at their own risk.

BHEL shall in no way be responsible for any consequences that may arise to the foreign principal on account of the antecedents / actions of their Indian Agent.

### **In the event of the foreign principal engaging an Indian Agent:**

a) **The Supplier shall furnish an authenticated copy of the Agency Agreement with his agent detailing the precise relationship between them and their mutual interest in the business along with techno-commercial bid.**

b) The Supplier shall furnish original authorization letter for the Indian Agent. The letter shall contain name, contact person, complete postal address including phone, fax and e-mail ID. It shall also spell out the type of services to be rendered by Indian Agent.

c) Indian Agent & Agency commission: An Indian Agent can represent only one Foreign Manufacturer against a particular Tender. The FOB price quoted by the foreign bidder shall include the agency commission. However, the agency commission component payable to their Indian Agents shall be shown separately in the Offer, either as a lump-sum or as a percentage of the quoted price. This will be paid by BHEL in Indian Rupees, on satisfactory receipt & acceptance of the materials. For calculation of Rupee

equivalent of Agency Commission, exchange rate as prevailing on the date of Purchase Order will be taken and

d) For all discussions, technical clarification and negotiations etc. only the principal would be authorized for interaction with BHEL. The Agent shall not be a party to the discussions / negotiations and would not be normally allowed to participate.

**ii) Terms & Conditions of Letter of Credit (L/C) for overseas suppliers (indicated for acceptance).**

a) Unconfirmed irrevocable Letter of Credit at Sight only will be opened by BHEL. Confirmation of L/C is not preferred by BHEL. Also L.C will be opened in Lots in line with the staggered delivery.

b) All Bank charges out side India are to the Supplier's account and within India to BHEL's account.

c) In case of L/C extension caused by delays attributable to the Supplier, the L/C extension / commitment charges are to be borne by the Supplier.

**iii) Other terms & conditions for letter of credit: - Documents for negotiation**

a) Signed Commercial invoice in quadruplicate, for a value not exceeding the draft amount, quoting the import Licence No and certifying goods evidencing shipment of the merchandise are as per Applicant's Purchase Order. The amount of invoice after deducting Indian Agent's commission, if any, should not exceed the Credit amount. (The Indian agent's commission, if any, is payable in India in Indian rupees only.)

b) Certificate of Country of Origin, from the country of manufacture, issued by the Chamber of Commerce.

c) One set of Original and two sets of Non-negotiable copies of 'signed', 'unmarked', 'clean on board' Ocean Bill of Lading, showing Shipper as "Government of India" Account M/s. Bharat Heavy Electrical Ltd, Unit: BHEL, Ranipet as consignee (The opening bank should not be notified as consignee), marked freight payable / prepaid at destination.

d) Packing list in 4 copies in English, indicating Size wise Number of bundles / pieces shipped and weight.

e) Certified copy of the fax / e-mail sent by the beneficiary to the applicant giving the following particulars of shipment, as the insurance is to be arranged by the Applicant in India: (a) Purchase Order Number & date; (b) Bill of Lading Number & date (c) Name of vessel; (d) Port of Loading; (e) Number of bundles / pieces and weight; (f) Invoice Number, date and value (g) Purchase Order item number's despatched. The cable / fax is to be sent within 2 working days of shipment.

f) Beneficiary's certificate showing the relevant airmail / courier reference no. and date that the following clauses have been complied with:

1] Beneficiary to forward by Registered Airmail / Courier one complete set of original documents and one set of non-negotiable documents within 3 working days of obtaining shipping documents to Regional Manager (ROD), Bharat Heavy Electricals Ltd, No. 165, Thambu-Chetty Street, Chennai – 600 001. India. (Phone: +91-44-25341249, 25341240 / Fax - +91-44-25340787; e-mail: raja@rodchn.bhel.co.in)

2] Beneficiary to courier at his cost 3 copies of complete set of non-negotiable documents to the Officer who released the Purchase Order.

3] Declaration by the Supplier certifying that the contents in each case are not less than those entered in the invoices / packing list and that the invoicing for the supplies effected is strictly in accordance with agreed rates as stipulated in the Purchase Order.

4] Declaration to the effect that all other documents as per purchase order has been couriered to the Purchase order releasing authority

- 5) The carrying steamer should be seaworthy, less than 25 years of age and approved by Lloyds / Classification Societies / General Insurance Corporation of India from time to time and
- 6) Copy of Dispatch Clearance / Instruction issued by BHEL.

**iv) Documents to be sent directly to the Purchaser prior to shipment**

- a) Manufacturer's Original Internal Inspection / Test certificate in triplicate.
- b) Manufacturer's Original Guarantee certificate as per Purchase Order. The material shall be guaranteed for a period of 12 months from the date of acceptance of the materials at BHEL stores or 18 months from the date of dispatch whichever is earlier. The acceptance would be evidenced by the Stores Receipt Voucher (SRV) which will be raised by BHEL.
- c) Inspection / Test Certificate issued by BHEL / Inspection agency specified in the Purchase Order. In the event that Inspection prior to dispatch is not carried out by the Engineers of BHEL, the Inspection certificate of the third party so authorized by BHEL and
- d) Any other documentation as specified in the Purchase Order.

**v) Conditions for transportation:**

- a) All shipping documents shall show the Purchase Order Number & Date, Import Licence Number & Date, and Letter of Credit Number & Date.
- b) Transshipment is to be avoided.
- c) Loading on deck is not permitted. The transport document must not contain a provision that goods may be carried on deck.
- d) A transport document which is produced or appearing to have been produced by reprographic, automated or computerized systems or as carbon copy will be accepted as an original document provided that it is marked as original and is ink-signed.
- e) The transport document must contain all the conditions of carriage on the original document.
- f) The transport document must not indicate the place of destination as being different from the port of discharge.
- g) The transport document must not contain the indication 'intended' or similar qualification in relation to the vessel or other means of transport or port of loading or port of discharge.
- h) The transport document must be issued by the carrier or his agent and not by any freight forwarder.
- i) Transport documents bearing reference by stamp or otherwise, to costs additional to the freight charges are not acceptable.
- j) The Bills of Exchange must be dated and presentation of documents for negotiation must not be later than 15 days after the date of shipment and in any case not later than the expiry date of the Credit.
- l) Indian suppliers shall dispatch the materials on freight prepaid and on door-delivery basis (FOR Destination – Destination: BHEL Stores) and
- m) In the event there is a delay by the Supplier in negotiating / submitting the document, any demurrage / wharfage arising out of the same shall be to the account of the Supplier and shall be deducted from the final payment. Also, in such cases, the Supplier shall authorize the Steamer / Shipping agent / transporter to freely release the consignment to BHEL by providing a “Surrender Bill of Lading”. Over-seas Suppliers have to

give a No-Objection Certificate to BHEL, authorizing BHEL to get the Delivery Order from the Steamer Agent without producing the Original Bill of Lading. This is required to ensure avoidance of incidence of demurrage at Chennai Sea-port that may arise in case of delayed presentation of documents by the Seller.

**G) Reverse auction (RA) / on-line bidding on internet:**

Against this enquiry for the subject item/ system with detailed scope of supply as per 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.a. BHEL reserves the right to go for Reverse Auction (RA) instead of opening Part I 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.
2. b. Those bidders who have given their acceptance for Reverse Auction (quoted against this tender enquiry) will have to necessarily submit “online sealed bid” in the Reverse Auction. Non-submission of “online sealed bid” by the bidder 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 help to arrive at “Total Cost to BHEL” like 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 submitted and available with BHEL shall be opened as per BHEL’s standard practice.

12. Bidders shall be required to read the “Terms and Conditions” section of 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 be 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 goes for reverse auction & depending on the number of bidders, the H1 bidders (whose quotes are highest in online sealed bid) may not be allowed to participate in further RA process. Further, in case of sufficient vendors, exclusion of H1 bidders may get extended up to 20%.

**16. In order to bring more transparency and to address any queries of Bidders on Reverse Auction, an abridged version of BHEL’s “Common Guidelines for conducting Reverse Auction (RA)” has been hosted in BHEL’s web site [www.bhel.com](http://www.bhel.com) under the links “Supplier Registration Page” and “Tender Notification”. All Bidders are requested to visit the link and familiarize themselves with BHEL’s RA procedures and guidelines before submission of their bid/s. Submission of Bid shall mean that the Bidder has read and understood BHEL’s RA procedures and the bid is in agreement with the same.**

#### **H] Force Majeure**

If at any time during the currency of this contract, the performance in whole or in part, by either party of any obligations under this contract shall be prevented or delayed by reason, of any war, hostilities, acts of the public enemy, civil commotion, sabotage, fires, explosions, epidemics, quarantine, restrictions or acts of GOD (hereinafter referred to as events), then provided notice of happening of any such events is given by either party to other within ten days from the date of occurrence thereof, neither party shall reason of such events be entitled to terminate this contract nor shall either party have any such non performance and delay is resumed as soon as practicable after such events has come to an end or ceased to exist. If the performance in whole or part of any obligation under this contract is prevented or delayed by reason or any such event claims for extension of time shall be granted for period considered reasonable by the purchaser subject to prompt notification by the seller to the purchaser of the particulars of the events and supply to the purchaser if required of any supporting evidence. Any waiver of time in respect of partial installment shall not be deemed to be a waiver of time in respect of remaining deliveries.

#### **I] Cancellation of Order:**

In the event of non-performance of the contract by the Supplier, BHEL reserves the right to cancel the order with issue of a written notice. BHEL would provide a curing period of 30 days, for the Supplier to rectify the situation. If the Supplier fails to rectify the reason/s that led to the issue of cancellation notice by BHEL, then the cancellation order would be issued automatically by BHEL, without further recourse to the Seller. BHEL will not pay any cancellation charges or any other charges / damages to the Supplier, arising out such cancellation. In the event of the non-performance of the supply contract, by the Supplier, the rights of BHEL include, in addition to cancelling the order, to take alternate purchase action at the cost and risk of the supplier. The additional expenditure to be incurred by BHEL in such alternate purchase would be to the account of the supplier. (Risk Purchase). This remedy would be in addition to the invoking of the CEBG on

grounds of failure of the Supplier in executing the Contract and any other legal remedies." BHEL reserves the right to initiate the alternate purchase action at the cost and risk of the erring supplier by issue of a simple notice of intention for the alternate purchase action duly sent by any electronic means and / or by a letter. The cancellation of the order would not be a pre-condition for initiation of the alternate purchase action.

#### **J] Contract Execution Bank Guarantee:**

To demonstrate the fidelity of the successful bidder, in executing the Contract, on receipt of the Letter of Intent / Purchase Order, the Supplier shall arrange to provide a contract execution bank guarantee (CEBG). The format of the CEBG is a part of this enquiry. The format may be downloaded and necessary stamping may be obtained from the Banker towards submission of the CEBG. The indigenous suppliers have to provide the CEBG from any one of the Nationalized Banks, listed in the annexure to these terms. Overseas suppliers can submit the CEBG from any of the reputed International / National Bankers. However the CEBG is to be confirmed by any of the Bankers listed by us. In the event of failure by the Supplier to execute the contract either fully or partially, BHEL would encash the entire CEBG. The CEBG shall be valid for the period covering the agreed delivery date of the order with a further claim period of 3 months on the last specified delivery date. In the event of the failure of delivery BHEL would proceed with encashing the CEBG without reference to the Supplier. In the event of BHEL granting extension of the delivery dates, then the CEBG validity shall also be got extended by the Supplier to the extent of the extended delivery times together with the claim period as specified elsewhere. **The CEBG shall be for a value of 2% of the Purchase order.**

**Suppliers who are all already registered with BHEL and having a vendor performance rating of A or A+ grade would be exempted from submission of CEBG.**

#### **Performance Bank Guarantee –Not applicable**

#### **K] Post-order submission of documents for approval**

In the event of the release of Letter of Intent (LoI) / Purchase order/s (PO) against this tender, Bidders have to submit the applicable documents as called for in the tender / LoI / PO/s, such as drawings, data sheets, design calculations etc. These documents for approval have to be submitted within the agreed timelines between BHEL and Bidder. Normally the time period for submission for approval is 15 days from the date of receipt of the LoI / PO by the supplier. The actual time period within which the documents have to be submitted for approval would be specified in the LoI / PO.

Such documents would be subjected to evaluation and approval by BHEL and / or by BHEL's customer / Consultant / Customer's Consultant. Bidders have to give their specific acceptance for this.

After approval of such documents and after getting clearance from BHEL, only the items ordered can be taken up for manufacture.

Any changes required by BHEL / Customer etc. in the documents submitted for approval shall be incorporated by the Bidder and no extra cost would be payable by BHEL for such changes.

In the event that the Bidder does not carry out the required corrections, then the LoI / PO would be liable for cancellation by BHEL and BHEL would resort to alternate purchase action at the risk and cost of the Bidder under the Risk Purchase Condition of the Purchase Order.

*Note: After receiving the LoI / PO, supplier shall also forward the acknowledgement / acceptance of the LoI / PO by signing and returning the second copy of the LoI / PO as the token of acceptance.*

## **L] Others**

a) In case of any contradiction in the terms and conditions given here and elsewhere in the other documents of the tender, it shall be the responsibility of the tenderer to get it clarified from BHEL. The officer authorized to provide such clarifications is the tender issuing officer.

b) Alterations to the conditions of the Tender can be done only by the authorized officer, at any time before the date and time of tender opening and would be duly communicated through a corrigendum.

### **c) Suspension of Business dealings with Suppliers:**

(i) Before submitting offer, prospective bidders are advised to visit our web-site [www.bhel.com](http://www.bhel.com) / supplier registration to familiarize themselves with BHEL's policy and procedures of Suspension of Business Dealings with Suppliers.

Submission of offer shall be deemed to be evidence of the Bidder to have read and understood the above said policy.

### **ii) Treatment of Banned / Under-performing Vendors:**

Any supplier who has been put on "Hold" or "Banned" from having business dealings with BHEL, Ranipet or any other unit of BHEL shall not submit their offer against this tender. If any such offers are received they would be summarily rejected and sent back. During the processing of tender, if any unit of BHEL puts a supplier on "Ban" then further processing of the offer will not be taken up and in case an order is placed, BHEL, Ranipet may resort at their discretion to cancel the PO either fully or partially.

If any of the supplier who is supplying similar material to BHEL, Ranipet has a Vendor Performance Rating (VPR) score of 'C' or below, then offer given by such parties will not be considered for ordering in this tender.

Offers of such of those bidders against whom action for suspension of business dealings has been initiated by BHEL, Ranipet or any other Units/Division of BHEL will also not be considered in this tender.

### **d) Fraud Prevention Policy:**

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.

### **Conditions for rejection of offers:**

**Following is the list of situations which would lead to rejection of offer/s.**

**This list is not exhaustive but only indicative.**

BHEL reserve the right to reject one or all offers without assigning any reason. The decision of BHEL will be final in this regard.

- 1. If the offer fails to meet the technical requirements/specifications of the tendered item/s.*
- 2. If the offer does not meet the commercial terms & conditions, such as but not limited to delivery period specified in the tender, Delivery terms, payment terms, Liquidated damages, Risk Purchase, cancellation clause etc., including the load factors specified in the tender.*
- 3. If the bidder fails to respond to clarification sought, within a reasonable period. In case of doubts / lack of clarity on the technical and commercial offer of the bidder, BHEL will seek clarifications. Bidders are required to respond completely to such BHEL's queries within 3 working days unless otherwise agreed to in writing by BHEL for period beyond 3 days. If supplier fails to respond within*



*3 working days or maximum 2 working days on a reminder thereon, the offer of such bidders will be automatically dis-qualified in the tender without further recourse to informing the bidder.*

**Record of Revisions:**

| Revision No. | Revision Date | Modification                                                                                   |
|--------------|---------------|------------------------------------------------------------------------------------------------|
| 01           | 17.08.2016    | Payment terms for Foreign suppliers modified wrt loading- Clause k.ii                          |
| 02           | 29.08.2016    | Treatment of banned vendors – Para 3 added - Clause L.ii                                       |
| 03           | 14.09.2016    | Opening of offers – clause B – sub clause ‘b’ included and existing clause ‘b’ renamed as ‘c’. |
| 04           | 14.09.2016    | Opening of offers – Note – sub clause (ii) modified                                            |

## **GENERAL TERMS AND CONDITIONS OF REVERSE AUCTION**

Against this enquiry for the subject item/ system with detailed scope of supply as per 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.
- 2a. 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.
- 2b. 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 Common Guidelines for Conducting Reverse Auction tampering of the tender process and will invite action by BHEL as per extant guidelines in vogue."
- 2c. Those bidders who have given their acceptance for Reverse Auction (quoted against this tender enquiry) will have to necessarily submit „online sealed bid" in the Reverse Auction. Non-submission of "online sealed bid" by the bidder 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 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 help to arrive at "Total Cost to BHEL" like Packing & forwarding charges, Taxes and Duties, Freight charges, Insurance, Service Tax for Services and loading factors (for non-compliance 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. Bidding for RA will start as per RA schedule specified in business rules. After receipt of „online sealed bids" by the participating bidders, start price & bid decrement will be decided by BHEL and the same shall be communicated to the service provider, before the online Reverse Auction. Only those bidders who have submitted the „on-line sealed bid" within the scheduled time shall be eligible to participate further in RA process. However, the H1 bidder (whose quote is highest in online sealed bid) will not be allowed to participate in further RA process provided minimum four bidders have submitted online sealed bids.
- a) Wherever more than one bidder is H1, all H1 bidders will not be allowed to participate in further RA, provided minimum 3 bidders are left after removal of all such H1 bidders.
10. At the end of Reverse Auction event, the lowest bidder value will be known on auction portal.
11. 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, as provided on case-to-case basis to Service provider within two working days of Auction without fail.

12. Bidders shall be required to read the "Terms and Conditions" section of 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 be 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. If reverse auction is declared as null by BHEL, then the techno – commercially price bids and impact bids if any, available before reverse auction, will be opened by BHEL on the date declared by BHEL, with due intimation.

**Engineer / Purchase**

| SNO | MATERIAL CODE / DESCRIPTION                                                                    | UNIT | QTY      | LOT      | QTY                | DELY DT                  |
|-----|------------------------------------------------------------------------------------------------|------|----------|----------|--------------------|--------------------------|
| 1   | R79433990001<br>ROTARY SWITCH WITH KEY 2POLE415V, 5A, AC<br>FOR ELECTRONIC CONTROL PANEL DOOR  | NO   | 128.000  | 01<br>02 | 64.000<br>64.000   | 31/01/2017<br>24/04/2017 |
| 2   | R79433990002<br>INTERLOCK WITHOUT KEY                                                          | NO   | 1184.000 | 01<br>02 | 592.000<br>592.000 | 31/01/2017<br>24/04/2017 |
| 3   | R79433990003<br>INTERLOCK WITH KEY                                                             | NO   | 128.000  | 01<br>02 | 64.000<br>64.000   | 31/01/2017<br>24/04/2017 |
| 4   | R79433990004<br>MASTER KEY                                                                     | NO   | 16.000   | 01<br>02 | 8.000<br>8.000     | 31/01/2017<br>24/04/2017 |
| 5   | R79433990005<br>ENCLOSURE BOX WITH KEY EXCHANGE BOX<br>ES (SL.NO.02, 03,04&05 )                | NO   | 8.000    | 01<br>02 | 4.000<br>4.000     | 31/01/2017<br>24/04/2017 |
| 6   | R79433990006<br>ENCLOSURE BOX WITH KEY EXCHANGE BOX<br>ES SL NO. 06,07 & 08.                   | NO   | 16.000   | 01<br>02 | 8.000<br>8.000     | 31/01/2017<br>24/04/2017 |
| 7   | R79433990007<br>ENCLOSURE BOX WITH KEY EXCHANGE BOX<br>ES SL NO. 09, 10 & 11                   | NO   | 8.000    | 01<br>02 | 4.000<br>4.000     | 31/01/2017<br>24/04/2017 |
| 8   | R79537130001<br>ROTARY SWITCH WITH KEY 2POLE415V, 5A, AC<br>FOR ELECTRONIC CONTROL PANEL DOOR  | NO   | 72.000   | 01       | 72.000             | 24/12/2017               |
| 9   | R79537130002<br>INTERLOCK WITHOUT KEY                                                          | NO   | 664.000  | 01       | 664.000            | 24/12/2017               |
| 10  | R79537130003<br>INTERLOCK WITH KEY                                                             | NO   | 72.000   | 01       | 72.000             | 24/12/2017               |
| 11  | R79537130004<br>MASTER KEY                                                                     | NO   | 8.000    | 01       | 8.000              | 24/12/2017               |
| 12  | R79537130005<br>ENCLOSURE BOX WITH KEY EXCHANGE BOX<br>(SL.NO 02,03 ,04 & 05)                  | NO   | 4.000    | 01       | 4.000              | 24/12/2017               |
| 13  | R79537130006<br>ENCLOSURE BOX WITH KEY EXCHANGE BOX<br>(SL.NO 06 & 07)                         | NO   | 8.000    | 01       | 8.000              | 24/12/2017               |
| 14  | R79537130007<br>ENCLOSURE BOX WITH KEY EXCHANGE BOX<br>(SL.NO 08 & 09)                         | NO   | 4.000    | 01       | 4.000              | 24/12/2017               |
| 15  | R79537130008<br>ENCLOSURE BOX WITH KEY EXCHANGE BOX<br>(SL..NO 9)- Item deleted from enquiry.  | NO   | .000     |          |                    |                          |
| 16  | R79637520001<br>ROTARY SWITCH WITH KEY 2POLE415V, 5A, AC F<br>OR ELECTRONIC CONTROL PANEL DOOR | NO   | 72.000   | 01       | 72.000             | 24/03/2018               |
| 17  | R79637520002<br>INTERLOCK WITHOUT KEY                                                          | NO   | 664.000  | 01       | 664.000            | 24/03/2018               |
|     |                                                                                                |      |          |          |                    |                          |

MANAGER / PURCHASE

MANAGER / PURCHASE



| SL. NO. | ESP NO. | BASIC LETTER REFERENCE FOR |             |
|---------|---------|----------------------------|-------------|
|         |         | BOILER NO 1                | BOILER NO 2 |
| 01      | ESP-A   | 1                          | 2           |
| 02      | ESP-B   | 1                          | 2           |
| 03      | ESP-C   | 1                          | 2           |
| 04      | ESP-D   | 1                          | 2           |

|      |                                                                         |          |                                                                                                                                           |
|------|-------------------------------------------------------------------------|----------|-------------------------------------------------------------------------------------------------------------------------------------------|
| 15   | INTERLOCK ENCLOSURE BOX                                                 | 4        | ESP ROOF/WALK WAY AT COLLECTING ELECTRODE RAPPING MOTOR                                                                                   |
| 14   | MASTER KEY                                                              | 2        | LOOSE SUPPLY                                                                                                                              |
| 13   | INTERLOCK WITH KEY                                                      | 16       | DISCONNECTING SWITCH 'OFF' POSITION                                                                                                       |
| 12   | INTERLOCK WITHOUT KEY                                                   | 148      | CASING INSPECTION DOORS, DISCONNECTING SWITCH DOORS, DISCONNECTING SWITCH 'ON' POSITION, INSU. HOUSING DOORS AND HOPPER INSPECTION DOORS. |
| 11   | KEY BOX WITH 1 END LOCK WITHOUT KEY AND 8 FRONT LOCKS WITH KEYS         | 1        | KEY EXCHANGE BOX ENCLOSURE AT HOPPER AREA.                                                                                                |
| 10   | KEY BOX WITH 1 END LOCK WITHOUT KEY AND 12 FRONT LOCKS WITH KEYS        | 2        | KEY EXCHANGE BOX ENCLOSURE ON ESP ROOF.                                                                                                   |
| 09   | KEY BOX WITH 1 END LOCK WITHOUT KEY AND 10 FRONT LOCKS WITH KEYS        | 2        | KEY EXCHANGE BOX ENCLOSURE AT HOPPER AREA.                                                                                                |
| 08   | KEY BOX WITH 1 END LOCK WITHOUT KEY AND 8 FRONT LOCKS WITH KEYS         | 2        | KEY EXCHANGE BOX ENCLOSURE ON ESP ROOF.                                                                                                   |
| 07   | KEY BOX WITH 1 END LOCK WITHOUT KEY AND 8 FRONT LOCKS WITH KEYS         | 2        | KEY EXCHANGE BOX ENCLOSURE ON ESP ROOF.                                                                                                   |
| 06   | KEY BOX WITH 1 END LOCK WITHOUT KEY AND 12 FRONT LOCKS WITH KEYS        | 4        | KEY EXCHANGE BOX ENCLOSURE ON ESP ROOF.                                                                                                   |
| 05   | KEY BOX WITH 1 END LOCK WITHOUT KEY AND 5 FRONT LOCKS WITH KEYS         | 1        | KEY EXCHANGE BOX ENCLOSURE AT COLLECTING ELECTRODE RAPPING MOTOR PLATFORM.                                                                |
| 04   | KEY BOX WITH 1 END LOCK WITHOUT KEY AND 9 FRONT LOCKS WITH KEYS         | 1        | KEY EXCHANGE BOX ENCLOSURE ON ESP ROOF.                                                                                                   |
| 03   | KEY BOX WITH 1 END LOCK WITH KEY AND 2 FRONT LOCKS WITHOUT KEYS         | 1        | KEY EXCHANGE BOX ENCLOSURE ON ESP ROOF.                                                                                                   |
| 02   | KEY BOX WITH 1 END LOCK WITH KEY AND 08 FRONT LOCKS WITHOUT KEYS        | 2        | KEY EXCHANGE BOX ENCLOSURE ON ESP ROOF.                                                                                                   |
| 01   | ROTARY SWITCH WITH KEY 2 POLES, 415V, 5A, AC FOR BACK OF BOARD MOUNTING | 16       | ELECTRONIC CONTROLLER DOOR                                                                                                                |
| ITEM | DESCRIPTION                                                             | QUANTITY | MOUNTING LOCATION                                                                                                                         |



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## 253 GUIDED ORBITAL TDD



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NOTE:—

01. ALL LOCKS AND KEY EXCHANGE BOXES SHALL BE SUITABLE FOR OUTDOOR CONDITION.

02. ITEM NO.10 INTER LOCK WITHOUT KEY SHALL BE SUPPLIED WITH BASIC LETTERS AS BELOW.

18 NUMBERS EACH AS 1A11 TO 9A11 AND 1A21 TO 9A21

72 NUMBERS AS 1A1 22 NUMBERS AS CA1  
36 NUMBERS AS HA1 18 NUMBERS AS DA1

03. ITEM NO.11 INTER LOCK WITH KEY SHALL BE SUPPLIED WITH BASIC LETTERS 18 NUMBERS AS EA1.

04. FOR THE DETAILS OF ITEM NO. 11 REFER DRAWING NO. 3-00-119-26291.

05. THE SCHEME OF INTERLOCKING IS DRAWN FOR THE FOLLOWING CONDITIONS.  
ALL RECTIFIER TRANSFORMERS ARE ENERGISED.  
ALL DISCONNECTING SWITCHES ARE ON.  
ALL ACCESSIBLE INSPECTION DOORS OF EP ARE CLOSED.

06. ITEM NO. 12 IS NOT SHOWN IN THIS DRAWING.

07. THE DIRECTION OF ARROW RIGHT FROM THE TOP INDICATES THE SEQUENCE OF STEPS TO BE FOLLOWED IN THE SAME ORDER FOR OPENING THE INSULATOR HOUSING,HOPPER, CASING INSPECTION DOORS AND DISCONNECTING SWITCH DOORS.

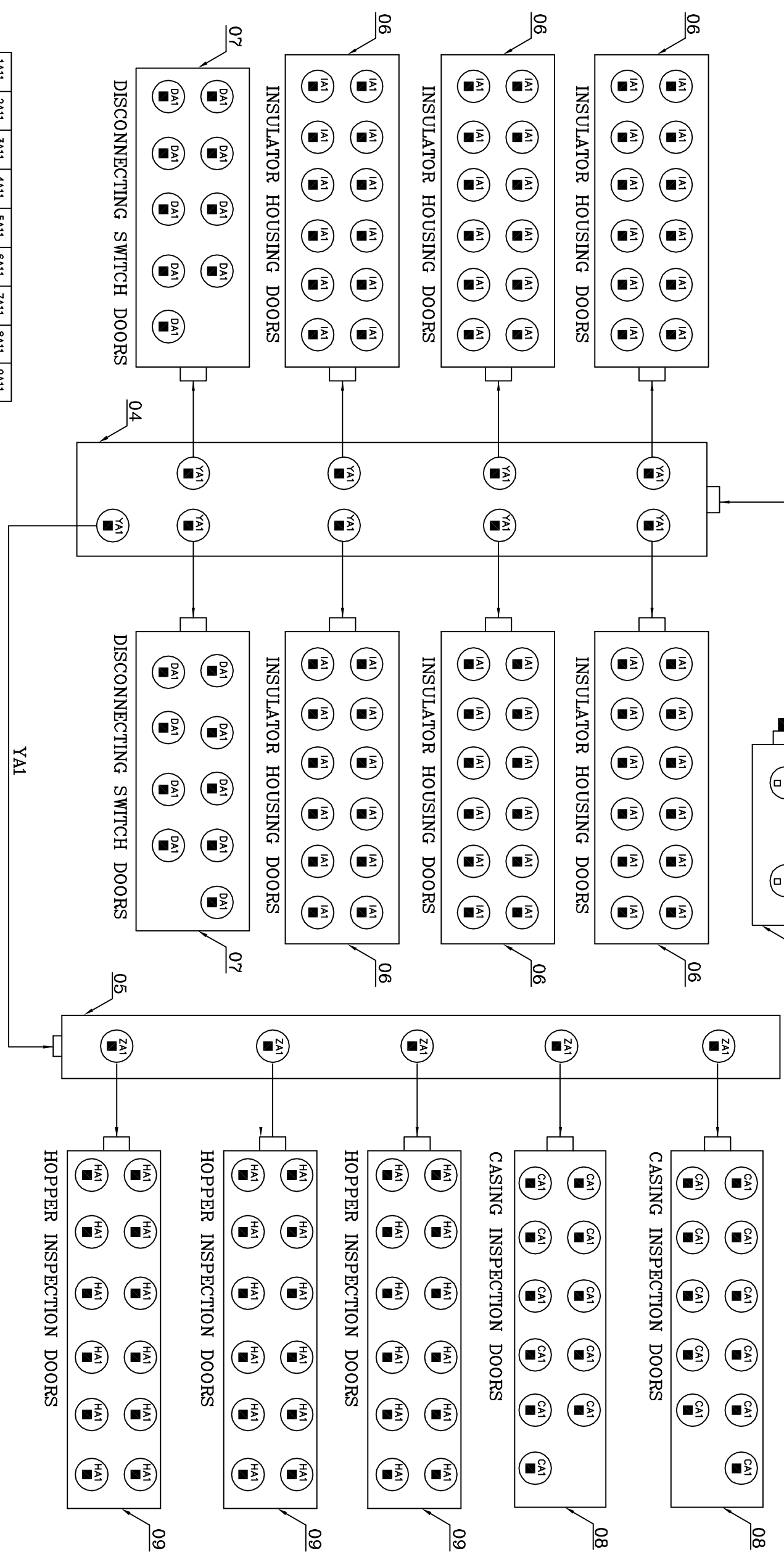
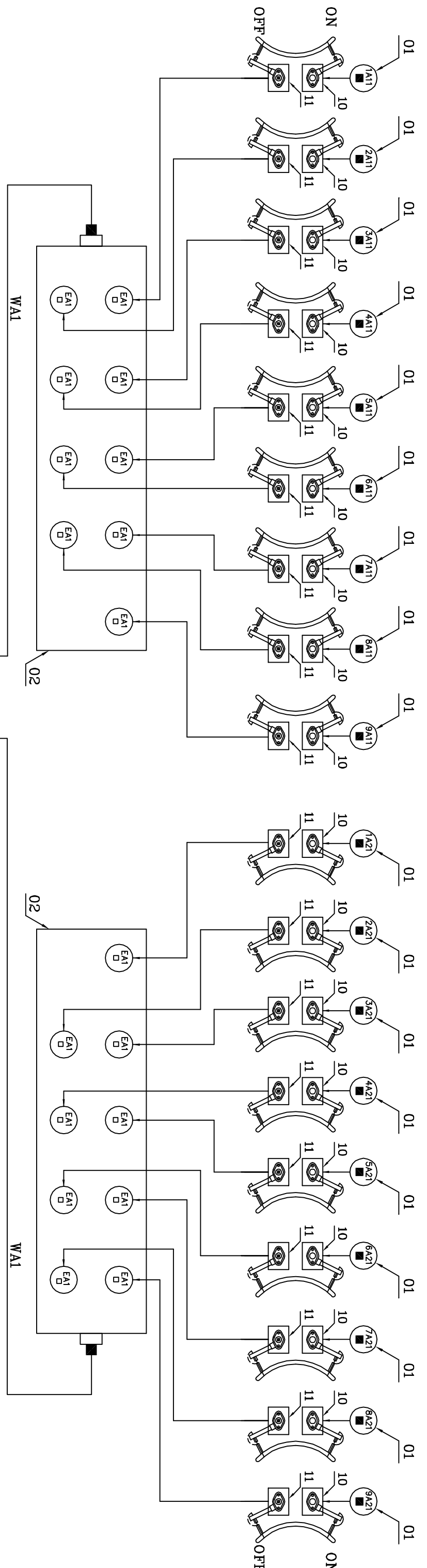
08. USE OF MASTER KEY DURING NORMAL CONDITION IS STRICTLY PROHIBITED.

09. SPRING LOADED METAL CAPS SHALL BE PROVIDED AS AN INTEGRAL PART OF ALL INTERLOCKS INCLUDING ROTARY SWITCHES EXCEPT ITEM NUMBERS 03 TO 11.

10. THE KEY EXCHANGE BOXES SHALL BE ACCOMADATED IN A SUITABLE INTERLOCK ENCLOSURE BOX WITH SUFFICIENT CLEARANCE FOR OPERATIONS. THE ENCLOSURE BOX SHALL BE DESIGNED FOR IP-55 PROTECTION. VARIOUS KEY EXCHANGE BOXES SHALL BE ACCOMADATED IN INTERLOCK ENCLOSURE BOX AS GROUPED BELOW.

ITEM NO. 02, 03, 04 & 05 IN ONE BOX  
ITEM NO. 06 & 07 IN TWO BOXES  
ITEM NO. 08 & 09 IN ONE BOX

11. MAXIMUM 6 LOCKS SHALL BE PROVIDED IN A ROW IN EACH KEY EXCHANGE BOX.



|      |                                                                         |          |                                                                                                                                                   |
|------|-------------------------------------------------------------------------|----------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| 13   | INTERLOCK ENCLOSURE BOX                                                 | 3        | ESP ROOF/WALK WAY AT COLLECTING ELECTRODE RAPING MOTOR                                                                                            |
| 12   | MASTER KEY                                                              | 2        | LOOSE SUPPLY                                                                                                                                      |
| 11   | INTERLOCK WITH KEY                                                      | 18       | DISCONNECTING SWITCH 'OFF' POSITION                                                                                                               |
| 10   | INTERLOCK WITHOUT KEY                                                   | 166      | CASING INSPECTION DOORS, DISCONNECTING SWITCH DOORS,DISCONNECTING SWITCH 'ON' POSITION,INSU HOUSING DOORS AND HOPPER AND HOPPER INSPECTION DOORS. |
| 09   | KEY BOX WITH 1 END LOCK WITHOUT KEY AND 12 FRONT LOCKS WITH KEYS        | 3        | KEY EXCHANGE BOX ENCLOSURE AT HOPPER AREA                                                                                                         |
| 08   | KEY BOX WITH 1 END LOCK WITHOUT KEY AND 11 FRONT LOCKS WITH KEYS        | 2        | KEY EXCHANGE BOX ENCLOSURE ON ESP ROOF.                                                                                                           |
| 07   | KEY BOX WITH 1 END LOCK WITHOUT KEY AND 9 FRONT LOCKS WITH KEYS         | 2        | KEY EXCHANGE BOX ENCLOSURE ON ESP ROOF.                                                                                                           |
| 06   | KEY BOX WITH 1 END LOCK WITHOUT KEY AND 12 FRONT LOCKS WITH KEYS        | 6        | KEY EXCHANGE BOX ENCLOSURE ON ESP ROOF.                                                                                                           |
| 05   | KEY BOX WITH 1 END LOCK WITHOUT KEY AND 5 FRONT LOCKS WITH KEYS         | 1        | KEY EXCHANGE BOX ENCLOSURE AT COLLECTING ELECTRODE RAPING MOTOR PLATFORM.                                                                         |
| 04   | KEY BOX WITH 1 END LOCK WITHOUT KEY AND 9 FRONT LOCKS WITH KEYS         | 1        | KEY EXCHANGE BOX ENCLOSURE ON ESP ROOF.                                                                                                           |
| 03   | KEY BOX WITH 1 END LOCK WITH KEY AND 2 FRONT LOCKS WITHOUT KEYS         | 1        | KEY EXCHANGE BOX ENCLOSURE ON ESP ROOF.                                                                                                           |
| 02   | KEY BOX WITH 1 END LOCK WITH KEY AND 09 FRONT LOCKS WITHOUT KEYS        | 2        | KEY EXCHANGE BOX ENCLOSURE ON ESP ROOF.                                                                                                           |
| 01   | ROTARY SWITCH WITH KEY 2 POLES, 415V, 5A, AC FOR BACK OF BOARD MOUNTING | 18       | ELECTRONIC CONTROLLER DOOR                                                                                                                        |
| ITEM | DESCRIPTION                                                             | QUANTITY | MOUNTING LOCATION                                                                                                                                 |

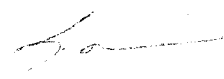
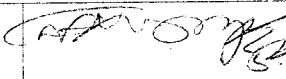
|             |      |         |      |         |      |      |      |      |
|-------------|------|---------|------|---------|------|------|------|------|
| ESP - A     |      | ESP - B |      | ESP - C |      |      |      |      |
| 1A11        | 2A11 | 3A11    | 4A11 | 5A11    | 6A11 | 7A11 | 8A11 | 9A11 |
| 1A21        | 2A21 | 3A21    | 4A21 | 5A21    | 6A21 | 7A21 | 8A21 | 9A21 |
| GAS FLOW    |      |         |      |         |      |      |      |      |
| 1B11        | 2B11 | 3B11    | 4B11 | 5B11    | 6B11 | 7B11 | 8B11 | 9B11 |
| 1B21        | 2B21 | 3B21    | 4B21 | 5B21    | 6B21 | 7B21 | 8B21 | 9B21 |
| 1C11        | 2C11 | 3C11    | 4C11 | 5C11    | 6C11 | 7C11 | 8C11 | 9C11 |
| 1C21        | 2C21 | 3C21    | 4C21 | 5C21    | 6C21 | 7C21 | 8C21 | 9C21 |
| CLUF BOLLER |      |         |      |         |      |      |      |      |

BAP / BHEL RANIPET.  
AIR QUALITY CONTROL SYSTEM  
RANIPET – 632 406

REF: TEP:GEN: INT:011: REV 00  
Page 01 of 05.  
EFFECTIVE DATE: 23.03.2005

TITLE: SPECIFICATION FOR BOUGHT OUT ITEM FOR ESP.

ITEM: INTERLOCKS.

| NAME            | DESIGNATION  | SIGNATURE                                                                            | DATE       |
|-----------------|--------------|--------------------------------------------------------------------------------------|------------|
| PREPARED BY     | EF/AQCS      |    | 23.03.2005 |
| P.V.D.MURTHY    |              |                                                                                      |            |
| CHECKED BY      | MANAGER/AQCS |    | 23.03.2005 |
| S. RANGARAJAN   |              |                                                                                      |            |
| APPROVED BY     | DGM/AQCS     |  | 23.03.2005 |
| S. JAYAPRAKASAM |              |                                                                                      |            |
| ISSUED BY :     |              |                                                                                      |            |

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### **SECTION ONE: SCOPE**

The scope of supply of the interlocks includes design, manufacture, inspection, packing and dispatch as per BHEL drawing. The quantity shall be as per the purchase enquiry / Purchase order.

### **SECTION TWO: PROJECT INFORMATION**

2.1.0 Ambient conditions

2.1.1 Temperature : 50 degree centigrade (maximum)

2.1.2 Location : Outdoor.

### **SECTION THREE : APPLICATION**

3.0.0 The interlocks are meant for the safety of the operating personnel on a HVDC system. The scheme shall be as per BHEL drawings. The whole system should be fool proof such that none of the doors can be opened when the high voltage rectifiers are in the energized condition or none of the rectifiers can be switched on while any one of the doors is kept open. The interlocks shall enable the doors to open, only when effective earthing has been accomplished (The doors will include all inspection doors, insulator housing doors and disconnecting switch doors). A series of interlocks are so provided to permit operations in a pre – arranged sequence.

### **SECTION FOUR : CONSTRUCTIONAL FEATURES AND SPECIAL REQUIRMENTS.**

4.1.0 General

The interlocking system shall be simple, robust in construction and positive in action. The operation of the system shall be definite and positive at all times and shall not call for frequent maintenance. It shall not be subjected to any ready defeating action, except where it is specifically made. It shall be suitable for outdoor operation. The interlock shall be rugged and shall have high repeatability without any wear.

4.2.0 Rotary switch with mechanical lock.

The switch shall be suitable for back of board mounting. The switch shall be mounted on the shaft of the interlock so that the switch can only be operated by

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the key matching the lock. The switch shall be of 2 poles / ON – OFF type to carry 5 amps, inductive current at 240V, AC with the key free in the OFF position and trapped in the ON position.

#### 4.3.0 Interlock with lever.

This type of interlock shall consist of brass housing with Aluminium base in which central spindles and other mechanisms are housed. The central spindle (made of brass) shall not extend at the rear in both normal and operating conditions. The lock shall be firmly fixed with a base plate of mild steel which will be screwed / welded at site. The head shall contain the engraved inscription letters or suitable mechanical codifications with letters engraved / punched on the keys & housing as furnished in the BHEL drawing. Their lever should be supplied with zinc plated, link chain of 300mm length with 7 microns thickness mounted at the end. The other end of the link chain shall be provided with MS plate to weld at site. The lock and lever shall be designed such that when the key is removed the lever should be trapped and vice versa.

#### 4.4.0 Keys

4.4.1 Keys for interlock shall be of such a quality that they do not wear out due to frequent operation. The keys shall be made of good quality brass and shall be zinc chrome plated with minimum thickness of 7 microns. Inscription letters of the matching lock shall be engraved on the handle of corresponding key.

4.4.2 In addition to the above keys, master keys which can operate on any lock shall be supplied. The master keys are required for emergency and supervisory functional conditions.

#### 4.5.0 Key exchange boxes

4.5.1 With one end lock and front locks.

The unit shall house number of locks as specified in the drawing and one end lock. The design shall be such that end lock is trapped when all or any one of the front lock's keys are free. To release the end lock, first all the front lock's keys should be trapped. After releasing the end lock, it should not be possible to release any of the front lock's keys.

4.5.2 The operating cams and shaft shall be made of steel.

#### 4.6.0 INTERLOCK ENCLOSURE BOXES

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The key exchange boxes shall be housed inside an enclosure, which shall be designed for IP – 55 degree of protection. Each enclosure shall be inscribed suitably. Each key exchange box assembled inside the enclosure box shall be identified with suitable labeling.

#### 4.7.0 Spring loaded metal caps.

A suitable spring loaded metal cap shall be provided for the interlocks with lever to protect the lock mechanism from dust and moisture. The cap shall firmly press a neoprene / rubber seal around the full periphery and cover the lock fully when the key is not in the position.

#### 4.8.0 Finish

All locks and keys shall be bright nickel plated. Sheet steel boxes and interlock bases shall be epoxy painted to shade 631 of IS 5 with semi glossy finish preceded by two coats of zinc rich primer.

Painting process shall include degreasing acid cleaning alkali neutralizing followed by a primary coat of zinc chromate. Two final coats of finish mentioned above to a minimum paint thickness of 50 microns shall be done.

### SECTION FIVE : INSPECTION AND TESTING

5.1.0 The purchaser's representative shall give reasonable access for inspection at all times to the manufacturer's works as well as to the works of their subcontractors.

5.2.0 Despatch of interlocks will be done by the manufacture only after getting the written approval of the purchaser's representative.

5.3.0 The following inspection / tests will be done and the purchaser's representative shall have the option to witness the tests:

5.3.1 Checking of the quality and smooth function of all the components.

5.3.2 The rotary switches shall be subjected to high voltage (2KV AC for 1 minute) withstand test and insulation resistance (minimum 1 meg ohm) test.

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- 5.3.3 IP 55 test for degree of protection shall be carried out for interlock enclosure as type test. If the above test has been already conducted in the presence of BHEL representatives not earlier than five years from the date of inspection, the test certificate along with constructional details drawing shall be furnished.
- 5.4.0 The interlock shall be checked up for material and functional conformance to specifications / drawing and for work men ship.
- 5.5.0 Supplier shall give minimum 15 days advance notice to BHEL to enable them to depute their representative for inspection and to witness the type test.

#### **SECTION SIX : PACKING.**

- 6.1.0 The interlock components pertaining to each ESP shall be packed separately with proper packing materials to avoid any damage during transit, handling and storage. Sets of interlock shall be so packed such that they do not get mixed up with other sets during transit.
- 6.2.0 The packing shall also contain the following information written outside.
  - 6.2.1 Name of the item : Interlocks for Electrostatic Precipitator.
  - 6.2.2 Purchase order Number :
  - 6.2.3 Name of the project.
  - 6.2.4 Name and address of the supplier.
  - 6.2.5 Approximate weight.

#### **SECTION SEVEN: DOCUMENTATION.**

- 7.1.0 For each project, the vendor shall furnish 6 sets of drawings for approval.
- 7.2.0 Along with material dispatch, the vendor shall furnish operation and maintenance manual in required sets (as per enquiry / purchase order). The O & m manual shall consists of the storage, erection pre commissioning and commissioning instructions. The O & M manual shall also consists of the approved drawings.

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Ranipet

**QUALITY  
DEPARTMENT  
M/S BHEL RANIPET  
TAMIL NADU-632 406****STANDARD QUALITY PLAN**

ITEM/SUB SYSTEM:

**STANDARD QUALITY PLAN FOR  
INTERLOCKS FOR ESP**

Doc. Ref. No QP:E:834

Rev. No 01

Date 26 08 2014

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| Sl<br>no | Component &<br>operation | Characteristics | Class | Type of<br>Check | Quantum<br>of<br>Check | Reference<br>Documents | Acceptance<br>Norms | Format<br>Of<br>Records | Agency |   | Remarks |
|----------|--------------------------|-----------------|-------|------------------|------------------------|------------------------|---------------------|-------------------------|--------|---|---------|
|          |                          |                 |       |                  |                        |                        |                     |                         | 10     | B |         |
| 1        | 2                        | 3               | 4     | 5                | 6                      | 7                      | 8                   | 9                       | M      | B |         |

|   |                                                                                                                   |                                                     |       |                                       |                                   |     |                                    |                                                              |                        |   |   |  |
|---|-------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|-------|---------------------------------------|-----------------------------------|-----|------------------------------------|--------------------------------------------------------------|------------------------|---|---|--|
| 1 | ENCLOSURE BOX &<br>KEY EXCHANGE BOX                                                                               | MECHANICAL -<br>BEND TEST<br>& CHEMICAL COMPOSITION | MAJOR | MECH.<br>CHEMICAL                     | 10%<br>SAMPLE<br>/LOT             | —   | IS 513                             | IS 513                                                       | MATERIAL TC            | P | R |  |
| 2 | ENCLOSURE BOX                                                                                                     | GASKET TIGHTNESS TEST/ CHALK<br>TEST                | MAJOR | VISUAL                                | 100%                              | 10% | BHEL APPD<br>DRG/BHEL TECH<br>SPEC | CHALK<br>IMPRESSION ON<br>DOOR GASKET<br>WHEN DOOR<br>CLOSED | ROUTINE TEST<br>REPORT | P | W |  |
| 3 | PAINTING                                                                                                          | DFT & PAINT SHADE,ADHESION<br>TEST                  | MAJOR | VISUAL /<br>MEASUREMENT               | 100%                              | 10% | BHEL APPD<br>DRG/BHEL TECH<br>SPEC | BHEL APPD<br>DRG/BHEL TECH<br>SPEC.                          | ROUTINE TEST<br>REPORT | P | W |  |
| 4 | ENCLOSURE BOX                                                                                                     | IP 55 TEST                                          | MAJOR | PROTECTION<br>AGAINST DUST &<br>WATER | ONE<br>SAMPLE/<br>REFER<br>NOTE-2 | —   | IS 13947                           | IS 13947                                                     | TYPE TEST<br>REPORT    | P | R |  |
| 5 | SHEET THICKNESS,<br>LINK CHAIN LENGTH,<br>KEY LAYOUT<br>DIMENSIONS,<br>MOUNTING<br>DIMENSIONS OF<br>ROTARY SWITCH | DIMENSIONS CHECKS                                   | MAJOR | MEASUREMENT                           | 100%                              | 5%  | BHEL<br>APPD DRG                   | BHEL<br>APPD DRG                                             | DIMENSIONAL<br>REPORT  | P | W |  |
| 6 | INTERLOCK NAME<br>PLATES                                                                                          | NAME DETAILS VERIFICATION                           | MAJOR | VERIFICATION                          | 100%                              | 10% | BHEL APPD<br>DRG/BHEL TECH<br>SPEC | BHEL APPD<br>DRG/BHEL TECH<br>SPEC                           | VERIFICATION<br>REPORT | P | V |  |

|                |                |                  |                  |               |               |
|----------------|----------------|------------------|------------------|---------------|---------------|
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| Sl<br>no | Component &<br>operation | Characteristics | Class | Type of<br>Check | Quantum<br>of<br>Check | Reference<br>Documents | Acceptance<br>Norms | Format<br>Of<br>Records | Agency |   | Remarks |
|----------|--------------------------|-----------------|-------|------------------|------------------------|------------------------|---------------------|-------------------------|--------|---|---------|
|          |                          |                 |       |                  |                        |                        |                     |                         | 10     | B |         |
| 1        | 2                        | 3               | 4     | 5                | 6                      | 7                      | 8                   | 9                       | M      | B |         |

M B

|   |                                                                                                           |                                                                                         |       |             |      |     |                                    |                                                                           |                        |   |   |                                                                                                                      |
|---|-----------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|-------|-------------|------|-----|------------------------------------|---------------------------------------------------------------------------|------------------------|---|---|----------------------------------------------------------------------------------------------------------------------|
| 7 | ROTARY SWITCH WITH<br>KEY                                                                                 | VERIFICATION OF TYPE,<br>MAKE, RATING OF ROTARY<br>SWITCH,<br>KEY POSITION FREE/TRAPPED | MAJOR | VISUAL      | 100% | 10% | BHEL APPD<br>DRG/BHEL TECH<br>SPEC | BHEL APPD<br>DRG/BHEL TECH<br>SPEC                                        | TC                     | P | V | Make for NTPC<br>projects follow NTPC<br>specifications, for<br>Other projects follow<br>BHEL appd<br>specifications |
| 8 | ROTARY SWITCH WITH<br>KEY                                                                                 | H.V. TEST(2kV AC)                                                                       | MAJOR | ELEC. TEST  | 100% | 10% | BHEL APPD<br>DRG/BHEL TECH<br>SPEC | SHOULD<br>WITHSTAND 2 KV<br>FOR 1 MIN.                                    | ROUTINE TEST<br>REPORT | P | W |                                                                                                                      |
| 9 | ROTARY SWITCH WITH<br>KEY                                                                                 | INSULATION RESISTANCE TEST<br>BEFORE AND AFTER HV TEST                                  | MAJOR | ELEC. TEST  | 100% | 10% | BHEL<br>APPD DRG                   | VALUE SHOULD BE<br>WITHIN 10 MOHM<br>WHEN CHECKED<br>WITH 1000V<br>MEGGER | ROUTINE TEST<br>REPORT | P | W |                                                                                                                      |
| 9 | ROTARY SWITCH,<br>INTERLOCK<br>WITH OUT KEY,<br>INTERLOCK WITH KEY, CHECK<br>LOCKS IN KEY<br>EXCHANGE BOX | SEQUENCE TEST & OPERATION                                                               | MAJOR | OPERATIONAL | 100% | 10% | BHEL<br>APPD DRG                   | BHEL<br>APPD DRG.                                                         | ROUTINE TEST<br>REPORT | P | W |                                                                                                                      |

Note: 1. Suppliers has to submit the Manufacturer's test certificates of Rotary switch for BHEL/BHEL TPI Review.  
2. Validity of IP 55 type test reports shall not older than five years from the inspection date.

Legend: P=Perform, W=witness by BHEL/BHEL TPI, V= Verification, R=Review of documents, M=Manufacturer, B=BHEL/BHEL TPI.

Revision status

|        |            |                                                            |
|--------|------------|------------------------------------------------------------|
| Rev 00 | 21 08 2014 | Original issue.                                            |
| Rev 01 | 26 08 2014 | Revised based on sub vendors feed back and general review. |

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