

Ref No. : PE/PG/RTC/E-5621/2017/CORRIGENDA/02

Date: 05.06.2017

**CORRIGENDA / ADDENDUM-02**

**SUBJECT: TENDER ENQUIRY FOR RATE CONTRACT OF COLTCS AS PER TECHNICAL SPECIFICATION NO. PE-TS-RC-165-N002**

**OUR REF: TENDER ENQUIRY NO: PE/PG/RTC/E-5621/2017, DTD-17.05.2017**

| DUE DATE   |
|------------|
| 12.06.2017 |
| BY 14:00PM |

1. The last date of submission of offer against tender for Rate Contract of COLTCS invited vide Enquiry No PE/PG/RTC/E-5621/2017, DTD-17.05.2017 is extended up to **12.06.2017, 14.00PM**. Part I Bid opening will be done on **12.06.2017, 15.00PM**. All bidders are requested to visit the website [www.bhel.com](http://www.bhel.com) (Tender Notifications Section) OR [www.bhelpem.com](http://www.bhelpem.com). All future corrigenda/ amendment and due date extension, if any, for this tender shall be hosted only on above websites.
2. Please find Amendment I & II to Technical Specification enclosed.
3. Please note that further to point no-16 (Page-3 of 6) of NIT, delivery scheulde for cleaning balls will be 1 month from BHEL clearance.

Thanking You,

With Regards,

For & on behalf of BHEL

**SUMEET SAHAY**  
**SR ENGINEER/CMM**

5/6/17 सुमीत साहय / SUMEET SAHAY  
बलिवर अभियन्ता (पी.जे.पी.-2) / Sr. Engineer (PG-I-2)  
भारत हेवी इलेक्ट्रिकल्स लिमिटेड / Bharat Heavy Electricals Ltd.  
पावर प्रोजेक्ट इंजीनियरिंग प्रबंधन  
एंड मैनेजमेंट सेक्टर, बलिवर, नोडा-201 301  
Power Project Engineering Management  
Sector - 2, BHEL, Noida-201 301

Please reply to:

**Sh Sumeet Sahay, Sr. Engineer**  
**CMM**

Power Project Engineering Institute Building  
HRD & ESI Complex Plot No. 25, Sector -16 A,  
BHEL-PEM,Noida-201301 (U.P.)  
Tel No.0120-4213532, 09999498202

**AMENDMENT NO. 1**

**TECHNICAL SPECIFICATION  
FOR  
RATE CONTRACT  
OF  
CONDENSER ON LOAD TUBE CLANING SYSTEM (COLTCS)**

**Specification No. : PE-TS-RC-165-N002 (REV. 0)**



**BHARAT HEAVY ELECTRICALS LIMITED  
POWER SECTOR  
PROJECT ENGINEERING MANAGEMENT  
PPEI BUILDING, SECTOR 16 A  
NOIDA - 201301**



**TECHNICAL SPECIFICATION FOR  
RATE CONTRACT OF  
COLTCS**

SPECN. NO.:

PE-TS- RC-165-N002

**AMENDMENT NO. 1**

REV. NO.

0

DATE:

02.06.17

1.0 With reference to Sl. No. 12, Section-IB, Datasheet A, (page No. 49 to 126 of pdf file) of Technical Specification, please consider the Specification amended as below:

| S. No | Clauses as mentioned in Technical Specification                                      | Amended Clauses                                                                                                      |
|-------|--------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|
| 1     | For COLTCS Type I, MANDATORY SPARES - to be supplied under this specification – "NA" | For COLTCS Type I, MANDATORY SPARES - to be supplied under this specification – "YES (As indicated in ANNEXURE-III)" |

All other specification requirements for Rate Contract of COLTCS (except for above), as specified in specification no. PE-TS- RC-165-N002, shall remain unchanged.

**AMENDMENT NO. 2**

**TECHNICAL SPECIFICATION  
FOR  
RATE CONTRACT  
OF  
CONDENSER ON LOAD TUBE CLANING SYSTEM (COLTCS)**

**Specification No. : PE-TS-RC-165-N002 (REV. 0)**



**BHARAT HEAVY ELECTRICALS LIMITED  
POWER SECTOR  
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NOIDA - 201301**



**TECHNICAL SPECIFICATION FOR  
RATE CONTRACT OF  
COLTCS**

SPECN. NO.:

PE-TS- RC-165-N002

**AMENDMENT NO. 2**

REV. NO.

0

DATE:

05.06.17

1.0 With reference to Section-IB of Technical Specification, please consider the Specification amended as below:

1.1 'Format for Electrical Load data' is enclosed.

2.0 With reference to Section-III of Technical Specification, please consider the Specification amended as below:

2.1 'Performance Guarantee Schedule' (Section-III) is enclosed.

2.2 'Compliance certificate' (Section-III) is enclosed.

All other specification requirements for Rate Contract of COLTCS (except for above), as specified in specification no. PE-TS- RC-165-N002, shall remain unchanged.

[illegible]



**TITLE : SCHEDULE OF PERFORMANCE GUARANTEES  
FOR  
CONDENSER ON LOAD TUBE CLEANING SYSTEM (COLTCS)**

**SPEC. NO. PE-TS-RC-165-N002**

**SECTION : IIIA**

**Sheet 1 of 1 Date- 05.06.2017**

| S.NO. | DESCRIPTION                                                                                                                             | UNITS | GUARANTEED VALUES |
|-------|-----------------------------------------------------------------------------------------------------------------------------------------|-------|-------------------|
| 1.    | Pressure drop across the ball collecting Strainers (i.e. between inlet & outlet nozzle) under clean condition and Normal flow condition | MWC   |                   |
| 2     | Percentage of ball recovery (minimum)                                                                                                   | %     |                   |
| 3     | Life of sponge rubber balls                                                                                                             | Weeks |                   |

| PARTICULARS OF BIDDER/ AUTHORISED REPRESENTATIVE |             |           |      |  |              |
|--------------------------------------------------|-------------|-----------|------|--|--------------|
| NAME                                             | DESIGNATION | SIGNATURE | DATE |  | COMPANY SEAL |

|                                                                                   |                                              |              |                   |
|-----------------------------------------------------------------------------------|----------------------------------------------|--------------|-------------------|
|  | TITLE : COMPLIANCE CERTIFICATE FOR<br>COLTCS | SPEC.<br>NO. | PE-TS-RC-165-N002 |
|                                                                                   | FOR RATE CONTRACT                            | DATE:        | 05.06.2017        |
|                                                                                   |                                              | SHEET        | 1 OF 2            |

### COMPLIANCE CERTIFICATE

The bidder shall confirm compliance with following by signing/ stamping this compliance certificate and furnish same with the offer.

- a) The scope of supply, technical details, construction features, design parameters etc. shall be as per technical specification & there are no exclusions with regard to same.
- b) There are no other deviations w.r.t. specification other than those furnished in the 'Schedule of Deviations'. Any other deviation, stated or implied, taken elsewhere in the offer stands withdrawn unless specifically brought out in the 'Schedule of Deviations'
- c) Bidder shall submit QP in the event of order based on the guidelines given in the specification & QP enclosed therein. QP will be subject to BHEL/ Customer/Customer's Consultant approval and customer hold points for inspection/ testing shall be marked in the QP at the contract stage. Inspection/ testing shall be witnessed as per same apart from review of various test certificates/ Inspection records etc. Charges for 3<sup>rd</sup> party inspection (TUV/ equivalent) for imported components wherever required shall be included by bidder in the base price itself.
- d) Any drawing/ document/ data-sheet/ calculation/ Quality plan/ Instrumentation etc. submitted along with the offer shall be considered for reference only, same shall be subject to BHEL/ Customer/Customer's Consultant approval in the event of order.
- e) The offered materials shall be either equivalent or superior to those specified in the specification. For components where materials are not specified, same shall be suitable for intended duty, all materials shall be subject to approval in the event of order.
- f) The commissioning spares including balls shall be supplied on 'As Required Basis' and to be supplied at the time of commissioning of COLTCS system & prices for same included in the base price itself.  
Prices for special tools & tackles, if any, shall also be included in the base price.  
Recommended spares for 3 years shall be quoted separately with price indicated separately.
- g) Charges for Installation Checks, Commissioning of equipments, Trial runs and Performance Testing at site shall be included by bidder as per the price format.
- h) The main flanges for Ball separator shall be suitable for the forces and moments as per the specification.
- j) Injection nozzles – 2/4 numbers of stubs of 100 NB or size as informed by bidder shall be provided by BHEL. The injection nozzles, counter flanges for the stubs along with nuts, bolts and gaskets shall be supplied by the bidder.
- k) Number of balls (Normal as well as abrasive) for COLTCS shall be as specified i.e Number of balls per charge shall be @ 10% of no. of tubes per condenser section.
- l) The hydrostatic test pressure shall be 1.5 times the design pressure.
- m) All sub - vendors shall be subject to BHEL/ Customer/Customer's Consultant approval in the event of order.
- n) The Performance guarantees of equipments shall stand valid till the satisfactory completion of performance testing & its acceptance by BHEL/ Customer/Customer's Consultant.
- o) The orientation of piping around COLTCS shall be finalised during detailed Engg.



|                                                                                  |                                                  |                  |                          |
|----------------------------------------------------------------------------------|--------------------------------------------------|------------------|--------------------------|
|  | <b>TITLE : COMPLIANCE CERTIFICATE FOR COLTCS</b> | <b>SPEC. NO.</b> | <b>PE-TS-RC-165-N002</b> |
|                                                                                  | <b>FOR RATE CONTRACT</b>                         | <b>DATE:</b>     | <b>05.06.2017</b>        |
|                                                                                  |                                                  | <b>SHEET</b>     | <b>2 OF 2</b>            |

p) Electrical/ C&I :

- All selected motor ratings have minimum 15 % margin over maximum continuous demand of the driven equipment including voltage and frequency variations, temperature rise and other factors.
- Supply of electrical viz. LT power cables, instrumentation and control cables, cable glands, lugs, cable trays etc. shall be as per specification. Their erection shall be done by BHEL
- The junction boxes for termination of DPT/ DPS/ Actuator LS/ solenoid valves/ Ball oversize monitor/ Ball recirculating monitor are included in bidder's scope. The instrumentation cable and cabling from instruments/ actuators to junction boxes is also included in bidder's scope.
- Valve actuators and controls shall be provided as specified in Data Sheet-A and Project specific requirements as specified in Sub-Section IB & Section IC.
- Alarms/ annunciations/ instruments shall be finalised during detailed engineering in the event of order which shall be subject to BHEL/ Customer/Customer's Consultant approval and shall be without any commercial implications to BHEL.