

Dated:08/07/2015

## **CORRIGENDUM-1**

**Tender enquiry No. R/5599/2015/1606V1 dt: 24/06/2015 with tender opening date 22/07/2015 for the item "Automatic Bomb Calorimeter"**


As a result of pre bid meeting held on 01/07/2015 following changes have been made in the original tender document:-


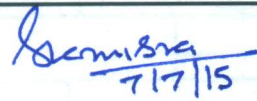
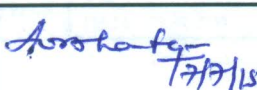
- (1) Technical specification **PR00135 Rev 03** has been revised as **PR00135 Rev 04** and **enclosed below for reference.**
- (2) Last date to get tender from BHEL has been extended from 21/07/2015 to **28/07/2015**
- (3) Tender opening date has been extended from 22/07/2015 to **29/07/2015**

Vendors are requested to quote according to the above changes.

FOR & ON BEHALF OF BHEL, HARIDWAR

**Engineer (PCRI-BOI)**

| दिनांक एवं हस्ताक्षर<br>SIGN & DATE   |  | उत्पाद क्रय विनिर्देश  |  |   | PR00135                           |  |
|---|---|--|--|---|-----------------------------------|--|
|   |   | PRODUCT PURCHASE SPECIFICATION   |  |   | पृष्ठ<br>Page                     | 2 का 1<br>1 of 2                         |
| सुपेर्सिड<br>INVENTORY NO.  | सामग्री सूची संख्या को<br>अधिकृत करता है  | <p><b>1.0 Name of Equipment: Automatic Bomb Calorimeter</b></p> <p><b>2.0 General:</b> Measures calorific value of fuels (including coal samples).</p> <p><b>3.0 Specifications of Equipment:</b></p> <p>1. Calorimeter type : Automatic Bomb Calorimeter based on isoperibol method, should consist of stand alone unit with microprocessor, water cooling jacket and automatic temperature control and with compatible PC and Windows based software using an electronic thermometer. PC and Monochrome Laser Printer should have following minimum configuration : Branded PC &amp; Printer with Intel Core i5 or better Processor, 18" or better LED Monitor, Windows 8.1 or better, 4GB DDR3 or better RAM and HDD 1.0 TB or better; Black &amp; White Laser Printer with speed 25 PPM or better.</p> <p>2. Range : 4000 – 15000 Btu/lb (2222-8334 cal/g)</p> <p>3. Resolution : 1 Btu/lb</p> <p>4. Precision : 0.05% RSD or better</p> <p>5. Analysis Time : 4.5 – 20 minutes</p> <p>6. The system should use oxygen gas of 99.99% purity for sample analysis.</p> <p>7. No additional heaters or coolers are required.</p> <p>8. The instrument should have various correction facilities for acid or nitrogen, fuse wire, sulphur ash, moisture and hydrogen.</p> <p>9. Temperature Measuring Accuracy : 0.0001°C (to measure every six seconds)</p> <p>10. <b>BOMB TYPE :</b> Removable Bomb &amp; Bucket. The Oxygen Combustion bomb should be made of a special stabilized stainless steel to resist the mixed nitric and sulfuric acids produced in combustion.</p> <p>11. <b>BUCKET FILLING :</b> Manual / Automatic</p> <p>12. <b>OXYGEN FILLING :</b> Automatic</p> |  |   |                                   |  |
| <p><b>COPYRIGHT AND CONFIDENTIAL</b><br/>The information on this documents is the property of Bharat Heavy Electrical. Limited It must not be used directly or indirectly in any way detrimental to the interest of the company</p> |   | <p>सामग्री सूची संख्या<br/>INVENTORY NO.</p>   |  |   |                                   |  |
| दिनांक एवं हस्ताक्षर<br>SIGN & DATE   | सहमत विभाग<br>AGREED DEPTT.   | नाम<br>NAME  | दिनांक एवं हस्ताक्षर<br>DATE & SIGNATURE | निर्माणकर्ता<br>PREPARED BY                 | नाम<br>NAME                       | दिनांक एवं हस्ताक्षर<br>SIGNATURE & DATE |
|   |   |  |  | जांचकर्ता<br>CHECKED BY                     | S.K. Mishra                       |  |
|   |   |  |  | पर्यवेक्षणकर्ता<br>SUPERVISED BY            | Dr. S. Bhatnagar                  |  |
|   |   |  |  | स्वीकृति<br>APPROVED : Dr. N.G. Shrivastava |                                   |  |
| REV.NO.   | 04  |  |  | निर्माण<br>PREPARED : S.K. Mishra           | जारी<br>ISSUED : Dr. S. Bhatnagar | दिनांक<br>DATE : 07.07.2015              |
| Dt.   | 07.07.2015  |  |  |   |                                   |  |

| दिनांक एवं हस्ताक्षर<br>SIGN & DATE       |  | उत्पाद क्रय विनिर्देश  |  | PR00135                     |                  |   |   |    |   |
|---|---|--|--|-----------------------------|------------------|---|---|----|---|
|   |   | PRODUCT PURCHASE SPECIFICATION   |  | पृष्ठ                       | 2                | का  | 2 |    |   |
| समग्री सूची संख्या<br>INVENTORY NO.       |   | <p>13. Oxygen Cylinder (7 cu.m.) with 99.99% purity along with dual stage oxygen regulator to be provided.</p> <p>14. Prices to be given for the following items if not included in the standard package:</p> <ul style="list-style-type: none"> <li>(i) Benzoic Acid – Calorific Value Standard of 1.0 g Pellets.</li> <li>(ii) Suitable Gelatin Capsules for the equipment, if required.</li> <li>(iii) Pellet press with ½” punch and die set, if required.</li> <li>(iv) SS/Quartz/Silica crucible with insert cover.</li> <li>(v) Fuse wire Ni-Cr Alloy/Cotton thread of suitable gauge and length.</li> </ul> <p>The above accessories should be sufficient to carry out 1000 tests.</p>   |  |                             |                  | Page  | 2 | of | 2 |
| समग्री सूची संख्या को<br>अधिकारित करता है |   | <p><b>4.0 General Terms &amp; Conditions</b></p> <p><b>4.1 Document:</b> One hard copy of O&amp;M Manual in English language giving complete technical information for operation and maintenance of the equipment including circuit diagram shall be supplied.</p> <p><b>4.2 Installation and Commissioning:</b> The supplier shall install &amp; commission the equipment at site. Supplier should demonstrate the performance of the Equipment and all its accessories to ensure compliance with complete specifications &amp; parameters quoted by them to the satisfaction of BHEL/end user. Cost of installation &amp; Commissioning, if any, should be indicated separately.</p> <p><b><i>Failing to comply to the Installation and Commissioning clause, the offer will be rejected straightaway.</i></b></p> <p><b>4.3 Guarantee / Warranty:</b> The equipment shall be guaranteed / warranted for satisfactory performance for a period of 12 months from the date of installation or 18 months from date of dispatch, whichever is earlier.</p> <p><b><i>Failing to comply to the Guarantee / Warranty clause, the offer will be rejected straightaway.</i></b></p> <p><b>4.4 Packing &amp; Dispatch:</b> The equipment / accessories shall be packed in a suitable water proof/vibration proof packing box capable of bearing air and road transit hazards. Packing box shall be properly identified and marked with BHEL's (India) Purchase Order Number. Also, “PCRI HWR” should be written in bold letters on all four sides of the packing box.</p> |  |                             |                  |   |   |    |   |
| समग्री सूची संख्या<br>INVENTORY NO.       | REV.NO.   | 04 Dated 07.07.2015  |  | निर्माणकर्ता<br>PREPARED BY | S.K. Mishra      |  |   |    |   |
|   |   |  |  | जांचकर्ता<br>CHECKED BY     | Dr. S. Bhatnagar |  |   |    |   |

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**स्वादि. एवं गोपनीय**  
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