

# **INSTITUTE FOR PLASMA RESEARCH**

**NEAR INDIRA BRIDGE, BHAT**

**GANDHINAGAR – 382 428**

**GUJARAT STATE, INDIA**

**Phone: 079-23962000, 23962022, 23962026 Fax: 079 23962277**

**Website : [www.ipr.res.in](http://www.ipr.res.in)**

**TENDER NOTICE NO. IPR/TPT/TN/PUR/F/15-16/7 DATED  
11-12-2015 FOR HELIUM REFRIGERATOR (HR) SYSTEM  
FOR SST-1 UP-GRADATION AT IPR SITE, PUBLISHED IN  
THIS NEWSPAPER ON 16-12-2015**

## **CORRIGENDUM - 2 DATED 18-01-2016**

- a. A corrigendum to PART-A of tender documents is issued. For more details refer our website <http://www.ipr.res.in/documents/tenders.html>.
- b. The due date for submission of quotation against above tender notice is 8<sup>th</sup> February, 2016 by 1:00 p.m (I.S.T.).
- c. Other Terms & Conditions of our above tender remain unaltered.

## ANNEXURE . 1

### Corrigendum in Part . A (Technical Specification Document)

| <b>Sr. No.</b> | <b>Ref. Tender Doc</b> | <b>Given</b>  | <b>Read As</b>   |
|----------------|------------------------|---|--|
| 1              | Clause 5.6             | No. of compressors: -<br>Two (1 + 1) Redundancy   | IPR needs reliable water-cooled compressor for 3 months continuous operation on 24 x 7 basis. The compressor motor must be designed to operate under ambient temperature of 47 ° C. However, Vendor may decide on the number of compressor(s) that meets the above operational requirements. |
| 2              | Clause 5.10            | 1 ppb level of oil impurity   | 10 ppb level of oil impurity.  |
| 3              | Clause 5.13            | Purity Monitor: -<br>Analyser / detector for H <sub>2</sub> O, N <sub>2</sub> , O <sub>2</sub> , Hydrocarbons (C <sub>x</sub> H <sub>y</sub> ) and Oil aerosols | Purity Monitor:<br>Analyser / detector for H <sub>2</sub> O, N <sub>2</sub> , Hydrocarbons (C <sub>x</sub> H <sub>y</sub> ) and Oil aerosols   |
| 4              | Clause 5.11            | On-line Purifier  | On-line Purifier is not required.  |
| 5              | Clause 5.12            | Cold box: -<br>80 K & 20 K char-coal adsorber   | Cold box should have dual 80 K charcoal adsorber beds with by-pass and automatic regeneration.<br>Also cold box should have 20 K adsorber bed.   |
| 6              | Clause 5.17            | Cooling Water:<br>15 to 20 C at 3 bar, temperature rise 10 C  | Available cooling water:<br>20 to 30 C at 3 bar, allowed temperature rise is 10 to 15 deg.   |
| 7              | Clause 8.7             | Pre-commissioning Mode  | Pre-commissioning mode is deleted from the technical specification.  |
| 8              | Clause 8.8             | HR Internal Mode defines internal operation modes such as cold-box rinsing and air / water regeneration of 80 K and / or 20 K charcoal bed is required          | HR Internal Mode defines internal operation modes such as cold-box rinsing and air / water regeneration of 80 K charcoal bed is required   |
| 9              | Clause 9.1             | Compressor Noise (< 70 dBA)   | Compressor Noise (<80 dBA) at distance of 1 m  |
| 10             | Clause 9.1             | Vibration < 3.5 mm/s  | Vibration level of 3.5 mm/s is removed.<br>However the compressor system should be mounted on suitable skids with vibration isolation pads so that vibrations should not transfer  |

|    |                     |   |  |
|----|---------------------|---|--|
|    |                     |   | to other system.   |
| 11 | Clause 9.3          | External Purification System                                      | This section is deleted from technical specification.  |
| 12 | Clause 9.5          | Control and Protection system<br>....                             | Control and Protection system<br>.....<br>Licences for PLC and SCADA softwares shall be included   |
| 13 | Clause 9.6<br>(new) | -----   | Remote Operation:<br>Suitable hardware & software for monitoring, diagnostics and operation from remote location (through internet).   |
| 14 | Clause 10.7.4       | Spares parts.....<br>a) Basic package<br>b) Complimentary package | Bidders are advised to suggest appropriate spares including consumables and replacement parts with maintenance plans for 4000 hours of operation per year. Bidders shall give offer for the 5-years operation spares kit (including major maintenance kit). Bidders shall offer an optional cost for spare turbine kit also. These prices shall be quoted on unit price basis. |
| 15 | Clause 10.4         | Installation and commissioning of HR plant at IPR site            | Clarity on the responsibility of installation scope is given in Annexure-2.<br>Installation of the scope of supplies by the bidder and entire commissioning shall be in bidder's scope.  |
| 16 | Clause 13           | Delivery Schedule<br>.....  | Delivery Schedule<br>.....<br>The Delivery of the system in the Scope of this Tender shall be completed within 12 months from the date of LOI  |

