

CSIR - NATIONAL PHYSICAL LABORATORY

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From: Director, CSIR-NPL

No. 14-VI/GG(1145)23PB/T-130

Dated: 21.11.2023

CORRIGENDUM

With reference to NPL's Global Tender ID: 2023_CSIR_732285_1 for "**High Precision Low Humidity Generator for Primary Calibration Standard with Accessories (Two-Pressure, Two-Temperature)**". Following extension in due date of submission & date of opening of the said tender may be read exactly as follows:

Due date & time of tender submission

For : 28.11.2023 up to 3:00 PM (IST)

Read as: 05.12.2023 up to 3:00 PM (IST)

Date & Time of Tender Opening

For : 29.11.2023 at 3:00 PM (IST)

Read as: 06.12.2023 at 3:00 PM (IST)

All other terms & conditions of said tender will remain the same.



Sr. Controller of Stores & Purchase

Minutes of the Meeting (MOM) of the Pre-Bid Conference

Date: 07/11/2023

With reference to the File No. 14-VI/GG (1145)23PB/T-130 dated 06.10.2023, regarding Pre-Bid conference for procurement of "High Precision Low Humidity Generator for Primary Calibration Standard with Accessories", a Pre-Bid Conference was held on 07/11/2023 (Tuesday) at 11.00 AM in the Second Floor Conference Room, Main Building CSIR-NPL, New Delhi under Chairmanship of Dr. H. K. Singh.

Following vendors & their representatives participated in Pre-Bid Conference.

1. Mr. Pushpinder Singh from M/s Advance Technical Systems Private Limited 305, Pankaj Tower, L.S.C, Plot No.6, Mayur Vihar-I, Delhi- 110091, **Principal:** M/s Thunder Scientific, 623 Wyoming Blvd. SE, Albuquerque, New Mexico, USA; www.thunderscientific.com
2. Mr. Aniket Jenwal from M/s KALPNA Enterprises, D-501, West Vinod Nagar, Delhi-110092, **Principal:** M/s RH Systems, LLC, 1225 W. Houston Ave, Gilbert, AZ 85233; sales@rhs.com; www.rhs.com

The following members attended the meeting:

1.	Dr. H. K. Singh, Chief Scientist	Chairman
2.	Dr. Sachchidanand Singh, Chief Scientist	Member
3.	Dr. S. P. Khanna, Senior Principal Scientist	Member
4.	Dr. Shankar G. Aggarwal, Sr. Principal Scientist	Expert
5.	Dr. Kiran M. Subedar, Principal Scientist	Expert
6.	Mr. Gaurav Gupta, Technical Officer	Indenter
7.	Dr. D. D. Shivagan, Senior Principal Scientist	Member/PI

Mr. Gaurav Gupta, presented the tendered specifications to the pre-bid participants. Each and every point of technical specifications and all mandatory documents and form with tender was discussed in details by the committee members. The queries received from vendor during the pre-bid meeting were discussed and clarified.

The responses received from vendors on the technical specifications are attached as Annexure-I.

The detail final specifications are given in the Annexure-II.

The meeting ended with thanks to Dr. Sachchidanand Singh.

The detail final specifications: -

High Precision Low Humidity Generator for Primary Calibration Standard with accessories (Two-Pressure Two-Temperature), Quantity: 01 Nos

Parameters	Required Specifications
Humidity Generation Principle:	Two-Pressure Two-Temperature Method
Relative Humidity Range:	Near 0 % to ≥ 50 % RH
Frost Point/Dew Point Temperature Range:	-95 °C to 10 °C
Frost Point Uncertainty:	± 0.2 °C or better
Dew Point Uncertainty:	± 0.1 °C or better
Test Temperature Range (measured):	0 °C to 50 °C
Test Temperature Accuracy	± 0.05 °C or better
Saturation Temperature Range:	-80 to 10 °C
Saturation Temperature Control Stability:	± 0.05 °C or better
Saturation Pressure Range:	Ambient to ≥ 150 psiA
Saturation Pressure Accuracy:	$\pm 0.05\%$ of full scale or better
Test Pressure Range (measured):	Ambient to ≤ 50 psiA
Test Pressure Accuracy:	$\pm 0.05\%$ of full scale or better
Gas Type:	Dry Nitrogen/Air
Gas Supply Pressure Range:	up to 300 psiG
Gas Flow Rate Range:	up to 10 SLPM
Gas Flow Rate Accuracy:	2% of full scale
Test Port for DUC/DUT:	Three or more
Electrical Power:	As Per Indian Standard, Single Phase
Data Acquisition:	Compatible Ports - RS232/USB/IEEE488, Control Software (English) for control and measurement of dew/frost temperature along with display of other derived humidity parameters, Data Cables (Instrument to PC), and supporting accessories.
Operating Environment:	Temperature: 20°C to 30 °C; Humidity: 10% to 95% RH
Storage Conditions:	0°C to 50°C; Humidity: 10% to 95% RH
Calibration Certificate:	ISO/IEC-17025:2017 accredited calibration certificate traceable to National or International Standards.
Warranty:	One Year
Supplier's Scope of Supply:	All the necessary items required for installation and measurements. Operating and Service Manual, shipping crate, and required tools for operation and measurement. All flow pipes, valves, connectors, and fittings to connect the chilled mirror dew point hygrometer with the humidity generator.
Acceptance Criteria:	Installation and Demonstration of all the quoted capabilities at CSIR-NPL site.