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From: Director, CSIR-NPL
Tender No. 14-VIII/SS(756-GTE)22PB/T-80 Dated: 19.09.2023

CORRIGENDUM

With reference to NPL's Global Tender ID: **2023_CSIR_722785_1**, Pre-Bid Conference (PBC) was concluded on 29.08.2023 for "UV Radiometry Setup". Consequent upon the outcome of PBC, **some changes have been made in the technical specification of captioned tender. Revised specifications are as follows:**

TECHNICAL SPECIFICATION of UV RADIOMETRY SETUP

The following are detailed technical specifications for compliance:

S.NO.	SPECIFICATIONS
1.	**Scope of Measurement and System Configuration (1 No.)**
1.1	Scope of Measurement and System Configuration: The UV Radiometry Setup should be a Spectroradiometer based System capable of performing following measurements/tests in the wavelength range of the spectroradiometer:
1.2	Spectral Irradiance Measurement (200-780 nm or broader)
1.3	Spectral Radiance Measurement(200-780 nm or broader)
2.	**Spectroradiometer (Double Monochromator or CCD array based) (1 No.)**
2.1	Suitable detector(s) covering the measurement range 200-780 nm for Double Monochromator based Spectroradiometer (in case of solid state detector, peak sensitivity ≥0.5 A/W; in case of PMT, Dark Current ≤10 pA) For CCD array based Spectroradiometer: cooling: ≤ -10°C, with a minimum of 1024 × 64 effective pixels, Integration time: 10 ms – 60 s or broader
2.2	Spectral Range: 200-780 nm or broader
2.3	Spectral Resolution: ≤ 5nm
2.4	Wavelength accuracy: ≤0.5 nm (200-400 nm); ≤ 2 nm (400 -780 nm)
2.5	Wavelength data point interval: ≤1.0 nm
2.6	Nominal Stray light factor at Illuminant A: 5×10^{-4} or less

2.7	Lower-limit of measurable irradiance: 10 nW cm^{-2} nm^{-1} or less
2.8	Provision of wavelength calibration by the user independently at CSIR-NPL, India
2.9	Provision of dark correction
2.10	Interface with console through the system software via USB/GPIB
2.11	The spectroradiometer should have provision to be calibrated for spectral irradiance using calibrated standard lamps.
3.	**Input Optics**
3.1	***Cosine Corrected Transmission Diffuser (01 No.)***
3.1.1	Deviation from Ideal Cosine Response in the acceptance angle of ±30°: < 5%
3.1.2	Entrance port diameter: ≥10 mm
3.1.3	Proper coupling arrangement to spectroradiometer
3.2	***Integrating sphere (01 No.)***
3.1.4	PTFE Sphere
3.1.5	Spectral Range: 200-2000 nm
3.1.6	Size (internal diameter): 100-250 mm (both values inclusive)
3.1.7	Appropriate entrance port diameter
3.1.8	Proper coupling arrangement to spectrometer
3.3	***Direct View Optical Arrangement (01 No.)***
3.1.9	Refractive/Reflective FoV Optics for Spectral Radiance Measurements
3.1.10	Proper coupling arrangement to spectroradiometer and required alignment accessories should be provided
4.	**Light Source(s) with suitable Power supply**
4.1	Lamp(s) for spectral irradiance standard (200-400 nm), having detectable radiometric power at one wavelength (at least) in each of the wavelength range of 200-280 nm, 280-315 nm, and 315-380 nm, with suitable power supply for the lamp(s).
5.	**Operating Console (Windows based Personal Computer): (1 No.)**
5.1	Data acquisition system with all interfacing cables, cards, PC (with licensed Windows and MS Office), with HD display (at least 25 inches) and system software. The system software also to be provided separately in an external storage media.
5.2	Laser Printer
5.3	Online Uninterrupted Power Supply (UPS) for the console and spectroradiometer
5.4	The Spectrometer Software should be Windows compatible. It should be capable of generating and applying calibration files for spectrometer measurements.

6.	**Other Requirements**
6.1	Installation & Training: Complete installation and training shall be provided by supplier/manufacturer.
6.2	Electrical power input to the system and lamp power supply should be compatible to the Indian standards.
6.3	All cables, required spares and tools should be provided with the system.
6.4	Acceptance Criteria: Demonstration of complete operation of the system and successful measurements of CSIR-NPL standard lamps.
6.5	Documentation: Operating & instruction manuals along with maintenance procedures for the equipment shall be provided.
6.6	Warranty: At least one year standard warranty on the supplied system after successful installation and demonstration.
6.7	Availability of Spare Parts: For at least ten years.

Therefore, 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 : 19.09.2023 up to 3:00 PM (IST)
Read as: 03.10.2023 up to 3:00 PM (IST)

Date & Time of Tender Opening
For : 20.09.2023 at 3:00 PM (IST)
Read as: 04.10.2023 at 3:00 PM (IST)

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

Sr. Controller of Stores & Purchase

Optical Radiation Metrology
(Physico-Mechanical Metrology Division)
Minutes of TSC Meeting for UV Radiometry Setup

Reference: 14-VIII/SS(756-GTE)/22PB

September 05, 2023

Technical Sub-Committee (TSC) met on September 05, 2023 at 04:00 PM, in Room 39, Main Building, CSIR-NPL, for finalization of technical specification, for 'UV radiometry Setup', based on inputs received from vendors in the PBC meeting (held on August 29, 2023).

Following members attended the meeting:

1)	Dr. H. K. Singh, Chief Scientist, CSIR-NPL	Chairperson
2)	Dr. Sachchidanand Singh, Chief Scientist, CSIR-NPL	Member
3)	Dr. Anjana Dogra, Sr. Principal Scientist, CSIR-NPL	Member
4)	Dr. Subhasis Panja, Sr. Principal Scientist, CSIR-NPL	Member & Domain Expert
5)	Sh. V. K. Jaiswal, Sr. Principal Scientist, CSIR-NPL	Member & Domain Expert
6)	Dr. Parag Sharma, Sr. Principal Scientist, CSIR-NPL	Member & Domain Expert
7)	Dr. Shibu Saha, Sr. Scientist, CSIR-NPL	Indenting Officer

Indenting officer presented the published technical specifications, and the communications along with technical inputs received, by email (communications attached), from the following vendors who had attended the PBC:

1) M/s Nano-Tech Instruments, India

2) M/s ATOS Instruments Marketing Services, India

A detailed technical deliberation took place on the technical specifications and the inputs received. The technical specifications, for the UV Radiometry Setup, were finalized (attached in Annex I) and the modifications are tabulated in Annex-II. Based on the communication from the vendors, TSC also recommended to extend the Bid Submission End Date by fifteen days.

The meeting ended with thanks to the Chairperson and members for joining the meeting and giving their valuable inputs.