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सूक्ष्म, लघु और मध्यम उद्यम मंत्रालय, (भारत सरकार)
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(Government of India)
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File No. E7142 Date: 16-09-2025

शुद्धिपत्र/CORRIGENDUM

निविदा संदर्भ संख्या /
Tender Reference No. : E7142/1
निविदा आईडी / Tender ID: 2025_COIR_872962_1
निविदा शीर्षक /
Tender Title: *प्रयोगशाला उपकरणों की आपूर्ति, स्थापना और कमीशनिंग (अनुसूची I–XII)/ Supply, Installation and Commissioning of Lab Equipments (Schedule I–XII)*

Sub:- Modification in Technical Specification & Extension of End Date- reg

It is hereby notified that Technical specifications mentioned under SCHEDULE OF REQUIREMENTS AND SPECIFICATION (V-B) in Tender Document of the above referred tender has been modified as below based on the recommendation of Expert Committee on the points discussed in Pre-bid Meeting held on 26.08.2025.

Change in Technical specifications

SECTION V-B SCHEDULE OF REQUIREMENTS AND SPECIFICATION

S. No	Name of the Equipment	Existing Specifications	Modified Specifications
1	**ED X-Ray Fluorescence Spectrometry (XRF)**	Excitation Source: Direct excitation geometry with primary beam filters;50WX-ray generator with Rh/Ag anode, 50 kV, 2000 µA	Excitation Source: Direct excitation geometry with primary beam filters; 50 W X-ray generator with Rh/Ag anode, 50 kV or Higher, 2000 µA
		Filter System: 9-position filter changer for full element range(Low Z to High Z)	Filter System: Minimum 8 or more-position filter changer for full element range (Low Z to High Z)
		Power Control:Software-controlled;min50kV,2000 µA	Power Control: Software-controlled; min 50 kV or Higher, 2000 µA

	(Continued)	Input Count Rate : Linear response up to≥ 1.5 Mcps	Input Count Rate: Linear response up to ≥ 0.2 Mcps
		Sample Changer: Auto sample turret with min 10 positions	Sample Changer; Auto sample turret with min 10 positions or More
		Safety Provisions: Auto X-ray cut-off on lid open/error; AERB India radiation safety compliant	Safety Provisions: Auto X-ray cut-off on lid open/error; AERB Registered & Approved India radiation safety compliant
		Certifications: CE, ISO 9001:2015, AERB Registered product	Certifications: CE, ISO 9001:2015, AERB Registered & Approved product
2	**Fourier-Transform Infrared Spectrometer (FTIR)**	Beam Splitter KBr/Gebeam splitter	Beam Splitter KBr/Ge beam splitter or ZnSe/Ge Beam Splitter
		Wavelength Range Must be minimum 8,000cm-1 to 350cm-1	Wavelength Range Must be minimum 7800 cm^{-1} to 350 cm^{-1}
		Signal-to-Noise Ratio (SNR) 40000:1or better (Peak-to-Peak)	Signal-to-Noise Ratio (SNR) 40000:1 or More SNR ratio (Peak-to-Peak)
		Wave number Precision 0.001cm-1 at 2,000 cm-1	Wave number Precision 0.01 cm-1 at 2,000 cm-1 or Better
		Detector DTGS for maximum detect or response linearity	Detector DTGS or DLATGS for maximum detector response linearity
		User-Replaceable Parts: 3. Rechargeable desiccants	User-Replaceable Parts: 3. Rechargeable/Sealed desiccants
		Software Features Quantitative models: PLS,CLS,Beer's Law	Software Features Quantitative models: PLS, Beer's Law etc.,

	(Continued)	Spectral Library Minimum 30,000 spectra including: - Polymer Additives and Plasticizers - FT-IR Standard (>9,000) - Hummel Polymer Additives - White Powders Library - In-organics Library	Spectral Library Licensed Version Library Minimum 30,000 spectra including: - Polymer Additives and Plasticizers - FT-IR Standard (>9,000) - Hummel Polymer Additives - White Powders Library - In-organics Library -General IR compounds
		Other Accessories DiamondATRwith5-yearwarranty	Other Accessories Diamond ATR with 5-year warranty including the Diamond Crystal
3	**Gas Chromatography Mass Spectrometry with Electron Capture Detector**	Mass Spectrometry (MS) Section: Ionization Source: Interfase Temperature: Up to 400°C	Mass Spectrometry (MS) Section: Ionization Source: Interfase Temperature: Up to 350°C or better
		Scan Speed: More than 20000 amu/sec for entire range	Mass Analyzer Scan Speed:12500 amu/sec for entire range or higher
		Vacuum System: Pump: Turbomolecular pump - 200 L/sec or higher, with a fore pump, differentially pumped between ionization source and mass analyser.	Vacuum System: Pump: Turbo molecular pump - 300 L/sec or higher, with a fore pump, differentially pumped between ionization source and mass analyser
		Detection Limits (for MS): Instrument Detection Limit (IDL):Should be less than ≤ 1 fg for OFN	Detection Limits (for MS): Instrument Detection Limit (IDL): Should be less than ≤ 10 fg or better for OFN.

	(Continued)	Electron Capture Detector (ECD) Section: Source: Radioactive Nickel-63 source - 10 millicuries / 370 MBq	Electron Capture Detector (ECD) Section: Source:Radioactive Nickel-63 source - 15 millicuries / 555 MBq or better.
4	**Atomic absorption spectrophotometer with graphite furnace with ppb detection for heavy metal detection with deuterium correction and 8 lamp turret**	General System Requirements: System Type: Fully automated, microprocessor-controlled Atomic Absorption Spectrophotometer with integrated Graphite Furnace Atomizer.	General System Requirements: System Type: Fully automated, microprocessor-controlled Atomic Absorption Spectrophotometer with integrated Graphite Furnace Atomizer and auto sampler for both flame and graphite furnace.
		Optical System: Configuration: Double beam optical system for enhanced stability and signal-to-noise ratio. Wavelength Range: 185 nm to 950 nm to cover the analytical wavelengths of common heavy metals. Monochromator: High-resolution, Bandwidth: Continuously variable slit width - 0.1 nm, 0.2 nm, 0.5 nm, 1.0 nm, 2.0 nm.	Optical System: Configuration: Double beam optical system for enhanced stability and signal-to-noise ratio. Wavelength Range: 185 nm to 900 nm to cover the analytical wavelengths of common heavy metals. Monochromator: High-resolution Bandwidth: Continuously variable slit width - 0.2 nm to 2.0 nm.
		Lamp Turret: Lamp Type: Standard Hollow Cathode Lamps (HCLs) / High-intensity Electrode less Discharge Lamps (EDLs).	Lamp Turret: Lamp Type: Standard Coded Hollow Cathode Lamps (HCLs) / High-intensity Electrodeless Discharge Lamps (EDLs).

	(Continued)	Graphite Furnace Atomizer (GFAAS) Section: Atomizer Design: o Temperature Range: Ambient to 3000°C with precise temperature control for each heating step.	Graphite Furnace Atomizer (GFAAS) Section: Atomizer Design: Temperature Range: Ambient to 2600°C or better with precise temperature control for each heating step and heating step should be specified.
		Argon Gas Control: Flow Control: Electronic Pneumatic Control (EPC) for precise and reproducible gas flow rates	Argon Gas Control: Flow Control: Electronic Pneumatic Control (EPC) /computer controlled for precise and reproducible gas flow rates
		Vapour Generation Accessory: For hydride-forming elements (As, Se, Sb, Bi, Sn) and cold vapor mercury (Hg) analysis - providing lower detection limits for these specific elements	Vapour / Hydride Generation Accessory: For hydride-forming elements (As, Se, Sb, Bi, Sn) and cold vapor mercury (Hg) analysis - providing lower detection limits for these specific elements.
		Safety and Utilities: Gas Requirements: Should supplied with High-purity Argon (99.999% or better) with appropriate pressure regulators. Air or other gases for specific applications and cooling.	Safety and Utilities: Gas Requirements: Should supplied with High-purity Argon (99.999% or better) and high purity Acetylene gas with appropriate pressure regulators. Air or other gases for specific applications and cooling. Required Oil free Air compressors also should be supplied

	(Continued)	Essential Accessories and Features: Consumables Kit: Initial supply of graphite tubes, HCLs for common elements, and other necessary consumables 1000ppm NIST traceable standards for all elements	Essential Accessories and Features: Consumables Kit: Initial supply of 20 nos of pyrolytically coated graphite tubes, HCLs for common elements, and other necessary consumables. 100ml each of 1000ppm NIST traceable standards for all elements
5	**UV- Vis Spectro photometer**	Type: Dual Beam with Sample and reference cuvette positions.	Type: Double Beam with Sample and reference cuvette positions.
		Bandwidth: 0.5 nm, 1 nm, 2 nm, 4 nm	Bandwidth: 0.5 nm to 5 nm
		Wavelength Accuracy: ±0.1nm for entire range	Wavelength Accuracy: ±0.2 nm for entire range or better
		Photometric Range: -0.3 to 3.0 Abs	Photometric Range: -0.4 to 4.0 Abs
		Stray Light: < 0.05% T at 220 nm and 340 nm	Stray Light: < 0.05% T at 220 nm and 340 nm or better.
		Connectivity: USB PC connection provide branded desktop computer suitable for Spectrophotometer	Connectivity: Instrument should function Stand alone as well as PC operated with supplied UV Vis software.USB to PC connection, branded desktop i5 with 22.5" monitor should be offered along with suitable UPS of 20-30 minutes backup for Spectrophotometer and accessories.

6	**HPLC with DAD detector**	Solvent Delivery unit - Quaternary Pump: Flow accuracy must be ± 0.1% • Flow precision must be below 0.05% RSD or better or 0.02 min SD (whichever is greater)	Solvent Delivery unit - Quaternary Pump: • Flow accuracy must be ± 1% • Flow precision must be below 0.06% RSD or better or 0.02 min SD (whichever is greater)
		Auto sampler: The sample capacity with 1.5ml vials is 200 numbers of vials. • Injection cycle time - less than 8 sec in specified conditions.	Auto sampler: • The sample capacity with 1.5ml/2mlvials is 100 numbers of vials or better. • Injection cycle time - less than 20 sec or betterin specified conditions. • The injection linearity must be above r=0.9999
		Diode Array Detector: • Linear range up to 2.7 AU	Diode Array Detector: • Linear range up to 2 AU or better
7	**CHNSO Analyzer**	Precision (RSD): ≤ 0.1% for certified standards.	Precision (RSD):≤ 0.3% for certified standards.
		Furnace Temperature: Up to 1100°C (combustion) /1000°C (pyrolysis). One furnace dedicated for combustion and second one dedicated for pyrolysis	Furnace Temperature: Up to 1100°C (combustion) /1000°C (pyrolysis). One furnace dedicated for combustion and second one dedicated for pyrolysis or the system shall be capable to do combustion and pyrolysis using the same furnace
		Micro Balance: Readability - 0.01mg Repeatability - 0.006mg	Micro Balance: Readability - 0.001 mg Repeatability - 0.06 mg

8	**Universal Testing machine**	TensileJig–5kN 5kNPneumaticCapstanTypeGripforr opesamples0– 10mm	Tensile Jig–5kN 5kN Pneumatic Capstan Type Grip for rope samples 0–8 mm.
		Wave jaws for wide width tensile testing (200mm wide) as per-ASTM-D4595,ISO10319 - Opening width: 0-30 mm Steel, hardened, nickel coated	Hydraulic grip with Wave jaws for wide width tensile testing (200mm wide) as per-ASTM-D4595,ISO10319 - Opening width: 0-30 mm Steel , hardened, nickel coated
		Jaws for strip tensile testing (50mm wide) as per ASTM D 5035 , ISO13934-1	Tensile Jig–5kN 5kN Pneumatic Flat type grip Jaws for strip tensile testing (50mm wide) as per ASTM D 5035 , ISO13934-1
		Jaws for Grab tensile testing as per ASTM D 4632 , ISO13934-2	TensileJig–5kN 5kN pneumatic flat type Jaws for Grab tensile testing as per ASTM D 4632 , ISO13934-2

Accordingly, the Last Date and Time for uploading/submission of bids and the Date & Time for opening of Technical Bids are also modified as below:

Sl. No.	Particulars	Existing Date & Time	Revised Date & Time
1	Last Date and Time of uploading/submission of bids	17.09.2025 – 3:00 PM	22.09.2025 – 3:00 PM
2	Date and Time for opening of Technical Bids	18.09.2025 – 3:30 PM	23.09.2025 –3.30 PM

All other terms and conditions, Technical Specifications of the equipments as per the tender remain unchanged.

Fr सचिव/Secretary,
कयर बोर्ड/Coir Board
कोच्चि/Kochi