File No.: GA-25/2/2025-Gr.Admin-FSSAI
Food Safety and Standards Authority of India
(A statutory Authority established under the Food Safety and Standards Act, 2006)
(General Administration-Central Procurement Unit)
FDA Bhawan, Kotla Road, New Delhi – 110002

Dated: 09.07.2025

Corrigendum

Reference is invited to the GeM Bid No. GEM/2025/B/6065903 dated 15.05.2025 and the pre-bid meeting held on 27.05.2025.

2. In this regard, the Technical Specifications of the Inductively Coupled Plasma Optical Emission Spectroscopy (ICPOES) have been revised and the same is being placed at Annexure-I.

3. Further, the Bid End Date is being extended upto 21.07.2025

4. All other Terms and Conditions shall remain the same.

(This issues with the approval of the Competent Authority)

9.7.2025

(Avinash Kusumakar)
Joint Director

ANNEXURE 1

Technical Specifications of Inductively Coupled Plasma Optical Emission Spectroscopy (ICP-OES)

General Tender Specification		
ICP-OES for simultaneous multi-elemental analysis at higher concentration and trace levels along with spray chamber, sample introduction system, RF generator and auto sampler. Instrument should meet the global food regulation requirements (like CODEX, USFDA, EU, FSSAI, etc.). The ICP-OES system should be able to determine all major and trace elements in a single method.		
Sl. No.	**Instrument Component**	**Required Specification**
1	**Technology**	i. System must be High Throughput Simultaneous polychromator based dual view ICP-OES Spectrometer. Dual view (Axial & radial) along with rapid/fast switching. ii. The instrument must include appropriate ICP torch and Concentric Quartz nebulizer (Acid Resistive) spray chamber system.
2	**Peristatic Pump**	i. 4 or more channel. Pump speed with 70 rpm or better
3	**RF Generator**	i. Should have software-controlled RF generator with frequency of 27/40/34 MHz. The RF must be variable & adjustable from 1000 to 1500 watts or wider along with 20 W or suitable increment step.
4	**Software controlled Flow Controller with ≤1 L/min increments**	i. Four Nos. True variable & software-controlled gas flow controllers (MFC/EFC) with ≤ 1 L/min or lower increment step for precise control of Plasma, Nebulizer, Aux & makeup/additional gas for gas. ii. The instrument must monitor all gas pressure through mass flow control or electronic flow control. iii. Plasma ignition and shut down must be computer controlled and totally automated. iv. All gas requirements for plasma gas, nebulizer gas, auxiliary gas, purge gas, & sheer gas must be clearly mentioned. v. Any updates during warranty or CMC period to be done free of cost.
5	**Auto Sampler**	i. System should be equipped with auto sampler with minimum 180 samples positions or more. ii. The autosampler should have LED status light for real-time operating status.

		iii. The autosampler should have movement in three axes (X-Y-Z) to acceleration and deceleration speed. iv. System should include all accessories, racks, bottles, tubing, water container, etc.
6	**Optics**	i. Must have Echelle-based polychromator. ii. Resolution: 7pm @ 200/202 nm or better. iii. Radial viewing height automatic adjustment should be upto 18mm or more.
7	**Detector**	i. The system should be a true simultaneous with two detector system or synchronous technology with CCD detector system or charge injection device detector system. ii. CID or CCD or SCD with Integration/readout time must be ≤ 1sec. iii. Wavelength range: of 165–780nm for quantification of trace and major elements in food matrices. iv. Peltier device with cooling at -30Deg C or Below for reducing or optimizing Dark current /Photometric Noise. v. The entire optical system must be closed in an argon/nitrogen purged and thermo stated optical enclosure. vi. Viewing of the plasma must be computer controlled (Dual View). vii. The system should have option of selecting any wavelength in any mode (axial/radial). viii. The instrument must be able to perform determinations across the entire spectrum, both UV and Visible 165 - 750 nm
8	**Software**	i. Latest licensed software to control all the modules of ICP-OES. ii. Instrument control, acquire, store, process and reproduce the data, report generation, self-diagnosis and auto-tuning. iii. Auto Start-up and shutdown of the MS should be possible using a single key operation. iv. Software shall be 21 CFR part 11 compliant for electronic data security, audit trail, and user authentication and minimum 2 offline licenses must be offered as a standard supply. v. Compatible with windows 10 or latest version vi. Software should also have comprehensive wavelength library with indication of preferred line for each element. vii. It should feature automatic identification of possible spectral interferences when selecting wave lengths for analysis and should have search mode for identification of unknown wave lengths.
9	**Standard Items**	i. Exhaust hood for ICP-OES & autosampler. ii. Branded suitable online UPS System with 60 min backup along with 02 MCB (in & Out).

		iii. Six (06) Argon cylinders with 02 stage brass double stage regulator & four stage Manifold. iv. Two (02) oxygen or any other suitable gas cylinders with regulator (in case required for system purging). v. Reputed Brand chiller for instrument. vi. Gas panel & exhaust Hood for ICPOES and Autosampler. vii. Factory fitted Branded i7 PC, 1TB HDD, 32 GB RAM, 21inch Monitor, Color Laser multifunctional duplex Printer & MS office. viii. Reputed brand, diretly from the OEM supplied, scroll noise & oil free Air compressor (if required) ix. Multielement Aqueous Standards traceable to ISO 17034 1000 ppm (21-22 Elements) 250 ml. x. Single element standards P (125ml & 1000ppm) . Hg & As (250 ml & 10 or 100ppm) traceable to ISO 17034 xi. Wavelength calibration solution 500ml ,5ppm (13-14 element mix) : Qty -021 Nos xii. Internal mix standard aqueous (traceable to ISO 17034) :- 125ml xiii. Calibration blank solution ASTM Type 1 Water (500ml) : Qty -02 No xiv. Latest version of 21 CFR Compliance Software must be provided with the system xv. ICPOES /ICPMS grade suprapure Acids for trace analysis: Nitric acid (HNO_3)–2.5 L & Hydrochloric acid (HCL) -2.5 L . xvi. Chemicals & solvents for sample analysis . xvii. 02 Nos PP waste container (15 L each)
10	**Standard Accessories**	**i.** 180 Vial or more position Autosampler with enclosers & to remove toxic fumes. 1200 vial for Autosampler should be included. **ii.** Semi volatile organic dedicated kit for edible oil analysis. Alongwith nebulizer, torch,injector spray chamber,tubings ,oxygen variable MFC , Organics standard 21 element mix/single element standard (100gm),internal standard (100gm),solvent for mixing /makeup (3L), all standards traceable to ISO 17034 **iii.** Internal standard kit **iv.** Hydride generating accessories kit along with Separate & dedicated spray chamber & tubing set (Reductant & Waste -pk/12 each) should be offered for low ppb As, Se, Sn & Hg.

		v. Microwave Digestor: a) The system should have 24 or more vessel rotors. b) Microwave power should be ≥1900W. c) Vessel volume: ≤ 80 ml, d) Vessels must be constructed from PTFE-TFM or PEEK-lined materials to minimize contamination, the outer pressure jacket should be composed of ceramic, PEEK, or equivalent high-strength material capable of withstanding ≥80 bar design pressure. Maximum operating temperature: ≥230°C (designed temperature ≥ 300°C) e) Maximum operating pressure: ≥40 bar (designed pressure ≥80 bar) f) Infrared (IR) sensor or suitable for internal temperature measurement of each vessel g) The digestion vessel materials must be certified by the original equipment manufacturer as chemically inert and suitable for trace elemental analysis in food matrices. h) Real-time monitoring of each digestion run, with automatic documentation. i) Must feature individual pressure and temperature monitoring for each vessel or intelligent indirect monitoring equivalent.
11	**Consumables (Must be quoted with OEM P/N.)**	i. Standard Peristaltic Pump Tubing set for sample intake. (500pcs) ii. Standard Peristatic Pump Tubing set for rinse /Drainage: (500pcs). iii. Standard Peristatic Pump Tubing set for Internal standard. Pk/10 (02 Set each) iv. Organic solvent Tubing set for sample intake Pk/12 (10 Set each) v. Organic solvent Peristatic Pump Tubing set for rinse /Drainage: Pk/12 (10 Set each) vi. Extra spray chamber (02 Nos) vii. Standard Nebulizer -04 Set. viii. Standard Torch & injector: (05 Set) ix. Standard Spray chamber drain tubing (10 each) x. Autosampler tubing set Pk/12 (10 set) xi. Nebulizer capillary tubing -01 Meter (10 Set) xii. PFA tubing for gas supplies to nebulizer- 1 Meter- (03 Set) xiii. Drain tubing for spray chamber waste -05 Sets xiv. Hydride kit peristatic pump tubing for reductant & Waste -pk/12 (05 sets each) xv. Autosampler vessel -1000 Nos.
12	**Warranty & IQ/OQ/PQ**	i. Five year warranty included local/third party items i.e. ICPOES, Chiller, UPS, PC, Digestor, Printer, exhaust, regulators, Exhaust etc (excluding consumables items) IQOQ for hardware & CFR software must be offered with system. ii. Per Year two PM visit with comprehensive PM Kit for ICP-OES and MDS. ICP-OES PM kit must include Radial & Axial Pre-Optic Window, chiller fluid, ICPOES purge gas instrument filter, Air inlet filter elements , connector tubing's etc. OEM Document for Scope of comprehensive PM kit must be enclosed.

		iii. On site IQ, OQ of instrument along with document to be provided iv. Supplier to assist till satisfactory PQ of instrument v. For delay in attending break-down call beyond 3 working days a penalty @ ₹10,000/- per day shall be charged. Such amount will be deducted from any amount due or which may become due to the supplier. The warranty period shall automatically stand extended by the number of days taken to rectify the defects (beyond 3days). vi. CMC of third party items to be entered with corresponding OEM only and a copy of warranty/ CMC documents with OEM shall be provided. vii. Yearly calibration free of cost including documentation should be part of the warranty and CMC period.
13	**After sales service/Post Warranty**	i. Should have a good after sales service/technical support capable of reaching at short notice the places where ICP-OES is proposed to be installed. Visits and unlimited breakdown calls by service/application support, engineers should attend immediately without fail for ICP-OES including Microwave Digestor and UPS system. ii. Troubleshooting training (Instrumentation/Application) as and when required shall be provided free of cost. iii. The application and method development support must be rendered for minimum 30 days during the warranty period. iv. The vendor should also assure supply of spares, accessories, consumables and service for at least 10 years including Nitrogen generator. v. Terms and conditions for the AMC & CMC, after the warranty period has to be specified. vi. Quote for AMC & CMC for 6th, 7th, 8th, 9th & 10th years, to be submitted separately. vii. The CMC shall include parts cover all hardware including detector, software as well as wear and tear consumables, PM kit (yearly), annual calibration along with documentation. viii. **AMC/CMC price quoted by the vendor will be considered as independent price.It will not be considered for finalizing the L1.**
14	**Compliance Statement**	i. All the technical specifications given in the tender document must be supported by printed leaflets / brochures and must comply the working performance of the equipment at the time of installation and demonstration ii. The quote should also include a compliance statement vis-à- vis, specifications in a "tabular form" clearly stating the compliance and giving justification, if any supported by technical literature. iii. This statement must be signed, with the company seal, for its authenticity and acceptance that any incorrect or ambiguous information found submitted will result in disqualification.
15	**Workstation**	i. LaserJet Printer – B/W – up to 21 ppm capacity with LAN, Network Card and Bluetooth facility.

16	**Installation & application training**	i. Vendor must include installation and Training at user site .Apart of installation Application training for 5 days every year (for 02 personals per installation site) at their application center by certified application engineer including all boarding / lodging & transportation .
17	**Experience:**	i. The supplier should have executed & supplied at least 5 or more ICP-OES system in Government institutes. ii. The Complete users list for the quoted model in India, with contact addresses, emails and phone numbers should be provided
Note: Standards/ reagents/ consumables which are required for successful installation of the equipment shall be supplied along with equipment.		