

Dated: 25th October, 2022

CORRIGENDUM

I am directed to refer this office TE No. GeM ID No. GEM/2022/B/2625787 dt 11.10.2022 for "Procurement of Equipment for NFL, Raxaul (Group-II) and to issue some changes in the specifications of equipment alongwith some clarifications which will form part of the RFP:-

1. FLASH POINT APPARATUS (PENSKY-MARTENS)	
Application: Used to measure flash point of oils and fats by using Pensky-Martens Closed Cup method for determining the quality of oils and fats and contamination.	
Specification	Requirement
Design Ignition	Must designed in strict accordance with the test method ASTM D93, Method A and B. Automatic movement of head for closing and opening of the cup Microprocessor controlled unit with digital easy to read display of the results
Ignition	Electric ignition and should also provide an automatic re-ignition facility.
Detection	Thermal detection (with metal sample temperature probe) of the flash to eliminate interference from water or silicone containing compound.
Cooling	Facility for built-in cooling connection
Measuring Range	Flash point Ambient to 350 °C or more
Heating System	Heat rate: 0.5 °C to 12 °C/min. Heating should be microprocessor controlled at the specified rate; the ignitor is activated and dipped at precisely the correct temperature and frequency
Temperature Measurement	Rugged metal and intelligent Pt 100 probe with built-in calibration, min 5 calibration points
Temperature calibration	Resistance check box for temperature calibration with calibration certificate from ISO 17025/NABL accredited Laboratory
Sample Stirrer	Automatic stirrer: test method or user-defined from 0 rpm to 250 rpm or more
Barometric Pressure Sensor	<ul style="list-style-type: none"> • Built-in sensor for automatic correction of flash point for standard barometric pressure vis-à-vis with final result. Pressure units: Pa, kPa, bar, mbar, psi, mm Hg (Torr) etc.
User Interface	Touchscreen, alphanumeric data input, HDMI.
UPS	UPS/Stabilizer as required for functioning of the equipment

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Safety device	Safety device for fire protection with alarm
Power Supply	AC 100 V to 240 V, 50/60 Hz
Number of LED indicators available to indicate Power input	1
DC Voltmeter Range	0-30 Volt
DC ammeter Range	0-50 in milli Ampere
Accessories	Brass Test Cup with Handle, Thermometer Holder, Cover Assembly
Operating manuals, service manuals, other manuals	Should provide:- User, technical and maintenance manuals in English language List of procedures required for local calibration and routine maintenance service and operation manuals to be provided Advanced maintenance tasks documentation, if any.
Supplier/ Manufacturer	<ul style="list-style-type: none"> • Should be FDA/CE/BIS approved product. • Electrical safety conforms to the standards for electrical safety IEC 60601- General requirements (or equivalent IS/ International Standard) • All suppliers must submit a copy of catalogue showing technical specifications.
Warranty	Minimum three years comprehensive onsite warranty with one Preventive Maintenance from the date of installation and commissioning every year. Warranty to be provided by OEM/Manufacturer.
IQ/PQ/OQ	On site IQ, OQ of instrument along with document to be provided & supplier to assist till satisfactory PQ of instrument

2. FUME HOOD (Heavy Duty High Suction)	
Application: It is safety equipment used in all chemical laboratories to limit human exposure to hazardous or toxic fumes, vapours or dusts. Fume Hoods with floor mounted systems are designed to meet the challenges when working with chemicals, chemical fumes and other flammable materials etc. with a high degree of efficiency.	
Specification	Requirement
Coupling	Direct
Balancing	Dynamically
Overall Dimensions / Working Size	<p>The system should have following Overall Dimensions:</p> <ul style="list-style-type: none"> • Overall Length of Fume Hood: 1500 -1550 mm • Overall Width of Fume Hood: 750 - 1500 mm • Overall Height of Fume Hood: 1500 – 2500 mm • Length of Base Cabinet: 1000 – 1500 mm • Height of Base Cabinet: 700 - 800 mm

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Body Features	<ul style="list-style-type: none"> • Double Wall Construction • Body thickness: 10 mm (Min.) • Completely made from GI sheet with Highly corrosion resistant epoxy powder coating • Inner Chamber - Chemical & Heat Resistance, Fire retardant, smooth finish, easily cleanable, made out of durable PRL sheets of thickness 5 mm (Min.)/ SS 304 of 18- 20 gauge thickness. • Should be provided with Fume Hood installation Kit and Accessories • Should be provided with Safety Device Trip
Working Table Top	<ul style="list-style-type: none"> • Granite / M.S Powder Coated Sheet Covered with P.P Sheet/ SS 304 • Thickness of granite 18 mm (Min.)
Utility connections	<ul style="list-style-type: none"> • Should be provided with Utility Pipe lines for Nitrogen, Compressed Air, Water
Outer Covering (MoC)	CRC, 18G, Epoxy Powder Coated
Exhaust Duct	<ul style="list-style-type: none"> • Chemically Resistant, PVC/PP duct pipe • Provided with bends, dampers, transitions and clamps up to blower • All joints should be curved in order to avoid any backtracking of fumes and a smooth flow to exhaust fumes • Two exhaust ports connected to the fume hood exhaust system internally
Sink & Tap	<ul style="list-style-type: none"> • Size: 100 – 200 mm • Shall made of chemically resistant material • No leakage shall observe from Outlet Nipple • Shall be provided with Single way / Three-way swan neck tap
Baffle Arrangement:	Removable, Chemically Resistant PVC Back Baffle to capture and remove/ slide fumes instantly at faster speed Three-point suction system (for light, normal & heavy fumes) with baffle to ensure smooth and immediate removal exhaust of fumes.
Exhaust Blower & Motor	<ul style="list-style-type: none"> • Motor: Centrifugal Type, Motor • Blower: 1.0 HP motor / any HP motor capable of obtaining minimum 4 watt blower capacity (3 phase, 50Hz, AC Supply) with phase MCB. Direct Driven, totally enclosed fan-cooled (TEFC), Squirrel Cage Induction Motor • Chemical & heat resistance heavy-duty epoxy coated • Min. 4 Watt
Scaffold/ Grid	Should be provided to hold the chemicals and apparatus
Door / Sash/ Shutter	<ul style="list-style-type: none"> • Thickness – 4 mm (min.) • Material - Toughened Glass • Door vertical Folding Type with adjustable height
Air Flow	<ul style="list-style-type: none"> • Low Constant Volume Exhaust Type • Approx. 100 cubic meter/ hour
Noise Level	Not more than 65 dB
Face Velocity	0.5 m/s or 100 feet per minute
Shelves in Base Storage Units/ Cabinets	Number – 2 Type – Movable (With or Without Wheels)

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Illumination	Florescent Lights – 2 nos. (Min.), 40 Watt / LED lights.
Electrical Arrangements	<ul style="list-style-type: none"> • Min. 2 Nos. 15/5 amps 3 pin electric socket • Switch for blower; Switch for Lightings
Power Requirement	220/ 230 Volts
Accessories	<ul style="list-style-type: none"> • Gas / vacuum tap • Additional set of sockets • Cabinet base of the fume hood is equipped by fixed supports and internal shelf for the reagents storing.
Operating manuals, service manuals, other manuals	Should provide:- User, technical and maintenance manuals in English language List of procedures required for local calibration and routine maintenance service and operation manuals to be provided Advanced maintenance tasks documentation, if any.
Supplier/ Manufacturer	<ul style="list-style-type: none"> • Should be FDA/CE/BIS approved product. • Electrical safety conforms to the standards for electrical safety IEC 60601- General requirements (or equivalent IS/ International Standard) • All suppliers must submit a copy of catalogue showing technical specifications.
Warranty	Minimum three years comprehensive onsite warranty with one Preventive Maintenance from the date of installation and commissioning every year. Warranty to be provided by OEM/Manufacturer.
IQ/PQ/OQ	On site IQ, OQ of instrument along with document to be provided & supplier to assist till satisfactory PQ of instrument

3. DIGITAL POLARIMETER

Desired Requirement	Specifications
Measuring Mode Optical Rotation, Specific Rotation,	Optical Rotation, Specific Rotation, Concentration, Sugar Degrees and any others. International Sugar Scale.
Measuring Angular Scale	$\pm 89^\circ$ Arc Optical Rotation
Accuracy	$\pm 0.01^\circ$ Arc for entire range of or better Measurement or better
Resolution	0.001 $^\circ$ Arc or Better for Entire range of measurement or better
Repeatability/Precision	0.002 $^\circ$ Arc or better
Prism/Optics	Life time guarantee
Temperature Probe Range	10 to 90 $^\circ$ C or better
Temperature Accuracy & Stability	$\pm 0.2^\circ$ C or better
Light Source	LED or tungsten halogen or Xenon lamp
Wavelength	589 nm Na and anyone of the selective wavelength 633 nm/578 nm/ 546 nm/ 436 nm/ 405 nm
Optical Density	Up to 4.0 Absorbance or better
Temperature Control	With In-built Peltier module; Temperature Range 15 $^\circ$ C to 40 $^\circ$ C;
Sample chamber	Be able to accept sample tubes 10 mm to 200mm
Measurement Reading Time	User Selectable Continuous measurement and display or single shot Measurement
Interface & Display	Integrated LCD/Touch Pad Color display /Membrane pad Color display
Compliance	IP/BP/USP & FDA 21CFR Part 11 Complied Operational Software.

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Control Panel	Automatic Calibration preferably via Its Integrated LCD/Touch Pad /Membrane pad						
Communication Interfaces:	Min. 1 USB ports, RS 232 standard or later standard, Ethernet. Instrument to be supplied with Branded PC system Full HD Monitor, Processor: Intel core i5 or better, Operating system: Windows 10 Professional or better, Screen Size: 22- 23", RAM: 8 GB, Hard disk Drive size: 1 TB or more, Keyboard and Mouse						
Sample cells	Two Sample cells having Pyrex glass with stopper. <table border="1"> <thead> <tr> <th>Sample Cell Length</th> <th>Sample Volume</th> </tr> </thead> <tbody> <tr> <td>1. 100 mm</td> <td>1.5 ml</td> </tr> <tr> <td>2. 200 mm</td> <td>2.0 mL</td> </tr> </tbody> </table>	Sample Cell Length	Sample Volume	1. 100 mm	1.5 ml	2. 200 mm	2.0 mL
Sample Cell Length	Sample Volume						
1. 100 mm	1.5 ml						
2. 200 mm	2.0 mL						
Calibration Standards	NIST traceable Quartz plate standard						
Print Out	Facility for PDF Secure data for print out via USB memory stick - Ethernet FTP						
Operating manuals, service manuals, other manuals	Should provide:- User, technical and maintenance manuals in English language List of procedures required for local calibration and routine maintenance service and operation manuals to be provided Advanced maintenance tasks documentation, if any.						
Supplier/ Manufacturer	<ul style="list-style-type: none"> Should be FDA/CE/BIS approved product. Electrical safety conforms to the standards for electrical safety IEC 60601- General requirements (or equivalent IS/ International Standard). <p>All suppliers must submit a copy of catalogue showing technical specifications.</p>						
Warranty	Minimum three years comprehensive onsite warranty with one Preventive Maintenance from the date of installation and commissioning every year. Warranty to be provided by OEM/Manufacturer.						

4. DIGITAL BUTYRO REFRACTOMETER

Requirement	Specifications
Description of function	To measure refractive index (nD), BR Value, Brix Value (temperature compensation according to sucrose solution), concentration (%) (Temperature compensation according to samples), and temperature.
Scales	Refractive index (RI), Brix, BR value, Temperature corrected Brix, RI and BR value
Measurement range	RI 1.32-1.70 or higher, Brix 0-90% or better, BR value 30 -90 or better
Resolution	RI 0.00001(should be able to display in the instrument as well as in the PC), Brix 0.1% or better, BR value 0.1 or better
Accuracy	RI ± 0.0001 , Brix $\pm 0.1\%$ or better, BR value 0.1 or better
Precision	RI 0.0001, Brix ± 0.1 , Should supply NIST traceable RI standard.
Temperature Display	$\pm 0.05^{\circ}\text{C}$ or better
Temperature Stability	$\pm 0.02^{\circ}\text{C}$ or better
Temperature Compensation	Peltier Controlled between 10°C to 80°C
Display items	Refractive index, Brix or concentration (%) and temperature
Interface & Display	Touch screen or LCD
Wavelength	589 nm
Operating modes	Continuous update or single scan

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Light source	LED (Minimum 100,000 hours Life time)
Prism material	Sapphire
Prism Dish	316 Stainless Steel with PEEK spill barrier
Prism Seal	FDA and Class VI approved
Reading Time	Minimum 4 seconds
Output/input	<ul style="list-style-type: none"> Instrument to be supplied with Branded PC system Full HD Monitor, Processor: Intel core i5 or better, Operating system: Windows 10 Professional or better, Screen Size: 22- 23", RAM: 8 GB, Hard disk Drive size: 1 TB or more, Keyboard and Mouse USB, 1x Ethernet, 1xRS232 Serial Facility for PDF Secure data for print out via USB memory stick - Ethernet FTP Compliance FDA regulation as 21CFR Part11(Electronic Signatures& Audit trails) (Code of Federal Regulations, describes Electronic results & Electronic signatures) Method Storage & Display: More than 1000 Methods Should have GLP Features: Date/Time/Batch/Operator
Environmental factors	The unit shall be capable of being stored continuously in ambient temperature in the range of 5-40°C and relative humidity in the range of 30-90%.
Power requirements	Power supply: AC 200-240 V, 50 Hz auto ranging.
Operating manuals, service manuals, other manuals	Should provide:- User, technical and maintenance manuals in English language List of procedures required for local calibration and routine maintenance service and operation manuals to be provided Advanced maintenance tasks documentation, if any.
Supplier/ Manufacturer	<ul style="list-style-type: none"> Should be FDA/CE/BIS approved product. Electrical safety conforms to the standards for electrical safety IEC 60601- General requirements (or equivalent IS/ International Standard). <p>All suppliers must submit a copy of catalogue showing technical specifications.</p>
Warranty	Minimum three years comprehensive onsite warranty with one Preventive Maintenance from the date of installation and commissioning every year. Warranty to be provided by OEM/Manufacturer.

5. LOVIBOND TINTOMETER

Application: It is an automated color measuring instruments synonymous with accuracy in the measurement of color in edible oils, beverages & foodstuffs

Specification	Requirements
Measuring principle	Digital in terms of Lovibond® units
Modes	Transmittance (Digital)
Resolution	0.1 unit
Viewing system	LCD display

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Light source	2 x 12 Volt, 10-Watt tungsten halogen lamp Illuminant approximates to daylight
Wavelength range	300 to 710 nm
Wavelength Accuracy	0.2 nm
Path length	Up to 153 mm (6")
Photometric range	0 -100 % T
Photometric Linearity	±0.01% T
Repeatability	± 0.25 % T
Integrated Heater	Available (upto 100°C temperature)
Available Scales	AOCS-Tintometer Lovibond RYBN CIE Values Chlorophyll Beta-carotene
Detector	Diode Array Spectrometer
Output/input- Optional	<ul style="list-style-type: none"> Instrument to be supplied with Branded PC system Full HD Monitor, Processor: Intel core i5 or better, Operating system: Windows 10 Professional or better, Screen Size: 22- 23", RAM: 8 GB, Hard disk Drive size: 1 TB or more, Keyboard and Mouse USB, 1x Ethernet, 1xRS232 Serial Facility for PDF Secure data for print out via USB memory stick - Ethernet FTP Compliance FDA regulation as 21CFR Part11(Electronic Signatures& Audit trails) (Code of Federal Regulations, describes Electronic results & Electronic signatures) Method Storage & Display: More than 1000 Methods Should have GLP Features: Date/Time/Batch/Operator
Power pack	12 Volt AC, switchable to suit 220/110 Volt supply Approvals CE Instrument housing Fabricated sheet steel with a tough, textured paint finish
Accessories	Conformance filters and certified colour reference solutions representing a range of Lovibond® colours, for quick and simple quality control checks on instruments and operators.
UPS	UPS/Stabilizer as required for functioning of the equipment
Validation	For validation vendor should having own capability with their own company trained service engineer to perform validation No third part validation will be entertained. One validation at the time of installation should be done by company personnel
Operating manuals, service manuals, other manuals	Should provide:- User, technical and maintenance manuals in English language List of procedures required for local calibration and routine maintenance service and operation manuals to be provided Advanced maintenance tasks documentation, if any.
Supplier/ Manufacturer	<ul style="list-style-type: none"> Should be FDA/CE/BIS approved product. Electrical safety conforms to the standards for electrical safety IEC 60601- General requirements (or equivalent IS/ International Standard)

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	<ul style="list-style-type: none"> All suppliers must submit a copy of catalogue showing technical specifications.
Warranty	Minimum three years comprehensive onsite warranty with one Preventive Maintenance from the date of installation and commissioning every year. Warranty to be provided by OEM/Manufacturer.
IQ/PQ/OQ	On site IQ, OQ of instrument along with document to be provided & supplier to assist till satisfactory PQ of instrument

Clarifications:-

SNo.	Clause of the Tender Document	Clarifications
(a)	<p>Clause 1. under <i>Buyer Added Bid Specific Terms and Conditions viz.</i></p> <p><i>Authorised Service Centre within the state of Odisha, along with a dedicated contact person with telephone number for technical solution in a fast track basis at this institution as and when required basis</i></p>	Deleted
(b)	<p>Clause 38 under <i>Buyer Added Bid Specific Terms and Conditions viz.</i></p> <p><u>Certificates -</u> <i>Material Test Certificate Should Be Sent Along with The Supply. The Material Will Be Checked by Buyer's Lab & the Results of the Lab will be the Sole Criteria for Acceptance of the Item</i></p>	Deleted
(c)	Last Date for Submission of Bid	09.11.2022

3. All other terms and conditions of the RFP will remain the same.

Ravinder
25/10/22

(Ravinder Kumar Narula)
Assistant Director (QA)

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सहायक निदेशक / Assistant Director
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Food Safety and Standards Authority of India
(स्वास्थ्य एवं परिवार कल्याण विभाग)
(Ministry of Health & Family Welfare)
भारत सरकार / Government of India
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