

Corrigendum to the Domestic e-tender Document for Supply, Installation and Commissioning of Test Equipment for BIS Laboratories:

A. The last date for submission of bids have been extended. The fresh dates are given below:

1. The last date for submission of bids: 28-05-2021 till 15: 00 hrs.
2. The date of opening of tender: 31-05-2021 till 15:30 hrs.

B. Amendment in Technical Specifications:

Mechanical equipment:

- i. **Annexure B-7: Amendment in Technical Specification of CNC Milling Machine (3 Axis Vertical Machining)**

S. No.	Description of requirement	Existing text (Column 3 of specification, Required)	Replace existing text with (Column 3 of specification, Required)
Coolant System			
2	Filtration System	Minimum:20 bar	Pump Capacity minimum 4 bar Pressure and minimum 60 lpm with Filtration unit
CNC Control unit Features			
3	Controller Memory	Minimum : 500 MB	Minimum: 3 MB (Internal memory) and additional 268 memory Card with Adaptor (to be provided by supplier)
6	Compensation and Feedback	Thermal Compensation	Laser Calibration, Ball Bar Test & NAS test machining at works and Site.

Electrical equipment:

- i. **Annexure C2: Vibration Test set up for Energy Meter testing as per IS 13779, IS 14697, IS 15884 and IS 16444**

Sl. No.	Information sought during Pre-bid Meeting	New Text Added
1	Capacity of Vibration Test System not mentioned	1500 kgf
2	Product to be tested mass and size not mentioned,	Upto 50 kg and for all sizes of Energy Meters
3	Vertical and Horizontal Platform Sizes not mentioned	Vertical: 400mm x 400mm Horizontal: 400mm x 400mm
4	Types of Softwares requirement not mentioned	Sine and Random software
5	Number of Accelerometers required, not mentioned	2 Nos.

ii. **Annexure C2: Shock Test set up for Energy Meter testing as per IS 13779, IS 14697, IS 15884 and IS 16444**

Sl. No.	Information sought during Pre-bid Meeting	New Text Added
1	IS 9000 Pt VII, doesn't specify any Pre-shock and Post-Shock values. It only specify "Reference Line Corresponding to Pre-Pulse Conditions", please clarify if both are same.	Pure half sine wave shock is required.
2	Please provide the required Bump Test Acceleration (g) and Bump Pulse Duration (mSec) to be performed.	Bump test is not required on Energy Meters, Requirement of Bump test may be deleted from tender document.
3	Please confirm the Shock Pulse Duration (in msec) for corresponding Shock Accelerations(g), which are to be tested on the shock test setup.	Shock pulse Duration:18msec, Acceleration: 40g (400m/s ²)

Chemical equipment:

i. **X-Rays Fluorescence Spectrometer – Technical Specification (Annexure A1 of the tender)**

S.No.	Clause of the technical specification & requirement	Existing text	Replace existing text with
1	4. Accuracy and Precision	To meet the criteria laid down in ASTM-C-114 and ISO 29581-2 or better for cement analysis.	To meet the criteria laid down in ASTM-C-114 and ISO 29581-2 or better for cement analysis. The supplier shall validate the test method (as per IS 12803) for 6 different type of Cements and / or raw materials (mentioned at cl.22 of this specification) against the relevant Indian Standard, to be decided by the user laboratory
2	22. (second para)	Set of Standards for elemental analysis in Cement (OPC, PPC, PSC, WPC, SRPC), Fly ash, Limestone, Dolomite, Manganese Ore, Magnesite, Gypsum, Ilmenite, Quartzite,	Set of Standards with traceability to ISO 17034 or equivalent for elemental analysis in Cement (OPC, PPC, PSC, WPC, SRPC), Fly ash, Limestone, Dolomite,

		Iron ore and bauxite Set of CRMs with full traceability as per ISO 17034 of following elements in above mentioned Cements and mineral ores	Manganese Ore, Magnesite, Gypsum, Ilmenite, Quartzite, Iron ore and bauxite. The composition of standards provided for cement and mineral ores shall cover the variations in concentrations of the individual constituents for specific materials. 06 No of standards, for each type of cement & raw material, weighing 50g each shall be provided
3	21 Sample Preparation	<p>B) Vibratory Mill , Heavy Duty floor standing with Tungsten Carbide Bowl</p> <p>Pressed Pellet sample preparation equipment is also to be supplied.</p>	<p>B) Vibratory Mill, Heavy Duty floor standing with one Tungsten Carbide Bowl of capacity 150ml, & 1 stainless steel Bowl of capacity 150ml to be quoted.</p> <p>Stainless steel discs/rings, Qty-100, to accommodate 30g (min) of sample in each.</p> <p>Pressed Pellet sample preparation equipment is also to be supplied</p>
4	22	To meet the XRF laboratory requirements following should be ensured as part of supplies:	<p>To meet the XRF laboratory requirements following should be ensured as part of supplies:</p> <p>Automatic Electric resistance furnace based fusion bead machine to prepare at least two Fusion beads simultaneously (with a provision to upgrade for preparation of total 3 fusion beads simultaneously). The System should have inbuilt LCD module with loaded software for easy function. It should have pre loaded method for various applications including cement. High performance furnace should have</p>

			heating furnace impervious to flux, No exposed metal in furnace. Integrated auto locking for user safety. Low level of noise during heating, melting and during standby. It should be offered with necessary Pt-Au (5%) crucibles (2nos) of 30 ml, Weight 30 gram each and Pt-Au (5%) mould (2nos) of 40 mm dia, weight 34gram each.
5	22 D	Five sets of Tungsten Carbide Crucible and Casting Mould/Casting Dish should be provided. The Crucible should be capable of holding weight of minimum 30gms of sample	To be deleted
6	22 F	Flux for Fusion Bead Preparation: Following Pre fused anhydrous beads with 99.99% purity, granulometry 100%, <50 micron sized beads, No dust, with water content <0.05% with Certificate of Analysis must be offered. Quantity 1kG with wetting agent. The flux type should be suitable for fusion of Cement and associated materials commonly analysed in Building Industry.	Flux for Fusion Bead Preparation: Following Pre fused anhydrous beads with 99.99% purity, granulometry 100%, <50 micron sized beads, No dust, with water content <0.05% with Certificate of Analysis must be offered. Quantity-1 kG each of <u>LiT</u> , <u>LiM</u> with 100ml wetting agent . The flux type should be suitable for fusion of Cement and associated materials commonly analysed in Building Industry.
7	22 G	Grinding Mill to grind the sample to powder	To be deleted

8	New clause to be added	The supplier shall supply P-10 Gas Cylinders with required purity and dual stage steel regulators. The installation of the Gas pipelines shall be done by the supplier	The supplier shall supply filled P-10 Gas Cylinders, Qty-2 Numbers, with required purity and dual stage steel regulators. The installation of the Gas pipelines shall be done by the supplier.
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ii. Specifications for Standalone Differential Scanning Calorimeter (DSC) (Annexure A2 of the tender)

S.No.	Clause of the technical specification & requirement	Existing text	Replace existing text with
1	2. Sensor type	Suitable with Double Furnace	Sensor type Suitable with Single or double Furnace
2	3. Temperature range	-100 °C to 700 °C or better	-90 degree C to 600 Deg C or better
3	4. Temperature accuracy	± 0.1 °C or better	± 0.3 °C or better
4	8. Heating/ Cooling rate	0.01 to 200 °C per min or better	0.01 to 100 °C per min or better
5	Add subclause 11 under main clause 21	The Supplier shall carry out validation of test method for OIT as per IS 4984, IS 14885 & IS 16098 (Part-2). (with latest version and amendments)	The Supplier shall carry out validation of test method for OIT as per IS 4984, IS 14885 & IS 16098 (Part-2). (with latest version and amendments)

iii. Potentiometric Auto Titrator system with Parallel Titration and Karl Fischer titration facility with the following specifications is required. (Annexure A3 of the tender)

To add text below as Cl.16 in the existing specification

The system should be provided with an Oven Sampler for extraction of bound moisture from polymer samples and other sample which are insoluble in methanol and other KF reagents. The oven sampler should have the following specifications and features.

- Oven Temperature range 50 to 250 deg C.
- Digital gas flow monitoring and control.
- Live temperature display.
- Built in air pump and flow monitoring facility.
- Drying flasks as well as comprehensive accessories comprising of sample vials, septa covers and heatable tubing connection, should be available along with the system.

To add text below as Cl.No.17 in the existing specification

The system should be provided with suitable sampling accessory for homogenizing the solid food samples within the Karl Fischer titration vessel, for determination of moisture

To add text below as Cl.No.18 in the existing specification

Validity study shall be demonstrated by the supplier for minimum 6 parameters as per relevant Indian Standard(s), to be decided by the user laboratory.

Renumber subsequent clauses as 19 and so on.

iv. Ion Chromatograph System -Technical Specifications (Annexure- A5 of tender)

S.No.	Clause of the technical specification & requirement	Existing text	Replace existing text with
1	Title	Technical Specification for Liquid Chromatography system for estimation of Bromate in Water	Technical Specification for Ion Chromatography system for estimation of Bromate & other anions in Water
2	1 under Components	Liquid Chromatography system	Ion Chromatograph System
3	1 under requirements	Liquid Chromatography system for estimation of Bromate in Water shall include the following requirements:	Ion Chromatography system for estimation of Bromate & other anions in Water shall include the following requirements:-
4	Subclause 11 under clause 1	Provision for up-gradation for testing other anions/cyanide	In addition to bromate supplier shall also validate testing of other Anions in Packaged Drinking Water (IS 14543) such as nitrate, nitrite, fluoride, Chloride, selenium, Sulphate, borate as per International Standards such as ASTM,USEPA, APHA,AOAC etc. Training also shall be imparted on the same. For validation and training on the above the supplier has to arrange CRMs and consumables, as required. Provision should be available for up-gradation of the system for testing cyanide, sulphide.'

v. Finalised recommended Technical Specification of Microbalance (Annexure A4 of tender)

S.No (1)	Components/ Accessories/ Spare Parts etc. (2)	Requirement (3)
1	Capacity	2.1 gm or more
2	Readability / Least Count	1 microgram
3	Repeatability	± 1 micrograms
4	Linearity, micrograms	± 4 micrograms or better
5	Response time (Avg)	10 seconds or less
6	Pan shape & Size	Minimum 30mm dia for circular pan or 30mmX30mm minimum for square and rectangular pans
7	<u>Tare Range</u>	Upto maximum capacity quoted
8	Display	LCD or touchscreen
9	Number of RS232 ports	Minimum 1
10	Class type of Microbalance	Class-1
11	Class of protection	Suitable for laboratory use
12	Internal Calibration	Yes
13	Calibration Certificates	Supplier shall provide calibration certificate for the equipment from NABL/ILAC accredited lab
14	For internal Check (Weights required) & Calibration weight	3 weights of class E1 (OIML): 100mg, 200mg and 500mg having calibration from NABL Accredited Lab shall be provided Also, calibration weight of the balance having calibration from NABL Accredited Lab shall be provided.
15	Power requirement	Mains operated (Single Phase) or suitable adaptor shall be provided
16	Connectivity to computer	Yes
17	Software & Hardware	1.Licensed Software should be provided & it should be 21 CFR part 11 compliant.

		<p>2. Software should be LIMS compatible</p> <p>3.Data transfer from the balance to PC in the form of excel sheet shall be possible. PC of reputed brand, intel core i5 or better processor,16GB RAM or more,1 TB HDD or more, LED Flate – size 27” or bigger, USB Port minimum 02 Nos. Optical mouse with pad, wireless Keyboard, laser Jet Printer of higher configuration shall be quoted . (Computer should have licensed version of Windows operating system and other supporting software like MS-office, installed)</p> <p>4.UPS: Online UPS of 1KVA capacity with at least 60min backup. UPS shall have minimum 1 year warranty.</p>
18	Warranty, After Sales support & Training	<ol style="list-style-type: none"> 1. Should provide after sales support through a combination of warranty and Comprehensive Annual Maintenance contract (CAMC) on all parts, spares for a period of 6 years from the date of successful installation at site as per tender conditions 2. During CAMC period, unlimited breakdown visits to be included 3. Two preventive maintenance visit per year to be included 4. Required onsite training for the normal operation of the equipment to be provided.
19	Other requirements	<ol style="list-style-type: none"> 1. Anti vibration table suitable for microbalance shall be provided 2. Preinstallation requisites shall be informed by the supplier.