

## AMENDMENT No – II dated 28.07.2014

**Ref:** 1. Tender Enquiry No.: HSCC/PUR/AIIA/Quality Control Lab & Instrumentation/2014  
2. Pre –bid meeting held on 26.6.2014

Based on the bidders queries raised during pre- bid meeting held on 26.6.2014, all bidders are requested to note the following amendments in the aforesaid tender:

### Section – VII Technical Specifications

#### ITEM No. 9 UV-VIS SPECTROPHOTOMETER

Sr.	Existing clause	Amended/Read As
1.	Spectral Bandwidth : 0.1to 5nm	Spectral Bandwidth : Upto 1 nm or better
2.	Stray light : less than 0.005%	Stray light : Less than 0.05 % <b>or better (NaI at 220 nm, NaNO<sub>2</sub> at 340 nm)</b>

#### ITEM NO 10: ATOMIC ABSORPTION SPECTROPHOTOMETER (AAS)

Sr.	Existing clause	Amended/Read As
<b>1</b>	Fully automated PC-controlled <b>true</b> double beam optics	Fully automated PC-controlled double beam optics.
2	Herbal samples compatible flame atomization system, which can analyze samples in ppb levels of toxic elements and heavy metals and contaminated with a number of metal complexes.	Herbal samples compatible <b>graphite furnace</b> atomization system, which can analyze samples in ppb levels of toxic elements and heavy metals and contaminated with a number of metal complexes.
<b>3</b>	Titanium burners for C <sub>2</sub> H <sub>2</sub> – N <sub>2</sub> O and C <sub>2</sub> H <sub>2</sub> – Air with precise knobs for burner.	<b>As per Tender</b>
<b>4</b>	Furnace- Graphite Furnace with temp range, upto 3000°C with 10 steps or better	Furnace- Graphite Furnace with temp range, up to 3000°C with 10 steps or better. <b>System should have Zeeman Background correction for graphite furnace.</b>
<b>5</b>	Graphite furnace with Autosampler for flame furnace & vapour generator with 50 samples position or better	<b>As per Tender</b>

6	6 lamp position and lamp selection using mirror	<b>6 or more lamp position</b> and lamp selection using mirror
7	Automatic wavelength slit selection. Settings: 0.2, 0.5 and 1.0 nm plus one reduced height slit of 0.5 nm	Automatic wavelength slit selection. Settings: 0.2, 0.5 and 1.0 nm.
8	Voltage stabilizer spares-and consumables for 2 year operations.	Consumables for 2 year operations.
9	Aquous solution standard of Cu, Fe, Zn, Mg, Cd, Pb, Hg, As, Mo, Ag, Au, Se and Sn	Aquous solution single element standard of Cu, Fe, Zn, Mg, Cd, Pb, Hg, As, Mo, Ag, Au, Se and Sn
10	System should have facilities of repeat of result of same sample and date treatment.	System should have facilities of repeat of result of same sample and <b>data</b> management.
11	5 KVA online UPS with 30 minute backup should be Quoted (optional).	5 KVA online UPS with 30 minute backup should be Quoted
12	Independent UPS of Suitable rating with 30 minutes back – up (GMP / GLP compliance	<b>Deleted</b>
13	All Equipments individually costing more than Rs.25,000/- to have DQ, IQ & OQ , Fat, MOC Certificate, G.A Drawing of the machine, wiring diagram will be supplied with the machine.	All Equipments individually costing more than Rs.25,000/- to have IQ & OQ Certificate
14	Warranty + Maximum years of AMC	Warranty + CMC as per tender

**ITEM NO 11: HIGH PERFORMANCE LIQUID CHROMATOGRAPHY**

Sr.	Existing clause	Amended/Read As
1	<b>Quaternary Pump:</b> It should have an inlet-valve electronically activated and synchronized to piston stroke to eliminate vapor formation with volatile solvents.	<b>Deleted</b>
2.	Sample viscosity range : 0.2 - 5 cp	<b>Deleted</b>
3.	<b>Column Oven (Heating and cooling facility)</b> It should have Independent heat exchangers - two temperature zones possible with independent right and left set points by independent heat exchangers. There has to be Low dispersion - optimized for low internal volume contribution, just 9 µL	<b>Deleted</b>
4.	<b>Photo Diode Array Detector:</b>	wavelength range of 190 to 800nm, or better

	wavelength range of 190 to 950 nm	
5.	There has to be RFID tags for all flow cells and UV lamp provide new levels of data traceability by recording parameters, cell dimensions, lamp usage, etc.	<b>Deleted</b>
6.	All Equipments individually costing more than Rs.25,000/- to have DQ, IQ & OQ , Fat, MOC Certificate, G.A Drawing of the machine, wiring diagram will be supplied with the machine.	All Equipments individually costing more than Rs.25,000/- to have IQ & OQ Certificate

**ITEM NO 12: HIGH PERFORMANCE THIN LAYER CHROMATOGRAPHY**

Sr.	Existing clause	Amended/Read As
1.	<b>Sample Applicator</b> : 2-10 µl syringe, contact & spray on applicator, For spot / line application, spray on technique 10-method storage, stand-alone or PC control. For Analytical work (0-10 mm band / 0.1 to 20 µL vol.) and preparative work (190mm band, 500 µL vol.) sample positioning on X & Y axis freely selectable, variable rate of delivery, easy to clean sample syringe, accepting 100 & 500 µl syringe, self diagnostic and validation built in. Link to software.	<b>Sample Applicator</b> : 100ml & 500ml syringe, contact & spray on applicator, For spot / line application, spray on technique 10-method storage, stand-alone or PC control. For Analytical work (0-10 mm band / 0.1 to 20 µL vol.) and preparative work (190mm band, 500 µL vol.) sample positioning on X & Y axis freely selectable, variable rate of delivery, easy to clean sample syringe, accepting 100 & 500 µl syringe, self diagnostic and validation built in. Link to software.
2.	<b>CHROMATOGRAM DEVELOPMENT CHAMBERS</b> (Twin Trough Chambers) All glass, small internal volume chambers, bottom divided into two halves; maximum 5-15 ml mobile phase / run S.S. lid appropriate size tanks for 20 x 20 (1 no), 20 x 10 (1 no), 10 x 10 (1no), 10 x 5 cm (1 no) Plates.	<b>CHROMATOGRAM DEVELOPMENT CHAMBERS</b> (Twin Trough Chambers) All glass, small internal volume chambers, bottom divided into two halves; maximum 5-15 ml mobile phase / run S.S. lid appropriate size tanks for 20 x 20 (1 no), 20 x 10 (1 no), 10 x 10 (1no) Plates.
3.	<b>S.No 2.</b> Chromatogram development chamber	<b>S.No 3.</b> Chromatogram development chamber
4.	<b>SEPARATING CHAMBER FOR METHOD DEVELOPMENT</b> – Horizontal Chamber for method development, rapid screening & horizontal development. For 10 x 10, 20X20 cm plates (1 no each). Should be able to run up to 4 mobile phases on one plate, side by side, at the same time. sandwich or tank saturation conditions	<b>SEPARATING CHAMBER FOR METHOD DEVELOPMENT</b> – Horizontal Chamber for method development, rapid screening & horizontal development. For 10 x 10, 20X20 cm plates (1 no each). Should be able to run up to 4 mobile phases <b>or more</b> on one plate, side by side, at the same time. sandwich or tank saturation conditions
5.	<b>TLC/HPTLC - Sprayer:</b> - - Should comprise of charge and pump unit with spray heads for spraying solutions of normal	<b>Deleted</b>

	viscosity. Should be able to atomise spray reagent into fine aerosol spray. With reagent bottles each of 100ml and 50 ml.	
6.	<p><b>TLC/HPTLC-Rapid test Set</b> : Consisting of 1H-separation chamber 50 × 50 mm, 1 application template 50 × 50 mm. -100 micro capillaries 0.5µl with holder, 10ml each of lipophylic and hydrophilic test solution. - 100 HPTLC ready to use plates K60F 254 50× 50 mm. &amp; concise Practical book of TLC - two sets.</p>	<p>100 sheets /HPTLC ready to use plates K60F 254 <b>20X20cm.</b> &amp; concise Practical book of TLC <b>100 TLC aluminium plates K60 F<sub>254</sub> (20X20cm)</b> - two sets.</p>

**ITEM NO 13: GAS CHROMATOGRAPHY-TANDEM MASS SPECTROMETER WITH TRIPLE QUADRUPOLE (GCMS/MS)**

Sr.	Existing clause	Amended/Read As
1	Bench Top Gas Chromatography-Tantam mass Spectrometer with Triple Quadrupole.	Bench Top Gas Chromatography- <b>Tandem</b> mass Spectrometer with Triple Quadrupole.
2	Instrument detection limit 12 fg or less	<b>As per Tender</b>
3	Electronic pressure / flow controls One with pressure setting range of 0 to 100 psi and one with pressure setting range of 0 to 150 psi	Electronic pressure / flow controls One with pressure setting range of 0 to 100 psi and one with pressure setting range of 0 to <b>145</b> psi or better
4	All Equipments individually costing more than Rs.25,000/- to have DQ, IQ & OQ , Fat, MOC Certificate, G.A Drawing of the machine, wiring diagram will be supplied with the machine.	All Equipments individually costing more than Rs.25,000/- to have IQ & OQ Certificate
5	Warranty <b>and</b> AMC period is not mentioned.	Warranty and AMC period (02 years)

**ITEM NO. 14 - WATER PURIFICATION SYSTEM**  
**Revised Specification Details:**

Pure, Ultra pure **Type-1** water system for highly purified water producer laboratory unit, for the purposes of uses in highly sophisticated laboratory equipments wherever using sub-2µm particles and high pressures to enhance analytical speed and sensitivity, water quality is very crucial, so important need of use of highly Pure, Ultra pure water for the high performance operation and result orientation handling on the sophisticated laboratory equipments.

Parameter	Value
Resistivity	18.2 MΩ-cm at 25 °C
Conductivity	0.055µS/cm

Flow Rate	5Ltr./hr. or better
Bacterial Content	<1CFU/10 mL
Pyrogens (Endotoxin )	<0.001 EU/mL
RNase	20 pg / mL
DNase	2pg / mL
TOC (Total Organic Carbon)	< 5 ppb
Feed water Pressure	1-6 Bar
Operating Voltage	100-240V Hertz 50/60Hz
Electrical Requirements	100-240V 50/60Hz

- The system should have an ability to also deliver type-2 water grade water.
- Should have pre-filter cartridge for removal of bulk of the suspended and dissolve solids and should be able to soften the tap water considerably for freezing the pretreatment unit.
- Backwash should be done automatically.
- Content of Pb and Fe should be less than 1 pg/ ml and that of Sr, U, Th should be less than 0.1 pg/ mL.
- Remote dispensing system.
- Internal presser regulating valve.
- Provision for display to indicate status of operation, resistivity, TOC, TDS and temperature and also alarm system in case of malfunctioning is preferred.
- Operation of instrument should be quite.

Sr. no.	Description	Revised Schedule
i.	Last dates and time of sale of tender enquiry documents.	<b>12.08.2014, 10:00 hrs to 17:30 hrs IST</b>
ii.	Last date and time for submission of bid.	<b>13.08.2014, 14:30 hrs IST</b>
iii	Time and date of opening of Techno – Commercial bids.	<b>13.08.2014,15:00 hrs IST</b>

Under GIT clause 21, all bidders are also requested to note the following;

**Envelop I : Sealed in Original Bid Security and Tender Document fee.**

**Envelop II**

**(i) Envelop II A Sealed in original Techno-commercial bid (Part I- Commercial bid and Part- II Technical bid).**

**(ii) Envelop II B sealed one copies of techno commercial bid.**

**Envelop III : Sealed in original Priced Bid and sealed copies of Price bid.**

These above envelopes I, II & III shall be further sealed in one outer envelope super scribing "Bid for item no. " and Tender No. .... and due date ....., Bidding Document Number.

All other terms and conditions of the tender enquiry document shall remain unchanged.

Prospective bidders are advised to regularly visit HSCC website/ CPP as corrigendum /amendments etc. if any, will be notified on this portal only, no separate advertisement will published in the news papers.

s/d  
Director (AIIA)

