File Ref. No. PUR/IICT/DMS/0684/0700/24-25 **Dt: 22-08-2024**
CPPP Tender ID: 2024_CSIR_204982_1

Minutes of Pre-Bid Conference (PBC) held on 22-08-2024 for proposed procurement of "Supply, installation and commissioning of "HPLC SYSTEMS -2 Nos."

Chairpersons / Members of the Technical Sub Committee (TSC) present during PBC including domain experts present during PBC:-

1. Dr. N.Lingaiah, Chairman
2. Dr.PratyayBasak, Member
3. Dr.G.Jithender Reddy, Member
4. Sri. D. Venkateswara Rao, Member
5. I/O Dr.SreepriyaVedantam, Member
6. IO Dr. L. Ravitej Singh

Representatives of the following firm attended the PBC:

1. M/s Camtek Labs
2. M/s Smart Labtech

The following points were discussed during the PBC:

A) Queries raised for the File Ref. No. PUR/IICT/0684/RE/24-25

1. Query raised by M/s. Camtek Labs, and response of CSIR-IICT:

Query-1: Requested to amend pH range from "1-14" to "1-12.5".
Response: Technical Sub Committee approved the request

Query-2: Requested to clarify details of training required after installation
Response: The supplier must provide operational training for the users on the usage of instrument and support for analysis after the installation at our site for 3 days.

2. Query raised by M/s. Smart Labtech, and response of CSIR-IICT:

No queries were raised by M/S. Smart Labtech for the above mentioned file reference number

B) Queries raised for the File Ref. No. PUR/IICT/7000/24-25

1. Query raised by M/s. Camtek Labs, and response of CSIR-IICT:

Query-1: Requested to amend pH range from "1-14" to "1-12.5".
Response: Technical Sub Committee approved the request

Query-2: Requested to clarify details of training required after installation
Response: The supplier must provide operational training for the users on the usage of instrument and support for analysis after the installation at our site for 3 days.

Query-3: On **Item 1.1**: Requested to amend flow rate setting range from "0.0001 mL/min" to "0.001 mL/min".
Response: Technical Sub Committee approved the request

Query-4: On **Item 1.5:** Requested to amend flow rate precision from "< ±0.06% RSD" to "< ±0.07% RSD".
Response: Technical Sub Committee approved the request

Query-5: On **Item 3.1:** Requested to amend degassed flow line capacity from "400µL" to "1.5 mL".
Response: Technical Sub Committee approved the request

Query-6: On **Item 3.3:** Requested to amend number of degassed solvents from "5" to "4".
Response: Technical Sub Committee approved the request

Query-7: On **Item 4.6:** Requested to drop "Sample cooler with dehumidifier" specification.
Response: Technical Sub Committee approved the request

Query-8: On **Item 6.1:** Requested to amend wavelength range from "190nm-700nm" to "190nm-600nm".
Response: Detector with wavelength range "190nm-700nm" is available with supplier, therefore Technical Sub Committee declined the request.

Query-9: On **Item 6.2:** Requested to drop this specification due to non-compliance.
Response: Technical Sub Committee approved the request.

Query-10: On **Item 6.4:** Requested to amend drift from "$1x10^{-4}$ AU/Hour" to "$0.9x10^{-3}$ AU/Hour"
Response: Technical Sub Committee approved the request

Query-11: On **Item 6.5:** Requested to amend Noise Level from "$0.5x10^{-5}$ AU" to "$0.7x10^{-5}$ AU"
Response: Technical Sub Committee approved the request

Query-12: On **Item 6.9:** Requested to amend "Detection of four wavelengths" to "Detection of two wavelengths"
Response: Technical Sub Committee approved the request

2. <u>Query raised by M/s. Smart Labtech, and response of CSIR-IICT:</u>

Query-1: On **Item 1.1**: Requested to amend flow rate setting range from "0.0001 mL/min" to "0.01 mL/min".
Response: Technical Sub Committee approved the request

Query-2: On **Item 1.2**: Requested to drop "double plunger" wording from this specification.
Response: Technical Sub Committee approved the request

Query-3: **Item 1.3**: Requested to drop this specification due to non-compliance.
Response: Technical Sub Committee approved the request

Query-4: On **Item 1.5:** Requested to amend flow rate precision from "< ±0.06% RSD" to "< ±0.075% RSD".
Response: Technical Sub Committee approved the request

Query-5: On **Item 1.6:** Requested to amend Pressure setting range from "(5800 psi) 40MPa" to "5000 psi".
Response: Pump model with required specification is available with the supplier, therefore Technical Sub Committee declined the request.

Query-6: On **Item 3.1:** Requested to amend degassed flow line capacity from "400µL" to "500µL".
Response: Technical Sub Committee approved the request

Query-7: On **Item 3.3:** Requested to amend number of degassed solvents from "5" to "4".
Response: Technical Sub Committee approved the request

Query-8: On **Item 4.3:** Requested to amend injection volume accuracy from "1%" to "2%".
Response: Technical Sub Committee approved the request

Query-9: On **Item 4.6:** Requested to drop "Sample cooler with dehumidifier" specification.
Response: Technical Sub Committee approved the request

Query-10: On **Item 6.7:** Requested to drop "flow cell volume" from the specifications
Response: Technical Sub Committee approved the request

Query-11: On **Item 6.9:** Requested to amend "Detection of four wavelengths" to "Detection of two wavelengths"
Response: Technical Sub Committee approved the request

Points clarified by CSIR-IICT Team during PBC:

The representatives of two firms M/s Camtek Labs and M/s Smart Labtech physically attended the meeting. All points were discussed by the technical committee and point wise responses are drafted. Responses and modifications made, will be uploaded in **CPPP** as part of **revised/amended tendered specifications** along with CSIR-IICT website www.iict.res.in on or before 27.8.24 All bidders are requested kindly to take a note of the changes, in tendered specifications subsequent to **PBC** held today, i.e. 22.08.2024 before they start submitting their online bids through CPPP.

27/08/2024

(Dr.Pratyay Basak)
Member

(Dr Jithender Reddy)
Member

(Dr. Sreepriya Vedantam)
Member/**IO/PL**

(Sri. D. VenkateswaraRao)
Member

(Dr.L. Ravitej Singh)
IO / PL

(Dr N Lingaiah)
Chairperson

File Ref. No. PUR/IICT/DMS/0684/0700/24-25 **Dt: 22-08-2024**

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The following are the modifications made according to the queries received during PBC held on 22.08.2024

File Ref. No. : PUR/IICT/0684/RE/24-25		
Item no.	**Existing Specification**	**Revised / Amended Specification**
4	An auto sampler system with a capacity of 100 vials and varied injection volume is desired that can work for a pH range of 1-14.	An auto sampler system with a capacity of 100 vials and varied injection volume is desired that can work for a pH range of **1-12.5.**
12	Training for the users on the usage and maintenance of the instrument has to be provided by the supplier post installation at IICT.	Training for the users on the usage and maintenance of the instrument has to be provided by the supplier post installation at IICT.

File Ref. No. : PUR/IICT/DMS/0700/24-25		
Item No.	**Existing Specification**	**Revised / Amended Specification**
1.1	The flow rate setting range of pump should be 0.0001 mL/min to 10.000 mL/min.	The flow rate setting range of pump should be **0.01 mL/min** to 10.000 mL/min
1.3	Plunger capacity: 10uL	**Removed**
1.5	Flow rate precision should be less than ±0.06% RSD.	Flow rate precision should be less than **±0.075 % RSD or better**.
1.6	Pressure setting range should be up to (5800 psi) 40 MPa.	Pressure setting range should be up to (5800 psi) 40 MPa **or better**.
3.1	Degassed Flow Line Capacity Should be – 400µL	Degassed Flow Line Capacity Should be **≤ 1.5mL**
3.3	Number of degassed solvents – 5	Number of degassed solvents – **4**
4.3	Injection Volume accuracy: 1%	Injection Volume accuracy: **2% or better**
4.6	Sample cooler with dehumidifier: temperature range of 5 to 40 °C or better	**Temperature range of 5 to 40 °C or better**

4.8	1mL – 150 vials or more, 1.5mL – 60 vials or more	1mL – 150 vials or more, 1.5mL – 60 vials or more **with inserts 1000Nos (or more) of 100 µL-200µL capacity**
6.2	Built-in temperature-controlled flow cell - temperature range from 5 °C above room temperature to 45°C.	**Removed**
6.4	Drift should be less than 1 $x10^{-4}$ AU/Hour.	Drift should be less than **0.9 $x10^{-3}$ AU/Hour or better**.
6.5	Noise Level should be $0.5x10^{-5}$ AU.	Noise Level should be **$0.7x10^{-5}$ AU or better**.
6.7	Flow cell volume: 12µL with 10mm path length.	**Analytical Flow cell with 10mm path length.**
6.9	Detection at four wavelengths in one injection	Detection at **two wavelengths or more** in one injection
7.5	Single access point for system administration, data acquisition, post run analysis and long –term data management.	Single access point for system administration, data acquisition, post run analysis and long –term data management. **With one additional offline access for post run analysis**
8.1	Suitable PC [Windows 11 OS, i7 processor or above, 32GB RAM or above, 1TB HDD or SSD, 19" monitor or above]	Suitable PC [Windows 11 OS, i7 processor (**12th generation]** or above, 32GB RAM or above, 1TB HDD or SSD, 19" monitor or above]
9.1	The supplier must provide Application based training for the users on the usage of instrument and support for analysis after the installation at our site for 3 days.	The supplier must provide **operational** based training for the users on the usage of instrument and support for analysis after the installation at our site for 3 days.
9.8	-	**On-site demonstration of specifications, if required**

The following changes have been made in the total tendered specification subsequent to PBC held on 22.08.2024

PUR/IICT/DMS/0684/24-25/EQPT		
S. No.	**Existing Specifications**	**Revised/Amended Specifications**
1	The required technical specifications for the High-Performance Liquid Chromatography (HPLC) system must include Photo Diode Array (PDA) detector and Refractive Index Detector (RID) along with Normal phase and Reverse phase columns that would enable the user to analyse wide range of samples with diversly polarised samples.	The required technical specifications for the High-Performance Liquid Chromatography (HPLC) system must include Photo Diode Array (PDA) detector and Refractive Index Detector (RID) along with Normal phase and Reverse phase columns that would enable the user to analyse wide range of samples with diversly polarised samples.
2	Column oven must be such that it can accommodate columns of 300 mm length, with maximum temperature upto 80°C and appropriate safety protocols for its safe and ease of functioning.	Column oven must be such that it can accommodate columns of 300 mm length, with maximum temperature upto 80°C and appropriate safety protocols for its safe and ease of functioning.
3	Solvent handling and delivery system (2 in No.) supported by high pressure pumps with both isocratic and gradient mode of operation. The pumps should offer a wide range of flow rates and must be able to handle higher pressures.	Solvent handling and delivery system (2 in No.) supported by high pressure pumps with both isocratic and gradient mode of operation. The pumps should offer a wide range of flow rates and must be able to handle higher pressures.
4	An auto sampler system with a capacity of 100 vials and varied injection volume is desired that can work for a pH range of 1-14.	An auto sampler system with a capacity of 100 vials and varied injection volume is desired that can work for a pH range of **1-12.5**.
5	Degassing unit that can remove dissolved gases from the mobile phase is required.	Degassing unit that can remove dissolved gases from the mobile phase is required.
6	PDA and RID detectors should have a wide spectral response, capable of detecting and quantifying a broad range of analytes across the ultraviolet, visible regions of the spectrum.	PDA and RID detectors should have a wide spectral response, capable of detecting and quantifying a broad range of analytes across the ultraviolet, visible regions of the spectrum.
7	An integrated controller to effectively operate the HPLC system is required along with the other units mentioned earlier.	An integrated controller to effectively operate the HPLC system is required along with the other units mentioned earlier.
8	Highly sophisticated data acquisition and management software capable of real-time, high precision data capture and integration is desired to ensure reliable and reproduceable results. Software upgradation if any must be provided by the supplier at zero additional cost upto minimum of 5 years after installation.	Highly sophisticated data acquisition and management software capable of real-time, high precision data capture and integration is desired to ensure reliable and reproduceable results. Software upgradation if any must be provided by the supplier at zero additional cost upto minimum of 5 years after installation.

9	Suitable PC with advanced processor (i7 or above), RAM of 16 GB. SSD storage, compatible monitor for high-resolution display and printer system is required for effective report generation and documentation post analysis.	Suitable PC with advanced processor (i7 or above), RAM of 16 GB. SSD storage, compatible monitor for high-resolution display and printer system is required for effective report generation and documentation post analysis.
10	Warranty for a period of 24 months is needed includes coverage for HPLC system and the PC to ensure uninterrupted operation of the instrument.	Warranty for a period of 24 months is needed includes coverage for HPLC system and the PC to ensure uninterrupted operation of the instrument.
11	All the peripheral accessories that support the functioning of the system are to be supplied along with the instrument.	All the peripheral accessories that support the functioning of the system are to be supplied along with the instrument.
12	Training for the users on the usage and maintenance of the instrument has to be provided by the supplier post installation at IICT.	Training for the users on the usage and maintenance of the instrument has to be provided by the supplier post installation at IICT.

	PUR/IICT/DMS/0700/24-25/EQPT	
S. No.	**Existing Specifications**	**Revised/Amended Specifications**
1	**Solvent Delivery unit - 1No (Quaternary pump)**	
1.1	The flow rate setting range of pump should be 0.0001 mL/min to 10.000 mL/min.	The flow rate setting range of pump should be **0.01 mL/min** to 10.000 mL/min
1.2	Solvent Delivery method: Parallel type – double plunger, low pressure gradient, 4 for mobile phases, one for pump head rinse solution	Solvent Delivery method: Double plunger, low pressure gradient, 4 for mobile phases, one for pump head rinse solution
1.3	Plunger capacity: 10uL	**Removed**
1.4	Flow rate accuracy should be ± 1% or ± 2µL/min whichever is greater.	Flow rate accuracy should be ± 1% or ± 2µL/min whichever is greater.
1.5	Flow rate precision should be less than ±0.06% RSD.	Flow rate precision should be less than **±0.075 % RSD or better**.
1.6	Pressure setting range should be up to (5800 psi) 40 MPa.	Pressure setting range should be up to (5800 psi) 40 MPa **or better**.
1.7	Automatic Rinsing kit for seal wash.	Automatic Rinsing kit for seal wash.
1.8	It must have a leak sensor as safety feature.	It must have a leak sensor as safety feature.
2	**High pressure quaternary gradient valve**	
2.1	Concentration accuracy Should be ± 0.5% or more	Concentration accuracy Should be ± 0.5% or more
2.2	Maximum Mixing up to 4 solvents	Maximum Mixing up to 4 solvents
3	**Online Degassing Unit – 1 No**	
3.1	Degassed Flow Line Capacity Should be – 400µL	Degassed Flow Line Capacity Should be ≤ **1.5mL**
3.2	Operating Temperature range: -4 to 35 °C	Operating Temperature range: 4 to 35 °C

3.3	Number of degassed solvents – 5	Number of degassed solvents – **4**
4	**Auto Sampler**	
4.1	Near Zero Carry over – 0.005% max.	Near Zero Carry over – 0.005% max.
4.2	Injection Volume setting range: 0.1µL to100µL standard.	Injection Volume setting range: 0.1µL to 100µL standard.
4.3	Injection Volume accuracy: 1%	Injection Volume accuracy: **2% or better**
4.4	Injection Volume Precision: 0.3% RSD	Injection Volume Precision: ±0.3% RSD
4.5	Automatic flow line rinsing before & after injection	Automatic flow line rinsing before & after injection
4.6	Sample cooler with dehumidifier: temperature range of 5 to 40 °C or better	**Temperature range of 5 to 40 °C or better**
4.7	Capable of accommodating multiple volume racks – 1mL, 1.5mL, MTP & DWP.	Capable of accommodating multiple volume racks – 1mL, 1.5mL, MTP & DWP.
4.8	1mL – 150 vials or more, 1.5mL – 60 vials or more	1mL – 150 vials or more, 1.5mL – 60 vials or more **with inserts 1000Nos (or more) of 100 µL-200µL capacity**
5	**Column Oven**	
5.1	Temperature control method: Block heating type	Temperature control method: Block heating type
5.2	Temperature setting range: 4 °C to ≥45°C	Temperature setting range: 4 °C to ≥45°C
5.3	Temperature control precision: ±0.1 °C	Temperature control precision: ±0.1 °C
5.4	Time programming capability and Oven On / Off	Time programming capability and Oven On / Off
5.5	Leak sensor for safety and leak detection.	Leak sensor for safety and leak detection.
5.6	Applicable columns: 25 cm (min. 2 column)	Applicable columns: 25 cm (min. 2 column)
6	**High-Sensitive UV-VIS Detector**	
6.1	Wavelength range should be 190 nm - 700 nm.	Wavelength range should be 190 nm - 700 nm.
6.2	Built-in temperature-controlled flow cell - temperature range from 5 ºC above room temperature to 45ºC.	**Removed**
6.3	Wavelength accuracy should be ±1 nm.	Wavelength accuracy should be ±1 nm.
6.4	Drift should be less than 1 $x10^{-4}$ AU/Hour.	Drift should be less than **0.9 $x10^{-3}$ AU/Hour or better**.
6.5	Noise Level should be 0.5$x10^{-5}$ AU.	Noise Level should be **0.7$x10^{-5}$ AU or better**.
6.6	Bandwidth should be 8nm.	Bandwidth should be 8nm.
6.7	Flow cell volume: 12µL with 10mm path length.	**Analytical Flow cell with 10mm path length.**
6.8	Linearity of 2.5AU or better.	Linearity of 2.5AU or better.
6.9	Detection at four wavelengths in one injection	Detection at **two wavelengths or more** in one injection
7	**Controller along with Chromatography software**	
7.1	System Controller equipped with data Buffering at 500ms	System Controller equipped with data Buffering at 500ms
7.2	Operating temperature range: 4 to 35 °C	Operating temperature range: 4 to 35 °C
7.3	Central control of pumps, detectors, injectors, complete modules of each System through software.	Central control of pumps, detectors, injectors, complete modules of each System through software.

7.4	Digital acquisition & processing system ensures speed & stability of data	Digital acquisition & processing system ensures speed & stability of data
7.5	Single access point for system administration, data acquisition, post run analysis and long – term data management.	Single access point for system administration, data acquisition, post run analysis and long –term data management. **With one additional offline access for post run analysis**
8	**Installation Accessories**	
8.1	Suitable PC [Windows 11 OS, i7 processor or above, 32GB RAM or above, 1TB HDD or SSD, 19" monitor or above]	Suitable PC [Windows 11 OS, i7 processor **(12th generation]** or above, 32GB RAM or above, 1TB HDD or SSD, 19" monitor or above]
8.2	Tray to place Mobile phase bottles	Tray to place Mobile phase bottles
8.3	Solvent Bottles with Cap 5/pkt – 1 No	Solvent Bottles with Cap 5/pkt – 1 No
9	**Other Requirements**	
9.1	The supplier must provide Application based training for the users on the usage of instrument and support for analysis after the installation at our site for 3 days.	The supplier must provide **operational** based training for the users on the usage of instrument and support for analysis after the installation at our site for 3 days.
9.2	Software upgrades like version ups, if any, should be done without any cost in next 5 years	Software upgrades like version ups, if any, should be done without any cost in next 5 years
9.3	The software should be 21 CFR compliance (Document proof must be attached)	The software should be 21 CFR compliance (Document proof must be attached)
9.4	All modules must be GLP compliant	All modules must be GLP compliant
9.5	A declaration of System Validation certificate must be provided.	A declaration of System Validation certificate must be provided.
9.6	Submit at least 3 performance certificates from 3 Institutes.	Submit at least 3 performance certificates from 3 Institutes.
9.7	Warranty - 3 Years	Warranty - 3 Years
9.8		**On-site demonstration of specifications, if required**

All the other tender terms remains unchanged. Bidders may please submit their bids accordingly.

27/08/2024

(Dr.Pratyay Basak)
Member

(Dr Jithender Reddy)
Member

(Dr.Sreepriya Vedantam)
Member/**IO/PL**

(Sri. D. VenkateswaraRao)
Member

for

(Dr.L. Ravitej Singh)
IO / PL

(Dr N Lingaiah)
Chairperson

Signature Not Verified

Digitally signed by DHARMENDRA KUMAR
Date: 2024.08.27 12:01:59 IST
Location: eProcurement System for Central PSUs