**File Ref. No. PUR/IICT/DMS/499/RE/23-24** **Dt: 19-01-2024**
**CPPP Tender ID : 2024_CSIR_181233_1**

Minutes of Pre-Bid Conference (PBC) held on **19-01-2024** for proposed procurement of **"Supply, installation and commissioning of TGA-DTA SYSTEM" –**

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

1. Dr N Lingaiah Chairman
2. Dr. Pratyay Basak, Member
3. Dr. Jithender Reddy, Member
4. Dr Sreepriya Vedantam, Member
5. Shri D Venkateshwar Rao, Member
6. IO/PL – Dr. C. Sumana

**Representatives of the following firm attended the PBC:**

1. M/s. SINSIL INTERNATIONAL PRIVATE LIMITED, SETARAM INSTRUMENTS , FRANCE
2. M/s. IR TECHNOLOGY SERVICES PRIVATE LIMITED, RIGAKU, JAPAN
3. M/s. PERKIN ELMER INDIA PRIVATE LIMITED, SPECTRALYTICA SCIENTIFIC.
4. M/s
5. M/s

**The following points were discussed during the PBC:**

**Query raised by M/s. SINSIL International Pvt. Ltd., and response of CSIR-IICT:**
***Query-1:*** Regarding ***S.No.:8*** The flowrate for each MFC should be changed from 500ml/min to 200ml/min.
***Response-1:*** The flowrate will be changed to 200ml/min.
***Query-2:*** Regarding ***S.No.:11*** Remove the camera feature.
***Response-2:*** The camera feature will be removed.

**Query raised by M/s. PERKIN ELMER INDIA Pvt. Ltd., and response of CSIR-IICT:**
***Query-1:*** Regarding ***S.No.:6*** Sample weight measurement resolution should be changed from 0.0001mg to 0.0002mg
***Response-1:*** The sample weight measurement resolution will be changed to 0.0002mg.
***Query-2:*** Regarding ***S.No.:7*** To change the No. of alumina-based sample pans from 2 to 4
***Response-2:*** The No. of alumina-based pans will be changed to 4 and there is no change in the no. of aluminium & platinum pans.

**Query raised by M/s. IR TECHNOLOGY - RIGAKU, and response of CSIR-IICT:**
***Query-1:*** Regarding delivery time – Requested for a delivery time of 4 months.
***Response-1:*** The delivery time will be changed to 12-14 weeks.

**Points clarified by CSIR-IICT Team during PBC:**

The firm informed that they do not have problem with other points of tendered specifications and requirements. Participating bidders have been informed that points raised by them during PBC will be examined by CSIR-IICT's **Technical Sub Committee (TSC)** constituted for the purpose of procurement of said equipment and **post PBC changes** in tendered specifications and requirements to be agreed after due consideration of the same by TSC, if any, will be uploaded in **CPPP** as part of **revised/amended tendered specifications**.

Minutes of the PBC with changes agreed (if any) will be uploaded in due course at **CPPP** for information and reference of prospective bidders on or before **24-01-2024.** All bidders are requested kindly to take a note of changes in tendered specifications subsequent to PBC held today, i.e. 19-01-2024 before they start submitting their online bids through CPPP.

(Dr. Pratyay Basak)
Member

(Dr Jithender Reddy)
Member

(Dr Sreepriya Vedantam)
Member

(Sri. D Venkateshwara Rao)
Member

(Dr. C. Sumana)
IO/PL

(Dr. N Lingaiah)
Chairperson

## Revised Specifications/Corrigendum

**File Ref. No. PUR/IICT/DMS/499/RE/23-24** **Dt 19.01.2024**

- **Spec No. 6**
  Sample Wt. Measurement Resolution: Less than or equal to 0.0002mg.

- **Spec No. 7**
  Sample Pans with Lids: Platinum (4pcs), Alumina (2pcs.), Aluminium (200pcs) and covering lids.

- **Spec No. 8**
  Gas Inlets with MFCs: Three gas inlets ($N_2$, $CO_2$ and $CH_4$) with individual MFCs, (each flowrate up to 200ml/min) and including fittings.

- **Spec No. 11**
  Camera: Nil

- **Spec No. 19**
  Delivery: Within 12-14 weeks.

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

(Dr. Pratyay Basak) Member

(Dr. Jithender Reddy) Member

(Dr. Sreepriya Vedantam) Member

(Dr. Venkateshwar Rao) Member

(Dr. C. Sumana) IO/PL

(Dr. N Lingaiah) Chairperson

# TECHNICAL SPECIFICATIONS OF TGA-DTA

| S.No. | Parameter | Specifications |
|---|---|---|
| 1 | Furnace Temperature | Room Temperature to 1100°C or more |
| 2 | Operating Temperature | Room Temperature to 1000°C or more |
| 3 | Heating rate | Maximum 100°C/min |
| 4 | Cyclic Operation | Multiple cycle operation (up to 100 cycles continuously) |
| 5 | Sample Capacity (max wt. in crucible) | Less than or equal to 1 g |
| 6 | Sample Wt. Measurement Resolution | Less than or equal to 0.0002 mg |
| 7 | Sample Pans with Lids | Platinum (4 pcs), Alumina (4 pcs.), Aluminum (200 pcs) and covering lids |
| 8 | Gas Inlets with MFCs | Three gas inlets ($N_2$, $CO_2$ and $CH_4$) with individual MFCs, (each flowrate up to 200 ml/min) and including fittings |
| 9 | Gas Cylinders with regulators | $N_2$ (99.95%), $CH_4$ (99.95%) cylinders (30kg) with dual stage regulators |
| 10 | Feed Gas Limitations during Analysis | Maximum limit of individual gas concentration in the feed ($H_2$: 5 vol.%; $CH_4$: 5 vol.%; $O_2$: 100%; CO: 100%; $CO_2$: 100%) |
| 11 | Camera | Nil |
| 12 | Interface/Connectivity | TGA-DTA with an option to be interfaced with FTIR/GC/GCMS for outlet gas mixture composition analysis |
| 13 | Software | Compatible software for TGA-DTA for online data acquisition, storage, and analysis. Instument data acquisition software update should be provided free of cost for the quoted version. |
| 14 | Personal Computer | AMD-Ryzen 9 or Intel i-9, 32-inch Monitor HD Display, 16 GB DDR4 RAM, 4 GB NVIDIA Graphics Card DDR5, 2 TB SSD, USB 3.2 Front/Back, Windows, MS-Office |
| 15 | Printer | HP Laser Printer |
| 16 | UPS | Isolated UPS with minimum 1 hour backup |
| 17 | Warranty | The warranty period should be a minimum of 1 year |
| 18 | Installation and Demo | The equipment and software should be installed at CSIR-IICT and tested to meet the specifications free of cost.<br>Tool kit for regular operation and maintenance should be provided |
| 19 | Delivery | Within 12-14 weeks |

C. Subrahmanyam
25.01.2024