Environmental Engineering Laboratory  
Department of Civil Engineering  

Notice Inviting Quotations for "PM$_{2.5}$ sampler"

Sealed quotations are invited in two bids (separate quotations for technical and financial bid in separate sealed covers and put together in a common outer envelope subscribing NIQ for PM$_{2.5}$ Sampler) for the requirement of PM$_{2.5}$ Sampler (No of Units = 3) as per the specifications described below on or before 06/02/2014, 17:00 hrs. Quotations should be addressed and submitted to

Prof. Mukesh Khare,  
Block IV, Room No:220, Department of Civil Engineering,  
Indian Institute of Technology Delhi,  
Hauz Khas, New Delhi -110016.

**Technical Specifications for PM 2.5 Samplers (No of Unit=3)**

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| 1. | **PM$_{10}$ Impactor**  
   Working principle  
   Flow rate | Impaction  
1 m$^3$/hr (16.7 LPM) maintained by microprocessor based electronic controller |
| 2. | **PM$_{2.5}$ Impactor**  
   Working principle  
   Flow rate | WINS Impaction  
1 m$^3$/hr (16.7 LPM) maintained by microprocessor based electronic controller |
| 3. | **Automatic Sampling Start and Stop** | In-built system to control start and stop times of sampler |
| 4. | **Elapsed time indicator** | Real Time clock based; records the operating time in hours and minutes per sample |
| 5. | **Volumetric Flow rate Compensation** | Automatic compensation of flow rate using sensors for Ambient Temperature, Barometric Pressure and Filter Pressure |
| 6. | **Vacuum Pump** | Oil Free, non-pulsating pump driven by induction motor |
| 7. | **Power Supply** | 220 V, Single Phase, 50Hz AC mains supply |
| 8. | **Working conditions** | Sampler should work at ambient temperature up to 55°C and relative humidity up to 90% |
| 9. | **Provision for removing moisture** | The sampler should have a provision to remove moisture from the inlet airflow before reaching the filter |
| 10. | **Display Screen** | LCD display of system parameters |
| 11. | **Data Logger** | Should record flow rate, volume of air sampled, air temperature, filter temperature, filter pressure and barometric pressure for more than 150 hours run time of the sampler |
| 12. | **Auto-shut off of the sampler** | When flow rate drops by more than 10% from the designated value of 1 m$^3$/hr |
| 13. | **Calibration Facility** | Bidder must have Calibration Facility in India and should provide details on the Calibration facility available with them |
| 14. | **Bidder Credibility** | The Bidder should be a reputed manufacturer with minimum 10 years of experience in air quality monitoring/sampling instruments and they have Exclusive/Authorized Agent in India since last 2 years or more. |
Warranty: Minimum one year onsite comprehensive warranty is must without which the quotation will not be considered.

IMPORTANT NOTE: Continuously logging of the data during the monitoring is mandatory. Without this arrangements your quotation will not be considered further.

Terms and Conditions

1. Validity of the quotation should be for minimum three months.
2. Payment mode should be clearly mentioned. Preferred payment mode is within 30 days of successful installation.
3. All bank charges outside India shall be on Beneficiary’s account and within India shall be on opener’s account, in case of imported items.
4. Proprietary certificate may be enclosed in case of proprietary item.
5. In case of imported items, Agency Certificate from the Principals/manufacturer should be enclosed.
6. Educational Institution discount should be given.
7. The Institute reserves the right to accept or reject any/all of the quotations without assigning any reasons thereof.

Prof. Mukesh Khare