

# Open Bid Specification

## Continuous PM-2.5 Monitor

1. Warranty - Minimum 2 years.
2. Must be EPA-designated Equivalent Method when used in the PM-2.5 configuration. 120 VAC.
3. Must be a filter-based direct mass measurement method OR a hybrid mass measurement method utilizing light-scattering and beta-gauge technologies..
4. Must have an internal data logger capable for storing three months of data (hourly averages minimum) and diagnostic parameters. Must have to ability to output diagnostic data to the data logger, such as flow rate, internal benchmarks, ambient conditions, status codes, etc. to facilitate data validation.
5. Must have digital output capabilities compatible with the Envidas for Windows Datalogger provided by DR DAS in Austin, TX.
6. Must have at least one resolution mode less than an hour (30 minutes minimum).
7. Must be capable of real-time data collection, storage, and dissemination. Must be capable of RS-232 communications with laptop PC and/or printer.
8. Must have a humidity compensation system to reduce the effect of moisture on the sample.
9. Must have a simple, reliable filter handling mechanism and provide at least one month of continuous operation between scheduled maintenance visits..
10. Must include operations and service manual for each instrument.
11. Must include required calibration equipment and accessories. This provision may be waived if calibration equipment already owned and operated by DEQ are sufficient. We use Chinook FTS/MultiCal and BGI DeltaCal flow calibrators. We also have NIST-traceable temperature, humidity, and pressure sensors.
12. Must include necessary mounting hardware, such as roof flange, outdoor support for the inlet, etc.