



66--Innova Photo-Acoustic Multigas Analyzer System

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Agency: Environmental Protection Agency

Office: Office of Acquisition Management

Location: EPA/Ohio

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Presolicitation

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66 -- Instruments & laboratory equipment

NAICS Code:

334 -- Computer and Electronic Product Manufacturing/334516 -- Analytical Laboratory Instrument Manufacturing

Synopsis:

Added: Dec 22, 2009 5:13 pm

The US Environmental Protection Agency (EPA), Office of Air and Radiation, Office of Transportation and Air Quality, National Vehicle and Fuel Emissions Laboratory (NVFEL), Ann Arbor, MI intends to negotiate, on a sole source basis, under the authority of FAR 13.106-1(b)(1), with California Analytical Instruments at EPA/NVFEL. In response to mandated 40 CFR Part 86 and California Air Resources Board test procedures for hydrocarbon measurement, the US EPA requires this instrument for real-time measurement of ethanol from vehicles. The government intends to purchase Five (5) Innova Model 3433 Multi-Gas monitors. A substantial increase in testing of vehicles operating on ethanol-blend fuel is occurring as a result of the Renewable Fuel Standard. In order to undertake this testing in an efficient manner real-time analysis of ethanol is required for vehicle exhaust and evaporative emissions testing. The Innova photoacoustic analyzer is the only real-time instrument approved by EPA and the California Air Resources board for measurement of gaseous ethanol in vehicle exhaust and fugitive fuel vapor emissions. The analyzer system shall meet the following requirements: a) One (1) Nafion tube kit; part number CAI-110-03-34b) One (1) advanced diagnostics software package; part number BZ6007c) Four (4) special two-point calibration for instruments configured for exhaust analysis d) Latest firmware version Four instruments shall utilize a filter configuration optimized for measurement of dilute exhaust gas as shown in the following table.

Exhaust Gas Analysis

Filter Location Filter Number Compound Compound Name
 A UA0976 NH₃ Ammonia
 B UA0974 C₂H₅OH Ethanol
 C UA0985 N₂O Nitrous Oxide
 D UA0984 CO Carbon Monoxide
 E UA0983 CO₂ Carbon Dioxide
 W SBO527 H₂O Water

a) One instrument shall utilize a filter configuration optimized for measurement of fugitive fuel vapors from a sealed enclosure as shown in the following table. Fuel Vapor Analysis for Evaporative Emissions

Filter Location Filter Number Compound Compound Name
 A UA0936 CH₃OH Methanol
 B UA0974 C₂H₅OH Ethanol
 C UA0981 C₇H₈ Toluene
 D UA0983 CO₂ Carbon Dioxide
 E UA0971 CH₂FCF₃ Freon, R-134a
 W SBO527 H₂O Water

(d) Basic functions and features
 1. Serial remote communication, IEEE-488 and RS-232. PC software required for remote configuration, measurement and data acquisition, and calibration, via serial port connection; compatible with Microsoft Windows XP SP 2, SP 3. Background memory for non-volatile retention of measurements; uploadable via serial connection
 4. Self-test routines for instrument checking and diagnostics
 5. Built in set-up, measurement and calibration routines accessible through front-panel display or remote interface to a PC

6. Mountable in a standard 19-inch instrument rack
 7. Built-sample pump
 8. Automatic tube and chamber flushing; selectable flush times of 26 to 150 seconds for measurement of five gases
 9. Measurement unit: ppm (mol/mol); reference conditions 20°C and 101.3 kPa
 10. Measurement cross-compensation via measurement of other configured gases

11. Compensation for temperature and pressure fluctuations in analysis chamber
 12. Power: ~120VAC, 60 Hz
 13. Safety: Compliance with EN/IEC 61010-1, 2nd (2001): Safety requirements for electrical equipment for measurement, control and laboratory use and UL61010A-1 first edition (2002): Electrical Equipment for Laboratory Use; Part 1 General Requirements

(e) Measurement Performance Each instrument shall meet the following minimum performance requirements

Zero drift +/- detection limit per 3 months
 Span drift +/- 2.5% of measured value per 3 months
 Repeatability 1% of measured value
 Influence of temperature +/- 0.3% of measured value
 Influence of pressure 0.01% of measured value
 Detection limit As stated in LumaSense document "Gas Detection Limits" Updated 17th March 2009

2.1.2 Each Innova 3433 instrument purchased shall also include:

a) Maintenance/accessory kit
 b) NIST-traceable calibration for each configured compound with documentation suitable for demonstration of traceability
 c) Two-point calibration for carbon dioxide for (4) instruments configured for exhaust emission; single-point for other compounds including carbon dioxide for the instrument configured for evaporative emissions
 d) documentation of standard factory post-production quality-assurance test results
 Option for purchase of up to two (2) additional Innova 3433 instruments for a period of one year after receipt of the original order.

LumaSense Technologies, Inc is the only known source able to satisfy the Government's requirement(s) since their Innova instrument is the only real-time instrument approved for compliance testing of vehicles tested with blends of ethanol and gasoline. The representative for LumaSense Technologies in the United States is California Analytical Incorporated. However, any firm believing itself capable of meeting EPA's requirement may submit technical documentation to establish the potential of complying with the specifications. Such documentation must

be submitted to the point of contact within 15 days of the posting of this notice. A determination not to compete the proposed requirement based upon responses to this notice is solely within the discretion of the Government. Information received will normally be considered only for the purpose of determining whether to conduct a competitive procurement or to proceed on a sole source basis. The applicable NAICS code is 334516. Please submit your request in writing to Courtney Whiting by e-mail to whiting.courtney@epa.gov. No telephone requests or request by fax will be honored.

Additional Info:

[The Environmental Protection Agency](#)

Contracting Office Address:

Cincinnati Procurement Operations Division 26 W. Martin Luther King Drive Cincinnati, OH 45268

Point of Contact(s):

COURTNEY R. WHITING, Contract Specialist, Phone: 513-487-2002, E-Mail: whiting.courtney@epa.gov

[COURTNEY R. WHITING](#)

Opportunity History

- **Original Synopsis**

Dec 22, 2009

5:13 pm