



INVITATION FOR BIDS
OFFICE OF PROCUREMENT & CONTRACTS

1. INSTRUCTIONS FOR BIDDERS

- a. Sealed bids will be received in the Office of Procurement & Contracts, Mississippi State University, for the purchase of the items listed herein.
- b. All bids must be received in the Office of Procurement & Contracts on or before the bid opening time and date listed herein. Delivery of bids must be during normal working hours, 8:00 a.m. to 5:00 p.m. CST, except on weekends and holidays when no delivery is possible.
- c. Bidders shall submit their bids either electronically or in a sealed envelope. To submit electronically, follow the instructions below. Bids CANNOT be emailed.
 - i. Sealed bids should include the bid number on the face of the envelope as well as the bidders' name and address. Bids should be sent to: 245 Barr Avenue, 610 McArthur Hall, Mississippi State, MS 39762.
 - ii. At this time we only accept non-ITS bids electronically. For electronic submission of bids, go to: portal.magic.ms.gov and use the RFX number on the next page as your reference number.
- d. All questions regarding this bid should be directed to the Office of Procurement & Contracts at 662-325-2550.

2. TERMS AND CONDITIONS

- a. All bids should be bid "FOB Destination"
- b. Bidders must comply with all rules, regulations, and statutes relating to purchasing in the State of Mississippi, in addition to the requirements on this form. General Bid Terms and Conditions can be found here:
https://www.procurement.msstate.edu/procurement/bids/Bid_General_Terms_May_2019_V2.pdf
- c. Any contract resulting from this Invitation for Bid shall be in substantial compliance with Mississippi State University's Standard Contract Addendum:
<https://www.procurement.msstate.edu/contracts/standardaddendum.pdf>

Bid Number/RFX Number: 24-104/RFX #3160007033

Opening Date: December 11, 2024 at 2:00 p.m.

Description: Chamber-based Trace Gas Analysis Equipment

Vendor Name: _____

Vendor Address: _____

Telephone Number: _____

Days the Offer is Firm: _____

Authorized Signature: _____

Name: _____

Title: _____

Item	Quantity	Description	Unit Price	Total Price
1	1	Chamber-based Trace Gas Analysis Equipment		

Specification for Chamber-based Trace Gas Analysis Equipment

- Capability to analyze trace concentrations of CO₂, CH₄, and N₂O.
- Include a survey chamber that is compatible with the analyzers and must have
 - o An onboard mixing pump to ensure the gas sample in the chamber is adequately mixed as it loops to the analyzers,
 - o The ability to open and close automatically,
 - o An SDI-12 port for a Soil Moisture Probe,
 - o A Thermocouple port for soil temperature measurements,
 - o A Lithium-ion battery as a power source,
 - o A pressure vent to ensure equal pressure between within the chamber and outside air.
- Include a soil temperature and soil moisture probe (combined probe or separate probes) that is compatible with the analyzers.
- Measurement of trace gas concentrations at a frequency of one sample per second (1 Hz).
- Analytical range of at least 0-100 ppm for CH₄ and N₂O, and 0-10,000 ppm for CO₂ with a precision of 0.6 ppb at 2 ppm CH₄, 0.4 ppb at 330 ppb N₂O, and 3.5 ppm at 400 ppm CO₂.
- The response time (T₁₀-T₉₀) should be less than 5 seconds.

- The power requirements for each analyzer must be 22 W at steady state operation and 100 W at warmup with batteries charging (65 W without batteries charging).
- Two lithium-ion batteries for each sampler and 6.5 feet (2 m) cable assembly must be included.
- The battery life must be at least 5 h.
- The analyzers must be suitable for outdoor applications (e.g. equipped with a weather resistant case).
- The analyzers must not weigh more than 16 kg (incl. a weather resistant case and battery) and easy to transport to field sites.
- The operating temperature must be between -5 and 45 °C.
- The equipment must be operational within a relative humidity range of 0 to 85%.