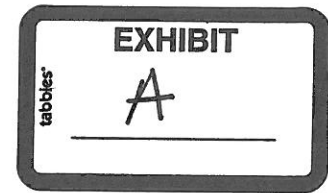


15-414



**SUMMIT COUNTY EMERGENCY MANAGEMENT AGENCY  
BID FOR HAZMAT AIR MONITORING METERS AND CALIBRATION EQUIPMENT**

The Summit County Emergency Management Agency is requesting bids for Air Monitoring Meters and calibration equipment for Hazardous Materials Emergency Response. The system must be designed for operations by First Responders.

**GENERAL REQUIREMENTS**

All specifications contained herein are considered minimum requirements for the delivery of the "new" Air Monitoring Meters and calibration equipment.

**BID RESPONSE**

Any exceptions to minimum specifications shall be described in detail on a separate page attached to the bid response titled "EXCEPTIONS & CLARIFICATIONS

Failure to disclose an exception will indicate total compliance.

Each bid must be accompanied by a set of detailed contractors' specifications.

Bids shall be enclosed in a sealed envelope endorsed on the outside of the envelope "Bid for HazMat Portable Bio-Detection System", pursuant to specifications provided, with the name of the bidder prominently displayed on the face of the envelope.

All bids shall be delivered at or before the time and place stated herein. Bids received after the stated date and time will be returned unopened to the bidder.

The following specifications and characteristics must be met with no deviations. These are the minimal acceptable properties of the system.

**Handheld Meter Requirements**

<b>All Handheld meters must meet the following specifications:</b>
Meter's display must be large character LCD with one push button backlight.
Meters must have sensor shelf life indicator that must notify the user when a sensor is close to and reaches its end of life.
Meters must have an optional "Fresh Air Setup"
Meters must have sensor plug and play which allows the meter to change what gas is detected by simply changing the sensor installed.
Meters must have replaceable lithium ion battery and must display the remaining battery life on the meter LCD display.
Meter battery must have a minimum 8 hour run time when fully charged.
Meters must have Visual alarms with flashing ultra-bright LEDs visible from the top, bottom, front, back, and sides and Audible alarm 95 dB @ 1ft (30 cm) along with Vibrating/Tactile alarm.
Meters must have alarm set points must be adjustable with system software along with

STEL & TWA and peak levels.
Meters must have event log and must record up to 75 most recent events. Meters must provide standard data logging. Time interval between data records shall be user-selectable from 15s to 15 min.
Instrument Durability must pass the following tests: Agency-certified dust- and water-tight IP67 construction. Drop test - Must survive multiple 25-ft drops onto concrete. Temperature Normal operation: -10°C to 40°C Extended range: -20°C to 50°C Extreme range: -40°C to +60°C Humidity 10-95% RH (non-condensing)
Meters must have the following US Certifications: cCSAus Class I Div 1 Groups A, B, C, D Class II Div 1 Groups E, F, G Class III Tamb = -40C to +60C T4 USA: UL 913 7th Edition
Meter chassis and electronics must have a minimum 3 year warranty.
Meters must be one button operable with a gloved hand.
Meters must have a rugged case with rubber/plastic over molding.

Bidder shall indicate compliance with handheld meter specifications	
Yes	No
Bidder shall explain any exceptions to specification below:	

**Cost of ownership and sensor life/warranty is a major consideration in awarding this meter bid. All sensors must meet the minimum requirements listed below:**

**Oxygen Sensors**

**Range:** 0-30% Vol O<sub>2</sub>

**Resolution:** 0.1% O<sub>2</sub>

**Response Time (typ):** t(90) <10 seconds

**Alarm Setpoint:** Min 5% Vol/ Max 24% Vol

**Warranty:** 3 years

**LEL Sensors**

**Range:** 0-100% LEL or 0-5% CH<sub>4</sub>

**Resolution:** 1% LEL or 0.05% Vol CH<sub>4</sub>

**Response Time (typ):** t(90) <15 seconds (pentane) t(90) <10 seconds (methane)

**Alarm Setpoint:** Min 5% LEL/ Max 60% LEL

**Warranty:** 3 years

**Carbon Monoxide combined Hydrogen Sulfide Sensors**

**Range:** 0-1999 ppm CO

**Resolution:** 1 ppm CO

**Response Time (typ):** t(90) <15 seconds

**Alarm Setpoint:** Min 10 ppm/ Max 1700 ppm

**Range:** 0-200 ppm H<sub>2</sub>S

**Resolution:** 1 ppm H<sub>2</sub>S

**Response Time (typ):** t(90) <15 seconds

**Alarm Setpoint:** Min 5 ppm/ Max 175 ppm

**Warranty:** 3 years

**Sulfur Dioxide Sensors**

**Range:** 0-20 ppm SO<sub>2</sub>

**Resolution:** 0.1 ppm SO<sub>2</sub>

**Response Time (typ):** t(90) <10 seconds

**Alarm Setpoint:** Min 0.5 ppm/ Max 17.5 ppm

**Warranty:** 3 years

**Ammonia Gas Sensor**

**Range:** 0-100 ppm NH<sub>3</sub>

**Resolution:** 1 ppm NH<sub>3</sub>

**Response Time (typ):** t(90) <40 seconds

**Alarm Setpoint:** Min 10 ppm/ Max 75 ppm

**Warranty:** 2 years

**Chlorine Gas Sensor**

**Range:** 0-10 ppm Cl<sub>2</sub>

**Resolution:** 0.05 ppm Cl<sub>2</sub>

**Response Time (typ):** t(90) <30 seconds

**Alarm Setpoint:** Min 0.3 ppm/ Max 7.5 ppm

**Warranty:** 2 years

**Photoionization PID Sensor**

10.6 eV Lamp installer

**Range:** 0-2000 ppm isobutylene equivalent

**Response Time (typ):** t(90) <10 seconds

**Warranty:** 1 year

**Hydrogen Cyanide Gas Sensor**

**Range:** 0-30 ppm HCN

**Resolution:** 0.1 ppm HCN

**Response Time (typ):** t(90) <30 seconds

Warranty: 1 year

Bidder shall indicate compliance with **sensor specifications**

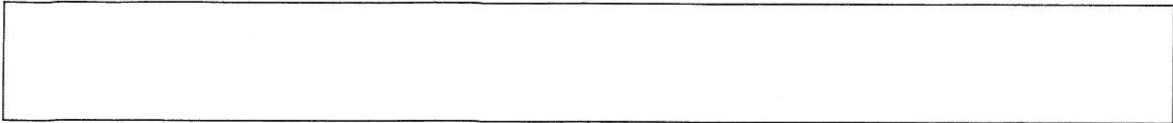
Yes

No

Bidder shall explain any exceptions to specification below:

<b>Meter Configuration – Meters to include the following configurations:</b>	
4 meters	Meter will have integral pump that is not detachable and is capable of sampling up to 75 feet, sensors included Oxygen\LEL\Carbon Monoxide\Hydrogen Sulfide and PID. Accessories shall include sample tubing with water trap and 110V charger.
4 meters	Meter will have integral pump that is not detachable and is capable of sampling up to 75 feet, sensors included Oxygen\LEL\Carbon Monoxide\Hydrogen Sulfide and Hydrogen Cyanide. Accessories shall include sample tubing with water trap and 110V charger.
6 meters	Meter will have integral pump that is not detachable and is capable of sampling up to 75 feet, sensors included Oxygen\LEL\Carbon Monoxide and Hydrogen Sulfide. Accessories shall include sample tubing with water trap and 110V charger.
4 meters	Meter shall be diffusion meter without integral pump. Sensors included Chlorine Gas. Accessories shall include 110V charger.
4 meters	Meter shall be diffusion meter without integral pump. Sensors included Ammonia Gas. Accessories shall include 110V charger.
2 meter	Meter shall be diffusion meter without integral pump. Sensors included Sulfur Dioxide Gas. Accessories shall include 110V charger.

<b>Bidder shall indicate compliance with meter configuration</b>	
Yes	No
Bidder shall explain any exceptions to specification below:	



<b>Meter Calibration Station</b>
Calibration station shall be constructed of high strength non-corrosive material with the ability to mounted on a desktop or wall.
Calibration station shall have a color touch screen display that shall be visible from the front. Display shall have adjustable brightness controls.
Calibration station shall have status indicators for the following: Indicator light shall indicate that test stand hardware and software are fully functional. Indicator light shall indicate that test stand is performing user- specified test or datalog download. Indicator light shall indicate that test stand is in error and cannot be used for gas detector testing. Indicator light shall indicate that last calibration or bump test failed. Indicator shall indicate that cylinder is completely functional and that gas parameters are within pressure and expiration date limits. Indicator shall indicate low calibration gas, or that gas is nearing its expiration date. Indicator light band shall indicate hardware problem with cylinder holder. Indicator shall indicate empty calibration gas cylinder, or that gas has expired. Indicator shall indicate that unit is charging. Indicator shall indicate that unit is fully charged.
Calibration station must be capable of operating without network, controller or computer.
Calibration station must have software available to proactively manage the gas detection program. Conditions such as exposure alarms, overdue testing and other system conditions can be monitored live. Reports can be generated and either printed or saved. System also can directly email end users of these conditions. Ethernet or USB connection will be the method to interface the calibration station to a PC computer..
Ethernet interfaces shall be provided to allow for connection and communication distribution between multiple test stands.
Calibration system must provide PC based software manage the gas detection program. Conditions such as exposure alarms, overdue testing and many other system conditions can be monitored live. Reports can be generated and either printed or saved. System also can directly email end users of these conditions. Ethernet connection must be established to transmit datalog data to PC Software
Calibration system must be capable of operating without network, controller or PC computer. Each test stand must have the ability to configure set points for meter alarm setpoints, datalogging setup and sensor configuration can be set via test stand user interface.
Calibration station must have the ability to serve as a charging station when calibration is not in process.
Calibration station cylinder control system shall provide RFID tag recognition of calibration gas cylinder, providing calibration gas part number, gases, concentrations, lot number, and expiration date. Cylinder control system shall also provide demand flow regulator with digital pressure interface, displaying pressure at test stand. Up to 4 cylinder control systems shall be able to interconnect within system.
Calibration system must have ability to print to printer connected directly to test stand and to print calibration stickers or bump/calibration receipts. Receipt format includes

embedded calibration sticker.
Calibration station to Instrument communications shall be non-intrusive using infrared link communications. Datalogs shall be downloaded from portable gas detectors and relayed via system test stand and an Ethernet connection. Test stand data such as overdue testing can be directly downloaded onto USB drive from the system test stand.
Calibration station shall provide data access via USB port on side of test stand for direct data access.
Calibration system must be capable of automatically drawing calibration gas from cylinder through demand flow regulator. Test stand shall provide capability to automatically test pump for flow and proper operation. Test stand shall provide capability to automatically test pump for flow and proper operation. Test stand shall provide capability to automatically determine if calibration gas cylinder is empty. System pump must have easily accessible replaceable filters for user replacement.
Calibration system must have electric power module input power requirements: 100 – 240 VAC, 47 – 63 Hz.
Calibration system shall have 2-year warranty on ALL components.

Bidder shall indicate compliance with <b>calibration system specifications</b>	
Yes	No
Bidder shall explain any exceptions to specification below:	

<b>Calibration System Configuration</b>	
2 systems (identical)	One calibration control station, 5 calibration holder\chargers linked to 3 bottle calibration gas cylinder configuration. Cylinder 1 – Multi-cal gas – LEL\Oxygen\CO\Hydrogen Sulfide Cylinder 2 – Hydrogen Cyanide Calibration Gas Cylinder 3 – Iso-Butylene Calibration Gas.
4 systems (identical)	One calibration control station, 2 calibration holder\chargers linked to 1 bottle of calibration gas. (Chlorine and Ammonia)
2 systems (identical)	One calibrations control station, 1 calibration holder\charger linked to one calibration cylinder. (Sulfur Dioxide)

Bidder shall indicate compliance with calibration system configuration	
Yes	No
Bidder shall explain any exceptions to specification below:	



<b>Bidder shall provide the following Calibration Gases</b>	
4 cylinders	58L 4 gas mix – LEL \ Oxygen \ CO \ Hydrogen sulfide
4 cylinders	100L iso-Butylene
4 cylinders	58L Hydrogen Cyanide
4 cylinders	35L chlorine
4 cylinders	34L ammonia
4 cylinders	34L Sulfur Dioxide

<b>Bidder shall indicate compliance with calibration gases</b>	
Yes	No
<p>Bidder shall explain any exceptions to specification below:</p>	

**Operational Training**

Bidder must provide must provide three (3) one day operational training sessions to be conducted in Summit County Ohio to technicians who will operate this equipment. One master (1) set of training materials will be provided to Summit County SORT to be able to conduct future refresher trainings.