

ITEM OPPORTUNITY SYNOPSIS

Scouting Number:	2024-244
Name of the item to be scouted:	Batch Microwave Digestors
State item to be used in:	Utah

Describe the Item:

<p>Please describe the item application/the end use of the item.</p>	<p>A microwave digestion system is used to digest samples submitted for metals analysis by numerous methods used by OSHA. The agency has been using microwave digestion systems for metals sample digestion for quite some time. Currently the OSHA has sequential systems that are capable of digesting smaller samples one at a time. The agency at this time is incapable of digesting multiple samples at once and is looking for the efficiency that this type of microwave digestion system would provide. These systems will be installed at the SLTC, and equipment brought into working order. Manufacturers will provide a 12-month warranty against defects in workmanship or material from the installation delivery date.</p>
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Supplier Information:

Type of Supplier Being Sought (select from the list below):	
Manufacturer	x
Contract Manufacturer	
Distributor	
Other (Please Specify)	
Reason for Scouting Submission (select from the list below)	
2nd Supplier	x
Price	
Re-Shore	
Past supplier no longer available	
New Product Startup	
BABA	
Other (Please Specify)	

Summary of Technical Specifications and Performance Requirements:

<p>Describe the manufacturing processes (elaborate to provide as much detail as possible)</p>	<p>Various</p>
<p>Provide dimensions / size / tolerances / performance specifications of the item</p>	<p>Parts and supplies needed to install two microwave digestion systems equivalent in form, fit, and function to CEM MARS 6. https://americanlaboratorytrading.com/lab-equipment-products/cem-mars-6-iwave-microwave-digestion-system-19407/ Support Requirements <ul style="list-style-type: none"> • Microwave Power: The system must have adjustable microwave power settings, ranging from 0 to 1800 watts or higher. • Capacity: The system should be capable of processing multiple samples simultaneously, with a minimum capacity of 12 digestion vessels. • Temperature Control: The system must offer precise temperature control, with a range up to 300°C and an accuracy of ±1°C. • Pressure Control: The system should feature robust pressure control mechanisms, with pressure limits up to 100 bar and an accuracy of ±0.5 bar. • Vessels: Digestion vessels must be made of high-quality, chemically resistant materials (e.g., TFM, PFA) and should be easy to clean and maintain. • Safety Features: The system must include safety features such as over-temperature protection, pressure relief mechanisms, door interlocks, and emergency shut-off. • Control System: An advanced digital control system with a user-friendly interface, programmable methods, and data logging capabilities is required. </p>
<p>List required materials needed to make the product, including materials of product components, if applicable</p>	<p>Various</p>
Are there applicable certification requirements?	
Yes	
No	x
Please explain:	

Are there any applicable regulations that apply to the production of this item?	
Yes	
No	x
Please explain:	
Are there any other standards / requirements?	
Yes	
No	x
Please explain:	
NAICS CODES:	
NAICS 1	541380 Testing Laboratories and Services
NAICS 2	
Additional Comments:	
Additional technical comments:	
Volume and Pricing:	
Estimated Potential Business Volume (i.e. #units per day, month, year):	The agency need is to secure two batch microwave digestion systems that will be able to digest multiple samples at once. This is a one-time purchase.
Estimated Target Price/Unit Cost Information:	\$90,000.00 - \$110,000.00 total for both units.
Delivery Requirements:	
When is it needed by? (Immediate, 30 days, 6 months, etc.)	End of 2024 - purchase to occur prior to September 30.
Describe packaging requirements (i.e. individually/group packaging, etc.)	Each
Where will this item be shipped?	Sandy, UT
Additional Comments:	
Is there other information you would like to include?	Federal Aviation Administration Point of Contact information for questions including BABA/Buy American compliance: Occupational Safety and Health Administration (OSHA) Tyler Erickson Erickson.tyler.j@dol.gov Please copy scouting@nist.gov on all correspondence.

Performance Work Statement (PWS)

Request to purchase two Microwave Digestion Systems

Performance Work Statement (PWS) Template Mar 2023

PART 1

General Information

1.1. Description of Services/Introduction:

Parts and supplies needed to install two batch acid digestion microwave systems. These systems will be installed at the SLTC, and equipment brought into working order. Manufacturers will provide a 12-month warranty against defects in workmanship or material from the installation delivery date. The parts and services will include all of the following listed in the table below.

1.2. Background:

The USDOL OSHA Salt Lake Technical Center (SLTC) is responsible for analyzing samples submitted by Compliance Safety and Health Officers (CSHOs) evaluating worker exposure to hazardous compounds. A microwave digestion system is used to digest samples submitted for metals analysis by numerous methods used by OSHA.

The SLTC has been using microwave digestion systems for metals sample digestion for quite some time. Currently the SLTC has sequential systems that are capable of digesting smaller samples one at a time. The SLTC at this time is incapable of digesting multiple samples at once and is looking for the efficiency that this type of microwave digestion system would provide.

1.3. Objectives:

- Obtain two microwave digestions systems capable of digesting multiple samples at once.
- Instrument must be able to digest small filter samples (<3 mL digestion volume) as well as large wipe and bulk samples.
- Instrument must be able to digest samples at a temperature of at least 215 °C.
- Must be able to integrate with LabWare (laboratory information management system or LIMS) to track microwave digestion events within the SLTC quality system.

1.4. Scope:

The contractor shall provide a batch microwave digestion system that will be able to digest multiple samples at once.

1.5. Period of Performance:

Delivery of equipment in operating condition within 12 weeks of contract award date to include a 12-month warranty effective the date of delivery.

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1.6. General Information

1.6.1. Quality Control:

N/A

1.6.2. Quality Assurance:

The government shall evaluate the contractor's performance under this contract in accordance with the Quality Assurance Surveillance Plan. This plan is primarily focused on what the Government must do to ensure that the contractor has performed in accordance with the performance standards. It defines how the performance standards will be applied, the frequency of surveillance, and the minimum acceptable defect rate(s).

1.6.3. Government Remedies:

The Contracting Officer shall follow FAR 52.212-4, "Contract Terms and Conditions-Commercial Items" or 52.246-4, "Inspection of Services-Fixed Price" for contractor's failure to perform satisfactory services or failure to correct non-conforming services.

1.6.4. Recognized Holidays:

The contractor is not required to perform service on the following federal holidays.

New Year's Day	Labor Day
Martin Luther King Jr.'s Birthday	Columbus Day
President's Day	Veteran's Day
Memorial Day	Thanksgiving Day
Juneteenth Day	Christmas Day
Independence Day	

1.6.5. Hours of Operation:

The contractor is responsible for conducting performance between the hours of 8:00 am to 4:30 pm Monday thru Friday, except Federal holidays or when the government facility is closed due to local or national emergencies, administrative closings, or similar government directed facility closings. The contractor must at all times maintain an adequate work force for the uninterrupted performance of all tasks defined within this statement of work when the government facility is not closed for the above reasons. When hiring personnel, the contractor shall keep in mind that the stability and continuity of the work force are essential. Telecommuting or "work at home" is not authorized under this contract action unless under emergency situations as determined by the Contracting Officer's Representative (COR).

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1.6.6. Place of Performance:

The work to be performed under this contract action will be performed at SLTC, 8660 S Sandy Pkwy Sandy, UT 84070

1.6.7. Type of Contract:

The government anticipates aware of a Firm Fixed Price Contract.

1.6.8. Security Requirements:

Contractors will be escorted to lab area by IHC personnel.

1.6.8.1. Physical Security.

The contractor shall be responsible for safeguarding all government property provided for contractor use. At the close of each work period, government facilities, equipment, and materials shall be secured.

1.6.8.2. Key Control.

N/A

1.6.8.2.1. Lost Keys

N/A

1.6.8.2.2. Key Use

N/A

1.6.8.3. Lock Combinations.

N/A

1.6.8.4. Conservation of Utilities.

N/A

1.6.9. Special Qualifications:

N/A

1.6.10. Post Award Conference/Periodic Progress Meetings:

N/A

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1.6.11. Contracting Officer's Representative:

A COR will be delegated after award.

1.6.12. Key Personnel:

N/A

1.6.13. Identification of Contractor Employees:

N/A

1.6.14. Organizational Conflict of Interest:

N/A

1.6.15. Phase In/Phase Out Period

N/A

Part 2

Definition & Acronyms

PWS. Performance Work Statement

Contracting Officer's Representative (COR). A representative from the requiring activity assigned by the Contracting Officer to perform surveillance and to act as liaison to the contractor

Defective Service. A service output that does not meet the standard of performance associated with it in the Performance Work Statement.

DOL. Department of Labor

Quality Assurance Surveillance Plan (QASP). An organized written document specifying the surveillance methodology to be used for surveillance of contractor performance.

Quality Control. Those actions taken by a contractor to control the performance of services so that they meet the requirements of the PWS.

Quality Assurance. Those actions taken by the government to assure services meet the requirements of the Performance Work Statement.

SLTC. Salt Lake Technical Center

LIMS. laboratory information management system. Software used to manage, track, archive, and report laboratory results.

OSHA. Occupational Health and Safety Administration

CSHO. Compliance Safety and Health Officer

Part 3

Government Furnished Property, Equipment, And Services

3.1 General:

The government will provide, the facilities, equipment, materials, and/or services listed below.

3.2 Equipment:

N/A

3.3 Services:

3.3.1 Utilities:

All utilities in the facility will be available for the contractor's use in performance of duties outlined in this PWS. The contractor shall instruct employees in utilities conservation practices. The contractor shall be responsible for operating under conditions that preclude the waste of utilities.

3.4 Facilities:

Onsite. The government will furnish all necessary workspace required for the contractor to support the effort(s) outlined in this PWS, to include desk space, telephones, computers and other items necessary to maintain an office environment.

Part 4

Contractor Furnished Items and Services

4.1 General:

Except for those items specifically stated to be government furnished in Part 3, the contractor shall furnish all other items required to perform the services in this PWS.

4.2 Clearance:

N/A

Part 5

Specific Tasks

5.1 Services:

The contractor shall provide a batch microwave digestion system.

Contractor shall ensure that the batch microwave digestion system will have the following specifications:

- 5.1.1a. Capability to perform a single run and apply all digestion method settings the same to each individual sample.
- 5.1.2a. Large vessels capable of digesting large wipe sampling media (large Whatman wipes, ghost wipes, etc.)
- 5.1.3a. Smaller vessels capable of digesting smaller filter samples.
- 5.1.4a. System will have the ability to have fumes evacuated to avoid potential exposure.
- 5.1.5a. System will have the capability to assign a different digestion method to each individual digestion batch.
- 5.1.6a. System will be able to control the temperature and pressure of each sample individually.
- 5.1.7a. System will be able to digest samples at temperatures of at least 215 °C.
- 5.1.8a. System will include 2 sets of each type of vessel to facilitate preparation of samples while digestion occurs on other samples.

Contractor shall ensure that following will be provided with the Microwave Digestion System for needed automation:

- 5.1.9a. System will be accompanied by an automated capper/decapper for ease of sample transfer.
- 5.1.10a. System will have a turntable capable of holding at least 40 vessels.

Part 6

Applicable Publications

6.1 Publications Applicable to This PWS:

N/A

Part 7

Technical Exhibit 1

1.1. Performance Requirements Summary

The contractor service requirements are summarized into performance objectives that relate directly to mission essential items. The performance threshold briefly describes the minimum acceptable levels of service required for each requirement. These thresholds are critical to mission success.

Performance Objective (The Service required—usually a shall statement)	Standard	Performance Threshold (This is the maximum error rate. It could possibly be “Zero deviation from standard”)	Method of Surveillance (and who performs) {e.g. 100% inspection by COR}
PRS #1. 5.1.1a Capability to perform a single run and apply all digestion method settings the same to each individual sample.	Capability to perform a single run and apply all digestion method settings the same to each individual sample.	Zero deviation from standard	100% inspection by IHC Chemist
PRS #2. 5.1.2a Large vessels capable of digesting large wipe sampling media (large Whatman wipes, ghost wipes, etc.)	Large vessels capable of digesting large wipe sampling media (large Whatman wipes, ghost wipes, etc.)	Zero deviation from standard	100% inspection by IHC Chemist
PRS #3. 5.1.3a Smaller vessels capable of digesting smaller filter samples.	Smaller vessels capable of digesting smaller filter samples.	Zero deviation from standard	100% inspection by IHC Chemist
PRS #4. 5.1.4a System will have the ability to have fumes evacuated to avoid potential exposure.	System will have the ability to have fumes evacuated to avoid potential exposure.	Zero deviation from standard	100% inspection by IHC Chemist
PRS #5. 5.1.5a System will have the capability to assign a different digestion method to each individual digestion batch.	System will have the capability to assign a different digestion method to each individual digestion batch.	Zero deviation from standard	100% inspection by IHC Chemist

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<p>PRS #6 5.1.6a System will be able to control the temperature and pressure of each sample individually.</p>	System will be able to control the temperature and pressure of each sample individually.	Zero deviation from standard	100% inspection by IHC Chemist
<p>PRS #7 5.1.7a System will be able to digest samples at temperatures of at least 215 °C.</p>	System will be able to digest samples at temperatures of at least 215 °C.	Zero deviation from standard	100% inspection by IHC Chemist
<p>PRS #8 5.1.8a System will include 2 sets of each type of vessel to facilitate preparation of samples while digestion occurs on other samples</p>	System will include 2 sets of each type of vessel to facilitate preparation of samples while digestion occurs on other samples.	Zero deviation from standard	100% inspection by IHC Chemist
<p>PRS #9 5.1.9a System will be accompanied by an automated capper/decapper for ease of sample transfer.</p>	System will be accompanied by an automated capper/decapper for ease of sample transfer.	Zero deviation from standard	100% inspection by IHC Chemist
<p>PRS #10 5.1.10a System will have a turntable capable of holding at least 40 samples</p>	System will have a turntable capable of holding at least 40 samples.	Zero deviation from the standard	100% inspection by IHC Chemist