MEPNN Supplier Scouting Opportunity Synopsis

Item Information

Scouting Number	2023-072
Item to be Scouted	Glass Filters and Quartz Filters used for Air Monitoring
Days to be scouted	10
Description	The filters are used as sampling media for the collection of airborne lead and total metals. The glass fiber filters are used with a Total Suspended Particulate (TSP) sampler to be analyzed for lead (Pb) content for use in the national Pb monitoring network. The quartz filters are used in a sampler containing a size selective inlet (SSI) to collect PM-10 (particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers) samples and analyzed for target metals in the National Air Toxics Trends Sites (NATTS) network.
State item to be used in	North Carolina

Contact Information

Email	AnthonyHarris.Jazmine@epa.gov
First Name	Jazmine
Last Name	Anthony-Harris
Department / Company / MEP Center	Environmental Protection Agency
Bureau / Division / MEP Center Regional Office	Office of Air and Radiation (OAR)

Supplier Information

Type of supplier being sought	Manufacturer
Reason	Other
Details	Global Life Sciences Solutions USA LLC (Cytiva) is the only known company that can do this requirement, but their manufacturing plant is in China.

Summary of technical specifications and performance requirements

Describe the manufacturing processes (elaborate to provide as much detail as possible)	FIlters are cut from sheets of product made from the same lot of material and then each individual filter is stamped with a unique alphanumeric number. It is imperative that the filters be manufactured from the same lot of materials for quality assurance testing purposes and to meet the requirements dictated in the Code of Federal Regulations (CFR), more specifically 40 CFR Part 50 Appendices B and the NATTS technical assistance document and specified in the statement of work. The filters usually take several months to manufacture and test to verify quality and usability before they can even be shipped out to all the air monitoring agencies throughout the United States.
Provide dimensions / size / tolerances / performance specifications for the item	Glass fiber and quartz fiber sheets in 8 x 10 inch rectangles.
List required materials needed to make the product, including materials of product components	Glass fiber and quartz fiber sheets that will be cut into 8 x 10 inch rectangles and stamped with an alphanumeric code.
Are there applicable certification requirements?	Yes

Details	Compliant with 40 CFR Part 50 Appendix B and the National Air Toxics Trends Stations network Technical Assistance Document for filter media, as well as meet the requirements in EPA's Statement of Work.
Are there applicable regulations?	Yes
Details	Must be compliant with 40 Code of Federal Regulations Part 50 Appendix B and the National Air Toxics Trends Stations (NATTS) network Technical Assistance Document as described below and Characteristic Test/Analysis Method Maximum Minimum Length, Width Ruler, Graduated to 1/16" 8"+1/16" 10"+1/16" Thickness ASTM D645-97 (2010) 0.60 mm 0.30 mm Brittleness Brittleness Test for Fiber Filters No crack larger than one inch ------- Tensile Strength ASTM 828-16 None 500 gf/20mm Flow Rate EPA Flow Rate Acceptance Test 1.80 m3/min 1.34 m3/min Retention ASTM Method D2986-99 None 99.95% Visual ASTM D828-93 Visual Inspection Test Procedure a. Defect Filters 20% none b. Reject Filters 5% none
Additional Technical Comments	It is imperative that the filters be manufactured from the same lot of materials for quality assurance testing purposes. The filters usually take between two and three months to manufacture and another two to three months to run through acceptance testing to verify quality and usability. The EPA also requires that the manufacturer have the ability to number each filter, for example starting with G3,000,001 for Glass filters and Q3,000,001 for Quartz filters. The "3" after the G or Q represents the year the filter was manufactured so the user knows the age of the filter. For example in 2024, the glass filters would start with G4,000,001 and the quartz filters would start with Q4,000,001.

Volume and Pricing

Estimated potential business volume	The Environmental Protection Agency usually places one large order per year for the filters. Annual ordering quantities vary depending on need from air monitoring agencies throughout the regions. For this purchase, the EPA is looking to purchase 15,990 individual glass filters and 7930 individual quartz filters with an option year to purchase similar quantities, as the total for both the base and option year falls under the 250K SAP thresh-hold.
Estimated target price / unit cost information (if unavailable explain)	Based on previous year pricing with added cost for inflation / escalation, the EPA estimates the glass filters will cost approximately $3.06 each and the Quartz filters will cost approximately $6.00 each.

Delivery Requirements

When is it needed by?	Immediately to ensure national air monitoring for these pollutants doesn't have a break in service.
Describe packaging requirements	Typical packaging is 65 filters to a box.

Where will this item be shipped?	The filters will be shipped to the EPA's warehouse located in Research Triangle Park in Durham, North Carolina.

Additional Comments

Is there other information you would like to include?	While a NAICS Code search may initially produce many manufactures & distributors of various types of filters, Global Life Sciences Solutions USA LLC (also known as Cytiva) is the only known company that can manufacture these particular filters for air monitoring to meet the required specifications of the Environmental Protection Agency. While the company is based in the United States, they have a manufacturing plant in China where they manufacture the filters before shipping them to the U.S. When these filters were competed last year in 2022, only two companies bid on the requirement. The two companies were Global Life Sciences Solutions USA LLC and the other was Government Science Source, who buys their filters from Global Life Sciences Solutions USA LLC and then resells them. In 2021, EPA received one quote which was from Global Life Sciences Solutions USA LLC.

SIMPLIFIED MARKET RESEARCH REPORT
[June 29, 2023]

Description of Requirement

Title of Acquisition:	**Glass & Quartz Filters**
Basic Description of Required Supplies or Services:	
The U.S. Environmental Protection Agency (EPA), Research Triangle Park, North Carolina is responsible for procuring, testing, and distributing filters of high purity to the state/local air pollution control agencies. The **glass fiber** filters are used with a Total Suspended Particulate (TSP) sampler to be analyzed for lead (Pb) content for use in the national Pb monitoring network. The **quartz** filters are used in a sampler containing a size selective inlet (SSI) to collect PM-10 (particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers) samples and analyzed for target metals in the National Air Toxics Trends Sites (NATTS) network. EPA obtains the filters each year from a vendor and has them shipped to a contractor for acceptance testing. The acceptance testing process is intended to assure filters with uniform characteristics and known quality assurance testing will be used in the national particulate networks. The filters for a specific year must be made from the same lot of raw materials for distribution to the States. If the acceptance testing confirms that the filters meet EPA's specifications for physical and chemical properties, the EPA distributes the glass filters to the state/local air pollution control agencies.	
This acquisition is primarily for *(supplies or services)*:	Supplies
The estimated dollar amount for this acquisition is *($)*:	Base Yr: $102,510 / Opt Yr: $112,065 Total for Base + Option = $214,575
The NAICS code for this acquisition is *(search here):*	334516 Analytical Laboratory Instrument Manufacturing
The PSC code for this acquisition is *(search here):*	B510

Conducting Market Research

In accordance with FAR Part 10, market research has been conducted for this acquisition. The following techniques were used. *(Check all that apply. Include notes and additional documentation as necessary.):*

X	***Market Research Techniques (FAR 10.002)***
X	Requisitioner's personal knowledge of this type of supplies/services.
X	Contracting Officer's personal knowledge in procuring this type of supplies/services.
X	Discussing with knowledgeable individuals in Government.
X	Discussing with knowledgeable individuals in industry.
X	Using historical information such as reviewing market research done for similar acquisitions.
	Publishing a formal request for information (RFI).
	Publishing a formal sources sought notice.
X	Conducting a presolicitation conference or other information exchange meeting with industry.
	Participating in interactive online communications such as forums, blogs, webinars, etc.
	Obtaining vendor lists from other offices, other agencies, or other sources.
X	Reviewing supply/service information online, in catalog, or other published literature.
Notes:	

The Glass & Quartz filters themselves could be considered as an off the shelf commercial item, however the orders that the EPA places are made specifically for the EPA because the order quantities are usually large and all filters under each order have to be manufactured from the exact same lot of materials, so that when the filters are pulled at random for quality assurance testing, the results of the quality reflect the entire lot. The individual filters also have to be numbered. Therefore, when EPA places an order, it takes the contractor several months to manufacture the order.

While a NAICS Code search may initially produce many manufactures & distributors of various types of filters, Global Life Sciences Solutions USA LLC (also known as Cytiva) is the only known company that can manufacture these particular filters for the EPA's air monitoring networks to meet the required specifications of the Environmental Protection Agency as well as maintain compliance with the Code of Federal Regulations (CFR), more specifically 40 CFR Part 50 Appendix B for filter media. While the company is based in the United States, they have a manufacturing plant in China where they manufacture the filters before shipping them to the EPA's warehouse in Durham, North Carolina.

When these filters were competed last year in 2022, only two companies bid on the requirement. The two companies were Global Life Sciences Solutions USA LLC and the other was Government Science Source, who buys their filters from Global Life Sciences Solutions USA LLC and then resells them. The 2021 SAP order done for this requirement, Order# 68HERH21P0121, was also awarded to Global Life Sciences Solutions USA LLC on 6/1/2021 by CS Samuel Gavin / CO William Tichacek. That RFQ # was 68HER21Q0054. The order before that was issued to Global Life Sciences Solutions USA LLC on April 24th 2020 as a 1 year Simplified Acquisition, GS-07F-0575X/ Order# 68HERH20F0231. Before that, there was a 5 year contract, EP-D-14-005 that also was awarded to GE Healthcare which was their name at the time, now called Global Life Sciences Solutions USA LLC, also known as Cytiva.

The program quality assurance lead was consulted as well to determine if any other vendors exist to supply these filters. The technical lead has been involved in the oversight and implementation of the Pb and NATTS monitoring programs for over 20 years and was not aware of any other vendors for these filters. He routinely attends conferences for these programs which includes meeting with vendors that support and would like to support the networks. He indicated that the filter vendors are getting more scarce due to the advent of continuous sampling devices that are moving away from the filter based methods and that these filters are becoming more of a niche market.

It is important to note that Global Life Sciences Solutions USA LLC (also known as Cytiva) is the only known contractor that offers these filters that meet the EPA's specifications for air monitoring and maintain compliance with the Code of Federal Regulations, more specifically 40 CFR Part 50 Appendix B for filter media. While the company is based in the United States, they manufacture the filters at a plant in China. Processes / Procedures under the Buy American Act will need to be reviewed before award can be made.

Incumbent is:
Global Life Sciences Solutions USA LLC (also called Cytiva)
100 Results Way
Marlborough, MA 01752

Contacts are:
Keith Doran / (843)666-2534 / keith.doran@cytiva.com
Richard Holden / 508-449-3573 / richard.b.holden@cytiva.com

Mandatory and Optional Sources / Contract Vehicles

The following mandatory and optional sources were reviewed as possible sources to fulfil this requirement. The Contracting Officer will make the final acquisition strategy decision prior to solicitation. *(Check all that apply. Include notes and additional documentation as necessary.):*

X	***Mandatory Sources (FAR 8.002)***	X	***Optional Sources (FAR 8.004)***
X	EPA Strategic Sourcing Vehicles *(First)*	X	GSA Federal Supply Schedules
X	GSAXcess	X	GSA Federal Strategic Sourcing Initiative
X	Federal Prison Industries, Inc. (UNICOR)	X	Interagency Contract Directory
X	AbilityOne Program	X	GWAC (GSA, SEWP, NITAAC)
X	EPA Recovered Materials Products	X	Other EPA Contract (Active Contract List)
X	USDA Biobased Products		Other EPA Contract (FPDS-NG search)
	Other:		Other:
	Other Mandatory Sources: utilities, printing, leasing vehicles, strategic materials, helium		
Notes:			
Incumbent is: **Global Life Sciences Solutions USA LLC** **100 Results Way** **Marlborough, MA 01752** Contacts are: Keith Doran / (843)666-2534 / keith.doran@cytiva.com Richard Holden / 508-449-3573 / richard.b.holden@cytiva.com			

A search was done on the GSA Federal Strategic Sourcing Initiative site and was found that this requirement of Glass & Quartz Filters does not fall under any of the categories of work offered which include Building Maintenance and Operations, Maintenance Repair Facility Supplies, Maintenance, Repair and Operations, Wireless FSSI, and Office Supplies.

This work in this requirement does not fall under the services offered by GSAXcess which deals in Federal Property.

The work in this requirement does not fall under the services offered by EPA Recovered Materials Products.

The work in this requirement does not fall under the services offered by USDA Biobased Products.

A search was done on the UNICOR site and it was determined that none of the services offered were capable of fulfilling this requirement, including Computer Aided Design, Data Services, Distribution, Warehousing and Logistics, Electronics Recycling, Inbound/Outbound Call Center Solutions, Printing & Binary Services, Range Solutions, and Vehicle Upfit, Remanufacturing, and Fleet Services).

After a search was conducted on GSA Advantage, no applicable services were found to match the work for this requirement.

A search was done on the GSA GWAC site, and it was determined that none were found to be capable to carry out this requirement:
8(a) STARS II - none were deemed capable.
VETS 2 - none were deemed capable.
Alliant 2 (A2) & Alliant 2 Small Business (A2SB) GWACs only supply hardware and software services.

Contracting Officer Determinations

As a result of market research, the Contracting Officer has made the following determinations required by FAR Part 10. *(Check as appropriate. Include notes and additional documentation as necessary.):*

1. *Commercial Items (FAR 12)*	
	Commercial Item – Supplies/services customarily available in the commercial marketplace.
	Modified Commercial Item – Supplies/services customarily available but with minor modifications.
	Noncommercial Item – Supplies/services used exclusively for governmental purposes.
	By checking commercial item or modified commercial item above, the Contracting Officer has determined that standard commercial practices of firms engaged in producing, distributing, and supporting this supply or service (such as type of contract, terms for warranties, buyer financing, maintenance and packaging, and marking) are acceptable to the Government for this requirement.
2. *Sustainability (FAR 23)*	
	This requirement can be acquired as energy-efficient (e.g., ENERGY STAR® or FEMP-designated).
	This requirement can be acquired as water-efficient.
	This requirement can be acquired as biobased.
	This requirement can be acquired as environmentally preferable (e.g., EPEAT, non-toxic).
	This requirement can be acquired as non-ozone depleting.
	This requirement can be acquired as made with recovered materials.
	This requirement cannot be acquired with any sustainable attributes.
3. *Bundling (FAR 7.107)*	
	This is not a bundled requirement.
	This is a bundled requirement. Bundling is necessary and justified *(see FAR 19.202-1)*.
4. *E&IT Accessibility (FAR 39.2)*	
	This E&IT requirement can meet all federal accessibility requirements.
	This E&IT requirement cannot meet one or more federal accessibility requirements.
	There is an exception to accessibility requirements for this E&IT requirement *(see FAR 39.204)*.
	This acquisition includes no E&IT.
Notes:	
Potential Sources: Global Life Sciences Solutions USA LLC / aka Cytiva Contacts are: Keith Doran / (843)666-2534 / keith.doran@cytiva.com Richard Holden / 508-449-3573 / richard.b.holden@cytiva.com	

Potential Sources

	Size	Socio-Economic Status

The following sources may be capable of fulfilling this requirement. (*List potential sources and identify their size and socio-economic status. Provide notes and additional documentation if necessary.)*		Large	Small	8(a)	SDB	HUBZone	SDVOSB	WOSB	EDWOSB
Contractor	**DUNS**								
Global Life Sciences Solutions USA LLC / also called Cytiva	011658242	X							
Notes:									

Other Market Research Efforts

The following additional market research efforts were conducted for this requirement. *(Describe in notes and provide additional documentation as necessary.)*

Notes:
The program quality assurance lead was consulted as well to determine if any other vendors exist to supply these filters. The technical lead has been involved in the oversight and implementation of the Pb and NATTS monitoring programs for over 20 years and was not aware of any other vendors for these filters. He routinely attends conferences for these programs which includes meeting with vendors that support and would like to support the networks. He indicated that the filter vendors are getting more scarce due to the advent of continuous sampling devices that are moving away from the filter based methods and that these filters are becoming more of a niche market. While a NAICS Code search may initially produce many manufactures & distributors of various types of filters, Global Life Sciences Solutions USA LLC (also known as Cytiva) is the only known company that can manufacture these particular filters for air monitoring to meet the required specifications of the Environmental Protection Agency and maintain compliance with the Code of Federal Regulations, more specifically 40 CFR Part 50 Appendix B for filter media.

STATEMENT OF WORK
Glass & Quartz Filters
5/11/2023

I. Introduction

The U.S. Environmental Protection Agency (EPA), Research Triangle Park, North Carolina is responsible for procuring, testing, and distributing filters of high purity to the state/local air pollution control agencies. The glass fiber filters are used with a Total Suspended Particulate (TSP) sampler. The quartz filters are used with a size selective sampler (SSI) to collect PM-10 (particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers) samples.

EPA obtains the filters each year from a contractor and has them shipped to EPA for acceptance testing. The acceptance testing process is intended to assure filters with uniform characteristics and known quality assurance testing will be used in the national particulate networks. The filters for a specific year must be made from the same lot of raw materials for distribution to the States. If the acceptance testing confirms that the filters meet EPA's specifications for physical and chemical properties, the EPA distributes the filters to the state/local air pollution control agencies.

It is important that all filters of the same type from the same delivery contain a uniform level of impurities. Therefore, the contractor shall **manufacture all filters for a delivery from the same sheet material using a single production line and one production run**.

The below quantity of **Glass Fiber** filters shall be numbered consecutively as follows:

Qty	Manufactured Year	Use in Year	Beginning Number
15,990	CY-2023	CY-2024	G3,000,001

The below quantity of **Quartz** filters shall be numbered consecutively as follows:

Qty	Manufactured Year	Use in Year	Beginning Number
7,930	CY-2023	CY-2024	Q3,000,001

Should there be an option year(s) on the contract, contractor shall use the beginning number of the following manufacturing year, (e.g., for Manufactured Year 2024, filter numbers would begin with G4 & Q4).

II. GLASS AND QUARTZ FILTER SPECIFICATIONS:

Each individual box/pack of filters shall have an 8" X 10" piece of non-contaminating (non-contaminating is defined as not causing adjacent filters to fail to meet the specifications) cardboard on the top and bottom of each individual box. The individual boxes shall be consecutively numbered, having the same reel number, roll number, and chemical and/or firing batch number. Each individual box of filters shall be labeled on two opposite sides along with

the range, (for example G-1,000,001 – G-1,000,060) of individual consecutive filter numbers contained therein. The individual boxes shall be sealed in a clear, heat-shrink plastic covering.

Each shipping container shall contain not more than 28 individual boxes. The exterior of each shipping container shall be marked with the shipping container number and the consecutive filter numbers contained therein (i.e., Box 1 [G-1,000,001 thru G-1,002,080]).

Both the glass fiber filters and quartz filters shall be numbered in permanent black ink with numbers approximately 1/4 inch high on the smooth (or screen) side and along the 8 inch edge. The numbers shall not extend beyond a distance of 2 inch from the edge of the filter.

The filters must meet the chemical and physical properties described below or EPA will reserve the right to reject them. An EPA contractor will test representative samples of the filters from each delivery to ensure that they meet the chemical and physical requirements noted below as applicable. The Contractor shall use the following test methods to check the filters:

! ASTM D645-97 - Thickness of Paper and Paperboard

! Brittleness Test for Hi-Volume Glass Fiber Filters

! ASTM 828-16 – Tensile Properties of Paper and Paperboard

! EMSL/EPA/RTP Hi Vol Filter Flow Rate Acceptance Test for Quartz Filters for the SSI Samplers

! ASTM Method D2986-99 - Retention

! ASTM D828-93 Visual Inspection Test for Glass Fiber and Quartz Filters

! Reference Method for the Determination of Lead in Suspended Particulate Matter Collected from Ambient Air (40 CFR, Part 50, Appendix G), or equivalent

The EPA shall notify the contractor of its decision to accept or reject the filters within 75 days after receipt of an order.

III. Chemical and Physical Characteristics for Glass Fiber Filters

A. Physical Properties

Five hundred twenty five (525) filters from each batch of **Glass fiber filters**, where a batch is defined as the filters to be used in one calendar year, shall be selected for acceptance testing by the physical and chemical test described below. All filters shall be subjected to the visual inspection tests and then a certain quantity (specified in the chart below) shall be subjected to the other tests described below.

			All Filters Must Meet the Following Dimensions	
Characteristic	No. of Filters	Test/Analysis Method (Reference #)	Maximum	Minimum
Length, Width	50	Ruler, Graduated to 1/16" divisions, or suitable template	8"+1/16" 10"+1/16"	8"-1/16" 10"-1/16"
Thickness	75	ASTM D645-97 (reapproved 2010)	0.60 mm	0.30 mm
Brittleness	50	Brittleness Test for Fiber Filters	No crack larger than one inch	
Tensile Strength	75	ASTM 828-16	None	500 gf/20mm
Flow Rate	75	EPA Flow Rate Acceptance Test	1.80 m^3/min	1.34 m^3/min
Retention	50	ASTM Method D2986-99	None	99.95%
Visual	525	ASTM D828-93 Visual Inspection Test Procedure a. Defect Filters b. Reject Filters	 20% 5%	 None None

B. Chemical Properties:
Lead Content. No filter from a total of 50 filters shall contain more than 15 micrograms of lead when the filter is analyzed as per the EPA Reference Test Method for Lead 40 CFR 50.

IV. Chemical and Physical Characteristics for Quartz Fiber Filters

A. Physical Properties
Four hundred seventy five (475) filters from each batch of **Quartz fiber filters**, where a batch is defined as the filters to be used in one calendar year, shall be selected for acceptance testing by the physical and chemical tests described below. All filters shall be subjected to the visual inspection test and then a certain quantity (specified in the chart below) shall be subject to the other tests described below.

			All Filters Must Meet the Following Dimensions	
Characteristic	No. of Filters	Test/Analysis Method (Reference Number)	Maximum	Minimum
Length, Width	50	Ruler, Graduated to 1/16" divisions, or suitable template	8"+1/16" 10"+1/16"	8"-1/16" 10"-1/16"
Thickness	75	ASTM D645-97 (reapproved 2010)	0.60 mm	0.30 mm
Brittleness	50	Brittleness Test for Fiber Filters	No crack larger than one inch	
Tensile Strength	75	ASTM 828-16	None	200 gf/20mm
Flow Rate	75	EPA Flow Rate Acceptance Test	1.80 m^3/min	1.34 m^3/min
Retention	50	ASTM Method D2986-99	None	99.95%
Visual	475	ASTM D828-93 Visual Inspection Test Procedure a. Defect Filters b. Reject Filters	 20% 5%	 None None

B. Chemical Properties

Lead Content. No filter from a total of 50 filters shall contain more than 15 micrograms of lead when the filter is analyzed as per the EPA Reference Test Method for Lead 40 CFR 50.

V. Shipping & Payment Terms

A. Shipping

The contractor shall notify the Contracting Officer Representative via email when filters are about to ship, so filters may be tracked to the EPA warehouse.

Filters shall be delivered to the EPA Warehouse at the below address:
4930 Old Page Rd
Durham, NC 27703

The Warehouse Phone # is 919-541-2168, as the contractor may want to call to notify the warehouse of the expected delivery date of the shipment.

If filters are coming from overseas, EPA may prefer filters be shipped via Air Freight, after the contractor notifies the Contracting Officer Representative of the Air Freight cost.

B. Payment Terms

The contractor shall receive 50% payment of the total invoice upon delivery of the filters to the EPA warehouse. The filters will then undergo filter acceptance testing which generally takes approximately 75 days. Once filters receive a pass rating from the filter acceptance testing that they will undergo, the contractor shall be paid the remaining 50% of the invoice for that order of filters. Therefore, **the contractor shall submit two separate invoices, each for 50% of the total order, and not one invoice for the total amount, otherwise it will be rejected, as EPA's invoice system does now allow partial payments of invoices**. An equitable adjustment will be applied to all filters that exceed the defect and/or reject maximum.

Equitable Adjustment for Filters over the Acceptable Defect/Reject

Filters must meet the chemical and physical properties described above. An equitable adjust will be applied to all filters that exceed the defect and/or reject maximum. The adjustment will be applied as follows: # of filters X % over the allowable defect/reject maximum = _X price per each filter X 33% assumed scrap rate by the states = total equitable adjustment.