ITEM OPPORTUNITY SYNOPSIS

Scouting Number:	2024-208
Name of the item to be scouted:	Dust Layer Ignition Temperature Tester
State item to be used in:	Utah
Describe the Item:	
Please describe the item application/the end use of the item.	A Dust Layer Ignition Temperature Tester is a device that determines the auto ignition temperature of a layer of dust.
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:	
Describe the manufacturing processes (elaborate to provide as much detail as possible)	A Dust Layer Ignition Temperature Tester is a device that determines the auto ignition temperature of a layer of dust. A sample of dust of known thickness, is placed on hotplate. The sample is normally kept in a ring mold to maintain even thickness. The sample is slowly heated until the sample auto ignites. The instrument then records a graph of the test, the auto ignition temperature, and stores that date so it can be sent to the laboratory's LIMS system (Laboratory Information Management System).
Provide dimensions / size / tolerances / performance specifications of the item	A dust layer ignition temperature tester is used to determine the minimum temperature of a hot surface leading to either a thermal degradation or an ignition of a dust layer. Features needed include. • Hotplate with a non-corrosive abrasion-resistant surface. • Instrument case and housing to be non-corrosive abrasion resistant. • A stainless steel or other non-corrosive abrasion-resistant material, ring used as a sample holder. • A hot surface working temperature with a minimum maximum working range of 450°C. • Stable temperature condition of +/- 2°C. • The ability to interface with a computer (PC) for recording, analyzing, and archiving of test data. • An operational manual in English required.
List required materials needed to make the product, including materials of product components, if applicable	Non-corrosive abrasion resistant hot plate surface
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	541690 Other Scientific and Technical Consulting Services
NAICS 2	

Additional Comments:	
Additional technical comments:	
Volume and Pricing:	
Estimated Potential Business Volume (i.e. #units per day, month, year):	500 samples per year
Estimated Target Price/Unit Cost Information:	$40,000.00 - $50,000.00
Delivery Requirements:	
When is it needed by? (Immediate, 30 days, 6 months, etc.)	By end of 2024
Describe packaging requirements (i.e. individually/group packaging, etc.)	Standard package shipping
Where will this item be shipped?	Sandy, Utah
Additional Comments:	
Is there other information you would like to include?	The following company supply boiling/melting point testers of the type and quality that is needed. This is supplied for reference and guidance. https://www.ozm.cz/hazardous-materials-testing-instruments/dust-layer-ignition-temperature-tester-lit400/

PRODUCT SPECIFICATIONS
FOR THE PURCHASE OF A DUST LAYER IGNITION TESTER

1.0 Scope.

The contractor shall provide a dust layer ignition tester that will be used in the auto-ignition temperature of dusts in order to classify or not classify the dust as safety hazard as defined by OSHA CFR 1910.307 (Hazardous (classified) locations.).

2.0 Overview.

In the 1980's OSHA in conjunction with the National Material Advisory Board (NMAB) studied and issues instructions on how to determine if a combustible dust should be classified as an electrical hazard or electrical equipment could be an ignition source for combustible dusts. One of the suggested tests is a layered ignition temperature test, which determines a what temperature a layer of dust will auto-ignite. This test was adopted by OSHA and other outside safety groups, ASTM, NFPA and others. This testing fell out of standard use in favor of other more rapid tests by OSHA to determine if a dust was an electrical hazard, the testing was done infrequently over the last 20 years.

The layered ignition temperature test is being relooked at as a tool to be used to classify combustible dusts as defined in the OSHA standard found in CFR 1910.307 (Hazardous (classified) locations.). The current layered ignition temperature tester is no longer functional, being over 30 years old. A replacement device is needed.
A search of the internet showed no manufacture of a layered ignition temperature tester in the U.S. One was found in Europe and possibly one in China. A quote was obtained for the unit made in Europe, but no information could be found for the one in China. The unit from Europe has a vendor in the U.S. that sells the tester. Other companies may be out there, but our research did not locate any.

3.0 Requirements.

Obtain an instrument capable of performing a dust layer ignition analysis.

- Instrument must be able to operate in the needed temperature range with a minimum maximum temperature of 450° C.
- Instrument needs to be able to communicate with a computer (PC) with the ability to transfer the test results to the LIMS system? This will improve laboratory turnaround time for sample results, reduces human error, and improve communicate data with field offices.

Support Requirements

- Shall offer calibration and software support, including ability to purchase.
- Shall offer product manual.

- The equipment manufacturer shall make replacement components available to OTC for purchase to perform maintenance, and repair of equipment. including, any specialized tools or jigs needed to perform such repairs.
- The equipment manufacturer shall provide training and documentation in support of CTC's efforts to perform in house setup, calibration, and repair of purchased equipment. Training may be conducted in person or virtually. Any specialized training, parts, or equipment required to perform calibration or repair of components identified as a required repair component shall be offered.

Once the equipment is received at OTC and verified, if a problem exists with the equipment the vendor will issue a return authorization and pay to have the supplies shipped back to the vendor. The supplies will be repaired or replaced (at the discretion of the vendor) free of charge under warranty.

4.0 Delivery.

Products will be delivered 22 weeks after award. Supplier is responsible for the shipping costs.

5.0 Delivery Location

OSHA Technical Center
8660 S Sandy Pkwy
Sandy, UT 84070