



SOLE SOURCE CERTIFICATE AND POSTING NOTICE

(Greater than \$150,000)

A sole source procurement is when you make a request to purchase product(s) and/or service(s) without competition when competition is otherwise required. This means that product/service is unique and that the supplier is the only supplier that can provide the product or service. In accordance with the authority granted under applicable Florida law and UCF Regulation 7.130, the following documentation is submitted in support of this request.

The purchase requisition can be entered into Workday at any point during the process set forth herein; however, doing so does not ensure approval of the sole source.

The completed sole source must be approved in the following order. **Please be sure to obtain all required signatures before submitting the form to Procurement Services.**

- PI/Researcher/Director/Chair
- President/Vice President/Dean
- Procurement Specialist
- Procurement Services Manager or Associate Director
- Assistant Vice President for Tax, Payables & Procurement, who will review and provide a recommendation to approve or disapprove the sole source to:
- Chief Financial Officer, who will either directly approve or disapprove the sole source, or forward it to the Provost and Executive Vice President for goods/services related to academia for input prior to making the final decision.

Contingent upon the approval of all the officers/individuals listed, the sole source shall be posted on the UCF Procurement Services website for seventy-two (72) hours. Upon expiration of said posting period, Procurement Services will process a purchase order upon receipt of the requisition.

Once the completed sole source is received, Procurement Services reviews the documentation provided and determines whether the sole source is valid or if there are additional suppliers that may be able to provide the requested product or service. The sole source review and approval process varies based on the nature of the product/service being requested and the information provided in the requestor's justification, among other factors, so please keep this in mind when submitting the form.

The usual bidding process shall be conducted if sole source approval is not granted.

PART I: DEPARTMENT AND SUPPLIER INFORMATION

Department Name: Florida Space Institute Contact & Phone: Mildred Rodriguez-Solivan (407) 823-6397

Purchase Request No.: n/a Product/Service Cost: 190000

☒ One Time Purchase ☐ Term Contract: _____

☐ Multiple Purchases ☐ Duration: _____

Company Name: Powder Technology Inc Email: P: 952-894-8737

Contact Person: Jeffrey Barrows Title: VP

Product and/or Service: Service: Hammer milling basalt and mixing with anorthosite

PART II: SOLE SOURCE JUSTIFICATION (see pages 4-5)

Only justifications submitted on this form and in the below format will be reviewed for approval. All of the listed points MUST be fully answered on the following pages and any additional attached pages as needed. Failure to submit justification as outlined in the format below will result in the form being returned without review.

PART III: SOLE SOURCE CERTIFICATIONS

- A. In my professional opinion, this is the only product or service that can reasonably meet my requirement(s)/specification(s), and this is the only supplier who can provide the product or service. I further certify that the information contained herein is true and correct to the best of my knowledge and belief and would withstand any audit or supplier protest.
- B. I, the undersigned, certify that I and/or the user do not have a financial interest in the above named supplier or contractor, and that I am unaware of any conflict of interest related to this purchase.

Julie Brisset
Digitally signed by Julie Brisset
Date: 2023.11.13 12:19:27 -05'00'

Signature**Julie Brisset FSI Director****Printed Name and Title (PI/Researcher/Director/Chair)****11/13/2023****Date**


Digitally signed by Winston V. Schoenfeld
Date: 2023.11.20 10:25:10 -05'00'

Signature**Dr. Winston V. Schoenfeld, VP for Research & Innovation****Printed Name and Title (President/Vice President/Dean)**

(Delegations not allowed; emails from absent approvers are acceptable)

11/20/23**Date**

I, the undersigned, hereby concur with the above justification and support a sole source approval for the above product(s) and/or service(s). Approvals may be documented and supported via email.

See below email for approval**Signature****Printed Name and Title (Procurement Specialist)****Date**See below email for approval**Signature****Printed Name and Title
(Procurement Services Manager or Associate Director)****Date**See below email for approval**Signature****Printed Name and Title
(Asst. Vice President for Tax, Payables & Procurement)****Date**

See below email for approval

Signature

Printed Name and Title (Chief Financial Officer)

Date

POSTING NOTICE

12/6/2023 1:00pm EST

Date/Time Posted

12/11/2023

Posting End Date

2403

UCF Control No.

Trinh Nguyen

Procurement Specialist

SOLE SOURCE JUSTIFICATION

Please answer the questions below and attach additional documentation if needed.

1. Describe the product(s) and/or service(s) and anticipated use thereof in layman's language.

Powder Technology Inc. (PTI) will be impact crushing (specifically hammermilling) basalt specifically selected for use by NASA into a distribution nominally 1/16" minus. That basalt will then be homogenously mixed with Anorthosite, also specifically selected, of 2 particle size distributions, 250 micron minus and 2mm minus. This final crushed and mixed product will be almost identical to Exolith Lab LHS-2E, the Lunar Regolith Simulant selected for use in the Exolith Lab 130ton regolith bin.

2. Describe the required specifications or requirements and why are they essential to the accomplishment of your work.

The Lunar Regolith Simulant PTI will be creating, LHS-2E, must have an uncompressed bulk density of approximately 1.4g/cubic centimeter, a particle size range with a maximum of 2000 micrometers, an angle of repose of approximately 43 degrees and a particle size distribution with roughly 15% of particles being greater than 1mm. On top of these physical characteristics of the final material, the basalt must be crushed using an impact crusher in order to prevent excessive rounding of particles. The final Lunar Regolith Simulant must be homogeneously mixed in large quantities to ensure the aforementioned properties stay. Provide the names of other suppliers, products and/or services that you have investigated and explain why they do not meet the required specifications or requirements. It may be helpful to present your information in a table like the one below.

Required Specifications	Supplier 1	Supplier 2	Supplier 3	Supplier 4
	Y/N	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N	Y/N

"Custom Particle Reduction" was not interested in attempting this project after learning of our requirements.

"Reade Advanced Materials" was not interested in attempting this project after learning of our requirements.

"SolveChemCustomPack" was not interested in attempting this project after learning of our requirements.

3. State in detail why only this and no other product(s)/service(s) will satisfy the department's requirements. Description may include unique features, compatibility, specifications, availability, delivery time frame etc. (For example, please list the features or special conditions that are unique and only available from one supplier. Note: Price is not a valid reason.)

PTI was uniquely capable of accomplishing this work due to possessing equipment that has already been confirmed to be the most optimal for creating Lunar Regolith Simulants. Traditional crushing providers tend to crush large quantities of material using methods by which particles are rounded. PTI's equipment, just like our own here at Exolith Lab, was specifically chosen to prevent that rounding from occurring. Lunar Regolith and therefore Lunar Regolith Simulants must have these sharp features to be usable by NASA within the Exolith Lab regolith bin. Additionally, PTI's crushing setup, unlike the vast majority of crushing service providers is capable of achieving the necessary 2mm minus requirement (nominally 1/16"). These unique crushing capabilities, paired with their capability to homogeneously mix all the material within their facility make PTI effectively the only option for this work.

4. Are there resellers or distributors? If yes, please list names and contact information.

No

5. Will this purchase obligate UCF to this vendor for future purchases such as maintenance, licensing, or continuing need? ____ Yes ☒ No

If yes, please provide details regarding future obligations and/or needs to include number of years and total spending amount of obligations:

6. What efforts have been made to obtain the best pricing available? Please provide an explanation to support the belief that the price is fair and reasonable.

The price quoted is absolutely fair and reasonable. PTI is the only processor who was capable of meeting the requirements set for completing this work besides our own smaller internal processing capabilities. The price quoted by PTI is nearly identical to the price it costs to produce this material ourselves. In addition, PTI will also be including services such as dry storage of material which would not be possible here at the Exolith Lab facility.

From: [Gerald Hector](#)
To: [Joel Levenson](#)
Cc: [Brian Sargent](#); [Nellie Nido](#); [Trinh Nguyen](#)
Subject: Re: Sole Source form - PTI
Date: Wednesday, December 6, 2023 6:48:49 AM
Attachments: [image001.png](#)

Joel:

I approve of this sole source based on the information provided.

Regards,

Gerald

Sent from my iPhone

On Dec 5, 2023, at 2:01 PM, Joel Levenson <Joel.Levenson@ucf.edu> wrote:

Good afternoon Gerald,

I also support this sole source. Research into various competitors led to the conclusion that Powder Technology was the only company that can meet the specifications of the requirements from NASA. Additionally, this company has been awarded multiple sole sources as indicated below.

If you agree with this sole source, please reply all and indicate as such. If you have any additional questions, let us know.

From: Brian Sargent <Brian.Sargent@ucf.edu>
Sent: Tuesday, December 5, 2023 11:51 AM
To: Joel Levenson <Joel.Levenson@ucf.edu>
Cc: Trinh Nguyen <Trinh.Nguyen@ucf.edu>; Nellie Nido <nellie.nido@ucf.edu>
Subject: FW: Sole Source form - PTI

Hi Joel,

I also support this sole source for the reasons below. Florida Space Institute researched other suppliers for this work but PTI was the only firm capable of meeting NASA & Exolith Lab's requirements for lab regolith ("space dirt"). They require precise size/physical characteristics of the dirt to be useable by NASA and the lab for research.

Please approve/disapprove.

Regards,

Brian

From: Trinh Nguyen <Trinh.Nguyen@ucf.edu>

Sent: Tuesday, December 5, 2023 11:18 AM

To: Brian Sargent <Brian.Sargent@ucf.edu>

Cc: Nellie Nido <nellie.nido@ucf.edu>

Subject: FW: Sole Source form - PTI

Good morning Brian,

I have reviewed the attached sole source and can support it with the following reasons. Can you please also review to see if you agree or not.

Vendor: Powder Technology Inc.

Product: Hammer milling basalt and mixing with anorthosite

Total Amount: \$190,000

Dept: Florida Space Institute

Requirement: The department wants to hire a company that can execute a crushing technique (hammermilling) to prevent excessive rounding of particles on a rock material, Basalt, per NASA requirement and then homogenously mix it with a moon soil material Anorthosite to produce the Lunar Regolith Simulant for use in the Exolith Lab for the 130-ton regolith bin.

Research Conducted: The PI provided the below list of suppliers that were investigated to see if they can meet the required specifications below and only Powder Technology can satisfy both the crushing method and the physical characteristics of the Lunar Regolith Simulant (LHS-2E).

Required Specifications	Powder Technology	Custom Particle Reduction	Reade Advanced Materials	SolveChem CustomPack	Hokosawa Micron BV	Powdermet	Universal Minerals Kentucky
Crushing method of basalt to prevent excessive rounding of particles	Yes	Yes	Yes	No	No	Yes	Yes
*Physical Characteristics of the Lunar Regolith Simulant (LHS-2E)	Yes	No	No	No	No	No	No

*The **LHS-2E**, must have an uncompressed bulk density of approximately 1.4g/cubic centimeter, a particle size range with a maximum of 2000 micrometers, an angle of repose of approximately 43 degrees and a particle size distribution with roughly 15% of particles being greater than 1mm.

Price is fair and reasonable: It was noted that the price is deemed fair and reasonable given that PTI is the only supplier that can meet all the above requirements and it was noted that the price quoted is nearly identical to the price it would cost the department to produce the material themselves. In addition, PTI will also include services such as dry storage of the material which would not be possible at the Exolith Lab facility.

GovSpend: Searching in GovSpend, the below resulted from search on Powder Technology, but from the list, there wasn't another agency transaction specifically for milling of Basalt and blending of Anorthosite besides UCF for sole source information or price comparison.

<image001.png>

Thanks,
Trinh

From: Konrad Krol <Konrad.Krol@ucf.edu>
Sent: Friday, December 1, 2023 4:46 PM
To: Trinh Nguyen <Trinh.Nguyen@ucf.edu>
Cc: Mildred Rodriguez-Solivan <mildred.rodriguez@ucf.edu>; Lori Desouza <Lori.Desouza@ucf.edu>
Subject: RE: Sole Source form - PTI

Hi Trinh,

Certainly!

Required Specifications	Powder Technology	Custom Particle Reduction	Reade Advanced Materials	SolveChem CustomPack	Hokosawa Micron BV	Powdermet	Universal Minerals Kentucky
*Physical Characteristics	Yes	No	No	No	No	No	No
Crushing method of basalt to prevent excessive rounding of particles	Yes	Yes	Yes	No	No	Yes	Yes

Thanks,

Konrad Krol

Director of Operations

SRT at Exolith Lab - High Fidelity Regolith Simulants

exolithsimulants.com

konrad.krol@ucf.edu

From: [Lori Desouza](#)
Sent: Friday, December 1, 2023 4:31 PM
To: [Konrad Krol](#)
Cc: [Mildred Rodriguez-Solivan](#)
Subject: FW: Sole Source form - PTI

Konrad

Can you please answer Trinh questions listed below.

Thank you!

Lori

From: Trinh Nguyen <Trinh.Nguyen@ucf.edu>

Sent: Friday, December 1, 2023 1:21 PM

To: Lori Desouza <Lori.Desouza@ucf.edu>

Subject: FW: Sole Source form - PTI

Hi Lori,

Can you please ask the PI if the other suppliers that were investigated, who responded they were not interested in attempting the project after learning the requirements. Is it because they can't meet both the physical characteristics of the material and the crushing method? Or can they meet one requirement but not the other? Can you please have the PI filled out the below table so I can have a better understanding why the other suppliers can't satisfy the requirements.

Required Specifications	Powder Technology	Custom Particle Reduction	Reade Advanced Materials	SolveChem CustomPack
*Physical Characteristics	Yes	?	?	?
Crushing method of basalt to prevent excessive rounding of particles	Yes	?	?	?

***Physical Characteristics:** The LHS-2E, must have an uncompressed bulk density of approximately 1.4g/cubic centimeter, a particle size range with a maximum of 2000 micrometers, an angle of repose of approximately 43 degrees and a particle size distribution with roughly 15% of particles being greater than 1mm.

Thanks,

Trinh

From: Brian Sargent <Brian.Sargent@ucf.edu>

Sent: Monday, November 27, 2023 3:30 PM

To: Trinh Nguyen <Trinh.Nguyen@ucf.edu>

Cc: Nellie Nido <nellie.nido@ucf.edu>; Lori Desouza <Lori.Desouza@ucf.edu>

Subject: FW: Sole Source form

Hi Trinh,

Assigning to you for review. Please work with Lori if you have any questions.

Regards,

Brian

From: Lori Desouza <Lori.Desouza@ucf.edu>
Sent: Monday, November 20, 2023 1:10 PM
To: Procurement Services <Procurement@ucf.edu>
Cc: Brian Sargent <Brian.Sargent@ucf.edu>
Subject: Sole Source form

Hi Brian

Attached is a Sole Source form for Exolith Lab for Powder Technology Inc.

Please let me know once posting notice is done, as I will need to create a requisition.
Or can I just attach this to the Requisition for posting.

Thank you!

Lori Desouza
Travel/Procurement Specialist
Florida Space Institute
University of Central Florida
(407)-832-6324
Lori.desouza@ucf.edu

<PTI_Hammer Miling_Sole Source_10.20.23_signed (1)2.pdf>