NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
NASA SHARED SERVICES CENTER

RECOMMENDATION AND DETERMINATION TO SOLICIT FROM ONE SOURCE
OR BRAND NAME

PICK ONE

Sole Source:
☒I recommend that NASA, NASA Shared Services Center negotiate with COI Ceramics only for Hi-Nicalon ™ fiber spools. The total estimated cost of this effort is [redacted] the estimated period of performance or lead-time for delivery is 5-6 weeks ARO pending release approval from Defense Logistics Agency strategic materials stockpile .

OR

Brand Name Justification:
☐I recommend that NASA, NASA Shared Services Center negotiate with only with vendors who can provide the subject band name from Manufacture Name for Enter Supply or Service to be procured. The total estimated cost of this effort is Enter Dollar amount and the estimated period of performance or lead-time for delivery is Date.

This recommendation is for the acquisition of supplies or services determined to be reasonably available from only one source/only one manufacture. Competition is impractical for the following reasons (please answer the questions below):

1. **What are the reasons for soliciting only the suggested source/suggested brand name?** Please provide the unique characteristics of the items or services along with the supporting rationale and the market research performed to substantiate your reason for the suggested source/brand name.COI Ceramics is the only direct distributor of Hi-Nicalon ™ fiber in the United States. Hi-Nicalon™ silicon carbide fiber possesses high strength, corrosion, and heat resistances necessary to withstand the austere environment inside a nuclear reactor core. COI Ceramics can also coordinate release of fiber from the Defense Logistics Agency Stockpile while significantly decreases lead time on delivery of the purchased materials (a matter of weeks vs. a matter of months-years).

2. **What is the impact to the government if another vendor/brand is used?** Include any dollar, schedule, or compatibility impacts if possible. Other vendors may provide quotes Hi-Nicalon™ fiber but those quotes will originate at COI Ceramics as they are the only US distributor of this product. Additionally, the manufacturer offers a discount on material for direct sale to NASA (through COI Ceramics) that is not available through other vendors to NASA. This presents the potential that NASA could end up paying significantly more for the same product if another vendor is used. Other vendors may also not have access to release product from the defense logistics stockpile and will have to quote their delivery dates based on receipt of material from the manufacturer. Right now, the manufacturer is quoting the end of calendar year 2027 for delivery of material. Receipt of material in a timely manner is critical to the success of the project. This fiber is being purchased in support of the SR1-Freedom nuclear electric propulsion vehicle to manufacture encapsulating structures for moderating materials in the nuclear reactor. The Hi-Nicalon™ fiber will be utilized for non-space flight ground testing events to demonstrate a proof of concept of the SR-1 Freedom nuclear electric propulsion vehicle. We are targeting to receive this material in summer 2026 so that it can be wound into tubular structures toward the end of summer, tested, and some structures included in the DOE VALKRE reactor at the end of calendar year 2026, for testing in spring 2027 to proof out some of the technologies for SR1. As such, acquiring the fiber ASAP is preferred to meet timelines.

ADDITIONAL COMMENTS: