NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN C. STENNIS SPACE CENTER
STENNIS SPACE CENTER, MS 39529-6000

JUSTIFICATION FOR OTHER THAN FULL AND OPEN COMPETITION

1.0 AGENCY/CONTRACTING ACTIVITY

National Aeronautics and Space Administration, John C. Stennis Space Center, Office of Procurement, Stennis Space Center, MS 39529

2.0 DESCRIPTION OF THE ACTION BEING APPROVED

The action to be approved is the sole source procurement of an AZtecEnergy Advanced Microanalysis System with X-MaxN 50 Large Area Analytical Silicon Drift Detector (hereafter to be referred to as the EDS) from Oxford Instruments. The EDS model is a drop-in replacement for the EDS currently installed. As a direct replacement, current capabilities will be maintained. The new Oxford EDS system is compatible with the existing X-ray spectral data files and proprietary software currently used to process SSC samples.

3.0 DESCRIPTION

The work to be performed under this requirement shall consist of the procurement, installation, and check out of the EDS System. It will also include training on the new system. The EDS is an add-on attachment to an existing Scanning Electron Microscope (SEM) used to analyze samples of materials and contamination to determine composition, source, and risks. These samples at SSC are generally coming from the high pressure rocket test facilities where even small amounts of contamination can result in test stand fires or damage to multi-million dollar flight hardware. Additionally, determining the source of contamination from a component in the early stages of failure, may allow the test stand operators to perform preventative maintenance or repairs which saves cost, reduces test stand down time, and enables convenient times for scheduling repair. Test Stand operating costs can impact the test program by an additional $50,000 per day when a project has to be extended because of delays. These additional costs can create overruns or reduce test programs resulting in lost data. Tests cut short because of undetected failures can have an even larger impact with loss of propellants, data, and overtime. The EDS is a very important tool that provides for quick analysis of samples. Sending samples offsite has typically resulted in two to three week delays in obtaining required data, with results that are more difficult to understand.

4.0 STATUTORY AUTHORITY

6.302-1 -- Only One Responsible Source and No Other Supplies or Services Will Satisfy Agency Requirements. ***Oxford Instruments*** is the only producer of this model EDS.

5.0 NATURE OF THE ACTION THAT REQUIRES USE OF THE AUTHORITY CITED

The model EDS is an exact drop in replacement for the currently installed EDS that has been in use for 15 years. The new Oxford EDS system is downward compatible with the existing X-ray spectral data files and current proprietary software that were previously used to process SSC samples. This will allow continued access and usage to all historical data which will not be possible with any other unit. The upgraded software included with the new unit will allow the old files and future files to be converted and exported to ordinary PDF files so this will no longer be a problem in the future.

Procurement of this specific model reduces the cost and risk to the Government to regain this capability by ensuring the operating personnel are already fully trained to operate the EDS. Also, the vendor allows a $13,815 trade in allowance for the return of the old broken system. Risk is averted three ways. First, because this is the model EDS that is currently installed on the SEM and has provided a long and valuable service life for this machine, similar results are expected in the future. Second, the SEM is set up to install the EDS as a drop in replacement. This replacement model will avoid costs associated with software development and reprogramming efforts in adapting a new device to existing hardware. The fact that the SSC SEM is currently 15 years old, there is no expectation of receiving a compatible installation kit. Third, this EDS model is the only model personnel at SSC are trained and fully versed in operating. Changing models at this time would require the additional cost of training for all personnel at a cost of approximately $10,000 and result in additional lag time during which SSC would be without this essential service.

6.0 SOLICITATION EFFORTS

Pursuant to NFS 1805.207, 1804.570, and FAR 5.201, a synopsis advertising the Government intent to issue this requirement on a sole source basis, and a request for capabilities of potential sources, was published on the NASA Acquisition Internet Service (NAIS) and the Government wide point of entry (GPE) (FedBizOpps) on April 18, 2013. No responses from industry were received.

7.0 COST CERTIFICATION

The anticipated price to the Government will be thoroughly evaluated to ensure that it is fair and reasonable prior to award. Cost comparison of the quote received from Oxford Instrument will be balanced against market research of current prices for similar models to ensure no significant cost differential is found. The $13,815 credit for return of the old unit is an additional cost benefit that the Government will receive.

8.0 MARKET SURVEY

The market research was performed by researching other options, including used hardware, online. This item is not available under a GSA contract. The synopsis that advertised the Government intent to issue the requirement on a sole source basis included a request for capabilities of potential sources. No responses were received from industry.

9.0 OTHER SUPPORTING FACTS

None.

10.0 SOURCES EXPRESSING AN INTEREST IN THIS PROCUREMENT

A synopsis advertising the Government intent to issue this requirement on a sole source basis to Oxford Instruments, and a request for capabilities of potential sources, was published on the NASA Acquisition Internet Service (NAIS) and the Government wide point of entry (GPE) (FedBizOpps) on April 18, 2013. No responses from industry were received.

Oxford Instruments is the sole provider of this model EDS. They provide the warranty and training support to correctly operate the hardware and ensure optimal usage.

11.0 AGENCY ACTIONS TO REMOVE BARRIERS

Ideally, the EDS would be purchased at the same time as a new SEM. In this case, although the SEM is getting old and will have to be replaced within a few years, the additional $300,000 to replace the SEM is not available. Therefore, the next best option to return the equipment to service and regain this capability is to replace just the EDS attachment. Additional market research will be performed when the SEM finally needs to be replaced to ensure SSC is getting the best capability for the most reasonable cost available. This will be on a full and open competition for all vendors and models.

12.0 TECHNICAL REPRESENTATIVE CERTIFICATION

I do hereby certify that the support data under my cognizance that are included in this justification are accurate and complete to the best of my knowledge and belief. In addition, I certify that the anticipated price to the Government will be thoroughly evaluated to ensure that it is fair and reasonable prior to award.

5/1/13

Bruce Farner
Contracting Officer Representative

Date

13.0 APPROVE/DISAPPROVE:

I hereby accept the above stated recommendation and determine that the circumstances of the contract action deem only one source reasonably available. I further certify that the anticipated costs to the Government will be determined fair and reasonable prior to award.

5-2-13

Gerald L Norris
Contracting Officer

Date