

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
GEORGE C. MARSHALL SPACE FLIGHT CENTER

JUSTIFICATION FOR OTHER THAN FULL AND OPEN COMPETITION

I recommend that NASA, George C. Marshall Space Flight Center negotiate with Edison Weld Institute (EWI), Columbus, Ohio, for upgrades to the ultrasonic stir weld (USW) prototype weld system currently residing at EWI. The total estimated cost of this effort is \$232,000.00 and the estimated period of performance or lead-time for delivery is 5 months.

This procurement is for the conversion of a basic ultrasonic weld prototype system into a sophisticated R&D weld system with advanced controls and data acquisition capabilities. The upgraded USW system is required to characterize a new NASA owned weld process for space hardware manufacturing applications.

This recommendation is made pursuant to FAR 6.302-1 which implements the authority for 10 U.S.C. 2304(c)(1) for acquisition of supplies or services from only one source and no other supplies or services will satisfy agency requirements. Competition is impractical for the following reasons:

- a. The USW process is NASA owned intellectual property, U.S. Patent #8,393,250 and #8,393,523. EWI fabricated the only known USW prototype system in 2012. The USW prototype system is a basic experimental weld system and will be used to build/integrate all the planned system upgrades.
- b. USW welding trials conducted at EWI during the summer of 2012 demonstrated feasibility of the USW process. This testing also revealed system upgrades that are needed in support of continued research into the USW process. EWI is the only known entity with the understanding of not only the USW process, but the required upgraded system subcomponents, which, after installation, will result in the USW system to perform as intended.
- c. It would be cost prohibitive to select another source with little or no knowledge of the USW process, provide training in ultrasonic technology, and secure a basic USW prototype system which would be used for the intended upgrades. It would cost the government approximately \$175,000 to duplicate the existing basic prototype system before planned upgrades are integrated into the basic prototype system.

Pursuant to NFS 1804.570, this proposed contract action will be published on the NASA Acquisition Internet Service (NAIS) and pursuant to FAR 5.201, this proposed contract action will be synopsisized in the Federal Business Opportunities. The results received in writing will be added to this document by addendum.

Market research was conducted by EM32 to determine if other vendors were capable of providing USW services. The market research entailed consulting with knowledgeable experts in the field. An internet search was also conducted which returned negative results. This research

shows that the services required by this acquisition are not available from any other manufacturer.

Technical data packages, specifications, engineering descriptions, statements of work, or purchase descriptions suitable for full and open competition are available.

There are no known actions which the agency may take to remove or overcome barriers to competition before any subsequent acquisition for the services required.

For the above reasons, full and open competition is not feasible. Therefore, purchase of the upgrades to the basic USW prototype system from EWI is the only practical approach.

I hereby certify the facts in this justification and any supporting data used for this justification are accurate and complete to the best of my knowledge.

Carolyn Russell

Carolyn Russell
Branch Chief
Metal Joining and Processes Branch

5/24/13

Date

I hereby certify that the above justification is complete and accurate to the best of my knowledge and belief. In addition, I hereby determine that the anticipated cost to the Government will be fair and reasonable.

Michael R. Sosebee

Michael R. Sosebee
Office Chief, Engineering Lab Support Office

5/24/13

Date

Approved:

RCM

Roxanne C Melton

Roxanne C. Melton
Contracting Officer
Manager, Engineering Support Office

6/24/2013

Date

ADDENDUM

Pursuant to NFS 1805.207 and 1804.570, the proposed contract action was synopsised on NAIS and pursuant to FAR 5.201, placed on FedBizOpps on 5/31/2013, and closed on 6/07/2013. No other firms requested consideration under this procurement; therefore, this procurement will be awarded to Edison Welding Institute, Inc. (EWI) on a sole source basis.


Contracting Officer


Date