



DEPARTMENT OF THE NAVY

NAVAL SURFACE WARFARE CENTER
INDIAN HEAD DIVISION
3767 STRAUSS AVENUE
SUITE 201
INDIAN HEAD, MD 20640-8150

Procurement Division - Form 13 (Rev 03/11)

J&A Number: // -0296

Code: C1

P.R. Number: N00174-11-PR-1308

**JUSTIFICATION AND APPROVAL
FOR USE OF OTHER THAN FULL AND OPEN COMPETITION**

JUSTIFICATION

1. Contracting Activity

The Naval Sea Systems Command, Naval Surface Warfare Center, Indian Head Division (NSWC IHD), Procurement Division Code C1. This requirement is in support of the E Directorate, NSWC IHD.

2. Description of the Action Being Approved

Award an Urgent Sole Source contract for the fabrication, inspection and delivery of 140 Mod 0 Gas Generator components and 60 Mod 1 Gas Generator components for the MK 77 Program, in accordance with the appropriate drawings, to:

Chuckling Machine Products, Inc.
3550 Birch Street
Franklin Park, IL 60131-2004
(847) 678-1192

3. Description of Supplies/Services

NSWC IHD requires several machined components for the MK 77 Mod 0 and Mod 1 Gas Generator. These MOD 0 parts will be utilized to rework gas generators that have exhausted their installed life but contain energetic materials that still retain service life. New propellant grains cannot be manufactured due to a component in the grain that can no longer be obtained because of the hazardous nature of the component. The MOD 1 components will be used either for the Qualification Program or the MOD 0 rework program, depending on the Engineering Change Proposal currently in routing that would allow MOD 1 outer components to be used for the MOD 0 rework.

The Government's minimum needs have been verified by the certifying technical and requirements personnel.

Estimated Dollar Value¹

	FY11	Totals
SCN		
OPN	\$187,639.00	\$187,639.00
Pro. of Ammo, N&M		
O&MN		
FMS		
Total		

4. Statutory Authority Permitting Other Than Full and Open Competition

10 U.S.C. 2304(c)(2). Unusual and Compelling Urgency as implemented by FAR 6.302-2.

5. Rationale Justifying Use of Cited Statutory Authority

[REDACTED] [REDACTED] A main component in the propellant grain formulation is no longer available due to its hazardous nature and therefore the only available MK 77 gas generators being supplied to the [REDACTED] are reworked gas generators from NSWC IHD.

The rework program involves downloading gas generators that have used their installed life [REDACTED] and placing the energetic materials into new gas generator cases, nozzles, connector plates and anodes. This rework program has supplied the [REDACTED] with a critical item [REDACTED]. Upon the qualification of the MK 77 Mod 1 gas generator, an alternate source of gas generators will be available to the fleet.

Program delays in the MOD 1 qualification program [REDACTED] [REDACTED] has led to a situation where reworked gas generators are immediately shipped off station to fulfill a need at one of the Intermediate Maintenance Facilities for a [REDACTED]. The availability of gas generators to the [REDACTED] is a critical issue. Without adequate availability of gas generators, [REDACTED] could be forced to use overage assets or [REDACTED].

¹ IAW NMCARS 5206.304(a) If the dollar value of the contract is negotiated at a level that exceeds the dollar threshold of the original justification approval authority, a new justification approval shall be obtained from the appropriate approval authority prior to award.

██████████ they will not be able to patrol leaving the ██████████ open to intrusion. In addition, the Government will suffer a loss of \$500,000 per day per ██████████ while they are ██████████

If this contract is not awarded by 29 July 2011, the gas generator rework effort at NSWC IHD will be at a standstill for lack of metal parts to produce reworked gas generators for the ██████████. There is a back order of approximately 170 gas generators that have been requested by the Intermediate Maintenance facilities that the rework program is the only source of supply for. If we do not have machined parts to rework gas generators, various ██████████ will not be able to ██████████ and will be forced to ██████████ loads or will become non-operational due to the unavailability of gas generators. This will result in very high level negative attention directed at NSWC IHD.

NSWC IHD set up a contract (N00174-11-P-0089) with Chucking Machine Products for the procurement of the Mod 1 components. However, there is a negative inventory of the gas generators that are available to the ██████████. NSWC IHD then modified the current contract to procure the Mod 0 components. NSWC IHD will be able to decrease the negative inventory much quicker. When NSWC IHD modified the contract several of the Mod 1 components were replaced with the Mod 0 components.

6. Description of Efforts Made to Solicit Offers from as Many Offerors as Practicable

The cost and time to approve an additional vendor is substantial and prohibitive. The cost and time required to certify another vendor would have an adverse impact on NSWC Indian Head's ability to support ██████████.

All of the parts manufactured by Chucking Machine are produced on computer numerically controlled machining centers (CNC machines). The computer programs that control the machining centers are lengthy and very technically involved. If another vendor were to attempt to produce a CNC program to manufacture the parts they would have to write an initial computer program, debug that program, then run an initial test run of parts, inspect those parts, tweak the computer program to identify frequency of tooling changes that can cause discrepant parts if not changed frequently enough. Identify iterations of programming steps that account for and make up for tooling wear during a parts manufacturing steps. On some of the parts for the MK 77 MOD 0 and MOD 1 program, the computer program for the manufacturing may be thousands of lines of code. This process alone could take months of dedicated effort by a programmer and machine operator.

NSWC, IHD would have to qualify a new vendor to build these parts since Chucking Machine has been the sole supplier of MK 77 gas generator hardware since its inception. Chucking Machine was the sole supplier of machined hardware to UPCO / Goodyear, the only company to produce new MK 77 gas generators for [REDACTED]

During an earlier attempt to identify sources for this hardware E16 and the ELO performed a sources sought inquiry through the BPA vendors list. There were no additional sources found that were interested in providing a quote for manufacturing this hardware. There were several no bids recorded and E16 fielded many calls from vendors looking for the name of a contractor that could produce the protective coating called out for all of the exterior components of the gas generators.

The drawing package calls out a very specialized zinc phosphate coating procedure that on some parts is followed by the application of a dry film lubricant and a subsequent paint coating on the seawater exposed surfaces. The zinc phosphate coating must have the correct micro-crystalline structure to insure a surface finish in the o-ring grooves that would allow for a correct sealing in the face of extreme water pressure due to the depth the platforms operate in. There have been no other vendors that have been able to provide a satisfactory micro-crystalline structure in their zinc phosphate coating.

There is also the need to produce a slightly undersized metal part that will allow the coatings to be applied without causing the part to be oversized after the all coatings are applied. Chucking Machine has fine tuned their process to the point that they know exactly how to produce an undersized part that will meet the final dimensions after the coatings have been applied.

[REDACTED] The propellant grain for the MOD 0 version of the gas generator can no longer be produced because of the unavailability of Butarez, a component in the propellant formulation. There is a MOD 1 qualification program underway for the MK 77 that uses a different formulation for the propellant grain but that formulation will not be qualified [REDACTED] use before the end of fiscal 2012. There are virtually no gas generators available to [REDACTED] other than those that are reworked at NSWC, IHD. As soon as a group of gas generators are reworked here and put into code A, they are immediately requested by the Intermediate Maintenance Facilities for [REDACTED] There is no inventory that can act as a buffer to NSWC, IHD as we attempt to find an alternate source of metal parts for the rework program. There is no time to find an alternate source. It could take as long as a year to qualify another source for the MK 77 hardware. NSWC, IHD is barely keeping up with demand for the gas generators from our rework program. Any delays in providing hardware for the rework program here would result in the drastic step of [REDACTED] to utilize overage assets for [REDACTED]

NSWC IHD did not review any other alternatives because Chucking Machine Products currently has several of these prefabricated housings available from a previous production run. Due to the compacted time schedule, Chucking Machine Products is the only manufacturer that can meet our requirements at this time. Any other manufacturer will have to take time setting up their computer machines, casting models, fabricating, machining, etc., processes that are not needed if we pay Chucking Machine Products to deliver the units they already have in hand. Therefore, no additional market research was performed.

7. Determination of Fair and Reasonable Costs

The Contracting Officer has determined that the anticipated cost to the Government for the supplies/services covered by the J&A will be fair and reasonable in accordance with FAR Part 15.4.

8. Actions to Remove Barriers to Competition

The Government will set up a test program in the future to determine what the material properties are of the final product. This will allow the government to identify the properties and the necessary tests to ensure the delivered products are within tolerance.

The Naval Sea Systems Command, NSWC IHD, Procurement Department, Code 11, will pursue a future competitive procurement to attempt to find another vendor capable of producing the parts in the future.

CERTIFICATIONS AND APPROVAL

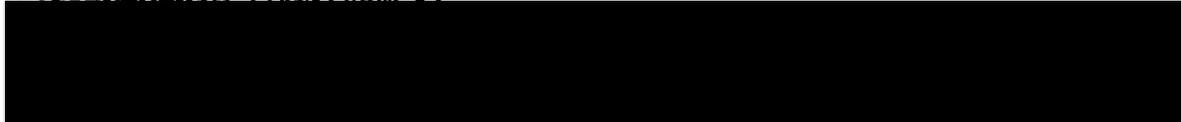
TECHNICAL/REQUIREMENTS CERTIFICATION (FAR 6.303-2(b))

I certify that the facts and representations under my cognizance, which are included in this justification and its supporting acquisition planning data, including Acquisition Plan No. N/A, except as noted herein, are complete and accurate to the best of my knowledge and belief.

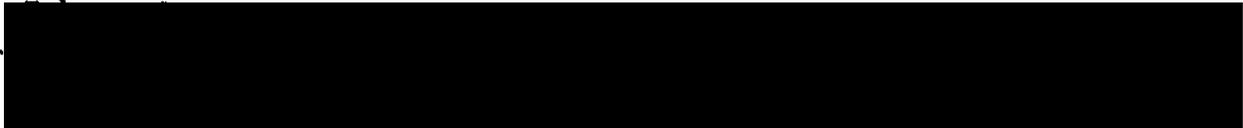
TECHNICAL COGNIZANCE:



REQUIREMENTS COGNIZANCE:



LEGAL SUFFICIENCY REVIEW (NMCARS 5206.303-90)



CONTRACTING OFFICER CERTIFICATION (FAR 6.303-2(a)(12))

I certify that this justification is accurate and complete to the best of my knowledge and belief..

Mary Sandy Contracting Officer C12N 301-744-6648 18 July 2011
Signature Name (Print) and Title (Code) Phone No. Date

APPROVAL BLOCK (FAR 6.304 for Approving Official)

Upon the basis of the above justification, I hereby approve, as (Senior Procurement Executive of the Navy, Designee of the Head of the Contracting Activity, Competition Advocate for the Contracting Activity, Contracting Officer, as appropriate) the solicitation of the proposed procurement(s) described herein using other than full and open competition, pursuant to the authority of 10 U.S.C. 2304(c)(2).

(TITLE OF APPROVING OFFICIAL)

Signature Name (Print) Date