

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER, FLORIDA

JUSTIFICATION FOR OTHER THAN FULL AND OPEN COMPETITION

(BRAND NAME DETERMINATION)

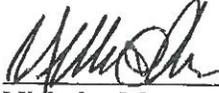
ESTIMATED ITEM VALUE: \$29,941.00 per actuator
ESTIMATED TOTAL VALUE OF PROCUREMENT: \$89,823.00

- 1.) Based on the justification provided herein, I recommend that an acquisition be made by other than full and open competition for the contract action described below:
- 2.) This contract action includes the acquisition of three (3) Bettis Pneumatic and Hydraulic G-series actuators (PN G3003-H-S). The actuators will be used by NASA KSC for activation of the post-liftoff bypass water flow in the Ignition Overpressure and Sound Suppression System (IOP/SS).
- 3.) The IOP/SS System provides water sprays at Launch Complex 39B (LC-39B) through the Mobile Launcher (ML) to reduce the effects of the launch-induced environment, including ignition overpressure, sound suppression, and flame trench/ground support equipment (GSE) cooling. The reduction of launch induced effects is critical to the success of the Space Launch System (SLS) vehicle and its mission. The effective reduction of the launch induced phenomena, including ignition overpressure and sound suppression, requires a large volume of water deployed on and around the ML at precise times and in specific quantities as dictated by NASA Marshall Space Flight Center (MSFC) through requirements, verified during the Scale Model Acoustical Test (SMAT). The actuators described in this action are required to activate the post-liftoff IOP/SS System bypass flow to meet the requirements referenced above. The total estimated value is \$29,941.00 per actuator. There are three (3) actuators needed for this contract action for a total cost of \$89,823.00.
- 4.) Contracting without full and open competition is permitted pursuant to 10 U.S.C. 2304 (c) (1) because the equipment required by KSC is only available from one source and no other type of equipment will fully satisfy the requirements. There is a reasonable basis to conclude that KSC's minimum requirements can only be satisfied by the unique equipment available from Bettis. The Bettis Pneumatic and Hydraulic G-series actuators (PN G3003-H-S) represents the only known device capable of meeting all of KSC's requirements as described below:
 - a. The actuator must function using 1500 psi GN2.

- b. The actuator must have proven compatibility with the sea coast environment experienced at KSC.
 - c. The actuator must have proven capability of withstanding the launch environments experienced at LC-39B.
 - d. The actuator must have proven capability of transitioning from close to open within 0.5 seconds without failure.
- 5.) The government utilized these actuator types in the IOP/SS system during the Space Shuttle Program and they have proven capable of meeting all of government's requirements including performance and environmental compatibility. The IOP/SS system has six (6) existing actuators of the same series currently installed at LC-39B. The purchase and installation of the Bettis Pneumatic and Hydraulic G-series actuators (PN G3003-H-S) at LC-39B will maintain IOP/SS actuator similarity limiting capital expenditures of spare parts, service, and training. Procuring anything other than these items will require the contractor to qualify the components for use in our environments at a significant cost and schedule impact. Additionally, these items are known to interface with the other components of the IOP/SS system without further modifications to the system. Procuring different parts will require additional work to ensure they will function as a unit, once installed.
- 6.) Efforts will be made to ensure that offers are solicited from as many potential sources as practicable. The project specifications for the Bettis Pneumatic and Hydraulic G-series actuators (PN G3003-H-S), written to fully explain the government's requirements regarding actuators for the IOP/SS system, will be included in the solicitation specifications. Additionally, this Brand Name Determination will be posted with the solicitation on the Federal Business Opportunities website www.fbo.gov.
- 7.) It is determined that the price of the prime contract, including the Bettis Pneumatic and Hydraulic G-series actuators (PN G3003-H-S), will be fair and reasonable. The overall competitive nature of this low price technically acceptable procurement will entice bidders to seek the most advantageous pricing from Bettis authorized distributors and supply houses as well as reasonable pricing from all other equipment and material suppliers.
- 8.) Future actions to remove barriers to competition will include continued efforts to reach out to other manufacturers for compatible actuators in order to reduce the amount of equipment that must be procured on a single manufacturer basis.

Pursuant to FAR 6.303-2(c), I hereby certify that the supporting data furnished in support of contracting by other than full and open competition, under 10 U.S.C. 2304(c) (1), with

Bettis for the purchase of three (3) actuators is complete and accurate to the best of my knowledge and belief.



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