



Comptroller General  
of the United States

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Washington, D.C. 20548

## Decision

Matter of: LIPS Propellers, Inc.

File: B-256713

Date: July 15, 1994

William M. Dozier, Esq., Vandeventer, Black, Meredith & Martin, for the protester.  
Timothy A. Chenault, Esq., Department of Transportation, U.S. Coast Guard, for the agency.  
Sylvia Schatz, Esq., and David A. Ashen, Esq., Office of the General Counsel, GAO, participated in the preparation of the decision.

### DIGEST

Protest alleging that solicitation requirements for a single job site for repair and overhaul of propellers and for a certified journeyman machinist to supervise all phases of the work are unduly restrictive of competition is denied where record demonstrates that requirements are necessary in order for agency to meet its minimum needs.

### DECISION

LIPS Propellers, Inc. protests the terms of invitation for bids (IFB) No. DTCG85-94-B-625V58, issued by the Department of Transportation, U.S. Coast Guard, for the overhaul and repair of controllable pitch propellers on the two Polar-class icebreakers, the Polar Star and the Polar Sea. LIPS, the incumbent contractor for the overhaul and repair of the propellers, argues that the IFB is unduly restrictive of competition.

We deny the protest.

The IFB, issued on December 22, 1993, contemplated the award of a firm-fixed-price requirements contract for a base year with options for 2 additional years. The solicitation required the contractor to provide all facilities, personnel, equipment, transportation, and materials needed to receive, disassemble, clean, inspect, repair, overhaul, reassemble, and test the controllable pitch propellers on the two icebreakers. There are only eight such propellers in existence in the United States; six are installed and in use on the two icebreakers (a right, center, and left propeller on each icebreaker), while the two spare

propellers are undergoing repairs. The overhaul periods of the propellers under the solicitation are timed to coincide with the vessel drydock schedules. The solicitation requires the two outside (left and right) propellers of an icebreaker to be overhauled within the standard vessel overhaul period of 180 days. The solicitation provides for the accelerated overhaul, within 42 calendar days, of the center propeller, which due to its location is protected from the ice and therefore suffers much less wear. The icebreakers are used for a number of vital missions, including delivering essential supplies, such as food and fuel, to National Science Foundation personnel in Antarctica.

The IFB's original statement of work (SOW) required the contractor to "possess the appropriate on site specialized facilities, equipment, and experienced personnel needed to perform the complex machining and welding techniques required by the specifications." Under amendment No. 0006 to the solicitation, the SOW was amended to add the requirements that the contractor have the required specialized facilities and experienced personnel at a "primary job site location" and that the work be accomplished at the primary job site location. The amendment indicated that if a contractor utilizes a subcontractor to perform some of the solicitation requirements, the primary site location need not be at the prime contractor's facility, but instead could be at the subcontractor's facility. In addition, the amendment added the requirement that "all phases of handling, disassembly, repair, reassembly and testing detailed in this specification shall be directly supervised, 100% of the time, by a certified journeyman machinist."

LIPS argues that the requirement that the work be performed at a single primary job site location is unduly restrictive of competition, since, according to LIPS, this work has been successfully performed at multiple job sites under its current contract with the Coast Guard, with LIPS subcontracting a portion of the machine work to another firm located approximately 30 miles from LIPS. LIPS claims that requiring a single job site would prevent LIPS from competing under the current solicitation since neither its nor its subcontractor's facility possesses the space necessary to hold all of the specialized equipment and tools needed for the repair work.

As a general rule, the determination of the government's minimum needs and the best method for accommodating them are matters primarily within the agency's discretion. Johnson Controls, Inc., B-243605, Aug. 1, 1991, 91-2 CPD ¶ 112. Where a protester challenges a solicitation provision as unduly restrictive, we will review the record to determine

whether the restriction imposed is reasonably related to the agency's minimum needs. Tek Contracting, Inc., B-245454, Jan. 6, 1992, 92-1 CPD ¶ 28. Further, with respect to solicitation provisions relating to human safety or national defense, we have held that an agency has the discretion to set its minimum needs so as to achieve not just reasonable results, but the highest possible reliability and effectiveness. Tucson Mobilephone, Inc., B-250389, Jan. 29, 1993, 93-1 CPD ¶ 79, *aff'd*, B-250389.2, June 21, 1993, 93-1 CPD ¶ 472.

Here, we find reasonable the agency's conclusion that requiring a single job site is necessary to assuring the successful and timely completion of the overhaul and repair of the propellers. The Coast Guard reports that the physical separation of the propeller's components at multiple job sites during the disassembly, inspection, repair, assembly, and testing phases of the work increases the likelihood of incorrect propeller wear and damage assessments, machining errors, and repair oversights. The agency explains that during contract performance, its engineers, working in conjunction with the propeller overhaul contractor and technical representatives of the propeller manufacturer, routinely measure, inspect, and cross-check propeller mating components against other propeller mating components, which are needed on a machine tool located only at one of the sites, to determine whether the components are working together properly, or whether there will be excess wear. According to the agency, these measurements would be compromised by allowing multiple work sites since the parties would not be able to make side-by-side comparisons of mating parts.

Further, the agency notes that since metal machine parts expand and contract with changes in temperature, machine parts measured with calibrated measuring equipment at one site with a certain temperature that are sent for machining to a second site with a different temperature may not fit in the propellers when returned to the first site. The agency reports that machining errors result in improper fits between machine parts, which could result in catastrophic failure of the propellers while in frigid polar waters, thus risking human safety and compromising the ability of the icebreakers to complete their missions. The agency concludes that the single job site requirement reduces the problem of improper machine part fittings, since it facilitates side-by-side comparisons of mating parts and because parts which are all located at the same site with the same temperature expand and contract together, such that the measurement and subsequent precision cutting of these parts will be more accurate.

In addition, the agency reports that requiring a single job site is also necessary in order to minimize damage to the propeller components and delay during transport. The agency explains that the major components of the propellers range in weight from approximately 500 pounds to several tons, and that these components have meticulously machine-finished surfaces that are vulnerable to impact damage. According to the agency, the additional lifting, loading, and unloading of components during transport between multiple job sites significantly increases the risk that the components will be damaged. Damage to the components, the agency explains, could render the propellers inoperative, and require the emergency drydocking of the icebreakers for repairs and cancellation of critical icebreaking missions. Further, the agency notes that under its current contract with LIPS, which allows for multiple sites, transfers between job sites have resulted in delays to the repair work. The agency considers the delays associated with transporting the components between job sites to be undesirable; since one of the two Polar-class icebreakers is required to be on operational standby status whenever the other vessel is performing a mission, the agency reports that there is a critical need to complete the propeller overhaul on time and in such a manner as to not endanger the vessel drydock schedule.

LIPS concedes that the agency has cited "potential situations where utilizing a subcontractor could lead to an increase in the probability of one of the above problems. . . ." LIPS, however, claims that none of the above problems has occurred under its current contract with the Coast Guard and contends that the hypothetical problems cited by the agency do not establish its need for a single job site requirement.

We are not persuaded by LIPS's position. An agency is not required to show an instance of actual damage or injury under a prior contract before imposing a requirement that reduces potential, reasonably perceived risks to life and property. See Herley Indus., Inc., B-246326, Feb. 28, 1992, 92-1 CPD ¶ 243. In our view, the Coast Guard's concern that allowing multiple job sites would increase the risk of incorrect propeller wear and damage assessments, machining errors, repair oversights, and damage and delay during transport appears both reasonable and substantial. In any event, we note that the Coast Guard disputes LIPS's claim that no problems have occurred under its contract; according to the agency, problems have occurred under LIPS's contract which were exacerbated by LIPS's use of multiple job sites and which might have been avoided had there been only one site. In these circumstances, and given the necessity for the propellers to be satisfactorily overhauled and repaired on schedule so as to help ensure that the two icebreakers

are available to perform their vital missions, we have no basis for objecting to the imposition of the single job site requirement. The fact that the requirement may prevent LIPS from competing does not render the requirement improper where, as here, it is shown to be necessary to meet the agency's minimum needs. See Diversified Contract Servs., Inc., B-233620, Feb. 21, 1989, 89-1 CPD ¶ 180.

LIPS also objects to the IFB requirement for all phases of the required handling, disassembly, repair, reassembly, and testing of the propellers to be supervised by a certified journeyman machinist. LIPS argues that the agency's needs could be met simply by requiring that a machinist supervise only the actual machine work and that an individual with experience in the repair of propellers supervise the disassembly, reassembly, and testing of the propellers.

Based on our review of the record, however, we conclude that the agency's requirement for a certified journeyman machinist to supervise all phases of the propeller overhaul and repair work is reasonable. The Coast Guard reports that the experience and education required for certification as a journeyman machinist--including between 6,000 and 8,000 hours of formal and on-the-job practical education with respect to machine tool setup and operation, benchwork, cutting and welding, hand and measuring tool use, and safe work practices--is important throughout the overhaul process in assuring the discovery of potential problems due to propeller damage and wear and the timely completion of the propeller overhaul. For example, the agency explains that the skills and training of machinists in using tools are needed in order to: (1) disassemble the propellers--which may be jammed in the shaft of the vessel--without unnecessary damage; (2) repair propeller parts and manufacture replacement parts; and (3) assemble the propellers, whose parts often have been modified or replaced during the overhaul and repair. The Coast Guard further explains that the skills and training of machinists in the inspection and evaluation of parts are needed to assure the accurate and reliable evaluation of the propellers and the effectiveness of the repair and overhaul work. According to the agency, the internal component clearances on the 38-ton propeller assemblies are as small as the thickness of a piece of paper, and as a consequence, inspections and evaluations of the propellers must be performed with the highest degree of thoroughness and accuracy.

In our opinion, LIPS has not shown, nor does the record otherwise indicate, any basis for questioning the agency's determination that requiring the supervision of a certified journeyman machinist is the best and most reliable means of assuring that effective and timely overhaul and repair of the propellers which is necessary if the icebreakers are to

perform their vital missions in the frigid polar waters. Given the exacting nature of the required overhaul and repair work and the importance of the work to performance of the icebreakers' vital missions, we do not believe that the agency was required to settle for a less effective means of ensuring timely and quality performance under the contract. See Tucson Mobilephone, Inc., supra.

The protest is denied.

/s/ Ronald Berger  
for Robert P. Murphy  
Acting General Counsel