DECISION

THE COMPTROLLER GENERAL
OF THE UNITED STATES
WASHINGTON, D.C. 20548

60478

FILE: B-183275 DATE: February 5, 1976

MATTER OF: Reconsideration of Decision - Acurex Corporation

DIGEST:

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99145

1. Since requirement for magnet torsionmeter was considered of "vital importance" in safeguarding basic integrity of ships' propeller shafts because of allegedly unacceptable 16,000 p.s.i. clamping pressure associated with protester's non-magnet type torsionmeter, GAO fails to see factual error of its prior statements citing safety factor as reason for Navy's "standardizing" on magnet torsionmeter.

2. Reasons other than safety factor which may have also contributed to Navy's decision to "standardize" on magnet torsionmeter do not detract from essential validity of prior GAO statements citing safety factor as reason for Navy's standardizing on magnet torsionmeter. In any event, prior decision acknowledged that Navy's greater experience with magnet torsionmeter was also reason for standardization.

3. Navy's insistence that it would have to conduct further service testing of protester's non-magnet torsionmeter if proposed to be installed at 16,000 p.s.i. clamping pressure on ships furnished by other than "total systems responsible" prime contractor--while Navy accepts 963 Class destroyers furnished by "total systems responsible" contractor utilizing protester's non-magnet torsionmeters without service testing--indicates Navy's reluctance to consider merits of protester's torsionmeter in timely fashion. View is confirmed by Navy's apparent refusal to have detailed informational exchange with protester.

4. Navy's statement that protester has decreased clamping pressure (presumably to less than 16,000 p.s.i.) on protester's torsionmeter successfully installed on USS Barbey weakens argument that no evidence exists that protester tailors clamping pressure for particular installation.

5. GAO is not convinced that additional service testing or analyses beyond type conducted for prior decision is required to evaluate reliability of protester's torsionmeter or that accommodating protester's torsionmeter would result in need for redesigning certain ship components. Therefore, Navy should conduct discussions with protester, analyze data offered by protester, and issue new solicitation utilizing broader specification if protester's device is found acceptable.

The Naval Sea Systems Command (NAVSEA) has requested reconsideration of our decision in Acurex Corporation, B-183275, November 4, 1975, 75-2 CPD 274.

Acurex's protest of February 1975 questioned invitation for bids (IFB) No. N00024-75-B-4254 issued by NAVSEA for the furnishing of 22 torsionmeters and repair parts for naval vessels of the SSN-688 Class Submarine, CVA-41 Class Attack Aircraft Carrier, and DLGN-38 Class Guided Missile Frigate. Specifically, Acurex insisted that paragraph 3.3.22 of Military Specification, MIL-T-24448A, incorporated in the IFB, unnecessarily restricted competition by requiring bidders to offer torsionmeters employing "magnetostriction [magnet] techniques."

Our decision explained that torsionmeters employing magnet techniques measure the degree of stress on the propeller shaft of a ship by detecting changes in the magnetic properties of the rotating propeller shaft. Torsionmeters of the magnet type do not touch a ship's propeller shaft. By contrast, torsionmeters of the non-magnet type manufactured by Acurex measure stress by means of an electronic sensor fitted between two collars which are clamped to the propeller shaft. NAVSEA set forth three reasons for requiring magnet type torsionmeters. It suggested that the clamping type Acurex torsionmeter had an adverse safety effect on the propeller shaft condition. This suggestion was based on studies assuming the clamping pressure exerted by the Acurex device would be 16,000 pounds per square inch (p.s.i.). It further observed that magnet torsionmeters had been installed and operated successfully in more than 300 ships since 1958. By contrast, it observed that the Acurex technique was a "brand new concept" having less than 1 month experience on one vessel--a DD-963 Class Destroyer. Finally, NAVSEA asserted that it

was necessary to specify magnet type torsionmeters in order to "standardize" torsionmeters for the designated classes of ships. In practical effect, NAVSEA's stated desire for standardization would require the successful bidder for the award to supply additional torsionmeters that would be identical (as to "form, fit, and function") to those magnet type torsionmeters supplied by Mechanical Technology Incorporated (MTI) under a 1972 contract involving the SSN 699 Class of nuclear attack submarine.

We agreed with Acurex that NAVSEA was unwarranted in using a 16,000 p.s.i. figure to calculate the stress placed on the propeller shafts of the classes of ships involved in the subject procurement by the Acurex device. We reached this conclusion because NAVSEA admitted it had not contacted Acurex to verify the validity of the figure and since NAVSEA admitted it had taken the 16,000 p.s.i. figure from an Acurex engineer's presentation which concerned the Acurex torsionmeter installed on the DD-963 class destroyer--a class of ships not involved in the subject procurement. We further noted Acurex's observations that a clamping pressure of 8,000 p.s.i.--rather than 16,000 p.s.i.--would be appropriate for the three classes of ships involved here and that it could possibly provide additional reductions in clamping pressure when it learned the shaft strengths for each class of ship.

Concerning the argument that the magnet-type torsionmeter had a history of successful operation while the Acurex clamping-type torsionmeter was a "brand new concept," we noted that the newness of the Acurex concept was not deemed critical in the prior purchase of Acurex equipment for the DD-963 class destroyers. (This prior purchase of Acurex torsionmeters by the Navy's prime contractor, the Ingalls Shipbuilding Division of Litton Systems, Inc. (Ingalls), for the DD-963 Class Destroyer Construction Program requires Acurex to deliver 60 torsionmeters under its subcontract with Ingalls for installation in the constructed ships.)

Because of our analysis, we recommended that a review be made of the Acurex torsionmeters for their possible use on the classes of ships involved in the immediate procurement. We further recommended that the procurement be resolicited without the magnet requirement if the Acurex torsionmeter was found to meet minimum safety factors. If MTI was not successful upon resoliciting the requirement, we further recommended that MTI's contract be terminated for convenience and that a new contract be awarded to the successful company.

The request for reconsideration is allegedly founded on "new and additional information not previously considered [by our Office]" during our review of the protest. The "new and additional information" is set forth in four arguments which suggest factual error in our decision. There is no indication that the "new and additional information" could not have been presented earlier so that it could have been considered in the November 4 decision. In that connection, we have indicated that a request for reconsideration of a decision is for denial where the request is based upon new contentions instead of a showing that the decision is based upon error in law or fact. Particle Data, Inc., B-178718, May 29, 1974, 74-1 CPD 288. In any event, we have reviewed the "new and additional" information and do not find any justification for modifying the November 4 decision.

The first two arguments concern statements in our decision about NAVSEA's reasons for "standardizing" on magnet torsionmeters. Specifically, NAVSEA argues that the digest of our decision incorrectly states that NAVSEA "standardized" on magnet torsionmeters based on an erroneous assumption that Acurex's equipment would have an unacceptable 16,000 p.s.i. clamping pressure. NAVSEA further insists that we also erred in stating that it standardized on magnet torsionmeters because these devices provide safety factors for propeller shafts not found in non-magnet torsionmeters. The "new and additonal information" presented with these arguments is essentially a lengthy recitation of the history of the Navy's research efforts in developing a suitable torsionmeter.

Support for the statements we made may be found in two separate written documents provided to us during our review of the protest. On page 2 of the Navy's May 21 report NAVSEA states:

> "* * *It is our position, as set forth in greater detail below, that the above quoted requirement [for magnet techniques] is vitally important in order to safeguard the basic integrity of the propeller shafts that these torsionmeters are designed to protect. In two careful scientific and mathematical analyses by the Naval Ship Engineering Center (hereinafter NAVSEC) and two consultants from the Massachusetts Institute of Technology (MIT) agree that the knife-edged Acurex Bands clamped on the shafts under 16,000 pounds per square inch would lower the shaft

> safety factors of the SSN 688-700 Class and of the CVA-41 Class shafts below minimum safety requirements."
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Further, on page 2 of the Navy's "Determination and Findings--Authority to Make Immediate Award Notwithstanding Pendency of Protest," NAVSEA states:

> "* * *NAVSEC Engineers, as well as consultants from MIT, have clearly determined that the 'Magnetostrictive' design is the only known design which provides the required shaft safety factor for the particular submarines, carriers, and destroyers. The Acurex design does not provide the necessary safety margin for the particular submarines and carriers and is marginal for the DLGN 38 Class destroyers. The latter design, however, has been found suitable for certain Navy surface vessels such as the DD 963 class of ships."

Since the requirement for magnet torsionmeters was considered of "vital importance" in safeguarding the basic integrity of propeller shafts because of the unacceptable 16,000 p.s.i. clamping pressure allegedly associated with the Acurex device, we fail to see the factual error of the questioned statements. To the extent that other reasons may also have contributed to the Navy's decision to "standardize" on the magnet torsionmeter (for example, research efforts unrelated to the MIT studies described in the "new and additional information"), these other reasons do not, in our view, detract from the essential validity of our statements. In any event, our digest acknowledged that the Navy's greater experience with the magnet torsionmeter was also a reason for the standardization choice.

The third argument made by NAVSEA relates to another statement in our decision that Acurex was foreclosed from submitting a bid based on NAVSEA's erroneous assumption that the company would use a 16,000 p.s.i. clamping pressure for the classes of ships involved here. Our decision noted that Acurex insisted that it could "tailor" its clamping pressure depending on the class of ships involved and that it estimated a clamping pressure of 8,000 p.s.i. would be sufficient for the ships in the procurement.

NAVSEA insists that it has "no evidence" (notwithstanding Acurex's statements to the contrary) that the company "tailors" the clamping pressures of its device to the class of ships involved. It insists that Acurex's admitted lack of knowledge of "such things as the specific shaft configurations, installation locations, or strength of the particular shafts upon which installation is to be made" prevents the Company from asserting that it can presently specify the actual clamping pressure that it would use on the classes of ships here. (Acurex has recently stated that a clamping pressure not exceeding 2,500 p.s.i. may be sufficient for these ships.) In any event, NAVSEA insists that it cannot amend the existing MIL-SPEC to permit consideration of the Acurex device based upon a "paper evaluation" and that extensive service tests will have to be conducted "over a long period of time" to be sure that any clamping pressure--even the 16,000 p.s.i. associated with the DD-963--will have the "necessary accuracy" and "requisite degree of reliability."

NAVSEA's third argument, in our view, is linked to its remaining argument regarding our decision's observation that the Navy has purchased Acurex torsionmeters for its DD-963 destroyers under its prime contract with Ingalls without regard to service testing time. NAVSEA asserts that we "confused * * * the circumstances of the present procurement * * * [where further extensive service testing of the Acurex device is deemed essential] with the * * * Ingalls contract [where extensive service testing of the Acurex device was apparently not made]."

Although NAVSEA makes much of the "total systems responsibility" of Ingalls for selection of a number of the destroyers' components (including the Acurex torsionmeters) that would "normally" have been Government-furnished equipment (the torsionmeters under the subject award will be Government-furnished equipment under other shipbuilding contracts), the fact remains that for future decades the Navy will be using destroyers with Acurex's torsionmeters at a clamping pressure of 16,000 p.s.i. apparently without extensive pre-use service testing. We think it is inconsistent for the Navy to insist that it would have to conduct extensive service testing on the Acurex device at a 16,000 p.s.i. pressure on other ships while it accepts Ingalls 963 Class Destroyers with Acurex devices without testing.

NAVSEA further distinguishes its implicit acceptance of Acurex torsionmeters for the Ingalls' contract by noting that Ingalls will provide a 1-year warranty and separate 4-year guarantee on all components of the destroyers. However, Acurex has offered to provide

a similar warranty/guaranty protection for its torsionmeters under the subject award.

The Navy's insistence that it would have to conduct further service testing of the Acurex device at a 16,000 p.s.i. on other ships while accepting Ingalls 963 Class destroyers with Acurex torsionmeters without testing, indicates, in our view, NAVSEA's reluctance to consider the merits of the Acurex device in a timely fashion. Our view is further affirmed by noting the Navy's apparent refusal to have a detailed informational exchange with Acurex for the purpose of affording Acurex the precise information on shaft strengths and installation locations which the Navy views as critical in order for Acurex to determine the exact clamping pressure needed for each class of ship. These discussions could also take into consideration NAVSEA's observation that recent satisfactory testing of the Acurex device on the USS Barbey suggests that Acurex has reduced its sensor size (to meet "form, fit and function" standardization requirements) or changed its installation procedure for the device. (Acurex denies that either a reduction in sensor size or a change in installation procedure has been made. Acurex further insists that meeting the standardization provision does not require a significant reduction in its sensor size.)

Further, we observe that NAVSEA's statement that Acurex decreased its clamping pressure (presumably to less than 16,000 p.s.i.) on its torsionmeter successfully installed on the USS Barbey weakens the argument that no evidence exists that Acurex tailors its clamping pressure for a particular installation.

We are not convinced that factual error has been shown which would require withdrawal of the recommendation made in our prior decision. Furthermore, we do not believe on the basis of the present record that additional service testing, or analyses beyond the type conducted by NAVSEC and MIT for the prior decision is required to evaluate the reliability of the Acurex device. Moreover, we do not believe the record indicates, as suggested by NAVSEA, that use of the Acurex device would result in the need for designing larger diameter propeller shafts, seals and bearings. Therefore, consistent with our prior decision, the Navy should afford Acurex the opportunity to discuss its device and examine data offered by Acurex to determine the acceptability of the Acurex product. If it is found acceptable, the Navy should issue a new solicitation utilizing a broader specification.

Copies of this decision are being transmitted to the congressional committees which were advised of the recommendation in our earlier decision.

Deputy Comptroller General
of the United States