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UNITED STATES GENERAL ACCOUNTING OFFICE
REGIONAL OFFICE
502 U.S. CUSTOMHOUSE, SECOND AND CHESTNUT STREETS
PHILADELPHIA, PENNSYLVANIA 19106

SEP 21 1970

LM092868

Commanding General
U.S. Army Munitions Command
Dover, New Jersey 07801

Dear Sir:

We have made a review of the procedures and practices of the Frankford Arsenal, Philadelphia, Pennsylvania, for negotiating fixed-price contracts during fiscal year 1969. The review was directed primarily toward determining whether fair and reasonable prices had been obtained under negotiated fixed-price contracts valued at $100,000 or more. Awards for 20-mm. projectiles included advertised contracts. We considered these procurements in our evaluation. In addition, we tested options for additional quantities valued at $100,000 or more that were exercised under the provisions of selected contracts.

Our review showed there is a need for the Arsenal to make closer evaluations of (1) the adequacy of price competition before accepting a low bid as being fair and reasonable and (2) the use of options for the purchase of additional quantities of items to assure that they are exercised only when advantageous.

These matters are discussed more fully below.

NEED TO IDENTIFY QUESTIONABLE COMPETITION WHEN CONTRACTORS HAVE APPARENT DETERMINATIVE ADVANTAGE

We believe there is a need for the Arsenal to give closer attention to the adequacy of competition when such competition is to be used as a basis for accepting the low bid as being fair and reasonable. This is especially important when the low bidder may have a determinative advantage which places him in a preferred position over other potential producers, as outlined in ASPR 3-807.1 and explained in the Armed Services Procurement Regulation Manual for Contract Pricing, chapter 3. For example, a determinative advantage can exist when substantial costs, such as startup costs, have already been absorbed in connection with previous contracts.

The Arsenal negotiated 63 contracts, valued at $65 million, without the benefit of cost data on the assumption that adequate price competition existed in accordance with ASPR 3-807.1. We identified 16 of these negotiated contracts, valued at $17 million, on which we believe the

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adequacy of competition was questionable because some contractors had received repeated awards for the same item over an extended period of time and appeared to have an advantageous position in respect to any competition. Four advertised procurements, valued at $9 million, also did not appear to have adequate competition for the same reasons. The advantages which put these contractors in a favored position included extensive Government-furnished equipment at the contractor's plant, prior absorption of equipment acquisition and startup costs, and the less tangible advantage of being continuously in production on an item.

The following schedule summarizes, by item, the fiscal year 1969 procurements for which we believe competition as a basis for evaluating price was inappropriate.

Commodity	Number of contracts awarded	Quantity purchased (units)	Dollar value
20-mm. Projectiles	12	68,043,325	$15,586,736[a]
45-Caliber cartridges	3	104,670,000	4,786,028
M19A1 Ammunition boxes	1	3,886,926	4,501,172
30-Caliber cartridge clip, 8-round	1	15,749,343	605,090
M105 Telescope	1	252	401,344
45-Caliber wadcutter	1	4,024,000	237,416
M134 Telescope mounts	1	142	180,749
			$26,298,535

[a] Includes 4 contracts, for 40,221,070 projectiles valued at $9,445,130, which were awarded on an advertised basis.

20-mm. Projectiles

The award of contracts for 96 percent of the 20-mm. projectiles procured from fiscal year 1966 through 1969 was made to the same four contractors--Harvey Aluminum, Inc., Zeller Corporation, Amron Corporation, and Z. D. Products, Division of Wells Marine, Inc. Our analysis for fiscal year 1969 projectile requirements showed the bids were such that the four contractors appeared to share the market with a minimum of genuine competition.

None of the four contractors had the capacity to produce the total projectile requirements for any year since fiscal year 1966. The production capacities of all four contractors would have been needed to satisfy the fiscal year 1969 procurement requirements even if they worked on a 2-shift basis. We found that these contractors had the advantages of a continuity of production at their respective plants and the use of extensive amounts of Government-furnished equipment.

Our review of the fiscal year 1969 bids from companies competing against the four major producers showed that:

1. Three companies bid on a small portion of the Arsenal's requirements. Two of them had had production problems on small awards in the past and the third had an extremely limited capacity.

2. Two additional bidders submitted proposals for larger awards but they were not in competitive range.

3. Reasons cited by other commercial manufacturers for not bidding were primarily their inability to produce or deliver in accordance with the Arsenal's requirements.

In fiscal year 1970 another company, without the advantages of the four producing contractors, submitted its first bids for 20-mm. projectiles and received two contracts at the lowest prices awarded during the period of our review.

45-Caliber cartridge

Contracts for 45-caliber cartridges were awarded on a competitive basis to Olin Mathieson Chemical Corporation and Remington Arms Company, Inc., in fiscal year 1969. The awards for these cartridges in this and prior years were all made to these two contractors, except for an extremely small quantity in fiscal year 1966. In fiscal years 1968 and 1969 awards were split between the two.

Bids for 45-caliber cartridges were submitted by only one other manufacturer, Federal Cartridge Corporation, during fiscal years 1967 through 1969. This manufacturer's bids were not in competitive range and he appeared to be at a decided disadvantage because he (1) did not quote in most cases on a significant portion of the Arsenal's requirements, which indicated limitations on his available capacity, (2) was not currently in production of this item for the Government, and (3) had only a minor amount of Government-furnished equipment compared with that which was located at the plants of Olin Mathieson and Remington Arms.

A preaward cost analysis was made by the Defense Contract Audit Agency on a fiscal year 1968 contract to be awarded to Olin Mathieson. Exception was taken to $350,000 of the $4 million of costs estimated by the contractor. The cost analysis, however, was not used by the Arsenal in negotiating the price and the contract, part of a split award with Remington Arms, was negotiated and the price accepted on the basis of adequate competition.

M19A1 Ammunition box

Our examination of past awards made for M19A1 ammunition boxes showed that one contractor, Standard Container Company, received all of the contracts awarded during fiscal years 1966 through 1968, and one of two contracts awarded in fiscal year 1969. Because of its repeated awards, Standard was scheduled to deliver quantities of M19A1 boxes every month during the period January 1966 through March 1970.

Only one other contractor, Emco Porcelain Enamel Company, Inc., bid on more than one proposal for this item since fiscal year 1966. This company, however, was never in competitive range and in 1969 the Arsenal expressed doubt that Emco could produce this box and meet the delivery schedule without time-consuming expansion of its plant. No other bidder was in competitive range of Standard's bids until fiscal year 1969 when Youngstown Steel Door Co. received an award for a portion of the Arsenal's requirements. However, at the time of our review Youngstown was having difficulties in meeting the delivery requirements and advised the Arsenal that they would not bid on future procurements of this box.

An examination of Standard's records for the year ending September 28, 1969, showed that the profit on the production of M19A1 boxes was about 19 percent of costs. A fiscal year 1969 procurement of the M2A1 boxes, which are similar to the M19A1 boxes, was also made from Standard. On the basis of the evaluation of the costs submitted by Standard, the Arsenal proposed a profit of 9.8 percent for this procurement. It would appear, therefore, that Standard had obtained a substantially higher rate of profit for the production of M19A1 boxes in 1969 than would have been considered reasonable if a cost analysis had been performed.

In fiscal year 1969 the Arsenal further increased Standard's competitive advantage by agreeing to pay for the purchase of a significant amount of new equipment and tooling as part of the costs on a contract for the M2A1 box. Consequently, it is doubtful that anyone could successfully compete against Standard in any future procurements of the M19A1 and M2A1 ammunition boxes. The acceptance of the price to be offered by Standard on the basis of competition would not assure that such price is fair and reasonable.

30-Caliber cartridge clip, 8-round

The procurements of 30-caliber cartridge clips, 8-round, since fiscal year 1964 have been awarded almost exclusively to Borg-Warner Corporation. In fiscal years 1968 and 1969, Borg-Warner was the only contractor who received awards for this item. In fiscal year 1967 the Arsenal paid for the expansion of Borg-Warner's production lines for the clips by allowing the costs for tooling needed for this expansion to be recovered on a fiscal year 1967 contract. In addition, Borg-Warner is the only contractor that has Government-furnished equipment specifically for the production of this cartridge clip.

Other items

Circumstances similar to those which we have stated for the above items were present with the contracts awarded for the M105 telescope, the 45-caliber wadcutter, and the M134 telescope mount. It appeared that the award winners had a determinative advantage over their competition. In all cases there was only one other contractor who bid on these items.

Conclusions

We believe that there is a need for the Arsenal to give closer attention to negotiated contracts on which adequate competition is cited as the justification for accepting the prices as being fair and reasonable. We believe that lower procurement prices may be obtained if cost analysis is employed when there are indications that the low bidder has a determinative advantage over its competitors. Such indications include information at the agency concerning (1) the absence of startup costs to be absorbed by the contractor due to repetitive awards and continuous production of the same or a similar item, (2) extensive amounts of Government-furnished equipment located at the contractor's plant, (3) payment on one contract for a significant acquisition of tooling and equipment, and (4) restrictions placed on proposals which give the previous producer a further bidding advantage.

NEED FOR CLOSER EVALUATIONS OF OPTIONS

There is a need for closer evaluation of options to be used for the purchase of additional quantities of items to assure that contract modifications are being awarded at the most advantageous price to the Government. In the three instances we reviewed we found that if the Arsenal had tested the market they might have procured certain items at lower prices. In another instance we found that if the Arsenal had realistically evaluated delivery capabilities of the contractors, they could have exercised the option with the low-cost producer rather than the higher cost producer. We estimate that the Arsenal might have been able to reduce procurement costs by more than $270,000 in the above instances alone if greater care had been taken in the exercise of options.

In the determination of whether a price is most advantageous to the Government in the exercise of options, ASPR 1-1505(d) provides, in part, that the procurement agency need not test the market if the time between award and exercise of the option is so short that it indicates the option price is still the lowest obtainable. Conversely, it should be clear that the market should be tested if a significant period of time has elapsed from the date of award and there is no way to evaluate the price other than by comparison with the basic award.

We made a selective review of options which were exercised more than a hundred days from the date of award at the same unit price as in the basic award and for which a downward trend in the price paid for the items had been experienced over the past few years. The following three options met this criteria and were analyzed further.

Contractor	Item	Option value	Days between contract award and option
Associated Spring Corp.	Clip	$835,500	129
Wire & Metal Specialties, Inc.	Clip	424,600	178
Kings Point Manufacturing Co.	Bandoleer	257,600	161

In evaluating the option prices, Arsenal procurement personnel made no test of the market, formal or informal, nor did they obtain data on current cost experience from any of the contractors to support the option price. Contracts for these commodities awarded subsequent to these options showed a continuing downward trend in prices. We estimate that if the Arsenal had tested the market and obtained reductions in price comparable to those on subsequent procurements they would have achieved savings of over $70,000 for the three procurements. Other possible savings might have been achieved due to new contractors' receiving awards at prices even lower than these contractors received.

In another instance we found that the Arsenal had exercised an option with Emco Porcelain Enamel Co., Inc., for 500,000 M2A1 ammunition boxes at a cost of $950,000 on the basis of urgent delivery requirements. Another contractor, Standard Container Company, was producing the same boxes and could have delivered them 1 to 2 months later at a price at least $200,000 lower than that paid to Emco.

Although the Arsenal was aware of the potential savings available through the alternate course of action, no evidence was found that the Arsenal had verified that Emco could produce these items and meet the delivery requirement before exercising the option. The files showed, however, that prior to exercising the option, the Arsenal was notified by the DCASR representative that Emco would be delinquent in delivering the basic contract quantities due to excessive employee absenteeism, breakdowns of machinery, and a wildcat strike. As had been predicted by the DCASR representative, Emco was delinquent and almost 50 percent of the option quantity was delivered 1 to 3 months subsequent to the scheduled period, as shown in the following schedule.

	Emco		Standard
Month	Required deliveries	Actual deliveries	Delivery capability
Nov. 1969	250,000	10,955	
Dec. 1969	250,000	249,285	
Jan. 1970		147,744	500,000
Feb. 1970		81,252	
Mar. 1970		10,764	
	500,000	500,000	500,000

Conclusions

We believe that the above instances point up the need for closer evaluation of the exercise of options. Factors such as the presence of competition, a significant lapse of time from the basic award, and a downward trend in the price of an item may reduce or eliminate the advantages of an option. Hence it is imperative that the market be tested prior to exercising an option. In addition, there is a need for closer evaluation of delivery capabilities of a contractor when an option is to be exercised on the basis of urgent delivery requirements. This point gains added significance when, in effect, a premium is being paid for early delivery.

Other matters

A related review has also been made at Mechanical Products, South El Monte, California, on contract DAAA25-69-C-0343. Any report on that review will be issued by our Los Angeles regional office which is making the review.

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We thank you for the cooperation extended to our staff during this review. We will be glad to discuss the above matters further and will appreciate any comments regarding actions taken or to be taken as a result of the review.

Sincerely yours,

JAMES H. ROGERS

James H. Rogers
Regional Manager

cc: Commanding Officer
Frankford Arsenal