



**Comptroller General
of the United States**

Washington, D.C. 20548

Decision

Matter of: Innovative Refrigeration Concepts

File: B-272370

Date: September 30, 1996

Roger K. Singh for the protester.

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DIGEST

Protest that agency's specifications for air conditioning chillers were overly restrictive because they required a particular type of heat exchanger and digital controller is denied where the agency reasonably found that these features reflected its minimum needs as they would ensure less maintenance, more efficient cooling, and more efficient troubleshooting and control of problems.

DECISION

Innovative Refrigeration Concepts (IRC) protests the amended specifications to request for proposals (RFP) No. DABT23-96-R-0049, issued by the Department of the Army for air cooled water chillers at Fort Knox, Kentucky. IRC contends that the amended specifications are overly restrictive.

We deny the protest.

The RFP contemplated award of a firm, fixed-price contract for three 60-ton air conditioning chillers, specified on a brand name Trane or equal basis. The RFP listed a number of salient characteristics including a power control transformer, a microprocessor controller, and a requirement that each unit be air cooled. These chiller units are installed outside of buildings and operate to cool water that is then pumped inside the building through the air conditioning system. Fort Knox has approximately 400 chillers, some 15 to 30 of which are replaced annually. Award was to be made to the low responsive, responsible offeror, but the RFP provided for a 10-percent price evaluation preference for qualified small disadvantaged business (SDB) offerors.

IRC and eight other offerors submitted proposals by the May 2, 1996, closing date for receipt of offers. All were technically acceptable and, after application of the 10 percent evaluation preference, IRC's proposal was the apparent low offer. The contracting officer contacted the Heating, Ventilation and Air Conditioning (HVAC) Branch of the Fort Knox Directorate of Public Works to ensure that IRC's unit complied with all salient characteristics. On May 6, before the HVAC Branch replied, the contracting officer notified IRC that it was the apparent low offeror and requested verification that the IRC unit met certain certification requirements.

The HVAC Branch advised the contracting officer that Fort Knox currently had two IRC units installed. While they met the salient characteristics set forth in the RFP, the units presented various maintenance problems. For example, the IRC unit used a plate design heat exchanger, which was less efficient than the tube-in-shell design offered by the other firms. This chiller design made it more difficult to clear clogs and to prepare the units for winter shutdowns since the plate design units could not be drained. Instead, each had to be filled with glycol (antifreeze), which had to be pumped out in the spring, resulting in the generation of hazardous waste. In addition, the IRC chiller included an obsolete controller while all other recently installed units, as well as all others proposed under this RFP, used a menu driven controller that provided more extensive processing, monitoring, and diagnostic functions. The HVAC Branch also questioned the amount of manufacturing contributed by IRC to its chiller units and whether IRC was therefore entitled to the SDB preference.

On May 14, the contracting officer advised IRC that its SDB status was in question and requested IRC to verify its level of manufacturing. According to IRC, it submitted "voluminous" information in response.¹ On June 11, the contracting officer amended the RFP to provide that the power control transformer "shall be a stand-alone, menu-driven digital controller with processing, monitoring and diagnostic capabilities" and the chiller unit "shall possess a tube-in-shell heat exchanger designed with internally-finned copper tubes." Offerors were instructed to incorporate these changes into their best and final offers (BAFO). Instead of submitting a BAFO, IRC protested the amendment to our Office.

¹As part of its protest, IRC complains that the agency needlessly required it to submit information in support of its claimed SDB status, only to then change the specifications. We find nothing improper in the agency's actions. The contracting officer has a responsibility to ensure that offerors obtaining the benefit of an SDB preference are entitled to it. Here, but for the preference, IRC would not be in line for the award. The amendment of the specifications changed nothing in this regard.

IRC protests that the amended specifications are overly restrictive because both the tube-in-shell design and plate-type heat exchangers can handle the cooling function. By specifying the type of heat exchanger, IRC contends that the agency excludes manufacturers other than Trane from the competition. IRC also contends that the amended controller design features are unique to the Trane Company and that the design should be immaterial so long as all vital control functions are included in the product.

Agencies are required to specify their needs in a manner designed to promote full and open competition and thus may include restrictive requirements only to the extent necessary to satisfy their minimum needs. Moore Heating & Plumbing, Inc., B-254024, Nov. 16, 1993, 93-2 CPD ¶ 276; Johnson Controls, Inc., B-243605, Aug. 1, 1991, 91-2 CPD ¶ 112. The contracting agency, which is most familiar with its needs and how best to fulfill them, must make the determination as to what its minimum needs are in the first instance, and we will not question that determination unless it has no reasonable basis. Moore Heating & Plumbing, Inc., supra; Johnson Controls, Inc., supra. Here, we find that the agency has demonstrated reasonable bases for the amended requirements.

The agency explains that plate design units, such as IRC's, require more maintenance at an increased cost. While tube-in-shell units can be drained of water to prevent freezing and breaking in the winter, the plate design units, as proposed by IRC, could not be drained. Instead, they have to be pumped full of glycol, which requires 3 hours for 3 maintenance workers to accomplish. In the spring the same crew requires 8 hours to flush the unit. Additional expense is associated with the disposal of the hazardous waste that is flushed out. The plate design also makes it more difficult to clear clogs. While clogs in a tube-in-shell exchanger can be cleared by use of a rod, the plate design requires use of chemicals for clog removal or reduction. According to the agency, this process also produces hazardous waste that must be properly disposed of at additional expense. Further, because most of the 400 chillers currently in service are of tube-in-shell design, the Fort Knox air conditioning technicians have extensive training and experience with this design, and very little training for servicing the labor-intensive plate design. The tube-in-shell design, with a flow rate of more than 200 gallons per minute (gpm), also is more efficient than the plate design, which has a flow rate of less than 140 gpm. The greater flow rate results in higher efficiency in cooling a building and therefore less energy consumption.

With regard to the specified stand-alone transformer and more advanced controller, the agency explains that the unit proposed by IRC represents 10-year old technology. While IRC's proposed controller may handle all vital functions, it lacks additional features that promote the overall maintenance and efficiency of the units. For example, the specified controller allows extensive flexibility in programming operating control strategies and provides extensive diagnostic information in

readout form. These displays notify the operator of any fault condition for easy troubleshooting, will anticipate potential problems, and will initiate corrective action to prevent nuisance shutdowns. The type of controller proposed by IRC is more limited in this respect and shuts down the unit more frequently.

We believe that the agency has reasonably supported its determination of its minimum needs. The specified design is less labor intensive to maintain, does not produce hazardous waste as a by-product of annual maintenance, is more efficient in cooling, and features a controller that makes trouble-shooting easier with fewer unneeded shutdowns. Features that result in more effective maintenance and are more cost-effective are legitimate considerations in an agency's determination of its minimum needs. See Moore Heating & Plumbing, Inc., *supra*; LaBarge Prods., Inc., B-232201, Nov. 23, 1988, 88-2 CPD ¶ 510.

IRC contends that these specifications restrict the competition only to Trane products. However, the agency advises that its market research confirms that all manufacturers, apart from IRC, offer the tube-in-shell design and the more advanced controllers in their chillers. In this procurement alone, the agency received proposals offering the products of Trane, Carrier, and Dunham-Bush.

IRC questions the agency's timing of the amendment, noting that in 1994, IRC won a contract to supply its chillers to Fort Knox, and that solicitations since then have not used the restrictive specifications. We find nothing improper about the issuance of the amendment. Agencies may amend their specifications when necessary and are simply required, as the agency did here, to ensure that the offerors are advised and provided an opportunity to amend their proposals in a BAFO. See Federal Acquisition Regulation § 15.606 (FAC 90-31). Here, until the evaluation of IRC's apparently low offer, the agency was not aware of any need to clarify the specifications. Using the original specifications, the agency had obtained competitive proposals and awarded several contracts to offerors proposing only tube-in-shell designs with the more advanced controllers. The agency also explains that the disadvantages associated with the IRC chillers were not noted until several months after their purchase, and that IRC had not submitted proposals for its chillers on the intervening procurements. Further, there is no evidence that the agency included the more restrictive specifications in order to eliminate IRC from the competition. In fact, though claiming the specifications are unduly restrictive, IRC does not argue that it is unable to offer compliant chillers. To the contrary, its comments on the agency's protest report suggest that it could manufacture chillers meeting the agency's requirements. The mere fact that a particular prospective offeror is unable or unwilling to compete under specifications that reflect the agency's needs does not establish that the specifications are unduly restrictive. Interscience Sys., Inc., B-205458, Mar. 9, 1982, 82-1 CPD ¶ 220.

Well after commenting on the agency's report IRC raised a number of additional arguments about its units for our consideration in resolving the protest. Our Bid Protest Regulations, however, do not contemplate the unwarranted piecemeal development of protest issues. Little Susitna Co., 65 Comp. Gen. 652 (1986), 86-1 CPD ¶ 560. In any event, we note that IRC argues it could include a drainage system on its units that actually would answer the agency's design concerns. However, this potential design change does not address the controller design and resolves only one of the problems with the plate design; it does nothing to resolve other maintenance issues such as the flow rate, clog problems, and the lack of expertise at Fort Knox for maintaining the IRC design. In addition, IRC has submitted information indicating that other manufacturers use the plate design because it is more advantageous than the tube-in-shell design; the information sheets, however, concern 10- to 40- ton units whereas the agency here is procuring 60-ton units. Finally, with regard to the controller, IRC maintains that its proposed controller will do all required tasks, but concedes that it requires "supplemental electromechanical logic" to do so.

The protest is denied.

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