

development of a tangible end item designed to achieve specific performance characteristics. The wording of the work statement should also be consistent with the type and form of contract to be negotiated (see 16.207 and 16.306(d)). For example, the work statement for a cost-reimbursement contract promising the contractor's best efforts for a fixed term would be phrased differently than a work statement for a cost-reimbursement completion contract promising the contractor's best efforts for a defined task. Differences between work statements for fixed-price contracts and cost-reimbursement contracts should be even clearer.

(d) In preparing work statements, technical and contracting personnel shall consider and, as appropriate, provide in the solicitation—

(1) A statement of the area of exploration, tasks to be performed, and objectives of the research or development effort;

(2) Background information helpful to a clear understanding of the objective or requirement (e.g., any known phenomena, techniques, methodology, or results of related work);

(3) Information on factors such as personnel, environment, and interfaces that may constrain the results of the effort;

(4) Reporting requirements and information on any additional items that the contractor is required to furnish (at specified intervals) as the work progresses;

(5) The type and form of contract contemplated by the Government and, for level-of-effort work statements, an estimate of applicable professional and technical effort involved; and

(6) Any other considerations peculiar to the work to be performed; for example, any design-to-cost requirements.

**35.006 Contracting methods and contract type.**

(a) In R&D acquisitions, the precise specifications necessary for sealed bidding are generally not available, thus making negotiation necessary. However, the use of negotiation in R&D contracting does not change the obligation to comply with part 6.

(b) Selecting the appropriate contract type is the responsibility of the contracting officer. However, because of the importance of technical considerations in R&D, the choice of contract type should be made after obtaining the recommendations of technical personnel. Although the Government ordinarily prefers fixed-price arrangements in contracting, this preference applies in R&D contracting only to the extent that goals, objectives, specifications, and cost estimates are sufficient to permit such a preference. The precision with which the goals, performance objectives, and specifications for the work can be defined will largely determine the type of contract employed. The contract type must be selected to fit the work required.

(c) Because the absence of precise specifications and difficulties in estimating costs with accuracy (resulting in a lack of confidence in cost estimates) normally precludes using fixed-price contracting for R&D, the use of cost-reimbursement contracts is usually appropriate (see subpart 16.3). The nature of development work often requires a cost-reimbursement completion arrangement (see 16.306(d)). When the use of cost and performance incentives is desirable and practicable, fixed-price incentive and cost-plus-incentive-fee contracts should be considered in that order of preference.

(d) When levels of effort *can* be specified in advance, a short-duration fixed-price contract *may* be useful for developing system design concepts, resolving potential problems, and reducing Government risks. Fixed-price contracting may also be used in minor projects when the objectives of the research are well defined and there is sufficient confidence in the cost estimate for price negotiations. (See 16.207.)

(e) Projects having production requirements as a follow-on to R&D efforts normally should progress from cost-reimbursement contracts to fixed-price contracts as designs become more firmly established, risks are reduced, and production tooling, equipment, and processes are developed and proven. When possible, a final commitment to undertake specific product development and testing should be avoided until (1) preliminary exploration and

studies have indicated a high degree of probability that development is feasible and (2) the Government has determined both its minimum requirements and desired objectives for product performance and schedule completion.

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### 35.007 Solicitations.

(a) The submission and subsequent evaluation of an inordinate number of R&D proposals from sources lacking appropriate qualifications is costly and time-consuming to both industry and the Government. Therefore, contracting officers should initially distribute solicitations only to sources technically qualified to perform research or development in the specific field of science or technology involved. Cognizant technical personnel should recommend potential sources that appear qualified, as a result of—

- (1) Present and past performance of similar work;
- (2) Professional stature and reputation;
- (3) Relative position in a particular field of endeavor;
- (4) Ability to acquire and retain the professional and technical capability, including facilities, required to perform the work; and
- (5) Other relevant factors.

(b) Proposals generally shall be solicited from technically qualified sources, including sources that become known as a result of synopses or other means of publicizing requirements. If it is not practicable to initially solicit all apparently qualified sources, only a reasonable number need be solicited. In the interest of competition, contracting officers shall furnish copies of the solicitation to other apparently qualified sources.

(c) Solicitations shall require offerors to describe their technical and management approach, identify technical uncertainties, and make specific proposals for the resolution of any uncertainties. The solicitation should require offerors to include in the proposal any planned subcontracting of scientific or technical work (see 35.009).

(d) Solicitations may require that proposals be organized so that the

technical portions can be efficiently evaluated by technical personnel (see 15.204-5(b)). Solicitation and evaluation of proposals should be planned to minimize offerors' and Government expense.

(e) R&D solicitations should contain evaluation factors to be used to determine the most technically competent (see 15.304), such as—

- (1) The offeror's understanding of the scope of the work;
- (2) The approach proposed to accomplish the scientific and technical objectives of the contract or the merit of the ideas or concepts proposed;
- (3) The availability and competence of experienced engineering, scientific, or other technical personnel;
- (4) The offeror's experience;
- (5) Pertinent novel ideas in the specific branch of science and technology involved; and
- (6) The availability, from any source, of necessary research, test, laboratory, or shop facilities.

(f) In addition to evaluation factors for technical competence, the contracting officer shall consider, as appropriate, management capability (including cost management techniques), experience and past performance, subcontracting practices, and any other significant evaluation criteria (e.g., unrealistically low cost estimates in proposals for cost-reimbursement or fixed-price incentive contracts). Although cost or price is not normally the controlling factor in selecting a contractor to perform R&D, it should not be disregarded in arriving at a selection that best satisfies the Government's requirement at a fair and reasonable cost.

(g) The contracting officer should ensure that potential offerors fully understand the details of the work, especially the Government interpretation of the work statement. If the effort is complex, the contracting officer should provide potential offerors an opportunity to comment on the details of the requirements as contained in the work statement, the contract Schedule, and any related specifications. This may be done at a preproposal conference (see 15.201).