

Contracting for New Equipment

or

The Philosophy of Acquisition

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Genesis of This Talk

Expert: n., Someone that has made all possible mistakes within a narrowly defined field of interest.

This talk is derived from the following:

- discussions with Paul Brand, NCNR
- discussions with Tamara Grinspon, NIST Acquisition Assistance Division (Procurement)
- Contracting Officer Technical Representative training course
- going through the ratification process

The Way Equipment Contracts Have Often Been Done

- ① Premise: The Procurement division is an obstacle.
 - ① they slow things down
 - ① you are forced to go with the lowest bidder
 - ① we know who we want to buy from
- ① Strategy: Get around their rules.
 - ① write a sole source justification because that will be quicker
 - ① write specifications so that it is essentially a sole source procurement

The Way Equipment Contracts Have Often Been Done

- ① Execution: Push the award through.
 - ① Scanty Statement of Work submitted.
 - ① Convince the contracting officer everything is straightforward, maybe even urgent.
 - ① Technical evaluation is hastily written.
- ① Result: Acquisition complete.
 - ① Whatever is delivered will be accepted.
 - ① Shortcomings are swallowed as the cost of doing business.

The Way Equipment Contracts Have Often Been Done

Problems with this approach

- ① Premise: Procurement is there for guidance, structure, and your protection.
- ① Strategy: Sole source takes as long to process as any other approach, is hard to justify, and is open to protest.
- ① Execution:
 - ① World is notified of intent to sole-source.
 - ① Statement of work defines the contracting relationship, for better or worse.
- ① Results:
 - ① Cost is likely higher.
 - ① Controls not present in contract.
 - ① Contracting officer cannot be an ally.

Advised Approach

- ⑥ Work from a performance standpoint to derive specifications.
- ⑥ Do thorough market research to promote competition.
- ⑥ Readjust specifications if necessary based on market research and requirements.
- ⑥ Contact Procurement department/division early, before submission of any paperwork.
- ⑥ Be honest, brutally honest, with Procurement.
- ⑥ Prepare a complete Statement of Work.
- ⑥ Provide incentives to the vendor in the contract.
- ⑥ Buy a complete system if possible to make the vendor a full partner.
- ⑥ Always go for best value, not lowest price.

Advised Approach

① Disadvantages

- ① more paperwork, more work up front
- ① procurement will take longer
- ① less standardization?

① Advantages

- ① lower price
- ① different, maybe better, solutions
- ① greater involvement with vendors & Procurement
- ① contract protection
- ① contracts can provide for future needs without extra work

Case Studies

- ① Top-loading ^3He cryostat
 - ① Needed reliable, low maintenance low temperature capability
 - ① Followed rules outlined including market research
 - ① Surprised during solicitation phase by completely different approach
 - ① Award went to best technical approach
- ① Superconducting magnet delivery
 - ① Initially delayed years due to world-wide magnet wire shortage
 - ① Underwent major re-design without notification to contracting officer
 - ① Requested delivery before system met all performance specifications
 - ① Signed off for payment before noticing problems
 - ① Contracting officer negotiated free repair, spare sample stick, and mended relationship with vendor

Our Present Needs/Desires

- ① Partner with other institutions for achieving similar goals
 - ① done properly, vendors should benefit as well
- ① Pursue research projects through contracting
 - ① must have Procurement on board for this
- ① Examples of current projects
 - ① User-friendly radiation shield mounting scheme for 10-800 K
 - ① Adiabatic demagnetization refrigerator, cryogen free
 - ① Fast exchange sample changer (like FERNS, but different)
 - ① Sample exchanger for many samples (ESRF robot picker)
 - ① Neutron friendly mirror furnace