



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

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MARCH 7, 1979

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~~RESTRICTED~~ Not to be released outside the General Accounting Office except on the basis of specific approval by the Office of Congressional Relations.
The Honorable Gary W. Hart, Chairman
The Honorable Alan K. Simpson
Ranking Minority Member
Subcommittee on Nuclear Regulation
Committee on Environment and Public Works
United States Senate

SEN 06406

In a joint letter dated June 6, 1978, from Senator Hart and Senator James A. McClure, the former ranking minority member, it was pointed out that the Nuclear Regulatory Commission had recently received adverse publicity regarding possible mismanagement and overpayment of its outside consultants. Interest was also expressed in obtaining information on Commission practices and procedures for using contractors and the Department of Energy's laboratories for carrying out the Commission's various missions and responsibilities. Accordingly, we were requested to conduct a study of the Commission's system for acquiring and using outside assistance and expertise.

In accordance with the request, we (1) conducted a broadly based review of the Commission's practices for acquiring goods and services from external sources and, as agreed with your respective offices, (2) focused the detailed portion of our review efforts on those aspects which appeared to be weak. We conducted our review primarily at the Commission's and the Department's headquarters offices in Washington, D.C., and at the following Department laboratories: Idaho National Engineering Laboratory, Idaho Falls, Idaho; Oak Ridge National Laboratory, Oak Ridge, Tennessee; Pacific Northwest Laboratories, Richland, Washington; and Sandia Laboratories, Albuquerque, New Mexico. We also conducted our review at those Department field operations offices having administrative oversight responsibilities over these laboratories.

More than half of the Commission's annual budget is spent for acquiring outside goods and services. The vast majority of these expenditures--86 percent--are for research and technical assistance acquired from the Department's various



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laboratories. The remaining expenditures are generally for goods and services obtained from contractors and for work performed by consultants.

Our review of Commission practices for acquiring these outside goods and services disclosed a number of areas of concern which point to weaknesses in the Commission's adherence to sound acquisition principles. These concerns, which are discussed in detail in the enclosure to this letter, generally related to the following:

- Controls over work placements with the Department's laboratories were not adequate for ensuring that the Commission acquires the best goods and services at the most reasonable costs.
- Justifications for awarding certain contracts on a noncompetitive basis were inadequate, and certain aspects of the Commission's contract administration--contract monitoring and making timely closeouts of completed contracts--appeared weak.
- Justifications for hiring consultants were incomplete, and controls over payments for their services were not adequate.

In light of our concerns, we are making several recommendations to the Chairman of the Nuclear Regulatory Commission for correcting these weaknesses. With respect to the Commission's placing work with the Department's laboratories, we are recommending that the Chairman require the various Commission program offices to fully justify such placements. We are pointing out that each justification should include the reasons and circumstances surrounding the placement, and where other entities have the capability for performing independent work, the justification should contain a comparison showing the related cost impact when practicable. We are also recommending that each such justification be reviewed by the Commission's Division of Contracts for conformity with sound acquisition principles.

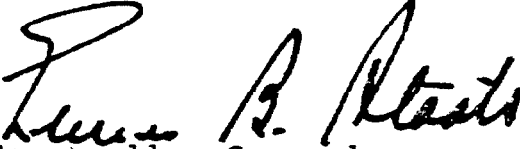
Our recommendations pertaining to the Commission's acquiring goods and services through contracts are aimed at the Commission's (1) seeking greater competition in contract awards for solicited proposals, and when this is not feasible, fully documenting noncompetitive award justifications, and (2) ensuring that awards resulting from unsolicited proposals are justified in accordance with applicable Federal criteria.

We are also recommending that the Chairman of the Commission monitor the Division of Contracts' actions to improve contract monitoring and alleviate the contract close-out backlog to ensure that such actions are done in a timely manner.

Stephanie...
With respect to the Commission's use of consultants, we are recommending that the Chairman of the Commission take steps to ensure that consultant appointments are fully justified and the corresponding work descriptions are sufficiently specific. We are also recommending actions aimed at tightening controls over payments for consultants' services *should be tightened*

As arranged with your respective offices, unless you publicly announce its contents earlier, we plan no further distribution of this report until 24 hours from the date of the report. At that time we will send copies to interested parties and make copies available to others upon request.

We trust that this report is responsive to your needs. As requested we did not obtain formal comments on this report; however, it was discussed with Nuclear Regulatory Commission officials, who generally agreed with our recommendations, and their comments were incorporated as appropriate.


Comptroller General
of the United States

Enclosure

COMMENTS ON THE NUCLEAR REGULATORY COMMISSION'S
USE OF THE DEPARTMENT OF ENERGY'S LABORATORIES
AND OF OUTSIDE CONTRACTORS AND CONSULTANTS

BACKGROUND

Before October 1974, the Atomic Energy Commission (AEC) administered programs designed to maximize development of the atomic energy industry as well as control the use and production of atomic energy. In carrying out these programs, AEC made extensive use of various research and production laboratories which were created primarily for the development of nuclear weapons and nuclear energy research.

On October 11, 1974, the Energy Reorganization Act of 1974, Public Law 93-438, reorganized Federal nuclear energy programs. It abolished AEC and assigned programs for nuclear research and development to the Energy Research and Development Administration (ERDA), and nuclear licensing and regulatory programs to the Nuclear Regulatory Commission (NRC). 1/ The various research and production laboratories that were under AEC were transferred to ERDA. When the Department of Energy (DOE) was established on October 1, 1977, it assumed all of ERDA's functions, including responsibility for the research and production laboratories.

NRC has no facilities and only limited in-house research and related capabilities for carrying out its functions. Accordingly, NRC must look outside to satisfy its research and technical assistance needs. During fiscal years 1977 and 1978, more than half of NRC's total budget was spent for acquiring outside support from private as well as Federal sources, as shown in the following table.

1/NRC regulates all civilian nuclear activity in the interest of public health and safety.

NRC's Budget for Fiscal Years 1977-78

	<u>Fiscal Years</u>	
	<u>1977</u>	<u>1978</u>
	(millions)	
Expenditures for outside assistance from:		
DOE laboratories	\$118.0	\$141.6
Contractors (new contracts only)	12.5	14.0
Consultants (note a)	1.3	1.1
Others (note b)	<u>13.4</u>	<u>7.9</u>
Total expenditures outside NRC	145.2	164.6
Expenditures within NRC (note c)	<u>108.8</u>	<u>123.4</u>
Total NRC budget	<u>\$254.0</u>	<u>\$288.0</u>
Percent of NRC budget for outside assistance	57	57

a/Expenditure data for consultants are for calendar years 1977 and 1978.

b/Represents payments made to other Federal agencies, non-DOE laboratories, and other organizations, and includes payments on multi-year contracts awarded in prior years.

c/Represents the cost of personnel compensation and benefits, administrative support, travel, and equipment.

NRC estimates that expenditures for outside research and technical assistance during fiscal year 1979 will be about 56 percent of its budget. Similarly, the vast majority of these expenditures will be for research and technical assistance acquired from the DOE laboratories.

The five NRC program offices 1/ are the primary offices initiating activities to obtain outside assistance. After deciding what is needed, these offices select the appropriate acquisition source--DOE laboratories, contractors, or consultants.

We have conducted a broad review of NRC's practices for acquiring goods and services and have identified a number of areas of concern that we believe warrant the attention of the Chairman of NRC. The following sections provide an overall perspective on general acquisition principles needed for an understanding of our concerns as well as additional details on each specific area of concern.

PERSPECTIVE

In acquiring goods and services not available internally, agency managers are bound by a variety of rules and regulations designed to provide the Government with acceptable goods and services at the lowest or most advantageous price, taking into consideration cost and other factors, such as the responsiveness and technical competence of the potential providers of these goods and services. These acquisition principles are generally based on the concept that agency managers are custodians of Federal funds and, as such, are responsible for the prudent and effective use of these funds.

One of the basic tools for carrying out these acquisition principles is the Federal Procurement Regulations (FPRs), established by the General Services Administration in 1959, which set forth general principles for civilian agencies to follow when purchasing goods and services. Such Government purchases are required to be accomplished using full competition to the maximum extent practicable. Formal advertising and negotiation are the basic methods by which the Government procures goods and services. Procurement principles provide for bids whenever feasible and practicable. Contractors are invited to submit firm bid prices for specified goods or services, and a contract is awarded to the lowest responsive and responsible bidder.

Even when a procurement cannot be awarded by formal advertising, agencies are expected to make maximum practicable

1/Nuclear Regulatory Research, Nuclear Reactor Regulation, Nuclear Materials Safety and Safeguards, Standards Development, and Inspection and Enforcement.

use of competition in negotiating contracts. Prospective contractors are given requests for proposals which state the Government's requirements and criteria for evaluating offers. After a certain period of time in which interested firms prepare and submit offers, negotiation with those in the competitive range follows. The firm with the offer that is the most advantageous to the Government--cost and other factors considered--is awarded the contract.

Other rules and regulations for carrying out basic acquisition principles include various Office of Management and Budget (OMB) publications, as well as each agency's own set of implementing instructions.

Federal agencies generally have established a division or office having responsibility for ensuring adherence to the general principles relative to acquiring goods and services. At NRC, the Division of Contracts has this responsibility.

In addition to procuring goods and services under the FPRs, NRC has other statutory authority by which to acquire goods and services. The primary alternative available to NRC is the authority granted by the Atomic Energy Act of 1954, as amended, and the Energy Reorganization Act of 1974, as amended, to obtain research and other services from DOE--including the DOE laboratories--and other Federal agencies. The FPRs do not apply to transactions undertaken through this authority. Notwithstanding the fact that the FPRs do not apply to work done by other Federal agencies, sound acquisition policy designed to ensure the acquisition of the best goods and services at the most reasonable costs should be applied to these transactions.

The identified concerns below, which were disclosed during our review, point to weaknesses in NRC's adherence to sound acquisition principles.

- Controls over work placements with DOE laboratories are not adequate for ensuring acquisition of the best goods and services at the most reasonable costs.
- Justifications for awarding certain contracts on a noncompetitive basis are inadequate, and certain aspects of NRC's contract administration appear weak.
- Justifications for hiring consultants are incomplete, and controls over payments for their services are not adequate.

INADEQUATE CONTROLS OVER WORK
PLACEMENTS WITH DOE LABORATORIES

In fiscal year 1978, NRC spent about \$142 million at DOE laboratories. This represented 86 percent of the total dollars spent by NRC for acquiring outside goods and services. However, the use of these laboratories was made without written justification to assure that NRC would receive the best goods and services at the most reasonable cost. This occurred primarily because NRC is not required to follow normal contracting practices in placing work with DOE laboratories.

Written justification lacking for
placing work at DOE laboratories

Our review of NRC's procedures for placing work at the DOE laboratories showed that such placements were made without considering the possibility that other performers might be qualified to do the work.

NRC's procedures for placing work with DOE laboratories are based on a Memorandum of Understanding between NRC and DOE setting forth the agreements reached by the two agencies over the use of the laboratories. NRC's implementing instructions are intended to standardize procedures for requesting and authorizing work, to be performed on a reimbursable basis, by DOE laboratories. Proposals for work at the DOE laboratories are initiated by either the five NRC program offices or the contractors operating the DOE laboratories. Upon approval, NRC program offices prepare work orders authorizing the laboratories to perform the work steps detailed in the proposals. These work orders are forwarded to the various DOE field operations offices having responsibility for overseeing the work done by these laboratories. The field offices authorize the laboratories to do the work by signing the work orders and returning copies to NRC. The laboratories carry out the work as set forth in the work orders.

The NRC/DOE Memorandum of Understanding and the NRC implementing instructions for the use of DOE laboratories essentially provide for such administrative matters as

- basic procedures for reimbursing DOE for costs incurred by the laboratories in carrying out NRC work;
- types of costs which are subject to and/or exempt from reimbursement; and

--the various approval mechanisms, including an identification of individuals who are authorized to review and approve specific work assignments.

However, NRC has no requirement for justifying and documenting the rationale for selecting a particular laboratory to do work.

Our review of the files pertaining to several NRC projects being conducted by the DOE laboratories disclosed that assignments of such projects are made by the various NRC program offices without first considering whether other performers might be qualified to do the work. That is, the work orders are the primary tools for authorizing and approving work assignments to the laboratories. However, the work orders, and the files and other documentation relating to the work orders, do not show whether (1) any entities other than the laboratories have the capability for performing the work specified in the work orders, (2) any attempts have been made by NRC program offices to determine if such capability exists outside of the DOE laboratories, or (3) NRC's Division of Contracts had an opportunity to review such work placements for conformity with sound acquisition principles.

Thus, while placement of work with the DOE laboratories may, in many instances, be in the best interest of the Government, there may be other instances where obtaining competition would result in NRC's obtaining the best possible goods or services at the most reasonable cost. In the absence of competition, we believe that a rational process of justification for the use of DOE laboratories must exist and be fully documented for each individual project.

NRC's rationale for placing work
at DOE laboratories

We discussed this concern with officials in each of NRC's program offices and within NRC's Division of Contracts. These officials generally pointed out that NRC's extensive use of the DOE laboratories is based largely on the laboratories' historical ability to meet NRC's needs. They explained that prior to NRC's creation in 1974, NRC's roles, missions, and responsibilities rested with the then AEC. Most of DOE's laboratories were either established by AEC or became AEC's responsibility upon its creation in 1946. Over the years, AEC and the laboratories built extremely close working relationships, and the facilities available for nuclear energy research and testing at the laboratories were considered the best in the world. Even though AEC has since been abolished and its functions absorbed within NRC and DOE, these

traditionally close working relationships between NRC and DOE on the one hand, and the DOE laboratories on the other, have continued.

These continuing close relationships can, in part, be tied to the various provisions of the Energy Reorganization Act of 1974, which created NRC. The legislative history to the act states that it was not intended that NRC build its own laboratories and facilities for research and development and instructs NRC to draw upon other Federal agencies for research and such assistance as may be needed in performing its functions. In this connection, the Secretary of Energy is required to make DOE laboratories and other facilities available to NRC for carrying out its functions.

The various provisions of the act permit NRC's use of the DOE laboratories, rather than mandate such use. NRC, therefore, does not consider the act as a constraint to placing NRC work with outside contractors. NRC officials stated that if they believe placing work with an outside contractor is more advantageous to the Government than placing such work with a DOE laboratory, then NRC certainly has the flexibility to do so. The most predominant specific reasons provided by NRC officials as to why more NRC research work is not placed with such contractors are as follows.

- The DOE laboratories offer unique research facilities and outstanding scientific expertise generally not available elsewhere.
- Placement of work at the laboratories offers greater assurance of independence and freedom from potential conflicts of interest.
- There are considerable time savings in placing work with the laboratories because the delays associated with the normal procurement process (e.g., preparing and issuing requests for proposals, advertising, reviewing and evaluating proposals, negotiating for terms and conditions, and making selections) are avoided.

The files and documents that we reviewed did not contain any justification, or the above cited rationale, for placing NRC work with DOE laboratories. Accordingly, we performed a limited amount of testing on a number of projects to determine the extent to which the above reasons were applicable. We focused our efforts on those projects funded by the Office of Nuclear Regulatory Research (RES) since RES's spending at the DOE laboratories far exceeded that of its counterpart

program offices. In this regard, RES spent over \$110 million during fiscal year 1978 for projects placed with the DOE laboratories. This accounted for about 80 percent of NRC's total spending during the year at DOE laboratories.

Use of laboratories' unique
research facilities and out-
standing scientific expertise

With respect to the uniqueness of facilities and scientific expertise, we asked RES officials to identify new fiscal year 1978 projects at each of the laboratories we visited and which were placed at those laboratories because of the unique research facilities and scientific expertise the laboratories had to offer. These officials, however, had problems identifying any new water reactor safety research projects as examples. The officials explained that much of this research, which accounts for 80 percent of the total RES research effort, is a continuation of work initially begun under AEC auspices and was more or less "inherited" by NRC. The officials also stated that NRC continues to fund these projects because of the laboratories' satisfactory performance, existing facilities, and the expertise developed by them over the years.

As an alternative to identifying new fiscal year 1978 projects, RES identified a total of nine existing projects purportedly representing use of the laboratories' unique facilities or scientific expertise, although these were not the only factors considered in placing these projects. Based on our review of these projects, it appeared to us that at least two of these nine projects did not require the unique research facilities or outstanding scientific expertise available only at these laboratories and, as such, could have been carried out by commercial contractors. For example, one project carried out by DOE's Sandia Laboratories in Albuquerque, New Mexico, required Sandia to provide the technical basis for future NRC fire protection requirements, taking into consideration the

- vulnerability of nuclear powerplants to fire;
- difficulties in controlling nuclear powerplant fires;
and
- need to mitigate the effects of a fire on nuclear powerplant systems and components.

Sandia officials agreed that there are a number of entities in the private sector, such as Underwriters Laboratories,

having the requisite facilities and expertise for carrying out research in fire detection and prevention that could have done the work.

The other project we identified as not requiring the laboratory's unique facilities or scientific expertise was also being carried out at Sandia Laboratories. This project required Sandia, in part, to review various testing and evaluation methodologies relative to reactor "loss of coolant accidents" and the associated environmental effects. According to Sandia officials, this project also could have been done by private industry.

Assurance of independent results
and avoidance of conflict of
interest situations

With respect to NRC's contention that placing its work with DOE laboratories offers greater assurance of independence and avoidance of potential conflict of interest, we agree that these two concepts are important in carrying out NRC's missions. The public has entrusted NRC to carry out various research, licensing, and other regulatory functions in such a manner as will assure that the public's health and safety are protected. In carrying out work relating to these functions, it is important that the results of such work are not compromised. This can be done by ensuring that the work is performed independently, thereby avoiding conflict of interest situations. To do otherwise could erode the public's trust and confidence in NRC's ability to successfully fulfill its missions. To illustrate, little public trust would develop in a situation where NRC placed a project with an entity for testing the safe operation of a component in a nuclear powerplant cooling system if that same entity were involved in developing the component for the nuclear reactor manufacturer.

In placing work with the DOE laboratories, however, it is not completely evident that independence and avoidance of potential conflicts of interest are assured. On the one hand, the laboratories are permitted to place portions of NRC work with outside subcontractors--a situation which theoretically could lead to creating a potential conflict of interest. On the other hand, projects being carried out at a laboratory to satisfy a given NRC regulatory mission could conflict with prior or ongoing work at that laboratory which was undertaken to satisfy DOE's mission of promoting nuclear energy. Either situation could give rise to lack of independence or conflict of interest concerning the work performed.

During our review, we found that NRC and DOE laboratory officials were generally mindful that such situations could occur. The DOE/NRC interagency agreement concerning the use of DOE laboratories for NRC projects calls for DOE to avoid contracting or subcontracting with an organization whose interests or relationships with others are such that NRC would not contract with that organization directly. At the four locations we visited, conflict of interest determinations, whether informally or formally, were being made. NRC officials stated that they also consider whether the particular laboratory can provide results that are independent in light of that laboratory's work for DOE in the area of promoting nuclear energy. In those instances where such independence is questionable, NRC officials stated that they look at all alternative sources, including other DOE laboratories to do the work.

For one of the nine projects we reviewed, the laboratory's contention that it could provide greater independence than if the project had been done by private industry was not convincing. This project, which was being conducted by Sandia Laboratories, involved the protection and control of fires at nuclear powerplants. According to Sandia officials, conducting this work at Sandia provided greater independence than if the work had been done by any member of the fire protection community. However, the files and documents pertaining to this project did not support this contention. In addition, the fact that Sandia was carrying out work for DOE in the area of nuclear reactor safety could give some the impression that placing this project with a commercial contractor would provide greater assurance of independence--not less.

In commenting on this matter, NRC officials stated that NRC sponsors research into fire protection and qualification testing evaluation in order to provide independent information for its licensing and standards process. They pointed out that it is imperative that this information be as unbiased and free from even the appearance of any conflicts of interest as possible. They added that Sandia Laboratories is uniquely qualified to carry out this research because of its experience on component testing for the weapons program, its stature as an independent quality assurance laboratory for the weapons program, and its strong, professional staff with vast experimental resources. They believe that, as part of a Government-owned, contractor-operated laboratory, Sandia personnel are free from any conflict (real or apparent) which might arise if NRC were to use an outside testing organization that has done work for the industry which NRC regulates. With respect to Sandia's involvement in reactor safety

research work for DOE, these officials pointed out that such involvement is minor and of recent origin. They agreed, however, that NRC will have to closely monitor this situation to ensure that Sandia's involvement does not evolve to the point where it could give at least the appearance of impropriety.

Time savings inherent in placing
work with DOE laboratories

With respect to the time savings purportedly inherent in placing NRC work with the DOE laboratories, NRC officials told us that the procedures for placing work with the DOE laboratories require only a fraction of the time consumed by the normal procurement process, which averages 5 to 6 months. The processes for preparing requests for proposals, advertising, evaluating proposals, negotiating contract terms and conditions, and making selections are bypassed in placing NRC work with the DOE laboratories. They added that such work can be placed with a laboratory in a matter of days. If the laboratory has related work underway, placing additional work is even further simplified. This flexibility in obtaining needed research and related services has grown out of the informal relationships between NRC program officials and DOE laboratory officials. Many of these informal relationships were established years ago under AEC.

We agree that placing NRC work with DOE laboratories can result in time savings and that, in some instances, this can be valid rationale for using the DOE laboratories. During our review, however, we noted that the bulk of NRC's research work at the laboratories resulted from proposals prepared by the laboratories and submitted to NRC for its use in formulating annual NRC budgets. These submissions occur more than 1 year in advance of the actual commencement of work at the laboratories. Thus, it certainly appears that in these cases, NRC has ample time to complete the normal procurement process for those projects which might be done by a commercial contractor.

INADEQUATE JUSTIFICATIONS FOR
NONCOMPETITIVE CONTRACTS AND WEAK-
NESSES IN CONTRACT ADMINISTRATION

In fiscal year 1978, NRC awarded about 240 ^{1/} new contracts, amounting to about \$14 million, of which 70 percent

^{1/}About 85 contracts were for consultant services. The next section includes our comments in this area.

were noncompetitive. We reviewed each noncompetitively awarded contract valued over \$50,000. While we recognize that judgment in awarding a contract noncompetitively is a matter of personal perspective and cannot be made in an absolute sense, we believe that a large number of these contracts were awarded on a noncompetitive basis without adequate justification. We also noted a number of weaknesses in NRC's contract administration practices, namely in the areas of contract monitoring and making timely contract closeouts.

Inadequate justifications for noncompetitive contract awards

Whenever a contract award is made without competition, general acquisition principles require that the noncompetitive justification be more than a mere conclusion or opinion that a particular vendor is the sole source capable of meeting the needs of the Government. It should be accompanied by a statement of facts from which it has been concluded that the vendor is the only source of supply.

During our review, we examined 33 contracts which were awarded on a noncompetitive basis to various commercial establishments, universities, and State and local governments. These contracts, for which funds provided by NRC amounted to over \$3.7 million in fiscal year 1978, included 28 (at \$2.9 million) that resulted from unsolicited proposals and 5 (at \$0.8 million) that resulted from solicited proposals. Our review showed that 14 of these contracts--more than 40 percent of those examined--were awarded on a noncompetitive basis without adequate justification. Thirteen of these resulted from unsolicited proposals, and the remaining contract was from a solicited proposal.

Unsolicited proposals

An unsolicited proposal is a written offer to perform a proposed task, initiated and submitted to the Government by a prospective contractor without a solicitation by the Government, with the objective of obtaining a contract. When a document qualifies as an unsolicited proposal, an agency is required to make a comprehensive evaluation based upon, but not limited to, the criteria contained in section 1-4.909(d) of the FPRs. One of the many factors to be included in the evaluation is whether the proposal contains unique, innovative, or meritorious methods, approaches, or ideas which have originated with or are assembled together by the offeror. However, section 1-4.910(a) of the FPRs states that a favorable comprehensive evaluation of an unsolicited proposal is

not in itself, sufficient justification for negotiating on a noncompetitive basis with the offeror. When the substance contained in an unsolicited proposal is available to the Government without restriction from another source, closely resembles that of a pending competitive solicitation, or is otherwise not sufficiently unique to justify acceptance, the unsolicited proposal shall not be acceptable and shall be returned to the offeror together with the reasons for the return.

When an unsolicited proposal has received a favorable technical evaluation, a negotiated noncompetitive procurement is permissible provided that the substance of the proposal is not available to the Government without restriction from another source or a competitive procurement is not otherwise appropriate. The agency technical office sponsoring the procurement is required to support its recommendation with a justification for noncompetitive procurement. The justification shall be based on a comprehensive evaluation of the proposal and shall include the facts and circumstances that operate to preclude competition. Consideration shall include those evaluation factors listed in section 1-4.909(d) of the FPRs.

The 28 contracts which resulted from unsolicited proposals were collectively for about \$2.9 million. Based on our examination of the noncompetitive justification for these contracts, 13 of the contract files did not demonstrate to our satisfaction that the substance of the proposals was so peculiar to their offerors as to warrant an award of a contract based on the unsolicited proposal. Therefore, we believe the noncompetitive awards for these 13 unsolicited proposals were not adequately justified by NRC. Although it is the Government's policy to encourage unsolicited proposals, we believe that it should not be used to undermine the policy that contracts shall be made on a competitive basis to the maximum practicable extent.

Solicited proposals

Solicited proposals are submitted to the Government in response to either formal or informal solicitations from an agency. Our review of the five contracts resulting from solicited proposals showed that four were adequately justified. The remaining one appeared as if it could have been competed. In evaluating the proposed work statement and the program office's noncompetitive procurement justification for this award, we were not convinced that a noncompetitive contract

was appropriate under the circumstances. Furthermore, after reviewing the contract file as a whole, we believe that there was not sufficient support for the contracting officer's noncompetitive award determination.

While it is difficult for us to draw any specific overall conclusions resulting from our review of contract awards resulting from solicited proposals, we did note that observations similar to ours were made in a 1977 report by NRC's Office of Inspector and Auditor (OIA). In this regard, the OIA auditors made an in-depth analysis of 20 noncompetitive contracts awarded to commercial firms during calendar years 1975 and 1976. They concluded that although most of the sole-source awards reviewed were justified in light of the circumstances presented, NRC could reduce the number of noncompetitive contracts by (1) better planning and earlier submission of contract requirements and (2) conducting a more extensive search for additional contract sources.

Weaknesses in certain aspects of contract administration

The responsibilities of a contracting officer do not end once the contract is awarded; contract administration begins immediately after award of a contract. Administration of a contract involves the active enforcement of the contract terms and concerns performance, inspection, payment, and delivery provisions. It does not end until the work effort has been accomplished and accepted by the Government, and the contract closed. Our review disclosed weaknesses in the contract monitoring and closeout aspects of contract administration.

Contract monitoring

Contract administration is conducted by contracting officers or their representatives. A contracting officer, in discharging his/her duties, needs help from the various project or program offices. This is especially true with respect to monitoring research contracts where, for example, the data for evaluating progress and performance, and for approving payments may involve highly technical terms and complex subjects which are not entirely familiar to the contracting officer.

At NRC, the contracting officers have delegated by letter some of their responsibilities concerning contract monitoring to the technical staff in the program offices. At the time of our review, for example, all cost voucher

approval and technical performance monitoring were so delegated. NRC's contractors are sent copies of these letters, as applicable, to ensure that they are aware of the extent of authority delegated.

The Division of Contracts' Director stated that NRC's contracting officers still have the responsibility for ensuring compliance with contract terms and conditions. However, the Division's reliance on program technical staff to fulfill certain contract administration responsibilities may be cause for concern. We believe that complete reliance on program personnel to (1) review and approve contractor cost vouchers and (2) provide interpretation of the contractor's performance ignores sound contract administration principles. Also, for internal control purposes, there should be more separation of duties between the program personnel involved in sponsoring the project for which the contract was awarded and the Division of Contracts. This is needed because the program personnel may have a personal interest in seeing that the project and performing contractor at least appear successful.

We believe the contract monitoring responsibilities currently delegated to program technical staff are contract administration functions which should be performed by a Division of Contracts' contracting specialist in consultation with the program technical staff. The Division has recognized this weakness and has prepared a contractor voucher review procedure which will return approval of contractor cost vouchers and related contract monitoring responsibilities to the contracting specialist. The procedure, however, is still in draft form. We are concerned, therefore, that implementation of this procedure may be unduly delayed. In this connection, we noted that the Division has been developing a procurement handbook for NRC's use which is also in draft form. Division officials told us that this developmental effort has been ongoing for approximately 3 years.

Timely closeouts of completed contracts

The actions that the contracting officer takes in closing out contracts include making sure that (1) Government funds have been fully accounted for and appropriately charged for work performed under the contracts, (2) all Government property in the contractor's possession is accounted for, and (3) final acceptance of the contractor's

work and payment of a final voucher are appropriate. Prompt closeouts help assure that Federal funds are accounted for properly.

According to data provided by the Division of Contracts, 655 contracts, amounting to over \$70 million, have been awarded in the 4 years since NRC was established. NRC also carried over 155 contracts, amounting to over \$22 million, that were awarded by AEC. Combining NRC contracts with those carried over from AEC shows a Division contract administration burden of more than 800 contracts valued at over \$90 million.

Our review showed that more than 390 of these contracts have been completed but have not yet been closed. Roughly one-third of these are expired AEC contracts. Based on data NRC officials provided us, 256 or 65 percent were completed more than 1 year ago, of which several had been completed for more than 4 years, as shown below.

<u>Years completed</u>	<u>Number of contracts</u>
0-1	138
1-2	81
2-3	87
3-4	51
4 or more	<u>37</u>
Total completed contracts	<u>394</u>

Because these contracts were not being closed out in a timely manner, it did not appear to us that NRC had sufficient control to assure that Government funds were appropriately expended for work performed. In addition, we noted that the unliquidated obligations associated with these completed contracts amounted to about \$3 million, and Government-owned equipment worth more than \$22,000 remained in the possession of the associated contractors.

We discussed this concern with the Division Director who agreed that more timely contract closeouts were needed. The following are some of his reasons why contracts have not been closed out.

--NRC is relatively new from an administration standpoint, particularly in its procurement activity.

--Staff, though limited, has to respond to other urgent needs in fulfilling NRC's mission.

--The necessity for assuring immediate fulfillment of NRC's needs through the contract award process resulted in the efforts of the staff being primarily directed at awarding contracts rather than closing them out.

The Director informed us that Division priorities have been changed and directed at eliminating the backlog of contract closeouts by the end of 1980. We are concerned, however, that the Director has not specifically provided staff to accommodate this work. According to the Director, staff time will be diverted from exclusively making contract awards to performing all administrative tasks, including contract closeouts.

INCOMPLETE JUSTIFICATIONS FOR HIRING
CONSULTANTS AND INADEQUATE CONTROLS
OVER PAYMENT

During 1978, NRC appointed 230 consultants as intermittent personnel and made payments of \$1.1 million for their services. Also during the year, NRC awarded about 85 contracts for consulting services valued at nearly \$400,000. ^{1/} Our review of the files and other documents pertaining to the appointed consultants disclosed that in more than half the cases, the need for their respective services was not fully justified and the descriptions of the work required of them were not sufficiently specific. Of the 85 contracts for consulting services, 71, or more than 80 percent, were awarded on a noncompetitive basis. We found that for many of these awards, justifications for not soliciting other sources were not adequate.

Additionally, NRC's procedures for payment of appointed consultants do not assure timely submission of vouchers nor adequate control over reporting the work actually performed by them. Weaknesses in these payment procedures could result in payment for services not actually performed.

^{1/}The majority of these contracts--over 85 percent--were for \$10,000 or less.

Incomplete justifications for
acquiring consulting services

The policy guidelines to be followed in determining and controlling the appropriate use of consulting services are established in OMB Bulletin No. 78-11. The provisions of the Bulletin apply to appointed consultants, as well as consulting services obtained under contracts. Generally, according to the Bulletin, consultant services are provided by persons or organizations having knowledge and special abilities not available within the agency.

In addition to establishing a standard definition and uniform criteria for determining the appropriate use of consulting services, Bulletin No. 78-11 outlines the management controls required of the agencies. The following are some of these controls.

- Every requirement is appropriate and fully justified in writing. Such justification will provide a statement of need and will certify that such services do not unnecessarily duplicate any previously performed work services.
- Work statements are specific and complete, and specify a fixed period of performance for the services to be provided.
- Contracts for consulting services are competitively awarded to the maximum extent practicable to ensure that costs are reasonable.

In reviewing the consultants' official personnel folders maintained by NRC's Division of Organization and Personnel, we looked for documentation of NRC's compliance with OMB's "full" justification and "specific" work statement requirements. We found that 55 percent of the consultant appointments were not supported by adequate justifications. These justifications required additional statements demonstrating the need for the desired services. Generally, these justifications did not include a sufficient description of the facts and circumstances necessitating the consultants' services, nor refer to mission or legislative requirements which could not be satisfied within NRC.

In addition, we found that 73 percent of the work statements did not contain sufficiently specific descriptions of

the services to be performed. For the most part, the work statements did not contain reference to the specific projects, activities, studies, hearings, reports, or other documents with which the consultant would be working, nor any briefings, papers, analyses, presentations, testimony, or other products required of the consultant. These work statements should be expanded to the point where they completely detail what is expected of the consultant.

With respect to contracts for consulting services, OMB Bulletin No. 78-11 requires that such contracts be competitively awarded to the maximum extent practicable to ensure that costs are reasonable. The Bulletin further stipulates that the FPRs govern the policy and procedures regarding these contracts.

We reviewed the justifications for not obtaining competition and work statements for the 71 noncompetitive contracts. We found 28 of the justifications did not adequately demonstrate that these contracts should have been awarded noncompetitively and, in fact, the applicable work statements and other documents pertaining to these contracts gave the appearance that some could have been competitively solicited-- that is, sources other than the contractor could have performed the required work. In those cases, the documents in the contract file did not adequately justify why such other sources were not solicited.

Inadequate controls over payments
to appointed consultants

Adequate controls over payments to consultants are needed to assure that payments are commensurate with work performed. These controls should ensure timely submission of work vouchers and an appropriate approval process to assure that payments are correct.

NRC's Division of Accounting pays for services rendered by appointed consultants based on vouchers submitted by the consultants and certified by an official in the NRC organization using these services. The consultant's voucher itemizes the dates and hours worked since his/her preceding voucher was filed. Generally, the consultant's voucher is NRC's first formal record containing information on the dates and hours worked.

Although NRC requires consultants to submit their vouchers within 30 days after the period worked, we noted

numerous instances where this requirement was not met. In an analysis of over 1,500 vouchers submitted by 253 consultants during calendar years 1976, 1977, and 1978, we found that 900 vouchers were submitted more than 1 month after the related work was performed. About 200 of these were submitted at least 3 months after the work was performed, and 59 vouchers were submitted at least 6 months after completion of work.

We contacted most of the designated certifying officials that signed consultant vouchers for work done at least 6 months prior to submission of the vouchers. We asked what records they kept and how they determined that the consultant actually worked on the dates and hours listed. The officials explained that they retain copies of letters instructing consultants of what work is required and can estimate about how much time a consultant would have to spend on a particular task. With this information, the consultant's voucher would be reviewed for reasonableness and, barring any obvious errors, approved for payment. The officials also rely on the integrity of the individual consultants not to misstate the amount of services actually rendered. We found, however, that some consultants were submitting their vouchers prior to actual performance of the related work.

These payment controls do not appear adequate. Our primary concern is that NRC has no formal records which show the hours actually worked by consultants prior to their submitting vouchers for payment. We brought this concern to the attention of NRC officials, who informed us that they have recognized this problem for some time and are exploring ways to resolve it.

In our opinion, a greater degree of control over payments to consultants can be achieved through the use of a biweekly time and attendance system similar to ones used by a number of other Federal agencies. Under such a system, the actual hours worked during a pay period are recorded and certified by a responsible official. This record serves as a basis for verifying the hours shown in the consultants' vouchers prior to payment. We believe such a system, or one similar to it, could provide the degree of additional control over payments to consultants which NRC is seeking, regardless of when consultants' vouchers are submitted.

CONCLUSIONS AND RECOMMENDATIONSConclusions

During fiscal year 1978, NRC spent more than \$160 million for acquiring outside assistance in carrying out its various regulatory missions and responsibilities. This represented more than half of the total NRC expenditures during that year. Of this amount, 86 percent was spent for work placed with various DOE laboratories; the remainder was spent for goods and services performed by outside contractors and for work performed by consultants.

In acquiring goods and services not available internally, agency managers are bound by a variety of rules and regulations designed to provide the Government with acceptable goods and services at the lowest or most advantageous price to the Government, cost and other factors considered. These acquisition principles are generally based on the concept that agency managers are custodians of Federal funds and, as such, are responsible for the prudent and effective use of these funds.

Our broad review of the practices used by NRC for acquiring outside assistance disclosed a number of areas of concern. With respect to NRC's acquisitions of goods and services from the various DOE laboratories, neither the basic agreement between NRC and DOE concerning use of these laboratories nor NRC's implementing instructions for such use contained any requirement for justifying or documenting NRC's rationale for selecting a particular laboratory to do work.

Our review of the files pertaining to several NRC projects being conducted by the DOE laboratories disclosed that assignments of such projects are made by the various NRC program offices without consideration being given first as to whether other performers might be qualified to do the work. Although work orders are the primary tools for authorizing and approving specific work assignments to the laboratories, neither the work orders nor the files or other documentation relating to the work orders show whether

--any entities other than the laboratories have capability for performing the work specified in the work order;

- any attempts have been made by NRC program offices to determine if such capability exists outside of the DOE laboratories; or
- NRC's Division of Contracts had an opportunity to review such work placements for conformity with sound acquisition principles.

Thus, we are concerned that, in the absence of a written justification for not obtaining competition in connection with such work placements, NRC records and files do not evidence that placing work with DOE laboratories results in NRC's obtaining the best possible goods or services at the most reasonable cost to the Government.

We believe each work order should contain the reasons and circumstances surrounding the decision to place work with the laboratories instead of private contractors. Where other entities capable of performing independent work have been identified, the justification for placing work with the laboratories should also include a comparison showing the related cost impact when practicable. Also, Division of Contracts' officials, because of their procurement expertise, should be involved in the decision process for the purpose of reviewing the adequacy of the justification. We believe these measures would substantiate the decision to use the laboratories and provide greater control to ensure adherence to sound acquisition principles.

With respect to NRC's practices for acquiring goods and services through contracts, in our opinion, many noncompetitive awards relating to unsolicited proposals did not meet the requirements for acceptability contained in the FPRs and, therefore, should not have been awarded by NRC. Although it is the Government's policy to encourage unsolicited proposals, we believe that it should not be used to undermine the policy that contracts shall be made on a competitive basis to the maximum practicable extent.

Bringing this same ideal of competition into the other contracting actions of NRC, including consulting services contracts, the noncompetitive justification for each such action has to be more than a mere conclusion or opinion that a particular vendor is the sole source capable of meeting the needs of the Government. It should contain a statement of facts from which it has been concluded that the vendor is the only source of supply. The files and other documents pertaining to many contracts that we reviewed and which were

awarded by NRC on a noncompetitive basis did not support such a conclusion.

We also noted weaknesses in certain areas of contract administration, namely, contract monitoring of open contracts and closeout of completed contracts. Regarding the delegation of certain contract monitoring functions to program office technical staff, we are concerned about the complete reliance by NRC contracting officers on program personnel to (1) review and approve contractor cost vouchers for payment and (2) monitor the technical progress of the contractor's work. When program personnel have either sponsored the project for which the contract was awarded or recommended and justified a noncompetitive contract, the practice of delegating contract monitoring responsibilities to these program personnel weakens the agency's control over work performed by outside contractors. In these instances, the Government has less assurance of obtaining satisfactory products and services. We believe that contracting specialists in the Division of Contracts should be responsible for

- reviewing and approving cost vouchers submitted by contractors, and

- evaluating, in consultation with program personnel, the contractor's technical performance required by the contract.

Division officials have recognized this weakness and have developed a contractor voucher review procedure which is intended to return approval of contractor cost vouchers and related monitoring responsibilities to the contracting specialists. We are concerned, however, with timely implementation of this new procedure--at the time of our review the procedure was still in draft form.

Regarding weaknesses in NRC efforts to close out completed contracts, our concern relates to the growing backlog of contracts awaiting closeout action. At the time of our review, more than 390 contracts had been completed, but none had been closed out. Closing expired contracts provides the Government with final assurance that Federal funds were appropriately expended for work performed. The Division of Contracts has recognized the need for prompt contract closeouts and informed us that Division priorities have been changed and directed at reducing the backlog of contract closeouts. We are concerned, however, that the Division of Contracts has not specifically assigned staff to accommodate this effort and that additional management attention may be necessary to alleviate this problem in a timely manner.

Regarding our review of NRC's appointment of consultants, we noted several weaknesses. For the most part, the need for consultant services was not adequately justified, and the descriptions of the work to be performed were not sufficiently specific. These justifications and work statements need to be expanded to comply with OMB Bulletin No. 78-11, which provides the Government's policy regarding consultants. Also, present payment procedures do not provide any formal records by which to validate consultants' vouchers for the work performed. To obtain these records and an added degree of control, some Federal agencies use a biweekly time and attendance system. We believe such a system, or one similar to it, would provide NRC with the additional controls needed concerning these payments.

Recommendations

In order to provide greater assurance that sound acquisition principles are being adhered to at NRC, we recommend that the Chairman of NRC take the following actions:

- Require the various NRC program offices to justify their placement of work with DOE laboratories instead of private contractors. This justification should contain the reasons and circumstances surrounding the placement. Where other entities capable of performing independent work have been identified, it should also contain a comparison showing the related cost impact when practicable. Each justification should be reviewed by NRC's Division of Contracts, to ensure conformity with sound acquisition principles.
- Instruct the Director, Division of Contracts, and heads of program offices to seek greater competition in contract awards for solicited proposals and, when this is not feasible, to fully document the noncompetitive justification. Particular attention needs to be given to awards resulting from unsolicited proposals to ensure that the justifications for such awards are in accordance with applicable Federal criteria.
- Monitor Division of Contracts' implementation of proposed procedures regarding the approval of contractor cost vouchers and the Division's actions to alleviate the contract closeout backlog, to ensure that efforts are done in a timely manner.

- Instruct the Division of Organization and Personnel to ensure that consultant appointments are fully justified and the corresponding work descriptions are sufficiently specific.

- Direct the various NRC divisions and offices to tighten their controls over payments for consultants' services. This can be accomplished through adoption of a standard time and attendance system in use by other Federal agencies, or a system similar to it.