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Office of Inspector General



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RELEASE**

***NATIONAL INSTITUTE OF
STANDARDS AND TECHNOLOGY***

*Measurement and Engineering
Research and Standards Program
Should Expand Use of Competitive
Award Procedures
CFDA No. 11.609*

Audit Report No. DEN-10958-0-0001/September 2000

Office of Audits, Denver Regional Office



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EXECUTIVE SUMMARY

The Office of Inspector General conducted an audit of fiscal year 1997 criteria, procedures, and practices for reviewing and selecting applications for financial assistance under the National Institute of Standards and Technology's Measurement and Engineering Research and Standards Program (MERS), classified as No. 11.609 in the Catalog of Federal Domestic Assistance (CFDA). The program's objective, as stated in the CFDA, is "[t]o provide scientific research for measurement and engineering research and standards." Awards made under the program are done pursuant to authority set forth at 15 United States Code §272(b)(4), which authorizes the Secretary of Commerce, acting through the NIST Director, to enter into contracts, including cooperative research and development agreements, in furtherance of NIST's mission.

The audit was conducted as part of a Department-wide review of Commerce's discretionary financial assistance programs initiated at the request of the Chairman of the Senate Committee on Commerce, Science, and Transportation. Discretionary financial assistance programs are those programs for which federal agencies have the authority to independently determine the recipients and funding levels of awards. These programs involve a significant portion of the Commerce Department's budget and operations, approximately \$1 billion annually.

In fiscal year 1997, NIST made several different types of awards under CFDA No. 11.609, including one legislatively-mandated award and several competitive awards under three individual competitive sub-programs. However, the majority of the awards under CFDA No. 11.609 involved a series of grants and cooperative agreements that, contrary to federal guidelines and Departmental requirements, were made noncompetitively on a sole source basis without appropriate justification.

NIST processed 172 financial assistance awards under CFDA No.11.609 in fiscal year 1997. We found that only 46 awards, totaling \$2.8 million, were awarded competitively. The competitive awards included 12 new awards (\$731,000) and 34 renewals of existing competitive awards (\$2.1 million). One award, totaling \$6.5 million, was legislatively mandated. The remaining 125 awards were made noncompetitively on a sole-source basis. Total federal funds committed by the 125 sole-source awards and amendments were approximately \$17.6 million. Of these actions, 66 were new awards (\$8.1 million) and 59 were renewals or amendments to existing sole-source awards (\$9.5 million). The following chart summarizes the types of awards, including whether new or renewal, and the relative dollar values for fiscal year 1997.

Award Type	New	\$ Value (In Millions)	Renewal	\$ Value (In Millions)	Total Awards	\$ Value (In Millions)
Legislatively-Mandated	-	-	1	6.5	1	6.5
Competitive	12	.7	34	2.1	46	2.8
Non-Competitive	66	8.1	59	9.5	125	17.6
Totals	78	8.8	94	18.1	172	26.9

We found that the competitive awards were made under three separate award sub-programs that NIST grouped under CFDA No. 11.609: the Fire Research Grants program¹, the Materials Science and Engineering Laboratory (MSEL) Grants program, and the Precision Measurement Grants program. Each of these sub-programs developed its own procedures for soliciting and reviewing applications and for selecting applicants for funding. We found that, for each of these sub-programs, NIST has established and followed procedures which are calculated to result in merit-based funding decisions and which, except for some deficiencies, comply with the Department's current minimum requirements for financial assistance awards.

Specifically, our audit disclosed that under the three sub-programs NIST:

- Developed and published merit-based criteria, consistent with the objectives of each sub-program, for use in evaluating applications for funding, as required by Section 4.02a of DAO 203-26 for all three sub-programs (see page 9).
- Published a solicitation notice for Precision Measurement Grants that complied with, or exceeded, all departmental requirements, as established by DAO 203-26, Section 4.02b, and Financial Assistance Notice No. 17, Section .03 (see page 11).
- Followed established procedures in reviewing applications under the three sub-programs, as detailed in their solicitation notices, and included a number of outside experts on their proposal evaluation panels for two sub-programs — Fire Research Grants and Precision Measurement Grants — as required by DAO 203-26, Section 4.02h.1 (See page 13).
- Followed established procedures in making selections of recipients under all three sub-programs, as required by OMB Circular No. A-123 (see page 16).
- Followed established procedures for renewing prior awards under the Fire Research Grants and Precision Measurement Grants programs (see page 16).

At the same time, we identified opportunities for improving these sub-programs' procedures and practices. Our audit disclosed that NIST:

- Identified both grants and cooperative agreements as funding instruments in the solicitation notices for the Fire Research Grants and MSEL Grants programs, which conflicts with Section .03b.7(f) of Financial Assistance Notice No. 17, which requires that only one type of funding instrument be identified. As a result, prospective applicants

¹In addition to the authority set forth at 15 U.S.C. §272(b)(4), awards made under the Fire Research Grants sub-program are done pursuant to authority set forth in 15 U.S.C. §278f.

were not informed of the level of federal involvement that NIST anticipated in awards under these two sub-programs (see page 11).

- Published confusing information in the solicitation notice for the MSEL Grants program by stating in the notice that funding would only be provided for one year, while accepting proposals for, and providing funding to, multi-year projects. We found that NIST subsequently corrected this issue in the fiscal year 1999 solicitation notice for the MSEL Grants program (see page 11).
- Allowed the selecting official for the Precision Measurement Grants program to participate on proposal review panels. We believe that the independence and objectivity of the application review and selection processes are lessened when the selecting official has the ability to influence the proposal review results by acting as a reviewer. In addition, NIST could enhance the independence and objectivity of future MSEL grants competitions by inviting reviewers from outside NIST and the Department to participate on the proposal evaluation panels (see page 14).
- Provided an unfair advantage to certain MSEL grant renewal applicants, contrary to the requirement that all applications be treated fairly, as stated in DAO 203-26, Section 4.02h.1(b). We are concerned that recipients who have completed their initial research period and are seeking additional funds receive an unfair advantage over new applicants because NIST's MSEL renewal procedures do not distinguish between continuation of multi-year research projects and projects for which the original research period has ended, but further funding is requested. As a result, existing projects seeking additional funding beyond their originally-proposed research period do not have to compete against new proposals for funding providing existing projects an unfair advantage. (see page 17).

The three competitive sub-programs, however, are only a small portion of the overall program. The majority of awards under CFDA No. 11.609 were awarded noncompetitively, on the basis that the proposed recipients were the only responsible sources to perform the research. We found that, although NIST's procedures governing the issuance of sole-source awards require a determination that the proposed recipient is the only responsible source that could accomplish the work and no other property or services would satisfy the government's needs, written justifications for the sole source awards did not cite any factual basis, such as the results of published solicitation notices, for NIST's assertions that the proposed award recipients were the only organizations that could perform the research described in the proposals. In addition, NIST's Grants Office did not take adequate steps to verify these determinations. NIST extensive use of sole-source awards appears to conflict with departmental policy, including Section 4.02h of DAO 203-26, and the Federal Grant and Cooperative Agreement Act (31 U.S.C. §6301, *et seq.*), which includes a stated purpose to encourage competition in awarding federal financial assistance (see page 18).

We also found that certain sole-source awards issued by MSEL did not comply with Section 4.02i of DAO 203-26, which states that awards made as a result of an unsolicited proposal can only be made noncompetitively if the project falls outside the program goals of a competitive program (see page 23).

Finally, NIST does not have written procedures for renewing existing sole-source awards. As a result, a project's worthiness of continued funding was not determined. We believe that the agency should establish minimum standards to guide technical personnel in assessing whether sole-source awards should be renewed and, if renewal is warranted, if it should be done on a noncompetitive basis. These standards will help bring consistency to NIST's sole-source award renewals and provide a means for it to document that the renewals are merit-based and appropriate (see page 24).

We recommend that the Director, NIST, ensure that the agency:

1. Complies with the minimum departmental requirements, as stated in Financial Assistance Notice No. 17, Section .03b.7(f), for Fire Research Grants and MSEL Grants program solicitation notices by identifying only one type of proposed funding instrument in the notices.
2. Notifies applicants for MSEL grants that proposals for multi-year projects will be accepted and evaluated, with funding beyond one year at NIST's discretion, subject to satisfactory performance, continued research needs, and availability of funds.
3. Enhances the independence of future MSEL Grants application reviews by ensuring that at least one proposal review panel member is outside the supervisory chain of the selecting official and that participants from outside NIST and the Department are invited to serve as proposal reviewers.
4. Revises the selection procedures to preclude the selecting official from participating on proposal review panels.
5. Provides fair treatment to all MSEL Grants applicants by requiring grantees that are seeking additional funding beyond their originally-proposed research period to compete for funding with all new MSEL Grants program applications.
6. Utilizes competitive review procedures for discretionary financial assistance awards, to the maximum extent possible, in accordance with Section 4.02h of DAO 203-26.
7. Publicly announces in the *Federal Register* its intention to make each sole-source award, requests proposals from interested parties, evaluates any applications submitted, and makes a final selection in accordance with DAO 203-26, Section 4.02h.

8. Ensures that NIST Grants Office reviews of proposed sole-source awards include procedures designed to objectively determine compliance with Department and NIST competitive requirements.
9. Closely examines proposed funding of unsolicited proposals to ensure that they do not fall within the program goals of any existing or planned competitive program, as required by Section 4.02i of DAO-203-26.
10. Develops minimum standards to guide technical personnel in reviewing requests for renewal of sole-source awards and, if renewal is warranted, if it should be done on a noncompetitive basis.

In response to the draft audit report, NIST agreed to implement seven of the ten recommendations contained in the draft audit report. NIST did not agree with the other three recommendations: (1) ensure that Federal Register notices for the Fire Research Grants and MSEL Grants programs identify only type of proposed funding instrument; (2) ensure that at least one proposal review panel member is outside the supervisory chain of command of the selecting official for future MSEL Grants competitions; and (3) publicly announce proposed sole-source awards in the Federal Register, request proposals from interested parties, evaluate any applications submitted, and make a final selection in accordance with DAO 203-26, Section 4.02h. A summary of NIST's response begins on page 26 and the report is included in its entirety in Appendix I.

After reviewing NIST's response to the draft audit report, including the bases for its objections to the three recommendations cited above, we believe the conditions and causes underlying these recommendations remain valid. Therefore, we reaffirm our draft audit report recommendations. Our detailed comments on NIST's responses to the draft audit report begin on page 28.

INTRODUCTION

The National Institute of Standards and Technology’s primary mission is to promote U.S. economic growth by working with industry to develop and apply technology, measurements, and standards. To accomplish a portion of its mission, NIST administers the Measurement and Engineering Research and Standards Program (MERS) , classified as No. 11.609 in the *Catalog of Federal Domestic Assistance* (CFDA). The program’s objective, as stated in the CFDA, is “[t]o provide scientific research for measurement and engineering research and standards.” Awards made under the program are done pursuant to authority set forth at 15 United States Code §272(b)(4), which authorizes the Secretary of Commerce, acting through the NIST Director, to enter into contracts, including cooperative research and development agreements, in furtherance of NIST’s mission.

In fiscal year 1997, NIST made several different types of awards under CFDA No. 11.609, including one legislatively-mandated award and several competitive awards under three individual competitive sub-programs. However, the majority of the awards under CFDA No. 11.609 involved a series of grants and cooperative agreements made noncompetitively on a sole-source basis.

NIST processed 172 financial assistance awards under CFDA No.11.609 in fiscal year 1997. We found that only 46 awards, totaling \$2.8 million, were awarded competitively. The competitive awards included 12 new awards (\$731,000) and 34 renewals of existing competitive awards (\$2.1 million). One awarded, totaling \$6.5 million, was legislatively mandated. The remaining 125 awards were made noncompetitively on a sole-source basis. Total federal funds committed by the 125 sole-source awards and amendments were approximately \$17.6 million. Of these actions, 66 were new awards (\$8.1 million) and 59 were renewals or amendments to existing sole-source awards (\$9.5 million). The following chart summarizes the types of awards, including whether new or renewal, and the relative dollar values for fiscal year 1997.

Award Type	New	\$ Value (In Millions)	Renewal	\$ Value (In Millions)	Total Awards	\$ Value (In Millions)
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We found that the competitive awards were made under three separate award sub-programs that NIST grouped under CFDA No. 11.609: the Fire Research Grants program¹, the Materials Science and Engineering Laboratory (MSEL) Grants program, and the Precision Measurement Grants program. Each of these sub-programs developed its own procedures for soliciting and reviewing applications and for selecting applicants for funding.

The Fire Research Grants program, with technical oversight by NIST's Building and Fire Research Laboratory, provides research funds in the areas of fire modeling and applications, large fire research, advanced fire measurements, materials fire research, and fire sensing and extinguishment. Eligible recipients include academic institutions, non-federal agencies, and independent and industrial laboratories and research organizations. NIST awarded six new Fire Research grants, for a total of \$353,223, during fiscal year 1997. NIST also issued 12 renewals under the program, totaling \$866,887.

The MSEL Grants program provides financial assistance for innovative research proposals on topics of interest to the laboratory's divisions — namely ceramics, polymers, metallurgy, and reactor radiation. Academic institutions, non-federal agencies, and independent and industrial laboratories are eligible to receive awards. NIST issued four new MSEL grants in fiscal year 1997, involving \$277,663 in federal funds. NIST also issued 18 MSEL grants renewals, totaling \$1,019,307.

The Precision Measurement Grants program provides financial assistance to encourage measurement-related research in U.S. universities and colleges and to foster contacts between NIST scientists and faculty members of U.S. academic institutions who are actively engaged in such work. Precision Measurement grants are also intended to assist faculty in pursuing new, fundamental measurement ideas for which other sources of support may be difficult to find. NIST has awarded Precision Measurement grants since 1970. Only U.S. universities and colleges are eligible to apply for these grants. In fiscal year 1997, NIST awarded two new Precision Measurement Grants, totaling \$100,000, and four award renewals, totaling \$200,000 in federal funds.

During fiscal year 1997, NIST issued 125 noncompetitive financial assistance awards and amendments, involving about \$17.6 million in federal funding. This represented 73.1 percent of the discretionary award actions, and 86.3 percent of discretionary funding under the MERS program. Of the 125 noncompetitive actions, 66 were new awards, involving approximately \$8.1 million in federal funds, including 3 awards of more than \$1 million each. The remaining 59 noncompetitive actions were renewals or amendments to existing noncompetitive awards, totaling \$9.5 million in federal funding.

Discretionary financial assistance programs are those for which federal agency officials have the authority to decide (1) which eligible applicants will receive awards, and (2) how much will be

¹In addition to the authority set forth at 15 U.S.C. §272(b)(4), awards made under the Fire Research Grants sub-program are done pursuant to authority set forth in 15 U.S.C. §278f.

awarded. The use of competitive selection procedures is generally agreed to be the most effective method of ensuring that financial assistance awards are made on the basis of merit. One of the primary purposes of the Federal Grant and Cooperative Agreement Act (31 U.S.C. §6301 *et seq*) is to encourage competition in the award of federal financial assistance to the maximum extent practicable in order to fairly and objectively identify and fund, based on merit, the best possible projects proposed by applicants, and thereby more effectively achieve program objectives.

The Office of Management and Budget (OMB) has issued guidelines on administering competition-based financial assistance programs for use by federal agencies. An interagency study group, convened in 1979 by OMB to examine competition in financial assistance programs, determined that financial assistance award processes, to ensure effective competition, should include three basic elements. These elements, which were discussed in OMB's June 1980 report, *Managing Federal Assistance in the 1980s*, and are still applicable, include:

- Widespread solicitation of eligible applicants and disclosure of essential application and program information in written solicitations;
- Independent application reviews that consistently apply written program review criteria; and
- Written justifications for award decisions that deviate from recommendations made by application reviewers.

Also, OMB has issued the following circulars that set forth the policies and procedures to be followed in administering federal financial assistance programs:

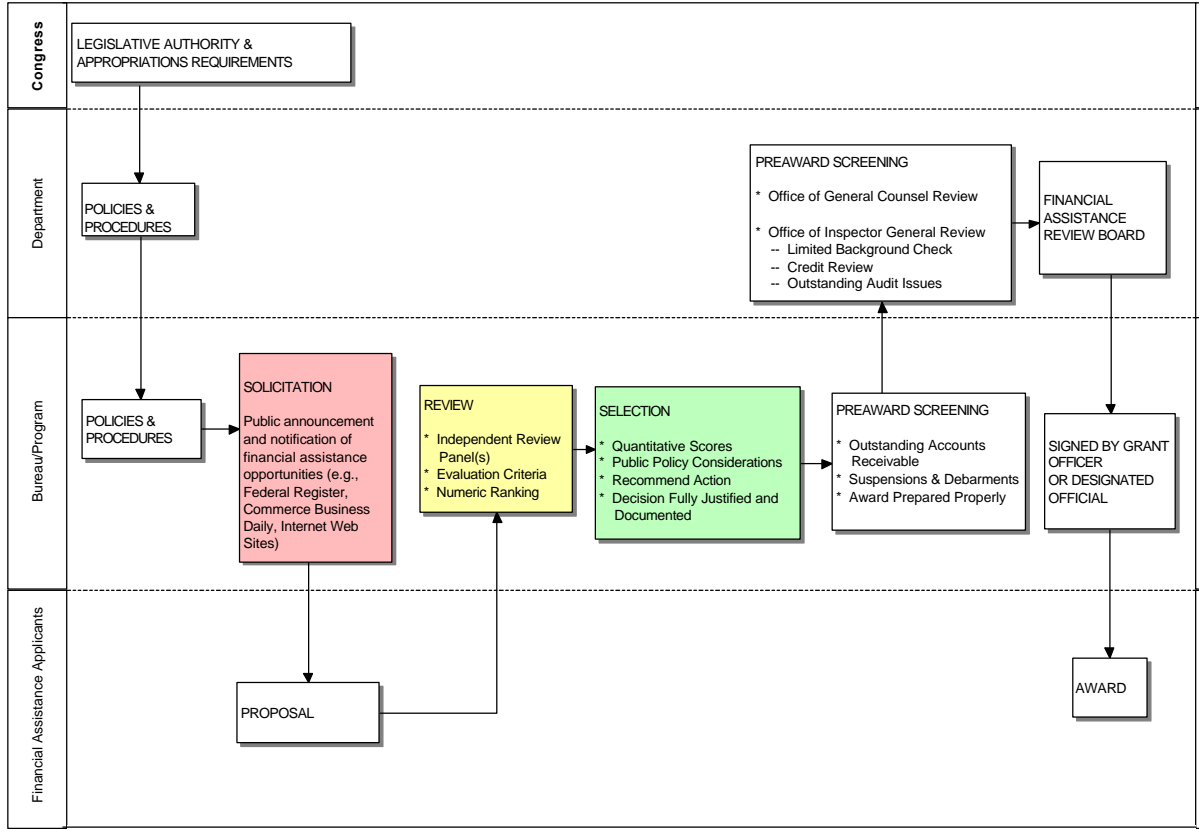
- OMB Circular A-89, *Federal Domestic Program Information*, implements the Federal Program Information Act (P.L. 95-220) requiring agencies to systematically and periodically collect and distribute current information to the public on federal domestic assistance programs, which is accomplished through the semiannual publication of the *Catalog of Federal Domestic Assistance*.
- OMB Circular A-102, *Grants and Cooperative Agreements with State and Local Governments*, requires agencies to provide the public with advance notice in the *Federal Register*, or by other appropriate means, of their intended funding priorities for discretionary assistance programs unless such priorities are established by federal statute. Under A-102, when time permits, an agency must provide the public with an opportunity to comment on funding priorities. Finally, A-102 requires all grant awards over \$25,000 to be reviewed for consistency with agency priorities by a policy level official.

- OMB Circular A-110, *Uniform Administrative Requirements for Grants and Cooperative Agreements with Institutions of Higher Education, Hospitals, and Other Non-Profit Organizations*, requires agencies to provide the public with advance notice of their intended funding priorities for discretionary assistance programs unless such priorities are established by federal statute.
- OMB Circular A-123, *Management Accountability and Control*, implements the Federal Managers' Financial Integrity Act (P.L. 97-255), requiring agencies to establish management controls for federal programs and operations, including financial assistance programs, that provide reasonable assurance that activities are effectively and efficiently managed to achieve agency goals.

Commerce has relied on these guidelines and circulars in developing and issuing policies and procedures for its discretionary funding programs. Department Administrative Order (DAO) 203-26, *Department of Commerce Grants Administration*, requires that (1) all Commerce financial assistance awards be made on the basis of competitive reviews unless a special waiver is obtained, (2) competitive review processes meet minimum standards outlined in the DAO, and (3) all Commerce agencies publish, at least annually, a notice in the *Federal Register* announcing the availability of funding, soliciting award applications, and specifying the criteria and process to be used in reviewing and selecting applications for funding.

The following chart depicts the basic process and controls for the solicitation, review, and selection of financial assistance awards as set forth in DAO 203-26.

Department of Commerce Financial Assistance Awards Process



PURPOSE AND SCOPE

This audit was conducted as part of a comprehensive review of the Department of Commerce's discretionary funding programs initiated at the request of the Chairman of the Senate Committee on Commerce, Science, and Transportation. The Chairman requested that the Inspectors General of the Departments of Commerce and Transportation, and the National Science Foundation review the discretionary funding programs of their respective agencies to assess the manner in which discretionary funding decisions are made. More specifically, the Chairman requested that each IG review and report on the criteria developed, either statutorily or administratively, to guide agency officials in making discretionary spending decisions, and on the extent to which the criteria are appropriately applied.

We conducted our Department-wide review in two phases: a survey phase and an individual program audit phase. During the survey phase, we identified and examined the body of laws, regulations, and other guidance applicable to the administration of federal financial assistance programs. We also examined the authorizing legislation for each Commerce financial assistance program and classified each as either a "full discretion" program or a "limited discretion" program, based on the extent to which the legislation limits the agency's authority to independently determine the recipients and funding levels of the awards made under the program. Finally, we examined fiscal year 1997 appropriations legislation to identify any legislatively mandated projects.

During the second phase of our review, we conducted individual audits of the award solicitation, review, and selection processes of each program we have classified as a "full discretion" program, including NIST's Measurement and Engineering Research and Standards program. We evaluated the adequacy of each program's established award criteria and procedures for evaluating individual applications. For those programs with procedures deemed to be adequate, we ascertained whether they were followed in making awards in fiscal year 1997. For those programs with procedures considered to be inadequate or lacking, we determined how fiscal year 1997 award decisions were made. Finally, we examined the legislatively-mandated projects identified for each program and determined their significance and impact on fiscal year 1997 award decisions. We will issue individual reports, with any appropriate recommendations on each program, followed by a capping report summarizing the results of the individual audits and providing recommendations for the Department and/or its bureaus.

On July 21, 1998, the Acting Inspector General and the Chief Financial Officer and Assistant Secretary for Administration testified before the Senate Commerce, Science, and Transportation Committee on the Department's discretionary funding programs. The Acting IG reported on the status of the survey phase of the OIG's review, and discussed some of the preliminary observations from the individual program audits.

This performance audit covered all awards processed by NIST during fiscal year 1997 under the Measurement and Engineering Research and Standards program, with the exception of one legislatively-mandated award. Specifically, we:

- Reviewed the authorizing legislation, information summarized in the CFDA, and *Federal Register* notices to identify criteria for funding decisions.
- Reviewed Department and NIST policies and procedures for soliciting, reviewing, and selecting recipients for awards. We reviewed NIST's solicitation, review, and selection processes and assessed whether they were in accordance with DAO 203-26, *Department of Commerce Grants Administration*, and Office of Federal Assistance Financial Assistance Notice No. 17, *Department of Commerce Guidelines for the Preparation of Federal Register Notices Announcing the Availability of Financial Assistance Funds—Requests for Applications*.
- Compared NIST's practices for the fiscal year 1997 award actions with the prescribed procedures to determine if the processes contained adequate internal controls to provide for competitive, merit-based awards.
- Interviewed officials in the various program offices concerning NIST's solicitation, review, and selection procedures.

We did not examine NIST's procedures for a cooperative agreement with the U.S.-Israel Science and Technology Commission because the award to this recipient was legislatively mandated. Public Law 104-208, which provided fiscal year 1997 appropriations for the Department of Commerce, directed funding to the Commission.

We did not rely on computer-based data supplied by NIST and the Department's Office of Executive Assistance Management as a basis for our audit findings and recommendations. We therefore, did not conduct tests of the reliability of the data or the controls over the computer-based systems that produced the data.

We completed our audit fieldwork in August 1998 at NIST's Measurement and Standards Laboratories and Grants Office, in Gaithersburg, Maryland. We conducted the audit in accordance with generally accepted government auditing standards and under the authority of the Inspector General Act of 1978, as amended, and Department Organization Order 10-13, dated May 22, 1980, as amended.

FINDINGS AND RECOMMENDATIONS

We found that NIST developed and published merit-based criteria and procedures for soliciting, reviewing, and selecting applications for FY 1997 awards for the three competitive sub-programs under CFDA No. 11.609. NIST's procedures and practices for the solicitation, review, and selection of competitive award recipients generally complied with applicable statutory, departmental, and NIST requirements, although we found room for improvement as discussed below. In addition, we found that NIST did not have adequate procedures to ensure that renewal decisions for certain MSEL grants were merit-based, but did have adequate procedures for renewals of Fire Research Grants and Precision Measurement Grants program awards in fiscal year 1997 and they were properly followed.

We also found several opportunities for improving NIST's competitive award procedures and practices for its three sub-programs. Specifically, two of the three competitive solicitation notices, as published in the *Federal Register*, failed to comply with one of the requirements for such notices, as established by Financial Assistance Notice No. 17. We also believe that the independence and objectivity of future MSEL grants competitions could be enhanced by inviting reviewers from outside NIST and the Department to participate in the review process. In addition, NIST needs to revise the application selection procedures for the Precision Measurement Grants program to prevent the selecting official from participating on proposal review panels.

We found that 125 of the 172 fiscal year 1997 awards under CFDA No. 11.609 were made noncompetitively, on a sole-source basis. We are concerned by the large number of sole-source justifications for noncompetitive awards. NIST's extensive use of sole-source awards appears to conflict with departmental policy, including Section 4.02h of DAO 203-26, and the Federal Grant and Cooperative Agreements Act (31 U.S.C. §6301, *et seq.*), which includes a stated purpose to encourage competition in awarding federal financial assistance.

We found that, although NIST's procedures governing the issuance of sole-source awards require a determination that the proposed recipient is the only responsible source that could accomplish the work and no other property or services would satisfy the government's needs, NIST's Grants Office did not take adequate steps to verify these determinations. In order to ensure that its sole-source justifications are appropriate, NIST should, at a minimum, publicly announce its intention to make each sole-source award, request proposals from parties interested in the same area of research as the proposed sole-source award, and then evaluate all proposals received and make a final selection in accordance with the requirements of DAO 203-26, Section 4.02h. If no proposals are submitted in response to the public notice, NIST should then review the sole-source proposal in accordance with the independent review procedures established by DAO 203-26, which include the requirement that each proposal be reviewed by a minimum of three independent reviewers.

We also found that certain sole-source awards issued by MSEL violated Section 4.02i of DAO 203-26, which states the Department's prohibition against making awards based on an unsolicited proposal if the project falls within the program goals of a competitive program.

Finally, NIST does not have written procedures for renewing existing sole-source awards. We believe that the agency should establish minimum standards to guide technical personnel in assessing whether sole-source awards should be renewed and, if renewal is warranted, if it should be done on a noncompetitive basis. These standards will help bring consistency to NIST's sole-source award renewals and provide a means for it to document that the renewals are merit-based and appropriate.

I. NIST Developed and Published Appropriate Merit-Based Evaluation Criteria for Competitive "Sub-Programs"

NIST developed and published merit-based criteria, which were consistent with the objectives of each of the three competitive sub-programs, to evaluate applications. Specific evaluation criteria for each sub-program are discussed in the following sections.

A. Fire Research Grants

NIST published a "Notice of Availability of Funds" for the Fire Research grants competition in the *Federal Register* on January 23, 1997. The *Federal Register* notice listed the proposal evaluation and scoring criteria. Each proposal would be assigned a numerical score up to 100 points, based on the following criteria, weighted as indicated.

a.	Technical quality of the research	0 - 35 points
b.	Potential impact of the results	0 - 25 points
c.	Staff and institution capability to do the work	0 - 20 points
d.	Match of budget to proposed work	<u>0 - 20 points</u>
	Total	<u>0 - 100 points</u>

We believe that the Fire Research grants proposal evaluation criteria were designed to result in merit-based awards.

B. MSEL Grants

NIST published a "Notice of Availability of Funds" for the MSEL grants competition in the *Federal Register* on April 17, 1996. The *Federal Register* notice listed the proposal evaluation and scoring criteria. Each proposal would be assigned a score up to 100 points, based on the following four equally-weighted criteria.

a.	Rationality	0 - 25 points
	<i>i.</i> Coherence of approach	
	<i>ii.</i> Relation to scientific/technical issues	

b.	Qualifications of technical personnel	0 - 25 points
c.	Resources availability	0 - 25 points
d.	Technical merit of contribution	<u>0 - 25 points</u>

Total
0 - 100 points

We believe that the MSEL grants proposal evaluation criteria were designed to result in merit-based awards.

C. Precision Measurement Grants

NIST published a “Notice of Availability of Funds” for the Precision Measurement grants competition in the *Federal Register* on October 29, 1996. The *Federal Register* notice listed the proposal evaluation and scoring criteria. The Precision Measurement Grants program uses a two-step evaluation process, in which applicants first submit an abbreviated proposal that summarizes the proposed project. NIST then selects a small number of semifinalists who are requested to submit full proposals for examination. Each abbreviated and full proposal would be evaluated according to the following four equally-weighted criteria.

- a. Importance of the proposed research to science—does it have the potential of answering some currently pressing question or of opening up a whole new area of activity?
- b. The relationship of the proposed research to measurement science—is there a possibility that it will lead to a new or improved fundamental measurement method or to a better understanding of important, but already existing, measurement methods or physical standards?
- c. The feasibility of the research—is it likely that significant progress can be made in a three year time period with the funds and personnel available?
- d. The past accomplishments of the applicant—is the quality of the research previously carried out by the prospective grantee such that there is a high probability that the proposed research will be successfully carried out?

We believe that the Precision Measurement grants proposal evaluation criteria were designed to result in merit-based awards.

II. Solicitation Procedures and Practices for Precision Measurement Grants Met Departmental Requirements

We found that the Precision Measurement Grants program notice complied with, or exceeded, all departmental requirements. In addition to publishing the required notice in the *Federal Register*, the program also published a notice of availability of funds in a national magazine — *Physics Today* — and sent brochures announcing the availability of funds to college and university physics departments across the country. We commend the Precision Measurements Grants program on its efforts to broadly advertise the competitive program.

III. Solicitation Notices for the Fire Research and MSEL Grants Sub-Programs Contained Deficiencies

We examined each of the *Federal Register* “Notices of Availability of Funds” for the three competitive sub-programs under CFDA No. 11.609 to determine whether they complied with requirements established by DAO 203-26, Section 4.02b, and Financial Assistance Notice No. 17, Section .03. Section 4.02b of DAO 203-26 requires publication of a notice in the *Federal Register*, at least annually, to inform the interested public of each discretionary financial assistance program. At a minimum, the DAO requires the following information in each notice:

- Statutory authority, the amount and availability of funds, and the purposes for which the funds may be spent;
- Type of funding instrument planned to be used;
- Applicant eligibility criteria;
- Application and/or preapplication due date(s) or closing date(s), if any;
- Contact person’s address and phone number;
- The selection process or procedure;
- Selection criteria and the weight, if applicable, assigned to each criterion;
- Funding priorities, if any;
- Recipient matching requirements, if any;
- Anticipated processing time;
- Maximum project period for which assistance is available;

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- Notification that recipients or applicants who have an outstanding account receivable with the Department will not receive a new award until the debt is paid or arrangements satisfactory to the Department are made;
 - CFDA number(s) and title(s); and
 - Applicability of Executive Order 12372, “Intergovernmental Review of Federal Programs.”

Financial Assistance Notice No. 17 establishes the process to be used in preparing *Federal Register* notices announcing availability of financial assistance funds. Section .03 of the Financial Assistance notice describes specific format and content requirements. Section .03(f) of the Financial Assistance Notice states, “Only one type of funding instrument should be identified in the (*Federal Register*) notice.”

We found that the solicitation notices for the Fire Research Grants and MSEL Grants programs identified two types of funding instruments, contrary to the requirements in Financial Assistance Notice No. 17. The *Federal Register* notice for the Fire Research Grants sub-program, published January 23, 1997, does not contain a specific section describing the type of funding instrument intended, but does mention both grants and cooperative agreements under the caption “Supplementary Information.” The MSEL grants notice, published in the *Federal Register* on April 17, 1996, states, under the caption “Type of Funding Instrument,” that grants and cooperative agreements will be awarded. Both programs have historically awarded both grants and cooperative agreements.

The requirement that only one type of proposed funding instrument be mentioned in *Federal Register* notices is designed to assist applicants in preparing proposals by indicating the anticipated level of government involvement in the project. If the government desires to award cooperative agreements, which involve substantial federal involvement in the funded project, then the agency should so advise applicants, thereby soliciting proposals that provide for federal involvement. “Grants,” on the other hand, do not require substantial involvement by the government and grant proposals should be prepared with minimal federal involvement in the research.

Although NIST was in violation of the DAO and Financial Assistance Notice by mentioning two types of funding instruments, we found no evidence that the violation had any impact on the selection of recipients. However, to avoid future violations of departmental requirements, NIST should restrict future solicitations to one type of funding instrument — either grants or cooperative agreements.

We commend NIST on its decision to quickly correct a deficiency concerning proposed award periods that appeared in the *Federal Register* notice for the MSEL Grants program. Specifically, we found that the *Federal Register* notice, published April 17, 1996, stated that proposals selected for funding would receive financial assistance for a one-year period. However, NIST

regularly accepted multi-year proposals, and selected multi-year projects for funding. Our concern is that applicants whose proposed projects involve more than one year's research may be discouraged from submitting proposals based on the one year limitation contained in the *Federal Register* notice, even though NIST would have considered their proposals if they had been submitted.

We discussed our concern regarding multi-year proposals with MSEL staff. An MSEL official pointed out that the fiscal year 1999 *Federal Register* notice for the MSEL Grants program, published November 19, 1998, advised applicants that NIST would accept and evaluate multi-year proposals. NIST should incorporate similar language into future MSEL Grants program solicitation notices. We believe that the notices should also state that, if a multi-year proposal is selected to receive funding, only the first year's funding will be provided, with subsequent funding at NIST's discretion, subject to a determination of satisfactory performance, continued need for the research, and availability of funding.

IV. Review Procedures Promoted Merit-Based Awards

Each of the three competitive sub-programs developed its own proposal review procedures and published them in the *Federal Register*. Each review process was designed to lead to merit-based selection of award recipients. We found that the Fire Research Grants and Precision Measurement Grants programs included a number of outside experts on their proposal review panels. We believe that the independence and objectivity of future MSEL grants competitions could be enhanced by ensuring that at least one review panel member is outside the supervisory chain of the selecting official and following the lead of the other two competitive programs by inviting experts from outside NIST and the Department to participate.

A. Fire Research Grants

NIST received 13 new proposals, requesting a total of \$789,217 in federal funds, in response to the Fire Research grants solicitation notice, which was published in the *Federal Register* on January 23, 1997. In addition, four Fire Research grants renewal requests were required to compete for funding with the 13 new proposals (see Section VII.A). The proposal review process for the program, as described in the *Federal Register*, included the following phases:

- Each proposal is assigned to the group leader for the research topic area addressed in the proposal. Group leaders are NIST researchers who are responsible for coordinating research activities in their respective areas of technical expertise.
- The group leader assigns a team of three reviewers to evaluate and score each proposal using the weighted evaluation criteria published in the notice.
- The reviewers' scores are averaged into a composite score for each proposal.
- The group leader examines the scores and comments of the reviewers and, considering the overall program balance and objectives, makes a recommendation to the appropriate

division chief, who is the selecting official. The highest scoring proposal may not be recommended for funding because of NIST's desire to broaden its research perspective.

In addition to NIST personnel, the Fire Research Grants program selected proposal reviewers from a list of eight non-federal experts. Outside reviewers were selected by the respective group leader responsible for the proposal. We commend NIST on its use of outside reviewers on the Fire Research Grants program, thereby enhancing the independence and objectivity of the review process.

B. MSEL Grants

NIST received 18 proposals, requesting a total of approximately \$1.2 million in federal funds, in response to the MSEL grants solicitation notice, which was published in the *Federal Register* on April 17, 1996. The proposal review process for the program, as described in the *Federal Register* notice, involves the following phases:

- The proposal is assigned to a panel of three reviewers who are knowledgeable about the specific scientific area covered by the proposal.
- Each reviewer scores the proposal using the equally-weighted evaluation criteria published in the solicitation notice.
- The reviewers' scores are forwarded to the appropriate MSEL division chief, who makes the selection decisions based on the scores received and the compatibility of the proposal to the division's mission. The highest scoring proposal may not be recommended for funding because of NIST's desire to broaden its research perspective.

We found that all of the proposal evaluators for the MSEL grants competition were NIST personnel. We believe that NIST could enhance the independence and objectivity of future MSEL grants competitions by inviting reviewers from outside NIST and the Department to participate. (See next section for a best practice suggestion on NIST's use of "outside" evaluators in its Precision Measurement Grants program.)

C. Precision Measurement Grants

NIST received 25 abbreviated proposals, requesting a total of \$1,250,000 in federal funds, in response to the Precision Measurement grants solicitation notice, which was published in the *Federal Register* on October 29, 1996. We found that NIST's application review procedures for the Precision Measurement Grants program allow the selecting official to also serve as a member of the application review panel. We believe that the independence and objectivity of the application review and selection processes are lessened when the selecting official has the ability to influence the proposal review results by acting as a reviewer. NIST can resolve this issue by revising the Precision Measurement Grants program review procedures to prevent the selecting

official from participating on proposal review panels. NIST could accomplish this by either removing the selecting official from the review panels or by designating another official who is not involved in the review process to serve as the selecting official.

The proposal review process for the program, as described in the *Federal Register* notice, involves the following phases:

- Applicants submit an abbreviated proposal of no more than five double-spaced pages.
- The abbreviated proposals are distributed to a panel of eight reviewers, who evaluate each proposal based on the equally-weighted criteria published in the solicitation notice. The panel members individually rank the proposals and transmit their results to the program office by mail.
- The panel members' rankings are averaged into a composite ranking for each proposal.
- NIST invites full proposals from the four to eight applicants whose abbreviated proposals had the best composite rankings. In the case of the fiscal year 1997 competition, NIST invited and received five full proposals.
- The full proposals are reviewed and scored by the same panel of eight reviewers that evaluated the abbreviated proposals, using the same equally-weighted criteria published in the solicitation notice. The reviewers mail their results to the program office.
- The Precision Measurement Grants program manager selects the two highest-scoring proposals for funding.

We found that the panel of eight reviewers included four NIST personnel and four non-federal experts who were past winners of precision measurement grants. We commend NIST on its use of outside reviewers on the Precision Measurement Grants program. However, we are concerned that the program's selection procedures permit the selecting official to participate on the proposal review panels. DAO 203-26, Section 4.02h.1, establishes the minimum requirements for competitive reviews under discretionary financial assistance programs. The DAO requires that each application receive an independent and objective evaluation by one or more review panels of at least three reviewers each. We believe that the independence and objectivity of the application review and selection processes are lessened when the selecting official has the ability to influence the proposal review results by acting as a reviewer. NIST can resolve this issue by revising the Precision Measurement grant review procedures to prevent the selecting official from participating on proposal review panels. NIST could accomplish this by either removing the selecting official from the review panels or by designating another official who is not involved in the review process to serve as the selecting official.

V. Selection Practices Supported Merit-Based Decisions, But Independence of Process Could Be Improved

In fiscal year 1997, NIST selected six proposals under the Fire Research Grants program, four proposals under the MSEL Grants program, and two proposals under the Precision Measurement Grants program to receive funding. NIST followed written procedures in the selection of recipients for the three sub-programs. The *Federal Register* notices for the Fire Research Grants and MSEL Grants programs both stated that the division chiefs responsible for the particular area of research covered by the proposals would be the selecting officials. The notice for the Precision Measurement Grants program did not directly identify a selecting official. NIST internal program guidance designates the Precision Measurement Grants program manager as the selecting official.

Each of the three sub-programs maintained adequate documentation on the proposal reviewers' evaluations and finding recommendations to the selecting officials. We found that the recommendations of the review panels were followed; in all cases, the projects selected for funding were the highest scoring proposals. Each award decision contained evidence of approval by a designated selecting official. Although we have concerns about the independence and objectivity of the Precision Measurement grants review and selection procedures, we found no evidence of impropriety in the 1997 selections.

Finally, it appears that in many, if not all, of the awards under the MSEL Grants program the NIST personnel on proposal evaluation panels were within the supervisory chain of the selecting official. NIST could enhance the independence of its selection process by ensuring that at least one of the evaluation panel members is outside the supervisory control of the selecting official.

VI. Award Renewal Procedures for Two Sub-Programs Are Calculated to Result in Merit-Based Funding Decisions

We found that the two other sub-programs—Fire Research Grants and Precision Measurement Grants—have adequate procedures that are calculated to result in merit-based renewal decisions. The Fire Research Grants program has separate renewal evaluation and approval processes for one-year and multi-year projects. We found that all Precision Measurement Grants proposals are submitted for three-year research periods, with second- and third-year funding at NIST's discretion. No Precision Measurement grants receive funding beyond the third year, so there is no need for a separate renewal evaluation process for such awards. Our detailed findings are discussed below.

A. Fire Research Grants

The Fire Research Grants program issued 12 award renewals for a total of \$866,877 during fiscal year 1997. The renewals fell into two categories. Of the renewals, eight awards, totaling \$563,152, involved research that was originally proposed to NIST as multi-year projects.

For these multi-year projects, a NIST program manager reviews the ongoing research and advises the respective division chief if the project is progressing satisfactorily. If the project is progressing in accordance with the proposal originally approved by NIST, then renewal funding is approved.

The second category of renewals—four awards, totaling \$303,735—involved projects that were originally proposed to NIST as single-year projects, but were producing important research that the recipient wants to continue. These recipients were required to submit proposals for additional funding. The renewal proposals then competed for funding with the 13 new proposals that were submitted in response to the competitive solicitation notice.

Based upon our review, we concluded that NIST's procedures for reviewing proposed renewals of Fire Research grants were designed to result in merit-based renewal decisions and that NIST followed these procedures for 1997 Fire Research grant renewals.

B. Precision Measurement Grants

The Precision Measurement Grants program issued four award renewals for a total of \$200,000 during fiscal year 1997. According to the Precision Measurement Grants program manager, each proposal is initially submitted for a three-year federal funding period. First-year funding is limited to \$50,000, with two additional years possible at NIST's discretion, based on satisfactory performance and availability of funds. Second- and third-year funding is also limited to \$50,000 annually.

Recipients are required to submit renewal proposals for second- and third-year funding. Based on the progress of the project to date, the additional work proposed in the renewal request, and availability of funds, the program manager determines whether to grant award renewals. In the 25-plus years of the Precision Measurement Grants program, the program manager can recall only one instance when a renewal was not granted, and this was due to the recipient's desire to discontinue the project.

Based upon our review, we concluded that NIST's procedures for reviewing proposed renewals of Precision Measurement grants were designed to result in merit-based renewal decisions and that NIST followed these procedures for the 1997 Precision Measurement grant renewals.

VII. MSEL Grants Renewal Procedures May Treat New Proposals Unfairly

We found that NIST's procedures for evaluating and approving requests for renewals of MSEL grants do not distinguish between continuation of multi-year research projects and requests for renewal funding beyond the originally-proposed research period. We are concerned that recipients who have completed their initial research period and are seeking additional funds receive an unfair advantage over new applicants who submitted proposals in response to a competitive notice in the *Federal Register*.

The MSEL Grants program issued 18 award renewals for a total of \$1,019,307 during fiscal year 1997. The program has a two-step process for evaluating recipients for renewal funding. First, technical personnel within the laboratory review the research to date to assess its overall quality and the extent to which the ongoing work meets the mission needs of the laboratory. After the laboratory technical personnel determine that the work is of high quality and that the project conforms with the laboratory's mission, a second level of review is performed by the laboratory's senior management. In this second step, senior managers further analyze the value of continuing the project, considering availability of resources, analysis of proposed costs, and the qualifications and research portfolio of the recipient researchers.

DAO 203-26, Section 4.02h, requires that all proposals that are submitted in response to a solicitation notice be treated fairly. To the extent that existing projects that are seeking additional funds beyond their originally-proposed research period are given precedence over new proposals and do not have to compete against the new proposals for funding, the process does not treat the new proposals fairly. While we understand that it may be in the public's interest to continue funding promising projects beyond their proposed time period, we believe that such projects should have to demonstrate their ongoing value by competing against new proposals that are submitted in response to a published solicitation. Therefore, NIST should revise the process by which it evaluates and approves existing MSEL projects for renewal funding by requiring projects that have completed their originally-proposed research period to compete with all new proposals for funding.

VIII. Majority of Awards Were Noncompetitive, Contrary to Departmental Policy

During fiscal year 1997, NIST issued 125 noncompetitive financial assistance awards and amendments, involving about \$17.6 million in federal funding. This represented 73.1 percent of the discretionary award actions, and 86.3 percent of discretionary funding under CFDA No. 11.609. Of the 125 noncompetitive actions, 66 were new awards, involving approximately \$8.1 million in federal funds, including 3 awards of more than \$1 million each. The remaining 59 noncompetitive actions were renewals or amendments to existing noncompetitive awards, totaling \$9.5 million in federal funding.

As previously stated, the use of competitive selection procedures is generally agreed to be the most effective method of ensuring that financial assistance awards are made on the basis of merit. DAO 203-26, Section 4.02h, establishes the departmental requirement for competitive review of financial assistance applications, stating, "(Department of Commerce) discretionary grant program awards shall be made on the basis of competitive review." In addition to the Department's requirement for competitive review, one of the primary purposes of the Federal Grant and Cooperative Agreement Act is to encourage competition in the award of federal financial assistance to the maximum extent practicable in order to fairly and objectively identify and fund, based on merit, the best possible projects proposed by applicants, and thereby more effectively achieve program objectives. We believe that NIST's extensive use of noncompetitive award procedures conflicts with the departmental requirement and the objectives of the Federal Grant and Cooperative Agreement Act.

A. New noncompetitive awards

We discussed the processes by which the noncompetitive awards are initiated with personnel in NIST's Measurement and Standards Laboratories and reviewed the award files for the 66 new noncompetitive awards issued in fiscal year 1997. We found that most of NIST's organizational units had at least one noncompetitive award in 1997. The following schedule summarizes the number of awards by unit.

Chemical Science and Technology Laboratory	16
Manufacturing Engineering Laboratory	16
Materials Science and Engineering Laboratory	13
Physics Laboratory	6
Building and Fire Research Laboratory	5
Information Technology Laboratory	4
Electronics and Electrical Engineering Laboratory	3
Manufacturing Extension Partnership	2
Technology Services	<u>1</u>
Total	<u>66</u>

Based on our discussions with officials in several NIST organizational units, the following describes the process by which NIST's noncompetitive awards originate.

- NIST receives an unsolicited proposal² for research services, usually from a college or university researcher, but occasionally from non-academic research centers. The unsolicited proposals reportedly originate in one of three ways:
 - 1) A NIST researcher finds a need for research services that cannot be met in-house due to staff and/or facility constraints. The researcher contacts a nonfederal colleague, describes the type of services needed, and suggests that the colleague submit a proposal.
 - 2) A nonfederal researcher who is familiar with ongoing or planned research in a NIST laboratory submits a proposal for related or complementary research.
 - 3) A nonfederal researcher who is seeking federal funding submits a proposal without prior knowledge of ongoing or planned NIST research.

²DAO 203-26 defines *Unsolicited Proposals* to be, "Applications for financial assistance which are not received as a result of a direct solicitation in the *Federal Register*, *Commerce Business Daily*, or other publication." All of NIST's noncompetitive awards resulted from unsolicited proposals, based on the DAO definition.

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- If NIST determines that funding is available and the unsolicited proposal appears to be worthy of further consideration, some level of technical evaluation is performed within the NIST laboratory. We found that the level of detail in the technical evaluations varied among the awards. Some award files contain only a narrative evaluation by a single reviewer, while others contain numerical scores from up to three reviewers. The files for the three awards in excess of \$1 million contained only narrative evaluations and did not state whether the evaluations were performed by a single reviewer or by a panel of at least three reviewers, as would be required for competitive reviews, pursuant to the DAO.
 - The NIST laboratory prepares a *Justification for Other Than Full and Open Competition*, stating that the proposed recipient is the only responsible source to perform the research and that no other type of property or services will satisfy NIST's needs. NIST cites 41 U.S.C. §253(c)(1), which applies to procurement contracts, not financial assistance awards, as the statutory authority allowing it to make the award on a noncompetitive basis.
 - The Office of General Counsel reviews the proposed award package, including the sole source justification and proposed type of funding instrument. The Office of General Counsel may request clarification or revision of the package before approving the proposed award.
 - After approval by the Office of General Counsel, the package is forwarded to the NIST Grants Office, which issues a grant or cooperative agreement.

The Department recognizes that it is occasionally desirable to fund unsolicited proposals without the benefit of competition. The requirements for funding unsolicited proposals are stated in DAO 203-26, Section 4.02i. The DAO states,

“No unsolicited proposal may be funded outside the competitive process if that proposal is one which falls within the program goals of a competitive program. If outside the parameters of a competitive program, an unsolicited proposal must enhance the financial assistance objectives of the sponsoring organization unit. The decision to fund an unsolicited proposal must be fully justified and included in the official grant file.”

In addition, NIST has established requirements for funding noncompetitive financial assistance awards in the *NIST Administrative Manual*, Subchapter 2.03, Appendix Q, “Grants and Cooperative Agreements,” Section 4. NIST's requirements include:

- A sole-source justification that states the applicant's unique qualifications to receive financial assistance.
- Statement of the review/evaluation process used for selecting the project to be funded.

- A certification that the proposed action falls outside the parameters of a competitive program.
- A statement explaining how this proposed award enhances the objectives of the program. (In this context, we assume that NIST's use of the word "program" means the NIST office requesting that the proposed award be funded.)

We have three major concerns with NIST's noncompetitive financial assistance procedures and practices. First, NIST should use competitive award procedures for financial assistance awards to the maximum extent possible. Secondly, when it is desirable to fund an unsolicited proposal, NIST's procedures should provide for public notification of proposed sole-source awards as a means to verify that no other responsible source for the property or services will satisfy NIST's needs. Finally, the research topics addressed in several of the proposals that NIST funded noncompetitively appeared to fall within the scope of an existing competitive program, contrary to the departmental policy that no unsolicited proposal may be funded if it falls within the program goals of a competitive program.

***i.* Competitive procedures were not used**

Section 4.02h of DAO 203-26 requires the use of competitive review procedures in awarding financial assistance. However, NIST issued 66 of the 78 new discretionary awards under CFDA No. 11.609 noncompetitively. The decisions to issue the noncompetitive awards were made on the basis of sole-source assertions by NIST laboratories and program offices.

DAO 203-26, Section 4.02h.1, establishes the minimum requirements for competitive reviews of proposed financial assistance awards. The minimum requirements include:

- An application is reviewed only when it is received in response to a notice in the *Federal Register* or other publication.
- Applications are treated fairly under the review process.
- Each application receives an independent, objective review by one or more review panels.
- There are at least three members on each review panel. Review panels may include members who are not federal employees.
- Each review panel uses the selection criteria that were published in the solicitation notice.
- After the review panel(s) have evaluated the applications, the organization unit prepares a rank ordering, based solely on the evaluations of the panel(s).

- The organization unit determines the order in which applications will be funded, based on (i) any priorities or other program requirements that were published in the solicitation notice, and (ii) the rank order established by the review panel scores.

Previously, we listed the three ways that unsolicited proposals reportedly originate:

- (1) NIST identifies a research need that it cannot address with in-house resources and contacts a nonfederal researcher to suggest that he or she submit a proposal.
- (2) An outside researcher familiar with ongoing or planned NIST research submits a complimentary proposal.
- (3) An outside researcher with no knowledge of ongoing or planned research submits a proposal that he or she thinks will be of interest to NIST.

Certainly in the first case, and likely in the second, NIST has sufficient knowledge of its research needs and resources to allow public solicitation for research services. Therefore, we believe that NIST should utilize the procedures outlined in DAO 203-26, Section 4.02h.1, for proposed financial assistance awards in all cases where its research needs and resources are known prior to receipt of applications.

ii. Sole source claims were not verified

While the general requirement calls for competitive review of proposed financial assistance actions, the Department recognizes that there are instances in which it is desirable to fund unsolicited proposals. The Department's requirements for issuing awards on unsolicited proposals are contained in DAO 203-26, Section 4.02i. The DAO provides that unsolicited proposals may be funded only when (i) the proposal falls outside the goals of a competitive program, (ii) the proposal enhances the financial assistance objectives of the sponsoring organization unit, and (iii) the decision to fund the proposal is fully justified and documented in the award file. NIST augmented the Department's minimum requirements for noncompetitive financial assistance awards by publishing its own requirements in Appendix Q of the NIST Administrative Manual. In addition to the three departmental requirements, NIST requires a sole-source justification for all noncompetitive awards. NIST also expanded the requirement that no noncompetitive award can fall within the goals of a competitive program to include planned, as well as current, competitive programs.

Our examination of the noncompetitive awards issued in 1997 disclosed that NIST's Grants Office did not take adequate steps to verify sole-source assertions made by the sponsoring laboratory or program office. DAO 203-26, Section 4.04a.4, makes it the responsibility of the grants officer to ensure that preaward administrative activities were followed, including ensuring that competitive proposal review procedures were followed. We believe that this responsibility

extends to verifying sole-source assertions. This verification should include a public notification to verify that there is only one source of property or services that would satisfy the government's needs. At a minimum, NIST should publish a preaward notice in the *Federal Register* stating that the agency expects to make a sole-source award and inviting other interested and qualified parties to inquire. NIST should review the original proposal, and any additional proposals submitted in response to the *Federal Register* notice, in accordance with the independent review procedures established by DAO 203-26, Section 4.02h, which include a requirement that each proposal be reviewed by a minimum of three independent reviewers. To maximize independence and objectivity, NIST should invite experts from outside NIST and the Department to participate on review panels.

iii. Some noncompetitive awards appear to fall within the parameters of a competitive program

NIST issued four new MSEL Grants program awards in fiscal year 1997, based on a competitive solicitation published in April 1996. MSEL also funded 13 unsolicited proposals on a noncompetitive, sole-source basis in fiscal year 1997. We found several instances where the research topics addressed in the unsolicited proposals appeared to fall within the scope of the published objectives of the competitive program, which did not comply with the requirements for funding unsolicited proposals, as stated in DAO 203-26, Section 4.02i. The competitive program's objectives were written broadly to encompass several research areas within MSEL's divisions. The following examples illustrate the apparent duplications.

Example A

One of the objectives of the competitive MSEL Grants program, as stated in the April 1996 *Federal Register* notice, is "to support (Polymer) Division programs in polymer blends, composites, electrical applications and dental polymeric materials through participation in research on synthesis, processing and characterization of structure, and mechanical and electrical properties." Writing in support of an unsolicited proposal submitted by the University of Connecticut, a NIST researcher stated, "This proposed work will contribute to the NIST program in polymer blends and processing research." The description parallels a portion of the broadly-stated objectives in the competitive program solicitation. We also noted that the sole-source justification for this unsolicited proposal did not contain the required statement that the proposed award falls outside the parameters of a competitive program. In spite of these deficiencies, the proposed award was approved and funded (award No. 70NANB7H0060).

Example B

The stated purpose of a grant to the New York State College of Ceramics at Alfred University (award No. 60NANB7D0064) was to fund the applicant's participation in NIST's Ceramic Processing Characterization Consortium. The Procurement Requisition (Form CD-435) stated that the scope of work of the proposed project "is a collaborative program between NIST and

Alfred University for developing new strategies and techniques to strengthen the ceramic processing characterization infrastructure within the U.S.” The April 1996 *Federal Register* notice for the competitive MSEL Grants program stated that the program’s objectives included, “to supplement the (Ceramics) Division activities in the area of ceramic processing, tribology, composites, machining, interfacial chemistry, and microstructural analysis.” Again, the scope of the unsolicited proposal parallels the broadly-stated objectives of the competitive program. Also, as in the previous example, the sole-source justification did not contain the required statement that the proposed award falls outside the parameters of a competitive program. In spite of the apparent parallels between the proposal and the goals of the competitive program, and the lack of the required certification, the Office of General Counsel found that “The sole source justification is adequate.”

Example C

The title of an unsolicited proposal submitted by the University of Maryland at College Park (award No. 70NANB7H0055) was “High Resolution Cold Neutron Spectroscopy and Scattering for Applications in Materials Science and Chemical Physics.” This research appeared to closely parallel an objective of the competitive MSEL Grants program, which is “to develop high resolution cold and thermal neutron research approaches and related physics, chemistry, macromolecular and materials applications.” Although the unsolicited proposal appears to track very closely with the competitive program’s objectives, NIST’s sole-source justification states, “(C)learly this proposal does not fall within the program goals of a competitive program because of the unique nature of the scientific and engineering skills required and available (in this country) only at the University of Maryland.” While the unsolicited proposal may relate to a specific area of research, it appears that the proposed project does in fact fall within the broadly-stated objective of the competitive program and is therefore questionable as to whether it should have been awarded noncompetitively.

B. Noncompetitive amendments

In addition to the 66 new noncompetitive awards, NIST issued 59 amendments to existing noncompetitive awards in 1997. The total federal share of the 59 noncompetitive amendments was \$9.1 million. Our review disclosed that NIST does not have written procedures for assessing existing award recipients for “continued” funding. Each of the 59 noncompetitive award amendments that NIST issued in fiscal year 1997 involved a unique project, rather than a specific program, and we did not individually examine the bases for NIST’s decisions. We believe that NIST should establish minimum review standards to guide technical personnel in assessing a noncompetitive project’s worthiness for continued funding and whether any continued funding should be provided on a noncompetitive basis. These standards will help bring consistency to NIST’s noncompetitive award renewals and provide a means for it to document that renewals are merit-based.

IX. Recommendations

We recommend that the Director, NIST, ensure that the agency:

1. Complies with the minimum departmental requirements, as stated in Financial Assistance Notice No. 17, Section .03b.7(f), for Fire Research Grants and MSEL Grants program solicitation notices by identifying only one type of proposed funding instrument in the notices.
2. Notifies applicants for MSEL grants that proposals for multi-year projects will be accepted and evaluated, with funding beyond one year at NIST's discretion, subject to satisfactory performance, continued research needs, and availability of funds.
3. Enhances the independence of future MSEL Grants application reviews by ensuring that at least one proposal review panel member is outside the supervisory chain of the selecting official and that participants from outside NIST and the Department are invited to serve as proposal reviewers.
4. Revises the selection procedures to preclude the selecting official from participating on proposal review panels.
5. Provides fair treatment to all MSEL Grants applicants by requiring grantees that are seeking additional funding beyond their originally-proposed research period to compete for funding with all new MSEL Grants program applications.
6. Utilizes competitive review procedures for discretionary financial assistance awards, to the maximum extent possible, in accordance with Section 4.02h of DAO 203-26.
7. Publicly announces in the *Federal Register* its intention to make each sole-source award, requests proposals from interested parties, evaluates any applications submitted, and makes a final selection in accordance with DAO 203-26, Section 4.02h.
8. Ensures that NIST Grants Office reviews of proposed sole-source awards include procedures designed to objectively determine compliance with Department and NIST competitive requirements.
9. Closely examines proposed funding of unsolicited proposals to ensure that they do not fall within the program goals of any existing or planned competitive program, as required by Section 4.02i of DAO-203-26.

10. Develops minimum standards to guide technical personnel in reviewing requests for renewal of sole-source awards and, if renewal is warranted, if it should be done on a noncompetitive basis.

NIST's Response to the Draft Audit Report

In response to the draft audit report, NIST agreed to implement seven of the ten recommendations. NIST agreed to:

- notify applicants for MSEL grants that proposals for multi-year projects will be accepted and evaluated, with funding beyond one year at NIST's discretion, subject to satisfactory performance, continued research needs, and availability of funds,
- revise the selection procedures to preclude, whenever possible, the selecting official from participating on proposal review panels,
- require grantees that are seeking additional funding beyond their originally-proposed research period to compete for funding with all new MSEL Grants program applications,
- utilize competitive review procedures for discretionary financial assistance awards, to the maximum extent possible,
- develop procedures to assist the Grants Office in determining compliance with Department and NIST competitive requirements,
- closely examine proposed funding of unsolicited proposals to ensure that they do not fall within the program goals of any existing or planned competitive program, and
- develop minimum standards to guide technical personnel in reviewing requests for renewal of sole-source awards and, if renewal is warranted, if it should be done on a noncompetitive basis.

NIST disagreed with the draft audit report recommendation to ensure that future Fire Research Grants and MSEL Grants program solicitation notices mention only one type of funding instrument on the basis that such practice, while stated as a preference in Financial Assistance Notice No. 17, is not required by federal law or government-wide policy. NIST's response stated that many other federal agencies solicit both grants and cooperative agreements in a single *Federal Register* notice. Furthermore, NIST pointed out that all *Federal Register* notices were examined by the Department's Office of Executive Assistance Management and Office of General Counsel prior to publication and neither office objected to soliciting two type of funding instruments in a single notice. NIST also stated that the draft version of the forthcoming Department-wide Grants Administration Manual allows agencies to solicit both grants and cooperative agreements in a single notice, if they so choose.

NIST disagreed with the draft report recommendation to ensure that at least one proposal evaluator under the MSEL Grants program be outside the supervisory chain of the selecting official. **(NIST did not disagree with the remainder of the recommendation to invite participants from outside NIST and the Department to serve as proposal reviewers.)** NIST's response stated that current departmental policies do not require that review panel members be outside the supervisory chain of the selecting official.

NIST also disagreed with the draft report recommendation to publicly announce in the *Federal Register* its intention to make each sole-source award, request proposals from interested parties, evaluate any applications submitted, and make a final selection in accordance with DAO 203-26, Section 4.02h. NIST's response stated that there is no departmental policy that requires publication of a notice of intent to make a sole-source or noncompetitive award. NIST's response did note that discussions were underway within the Department regarding whether it would be advisable to publish notices of intent to award sole-source awards. NIST's preference is to await the outcome of these discussions and then implement any new departmental policy that follows.

In addition to responding directly to each of the ten draft report recommendations, NIST's response contained comments on several items in the text of the draft report. NIST objected to the report's use of the phrase "conflict of interest" to describe the result of allowing the selecting official to serve as a review panel member under the Precision Measurement Grants program. NIST stated that any inadvertent use of the selecting official as a reviewer was done solely to add knowledge, experience, and expertise to reviews of highly complex applications. NIST also stated that it interpreted departmental policies as leaving it to the agency's discretion to determine whether a review panel, which includes a selecting official, is independent.

NIST also objected to the draft report's assertion that DAO 203-26, Section 4.02h requires NIST to state that proposed sole-source recipients are the only responsible source that could accomplish the work and no other property or services would satisfy the government's needs. NIST's response pointed out that these are requirements for procurement actions and do not directly apply to financial assistance awards. NIST interpreted the DAO to leave it to the discretion of the Grants Officer to determine what constitutes adequate justification for a sole-source award.

NIST suggested that we delete the draft report's reference to a deficiency in the solicitation notice for the MSEL Grants program because the deficiency had been corrected prior to issuance of the draft audit report.

Finally, NIST's response pointed out a missing word in the text of the draft report.

OIG's Comments on NIST's Response

We do not agree with NIST's rationale for rejecting our recommendation to mention only one type of funding instrument in solicitation notices for discretionary financial assistance programs. While NIST's assertion that such practice is not required under federal law or government-wide policy may be accurate, the fact remains that it is the policy of the Department of Commerce, as stated in Financial Assistance Notice No. 17, to solicit for only one type of funding instrument in each *Federal Register* notice. The transmittal memorandum for the Financial Assistance Notice, which lists the Chief of NIST's Acquisition and Assistance Division as an addressee, states, "These guidelines provide updated policies and minimal requirements for the preparation of (*Federal Register*) notices." Section .03b.7 of the Financial Assistance Notice, titled "Supplementary Information," states, "At a minimum, the following items *must* be included in this section ..." (Emphasis added.) The requirement that only one type of proposed funding instrument be identified in the notice appears as item (f) within this section. Moreover, it is clearly a "best practice" that facilitates the solicitation and application processes.

With respect to our recommendation to ensure that at least one proposal evaluator be outside the supervisory chain of the selecting official, we do not dispute NIST's assertion that this is not a requirement under the minimum departmental requirements for competitive review. Our recommendation—a recognized "best practice"—was intended to enhance the independence and objectivity of MSEL Grants program competitive reviews by establishing procedures that exceed the minimum requirements of the Department. While we found no evidence that MSEL Grants selecting officials directed, or attempted to direct, reviewers to score proposals in a certain manner, we believe the independence of the review process is enhanced when the selecting official has as little influence as possible over the reviewers. Therefore, we reaffirm our recommendation that at least one proposal evaluator be outside the supervisory chain of the selecting official.

As explained in the body of the report, we found that, while NIST's policies require assertions that a proposed sole-source award recipient is the only responsible party that could accomplish the work and that no other property or services would meet the government's needs, there is no requirement that these assertions be verified. Our recommendation to publicly announce NIST's intention to make sole-source awards provides one possible means for such verification. If NIST's assertion that there is only one responsible source is accurate, then no additional proposals will be submitted and NIST can proceed with the processing of the proposed sole-source award. If, on the other hand, there are other responsible parties who could satisfy NIST's needs, then the benefits are threefold. First, NIST can competitively select, based on merit, the best technical and cost efficient proposal. Second, those additional individuals or organizations that submit proposals will expand NIST's pool of potential sources for future program needs. Third, qualified sources that would have been excluded from consideration because they were not aware that NIST had a need they could satisfy would have a chance to compete for public funding. This last benefit could ultimately lead to new scientific approaches that might never have been developed if NIST had made a sole-source award to another party under its existing procedures.

While departmental policies do not explicitly require public notification of planned sole-source awards, we believe that there are significant benefits associated with exceeding the minimum requirements of the Department. Accordingly, we reaffirm our recommendation that NIST publicly announce in the *Federal Register* its intention to make each sole-source award, request proposals from interested parties, evaluate any applications submitted, and make a final selection in accordance with DAO 203-26, Section 4.02h.

After examining NIST's response to the draft audit report, we amended the language in the final report to remove the words "conflict of interest" from the section dealing with the Precision Measurement Grants program selecting official serving as a proposal evaluator. We did note that NIST agreed to exclude selecting officials from proposal review panels "whenever possible."

Contrary to the statement in NIST's response, the draft report did not assert that DAO 203-26, Section 4.02h requires NIST to state that proposed sole-source recipients are the only responsible source that could accomplish the work and no other property or services would satisfy the government's needs. The only reference to DAO 203-26, Section 4.02h in the paragraph cited by NIST is in the context of following the DAO's competitive review procedures when evaluating proposals submitted in response to a public notification of intent to make a sole-source award. NIST is correct that the sole-source justification language has its roots in procurement law, but it is important to note that NIST chose to use the sole-source justification contained in 41 U.S.C., Section 253(c)(1) as its basis for justifying sole-source financial assistance awards.

NIST's response also stated that it should be left to the Grants Officer's discretion to determine whether a sole-source assertion provides adequate justification for a noncompetitive award. Since competitive review is the Department's preferred method for awarding financial assistance (refer to DAO 203-26, Section 4.02h), and noncompetitive awards represent a deviation from the preferred method, we believe that the Grants Officer has a duty to verify the sole-source assertion that serves as the justification for this deviation.

The draft report mentioned NIST's correction of a deficiency in the MSEL solicitation notice for the purpose of commending NIST on its actions, not to point out another deficiency in NIST's practices. As such, we amended the language in the final report to clarify our purpose.

We amended the text of the final report to include a missing word, as suggested by NIST.

Finally, we believe that the transmittal letter of NIST's response to the draft audit report mischaracterized the findings of our audit. The transmittal stated, "We are gratified that the OIG auditors found that the three NIST programs under CFDA Program Number 11.609 adhered to or exceeded all NIST and Departmental competition requirements." A better summary of our findings, as stated in the report, is "NIST's procedures and practices ... generally complied with applicable statutory, departmental, and NIST requirements, although we found room for improvement."



NIST

UNITED STATES DEPARTMENT OF COMMERCE
National Institute of Standards and Technology
Gaithersburg, Maryland 20899
OFFICE OF THE DIRECTOR

JUN 29 2000

MEMORANDUM FOR Mary L. Casey
Acting Assistant Inspector General for Auditing

From: Raymond G. Kammer
Director

A handwritten signature in black ink, appearing to read "Raymond G. Kammer", written over the typed name and title.

Subject: Measurement and Engineering Research and Standards
Program Should Expand Use of Competitive Award Procedures
CFDA No. 11.609
Draft Audit Report No. DEN-10958-0-XXXX

Thank you for the opportunity to review and comment on the subject draft audit report. The National Institute of Standards and Technology (NIST) appreciates the effort that the Office of Inspector General (OIG) put into reviewing the competition practices of NIST programs and the findings and recommendations included in the report.

NIST concurs with the overall direction of the findings and recommendations in the audit report. In general, the report points out that improvements are needed to ensure that grants and cooperative agreements awarded by NIST under the Catalog of Federal Domestic Assistance (CFDA) Program Number 11.609 are awarded on the basis of full and open competition.

We are gratified that the OIG auditors found that three NIST programs under CFDA Program Number 11.609 adhered to or exceeded all NIST and Departmental competition requirements. To improve on the competitive practices of Program Number 11.609 and other NIST discretionary financial assistance programs, I will task the NIST Program Office and the Grants Office with reviewing NIST competition policies, practices, procedures, and developing and implementing any needed improvements. The goals of this effort will be to ensure that all NIST, Department of Commerce, and Government-wide competition policies, practices and procedures for the competitive award of grants and cooperative agreements are followed.

Our comments and recommendations regarding the draft report are included in the attachment. Please direct any questions regarding our response to Sharon Bisco, Audit Liaison, at (301) 975-4054.

Attachment

cc: J. Urrutia
M. Matos
H. Harary
S. Bisco
M. Rubin
N. Osinski
G. White

NIST Comments on OIG Draft Audit Report No. DEN-10958-0-XXXX

**Measurement and Engineering Research and Standards Program Should Expand
Use of Competitive Award Procedures CFDA No. 11.609**

1. **Page iii, second bullet, second line** – Delete the words “conflict of interest”. We feel that any inadvertent use of selecting officials as part of the review process was intended merely to gain the knowledge, experience, and expertise of key individuals in reviewing highly complex applications. This use of key personnel was intended to serve the Government’s interest, not conflict with it. We believe that the use of the term “conflict of interest” in this instance is an exaggeration. The sentence should be rewritten to state:

Allowed the selecting official for the Precision Measurement program to participate on proposal review panels. If possible, this should be avoided in the future because it raises questions as to the independence of the competitive process.

We also recommend that the language in the first paragraph on page 15 regarding conflict of interest be deleted.

Departmental policies on the composition of review panels do not specifically exclude selecting officials from serving on panels. See DAO 203-26, Section 4.02h(c)-(d). The policy requirements merely state:

- (c) Each application receives an independent, objective review by one or more review panels qualified to evaluate the applications submitted under the program;
- (d) There are at least three persons in each review panel which may include one or more persons who are not employees of the Federal Government;

Under the above guidelines, the Department leaves it to NIST’s discretion to determine whether a panel, which includes a selecting official, is sufficiently independent.

2. **Page 8, last paragraph** – This paragraph should be deleted. While we agree that strong justifications should be included in the official award file for any sole source award, the recommendations cited in the audit report are not required by law, Departmental policies, or NIST policies. Contrary to the paragraph in the draft audit report, DAO 203-26, Section 4.02h does not require NIST to state that “the proposed recipient is the only responsible source that could accomplish the work and no other property or services would satisfy the government’s need....” These are contracting

or procurement concepts which do not directly apply to financial assistance awards. Also, the DAO does not require NIST to publish proposed sole source awards in the Federal Register, solicit other proposals, and conduct a review of any proposals received.

The DAO requires that all discretionary awards be made as a result of a competitive solicitation. The only DAO exceptions to this policy are those instances involving waivers of the competitive requirements by the Office of Executive Assistance Management or when unsolicited proposals are received. In both of these cases, a justification for making an award without competition must be included in the official award file. However, the DAO is silent on what constitutes adequate justification. Therefore, the NIST Grants Officer is free to use his or her discretion and judgement in determining what constitutes adequate justification for requesting a waiver of competition or whether an unsolicited proposal should be funded.

3. **Page 12, last paragraph through the first complete paragraph on page 13** – The discussion about a past concern regarding the MSEL Federal Register notice on multi-year funding should be deleted. As the draft audit report states on page 13, this problem was corrected prior to the OIG audit. We see no reason to cite a past concern that NIST had already corrected prior to the audit.
4. **Page 17, first paragraph, second line** – After the word “adequate”, insert the word “procedures”.

Comments Regarding the Specific Recommendations

In the recommendations section of the draft audit report (pages 25-26), the OIG recommended that the NIST Director, ensure that the agency:

1. **OIG Recommendation 1:** Complies with the minimum departmental requirements, as stated in Financial Assistance Notice No. 17, section .03b.7(f), for Fire Research Grants and MSEL Grants program solicitation notices by identifying only one type of proposed funding instrument in the notices.

Response:

This recommendation and the first full paragraphs on page 12, which refers to the Department’s Financial Assistance Notice (FAN) Number 17 should be deleted. While the FAN number 17, section .03b.7(f) expresses a preference for or recommends that Federal Register notices soliciting awards identify only one type of anticipated award, that policy preference is not required by law or any Government-wide policy. Many Federal agencies solicit both grants and cooperative agreements in the same Federal Register notice. All NIST Federal Register notices are reviewed and cleared by the Department’s Office of Executive Assistance Management and the Office of General Counsel prior to publication. Neither Departmental office has objected to NIST soliciting both grants and cooperative agreements in the same

notice. In addition, the Department's draft Grants Administration Manual, which the Department has indicated will be released by October of 2000, leaves it to each bureau to decide whether to solicit grants, cooperative agreements, or both in the same notice. In addition, some Federal Agencies issue "Broad Agency Announcements" in which contracts, grants, cooperative agreements, or other types of agreement opportunities are all announced in the same public notice. In light of the above, we believe that NIST should have the discretion to decide whether to solicit applications for more than one type of funding instrument in the same notice. If cooperative agreements are solicited, NIST will provide guidance as to the type and/or level of substantial involvement it intends to have in the implementation of resulting projects.

2. **OIG Recommendation 2:** Notifies applicants for MSEL grants that proposals for multi-year projects will be accepted and evaluated, with funding beyond one year at NIST's discretion, subject to satisfactory performance, continued research needs, and availability of funds.

Response:

NIST usually announces multi-year funding when it expects to consider multi-year awards. It appears that the announcement of single-year project periods for MSEL was inadvertent. MSEL plans to continue to announce multi-year funding when appropriate, as it has done in years before and after the subject audit.

In addition, NIST will ensure that the Departmental policy requirements are followed when issuing all future multi-year awards. Those policies were initially delineated in Financial Assistance Notice Number 10, and will soon be modified by the Department's draft Grants Administration Manual.

3. **OIG Recommendation 3:** Enhances the independence of future MSEL Grants application reviews by ensuring that at least one proposal review panel member is outside the supervisory chain of the selecting official and that participants from outside NIST and the Department are invited to serve as proposal reviewers.

Response:

This recommendation should be deleted or modified. DAO 203-26, Section 4.02h(c) and (d) only requires that:

(c) Each application receives an independent, objective review by one or more review panels qualified to evaluate the applications submitted under the program;

(d) There are at least three persons in each review panel which may include one or more persons who are not employees of the Federal Government;

Current Departmental policies do not require that review panel members be outside the supervisory chain of the selecting official or that participants from outside NIST participate in the review process. Consistent with Departmental policies, NIST will continue to ensure that review panel members are independent and qualified. NIST will also determine on a case-by-case basis whether to include outside reviewers on review panels. The audit report acknowledges that outside reviewers are already being used in the review of proposals for some NIST programs.

4. **OIG Recommendation 4:** Revises the selection procedures to preclude the selecting official from participating on proposal review panels.

Response:

Current Departmental policies, DAO 203-26, do not prohibit selecting officials from participating in the merit review of applications. We think that the Department should review and clarify its policies in this regard.

However, NIST agrees that in the future selecting officials, whenever possible, should refrain from participation in the merit review of proposals to avoid any appearance of a conflict-of-interest or loss of objectivity. NIST will assess whether there is a need to establish local policies to ensure that selecting officials are not members of merit review panels.

5. **OIG Recommendation 5:** Provides fair treatment to all MSEL Grants applicants by requiring grantees that are seeking additional funding beyond their originally-proposed research period to compete for funding with all new MSEL Grants program applications.

Response:

NIST agrees that renewal funding for research projects beyond the originally-proposed and agreed upon research period should be awarded only after full and open competition whenever possible. DAO 203-26, Sections 3.27 and 7.05b, provides Departmental policy guidance in this area. The first DAO section referenced above defines an award "renewal" as follows:

27. Renewal. A renewal is an amendment that extends the project period and adds additional funds.

Guidance for processing renewals is provided in the second DAO section referenced above:

b. Renewals are reviewed in the same manner as new applications and must compete for availability of funds.

The initially agreed upon funding period can be multi-year in length, but funded annually in accordance with procedures delineated in DAO 203-26, Section 6.10b. NIST will establish policies to ensure that renewal funding beyond the original research period, whether one year or multi-year, is awarded only after full and open competition to the maximum extent practical.

6. **OIG Recommendation 6:** Utilizes competitive review procedures for discretionary financial assistance awards, to the maximum extent possible, in accordance with Section 4.02h of DAO 203-26.

Response:

NIST agrees that the full and open competition requirements of Section 4.02h of DAO 203-26 should be followed to the maximum extent possible. For the past few years, NIST has been issuing an "Omnibus" Federal Register notice, announcing the availability of funds under certain NIST financial assistance programs. Beginning with the Omnibus Federal Register notice announcing the availability of funds for fiscal year 2001, NIST laboratories will announce any financial assistance they plan on awarding in that fiscal year in the notice. In addition, subsequent Federal Register notices may be published during the fiscal year should additional funds become available for financial assistance.

7. **OIG Recommendation 7:** Publicly announces in the *Federal Register* its intention to make each sole-source award, requests proposals from interested parties, evaluates any applications submitted, and makes a final selection in accordance with DAO 203-26, Section 4.02h.

Response:

This recommendation should be deleted. There is no Departmental policy requirement to publish a notice of intent in the Federal Register prior to making a sole source or noncompetitive award. Also, references to such a publication in the last paragraph on page 23 should be deleted.

NIST is aware that discussions are underway at the Departmental level about whether it is advisable to require that a notice of intent be published in the Federal Register before making a sole-source or noncompetitive award. NIST will await the outcome of those discussions and follow any new policy guidance issued by the Department.

8. **OIG Recommendation 8:** Ensures that NIST Grants Office reviews of proposed sole-source awards include procedures designed to objectively determine compliance with Department and NIST competitive requirements.

Response:

Current Departmental and NIST policies provide no details on what constitutes an adequate sole-source or noncompetitive award justification. Therefore, it is currently left to the discretion of the Grants Officer to decide whether justifications provided by NIST laboratories are adequate.

The proposed Department-wide Grants Administration Manual provides guidance on noncompetitive award justifications that NIST will follow when the manual is issued. In the mean time, consistent with the proposed Grants Administration Manual, NIST will develop specific guidelines and standard operating procedures for the use by the Grants Office in reviewing and determining whether sufficient justifications exist for making a noncompetitive grant or cooperative agreement award.

9. **OIG Recommendation 9:** Closely examines proposed funding of unsolicited proposals to ensure that they do not fall within the program goals of any existing or planned competitive program, as required by Section 4.02I of DAO-203-26.

Response:

Although unsolicited proposals are currently reviewed to ensure that they do not fall within the program goals of any existing competitive program, NIST will develop specific local policies and standard operating procedures to ensure that all unsolicited proposals fall outside the program goals of any existing or planned competitive program. NIST will also ensure that the other requirements of DAO-203-26, Section 4.02i and the proposed Grants Administration Manual (when implemented) are met.

10. **OIG Recommendation 10:** Develops minimum standards to guide technical personnel in reviewing requests for renewal of sole-source awards and, if a renewal is warranted, whether it should be done on a noncompetitive basis.

Response:

NIST agrees that "renewals" should compete for funding to the maximum extent possible. DAO 203-26, Section 7.05b. provides the policy requirement for competing renewals. That section states: "*Renewals are reviewed in the same manner as new applications and must compete for availability of funds.*" Also, see NIST's response to recommendation number 5 above. However, the initially agreed upon funding period can be multi-year in length and funded annually in accordance with procedures delineated in DAO 203-26, Section 6.10b.

NIST will establish local policies to ensure that renewal funding beyond the original project periods, whether one year or multi-year, is awarded only after full and open competition or after a sole source or noncompetitive award justification has been approved by the Grants Officer.