Office of Inspector General

Report of Audit

MANAGEMENT OF COOPERATIVE AGREEMENTS

OFFICE OF RESEARCH AND DEVELOPMENT
ENVIRONMENTAL RESEARCH LABORATORY
GULF BREEZE, FLORIDA

Audit Report: E1JBF2-04-0386-4100237

March 31, 1994

Inspector General Division Conducting the Audit:	**Southern Audit Division Atlanta, GA**
Program Office Involved:	**Office of Research and Development Environmental Research Laboratory, Gulf Breeze, Florida** **Grants Administration Division Washington, D.C.** **Office of Research and Development Washington, D.C.**

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
THE INSPECTOR GENERAL

March 31, 1994

MEMORANDUM

SUBJECT: Report of Audit - Management of Cooperative Agreements: Office of Research and Development, Environmental Research Laboratory, Gulf Breeze, Florida
Audit Report No. E1JBF2-04-0386-4100237

FROM: Elissa R. Karpf
Associate Assistant Inspector General for
Acquisition and Assistance Audits

TO: Gary J. Foley
Acting Assistant Administrator for
Research and Development

Attached is the final report for our audit of assistance agreement management and related internal controls at the Environmental Research Laboratory, Gulf Breeze, Florida (ERL-GB). The report contains significant findings and recommended corrective actions regarding assistance agreement operations at ERL-GB.

We appreciate the effort and cooperation your staff extended in assisting us in ensuring the accuracy and propriety of the report's findings and recommendations. We are also pleased with your positive response concurring with the report's findings and recommendations and promising implementation of appropriate corrective actions to correct the problems identified in the report.

This audit report represents the opinion of the Office of Inspector General (OIG). Final determinations on matters in the audit report will be made by EPA managers in accordance with established EPA audit resolution procedures. Accordingly, the findings described in the audit report do not necessarily represent the final EPA position.

Action Required

Your March 24, 1993, response to the draft report concurred with the report's findings and recommendations; however, a corrective action plan with specific actions and milestones for completion of these actions was not included. Therefore, in accordance with EPA Order 2750, you as the action official, are required to provide this office a written response to the audit report within 90 days of the final audit report date. For corrective actions planned but not completed by your response date, a general description of the plan for taking corrective action including specific milestone dates will assist this office in deciding whether to close this report. We have no objections to the further release of this report to the public.

Should you or your staff have any questions or need additional information, please contact Mary Boyer, Divisional Inspector General, Southern Audit Division, at (404) 347-3623.

EXECUTIVE SUMMARY

PURPOSE

Increasing workloads and limited Federal staffs have contributed to a heavy dependence by the Office of Research and Development (ORD) on extramural support to accomplish its mission. Approximately 68 percent or $348 million of ORD's total 1992 allocation of $515 million was used for on-site and off-site extramural support obtained through contracts, cooperative agreements (CAs), grants, and interagency agreements (IAGs).

ORD recognized its management of extramural resources as a material internal control weakness in the Agency's fiscal year 1991 Federal Managers' Financial Integrity Act (FMFIA) report to the President. Office of Inspector General (OIG) audits and surveys at ORD laboratories in 1992 and 1993 disclosed serious management problems related to contracts, CAs, and IAGs.

In 1993, because of material weaknesses identified in the management and use of extramural agreements at other ORD laboratories and preliminary indications of similar problems at the Environmental Research Laboratory Gulf Breeze, Florida (ERL-GB), the OIG initiated an audit of ERL-GB CAs and related activities at the Office of Administration and Resources Management's (OARM) Grants Administration Division (GAD), Washington, D.C. The primary objectives of the audit were to determine if ERL-GB, in coordination with ORD Headquarters and GAD,:

- Effectively and efficiently used, administered, and controlled extramural funds to obtain research under CAs within the requirements and intent of applicable laws, regulations, and policies.

- Properly managed CAs to ensure performance of agreement requirements and attainment of research objectives.

BACKGROUND

With a current annual budget of over $500 million, ORD's primary mission is to provide quality, timely scientific and technical information, products and assistance in support of Agency programs and goals through 12 environmental laboratories which employ about 1,900 EPA staff. ERL-GB is one of the 12 ORD laboratories.

To accomplish its mission with strictly imposed Federal employment ceilings, ERL-GB and other ORD laboratories have increased their dependency on extramural level-of-effort (LOE)

contracts, grants, CAs, and IAGs to conduct or supplement much of their research. Between FYs 1987 and 1992, on-site cooperator and contractor staff at ERL-GB increased from 59 (51 percent of total ERL-GB staff) to 115 (67.6 percent of total staff).

ERL-GB's FY 1992 budget totaled $12.2 million. Of that, $6.9 million (56.8 percent) was appropriated for extramural research under contracts ($1.83 million), CAs/grants ($4.6 million), and IAGs ($511,000). Forty-four on-site personnel were provided under CAs, including the Senior Environmental Employee (SEE) Program. Contractors, cooperators, and SEE personnel represented about 68 percent of ERL-GB's available human resources, providing technical, scientific, and administrative support.

With this level of dependency on extramural support, strong management controls were necessary to offset inherent risks and the potential for fraud, waste, and abuse of Federal resources. However, ERL-GB managers either did not establish or properly implement the control systems needed to adequately protect against such risks.

RESULTS IN BRIEF

ERL-GB managers did not properly manage or control the award, and use of CAs or the services performed under such agreements to ensure effective and efficient use of extramural funds, consistency of agreements with applicable laws, regulations, and related Agency policies, and effective attainment of research objectives contained in assistance agreements. The inappropriate use and management of CAs and questionable CA awards to certain organizations and individuals were primarily attributed to: (1) lack of definitive guidance on the use of CAs versus contracts; (2) misapplication of existing statutory and regulatory guidance by ERL-GB managers; (3) exclusive use of CAs for services provided by educational and nonprofit institutions; (4) use of limited competitions and conflict of interest situations related to repetitive CA awards to select universities and institutions; and (5) insufficient oversight by ERL-GB project officers (POs).

In addition, ERL-GB had not properly implemented the FMFIA internal control process or the Agency's records management requirements. As a result, internal control weaknesses in ERL-GB's operations were not detected and reported in the annual FMFIA assurance letter to ORD and management processes, decisions, and organizational functions were not properly documented, controlled, or retained in ERL-GB's official files.

PRINCIPAL FINDINGS

IMPROPER AWARD, USE, AND MANAGEMENT OF COOPERATIVE AGREEMENTS

ERL-GB's award of CAs was inconsistent with legislative intent and provisions of the Federal Grant Cooperative Agreement Act (FGCAA). Our review of 15 CAs (potential value $10.4 million) disclosed in nine instances that ERL-GB managers used CAs (potential value $7.28 million) to procure goods and services when contracts were the appropriate funding instrument. Also, ERL-GB used CAs (potential value $631,300) in two other instances when a grant was the appropriate funding mechanism because no collaboration or EPA involvement occurred in the research performed. These conditions occurred because of insufficient guidance on the uses of CAs versus contracts and ERL-GB's approach of awarding only CAs to educational and nonprofit institutions without proper consideration of the principal purpose of the research to be performed. ERL-GB also considered EPA's anticipated involvement and interaction with these institutions rather than the primary beneficiary of the research in selecting the instrument to fund the research required. ERL-GB records did not document the principal purpose of the proposed research or the basis for selecting a CA as the instrument to fund the research.

ERL-GB's limited competitions and related awards gave the appearance of favoritism because repetitive awards were made to select universities or principal investigators (PI). Some of these institutions and PIs had received noncompetitive awards in prior years. However, because of ORD's stringent goals for competitive CA awards, ERL-GB began to make awards to these organizations and individuals through a limited competition process that exhibited few attributes of real competition as intended in ORD guidance and the FGCAA.

Through the CA award process, ERL-GB used off-site CA awards and related CA services to retain on-site contractor and cooperator staffs in apparent contradiction to an ORD policy to reduce on-site extramural support. ERL-GB moved on-site contractors and cooperators to off-site CAs; however, the people involved remained at the laboratory. ERL-GB POs negotiated off-site cooperator hiring of these individuals and assisted cooperators in preparing CA budgets for these on-site employees. These actions occurred because ERL-GB considered these long-term cooperator and contractor employees essential to the laboratory's research efforts. Such use of CA awards and related CA services resulted in EPA involvement in cooperators' decisions, exhibited evidence of personal service relationships between EPA staff and cooperators, increased rather than decreased on-site extramural support, and caused additional CA costs that may have been avoided without these additional on-site employees. Also, the movement of on-site contract support services to CAs reinforces

our conclusion that the principal purpose of some ERL-GB CAs was to provide direct support and benefit to laboratory research initiatives and that these CAs should be contracts.

Finally, ERL-GB did not establish effective controls to ensure that CAs were properly managed, terms of extramural agreements were complied with, and Government assets were safeguarded against waste or abuse. Also, insufficient documentation existed concerning ERL-GB's post-award management and oversight of CA activities.

BETTER FMFIA IMPLEMENTATION NEEDED

A comparison of ERL-GB's 1992 and 1993 FMFIA documentation disclosed a substantial improvement in the laboratory's identification and documentation of critical event cycles, control objectives, and control techniques for related laboratory operations. Based on our discussions of deficiencies noted in the 1991 and 1992 FMFIA documentation, ERL-GB managers made a conscientious effort to improve the 1993 FMFIA process. As a result, ERL-GB significantly improved its 1993 FMFIA documentation which represented a big step forward in meeting Agency requirements and the intent of the FMFIA process. However, some improvements are still needed to refine control objectives and techniques. Better ERL-GB implementation of the FMFIA management control process is essential to assure efficient and effective laboratory operations and properly safeguard Agency resources. Proper FMFIA documentation and implementation may have prevented some of the problems related to CAs and records management which are cited in other chapters of this report.

ERL-GB management did not ensure that documented FMFIA controls and processes related to the management of CAs, critical records, imprest funds, and the FMFIA process were integrated into the laboratory's day-to-day operations. ERL-GB managers did not fully understand the importance of FMFIA and their responsibility for implementing and maintaining an effective internal control system. Neither were ERL-GB managers adequately trained in FMFIA requirements nor always held accountable for managing effective internal control systems. Although ERL-GB's annual FMFIA assurance statements consistently indicated a strong, positive commitment to the FMFIA process, the extent to which ERL-GB actually integrated FMFIA objectives and controls into the laboratory's operations did not fully support this commitment. As a result, the laboratory's annual FMFIA assurance reports were based on incomplete information.

IMPROVEMENT NEEDED IN DOCUMENTING MANAGEMENT DECISIONS AND PROTECTING CRITICAL RECORDS

ERL-GB needs to consistently document critical organizational functions and management decisions and properly protect critical records related to CAs and other laboratory operations to avoid loss of valuable corporate knowledge and ensure protection of Government interests. Although the Agency's records management requirements for record maintenance, retention, and control were in effect since 1984, implementation by ERL-GB was not initiated until 1992 and had only been partially implemented at the conclusion of our audit. Record maintenance and retention practices in place reflected the individual preferences of laboratory managers rather than Agency requirements, thus creating a patchwork of inconsistent, uncontrolled systems throughout the laboratory. Basically, insufficient direction, support, and priority by ERL-GB and ORD management prevented the timely implementation of a sound records management system at the laboratory. Records were created, maintained, and destroyed on an individual discretionary basis without regard for or proper awareness of Federal and Agency regulations. As a result, critical documentation regarding CA award and management was either never created or was missing from laboratory files. Also, evidence was obtained that records had been destroyed without documentation as to what was destroyed and whether such records were or were not controlled official documentation of management decisions or mission accomplishments.

Although Agency requirements for control and retention of in-house research documentation has existed at least since 1978, neither the Agency, ORD, or ERL-GB had procedures to ensure control and protection of research records in the possession of contractors and cooperators. ERL-GB contracts and CAs, on occasion, did contain references to 40 CFR, Part 30, which addressed the maintenance and control of financial records related to the particular contract or CA. However, there were no general or specific provisions for control of operational or research records created as a result of the contractors' or cooperators' activities. Contractors and cooperators were left to devise their own records management and retention systems. This created an unreasonable risk that valuable research documentation could be inadvertently lost or destroyed.

As a result of records maintenance and retention problems reported by the National Archives and Records Administration, ORD planned and initiated several major actions during this audit that may improve and enhance records management at ORD laboratories. The specific actions taken or planned and their impact on ERL-GB's operations are summarized in Appendix VIII. After discussions of preliminary audit results with laboratory management, ERL-GB in, October 1993, reported records management as an Agency-level internal control weakness in its year-end

FMFIA assurance letter to the Assistant Administrator for Research and Development.

RECOMMENDATIONS

ERL-GB Management, in coordination with ORD Headquarters, needs to strengthen oversight and control over the award and use of CAs and the activities performed under such agreements to ensure effective use of Agency resources, attainment of research objectives, and adherence to applicable laws, regulations, and policies. GAD recognized the need for clear and definitive guidance on the proper use of assistance agreements and contracts under the FGCAA as a result of prior OIG audits. As a result, GAD drafted guidance on the proper uses of assistance agreements and contracts under provisions of the FGCAA. This guidance was issued in final by GAD on March 22, 1994[1]. In addition, controls over the use of CAs would be enhanced through documentation in CA decision memoranda of the principal purpose of the proposed research and the basis for selecting an assistance agreement as the funding instrument.

In addition, ERL-GB needs to improve its FMFIA process and strengthen controls related to critical laboratory operations. Finally, ERL-GB should implement a records management system in accordance with Agency guidance to ensure that documentation of management decisions and organizational functions are properly prepared, maintained, and protected in support of critical laboratory activities.

AGENCY COMMENTS

ORD generally concurred with our findings and recommendations and indicated that all reported deficiencies would be addressed in a corrective action plan which ORD will prepare and submit to OIG as soon as possible. However, ORD did express some concern over our interpretations of 31 U.S.C. and certain EPA guidance. In response to ORD's concerns, we modified two report recommendations. The specific ORD comments related to 31 U.S.C. and EPA guidance and our response are presented in detail in Appendix I of this report.

[1] Policy for Distinguishing Between Assistance and Acquisition, March 22, 1994.

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CHAPTER 1

INTRODUCTION

PURPOSE

Due to increasing workloads and limited Federal staffs, the Office of Research and Development (ORD) has become highly dependent on extramural support to accomplish its mission. Approximately 68 percent or $348 million of ORD's total 1992 allocation of $515 million was used for on-site and off-site extramural support obtained through contracts, cooperative agreements (CAs), grants, and interagency agreements (IAGs). Office of Inspector General (OIG) audits and surveys at ORD laboratories in 1992 and 1993 disclosed serious management problems related to contracts, CAs, and IAGs.

In Fiscal Year (FY) 1990, ORD recognized its management of extramural resources as a material internal control weakness in the Agency's annual Federal Managers' Financial Integrity Act (FMFIA) report to the President. In 1992, following the Agency's identification of extramural resource management as a material weakness, the OIG reported serious management problems related to contracts and assistance agreements at several ORD laboratories. These problems related specifically to the award and management of CAs and IAGs at the Athens Environmental Research Laboratory (ERL) and the Narragansett ERL. Similar deficiencies related to CAs were found during a survey of the Gulf Breeze ERL.

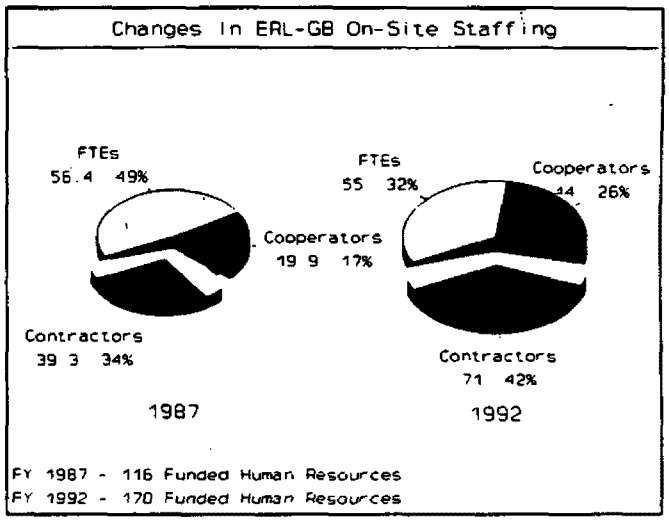
Because of material weaknesses identified in the management and use of extramural agreements at other ORD laboratories and preliminary indications of similar problems at Environmental Research Laboratory-Gulf Breeze (ERL-GB), the OIG, in 1993, initiated an audit of ERL-GB CAs and related activities at the Office of Administration and Resources Management's (OARM) Grants Administration Division (GAD), Washington, D.C. The primary objective of the review was to determine if ERL-GB, in coordination with OARM/GAD, effectively and efficiently used, managed, and controlled extramural funds to obtain quality research under CAs consistent with applicable laws, regulations, and Agency directives.

BACKGROUND

ORD's mission is to provide high quality, timely scientific and technical information, products and assistance in support of Agency programs and goals. The Agency's research program is conducted through twelve environmental laboratories across the country employing about 1,900 scientific and administrative staff, with an annual operating budget of about $500 million.

ORD's overall planning process engenders an applied research and development program focused on answering key scientific and technical questions as a basis for EPA's programmatic and regulatory decision-making. Short-term scientific and technical studies support immediate regulatory and enforcement decisions while a longer-term core research program extends the knowledge base of environmental science and anticipates environmental problems.

To accomplish the mission with strictly imposed Federal employment ceilings, ERL-GB and other ORD laboratories have had to increase their dependency on extramural level-of-effort contracts, grants, CAs, and IAGs to conduct or supplement much of their research. ERL-GB's increased reliance on extramural support is illustrated by the pie charts. Between FY 1987 and 1992 on-site contractor and cooperator staff at ERL-GB increased from 59 (51 percent of total ERL-GB staff) to 115 (67.6 percent of total staff).

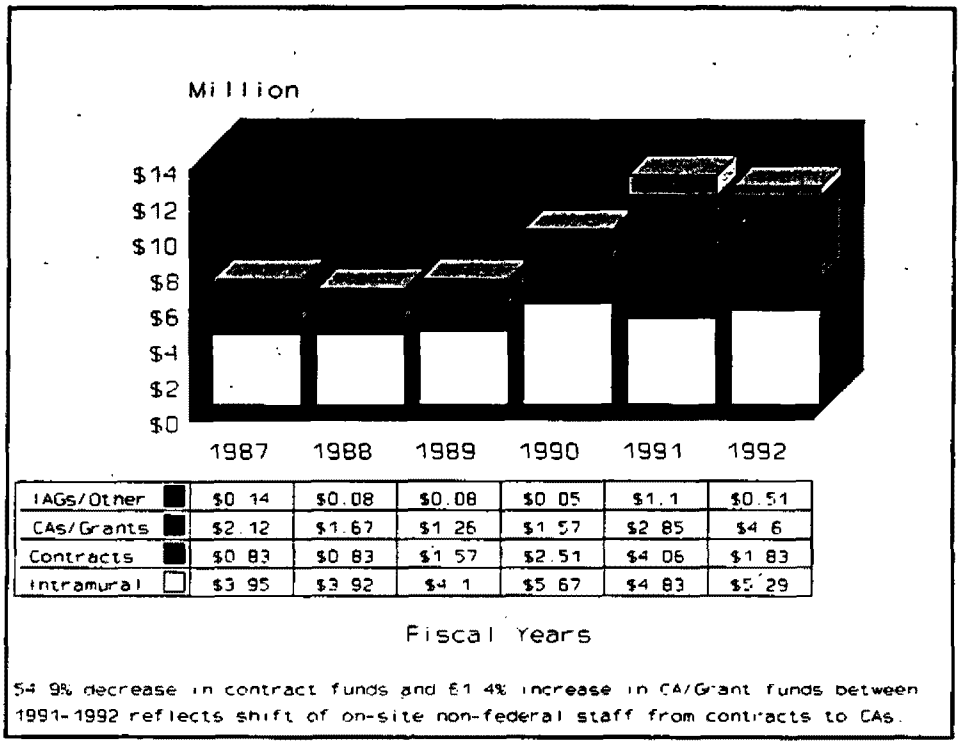


In a memorandum, dated November 9, 1990, the Director of the Office of Environmental Processes and Effects Research (OEPER) explained:

> The use of on-site contractors has become a major expense item throughout ORD. In certain instances, expenditures for on-site services (using contracts, cooperative agreements, or interagency agreements) exceeds sixty percent of a laboratory's R&D budget. On-site non-federal personnel have become a valuable and necessary adjunct to our research program.

ERL-GB's FY 1992 budget totaled $12.2 million. Of that amount, $6.9 million (56.8 percent) was appropriated for extramural research under contracts ($1.83 million), CAs/grants ($4.6 million, and IAGs/other ($511,000). Forty-four on-site personnel were provided under CAs, including the Senior Environmental Employment (SEE) Program. As indicated above, on-site extramural services personnel represented about 68 percent of ERL-GB's available human resources, providing technical, scientific, and administrative support.

The following chart illustrates increases in extramural funding by type of funding instrument, as well as total funding between 1987 and 1992.



	1987	1988	1989	1990	1991	1992
IAGs/Other	$0.14	$0.08	$0.08	$0.05	$1.1	$0.51
CAs/Grants	$2.12	$1.67	$1.26	$1.57	$2.85	$4.6
Contracts	$0.83	$0.83	$1.57	$2.51	$4.06	$1.83
Intramural	$3.95	$3.92	$4.1	$5.67	$4.83	$5.29

54.9% decrease in contract funds and 61.4% increase in CA/Grant funds between 1991-1992 reflects shift of on-site non-federal staff from contracts to CAs.

With this level of dependency on extramural support, strong management controls were necessary to offset the inherent risk of fraud, waste and abuse and ensure the efficient and effective use of Federal resources. However, Agency managers either had not established or properly implemented the control systems needed to adequately protect against such risks.

In March 1992, ORD issued a directive to reduce funding for contracts and CAs providing on-site technical services by 35 percent. These extramural resources would be reallocated to competitive off-site contracts and CAs. As shown in the bar chart above, ERL-GB's budget for 1992 indicated a shift from 1991 in extramural resources from contracts to CAs/grants. On-site contracts were reduced from $4 million to $1.8 million. At the same time, the CA/grant allocation was increased to $4.6 million with approximately $3.4 million budgeted for off-site CAs.

SCOPE AND METHODOLOGY

This audit primarily focused on the award, use, and management of laboratory support services through CAs. During the audit, we

judgmentally selected and performed detailed reviews of 15 active CAs[1] with a total estimated value of $10.4 million. Our sample was selected from a universe of 34 CAs with a total estimated value of $17.1 million. Predecessor and successor CAs for the 15 sampled were also selectively reviewed, when considered necessary, to fully develop conditions identified during our audit and to establish a historical perspective regarding the award of current extramural agreements.

The audit fieldwork was performed from February 1993 through January 1994 primarily at ERL-GB, GAD, and ORD Headquarters. The audit period generally included CA awards and related activities for fiscal years 1991 and 1992. However, older assistance actions were reviewed when considered necessary. Where possible, FY 1993 operations were also included in the audit, i.e., FMFIA process and records management at ERL-GB.

As previously stated, the overall audit objective was to determine if ERL-GB, in coordination with GAD, properly administered and controlled extramural funds appropriated to obtain services under extramural agreements in compliance with applicable laws, regulations, and Agency directives. Specific objectives were to:

- Evaluate FMFIA implementation and management controls related to CAs to assess their adequacy in:

  1) protecting the Agency from fraud, waste, and abuse;

  2) ensuring compliance with applicable laws, regulations, and Agency directives related to management of extramural agreements; and

  3) ensuring compliance with the terms of the agreement and the quality of performance.

- Assess whether management had complied with applicable laws, regulations, and directives when soliciting and awarding CAs for extramural services.

- Determine if ERL-GB used its CAs as Congress, OMB, and EPA intended to support the Agency's research mission.

- Evaluate whether ERL-GB properly controlled and used its imprest funds to obtain extramural services and supplies.

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[1] See Appendix III for cooperative agreements reviewed.

Our audit disclosed that CAs were not used by ERL-GB for intended purposes under the FGCAA and that ERL-GB had not provided proper oversight and management of CA activities. Also, FMFIA requirements and controls had not been effectively implemented at ERL-GB. In contrast, our audit disclosed that ERL-GB's imprest fund operations generally complied with Agency and Treasury regulations and procedures and that imprest funds had been properly used for small purchases of services and supplies. No conflict of interest (COI) situations were found in transactions between imprest fund vendors and ERL-GB staff.

Audit Survey and Identification of Previously Reported Issues

During March and April 1992, CMD and ORD performed a joint review of ERL-GB contract management. Their review consisted of file reviews at CMD and a subsequent site visit to ERL-GB in April 1992 to review site records and discuss contract related issues. The ensuing report, issued July 31, 1992, cited contract management deficiencies related to conflicts of interest, contractor performance of inherently governmental functions, personal services indicators, and inadequate contract statements of work and related work assignments. Our survey of ERL-GB also revealed strong indications of potential problems in contracting for services and in contract administration and oversight.

Because of on-going or proposed Agency actions in response to recent OIG audits[2], as well as actions proposed by EPA's Standing Committee on Contracts Management[3], we concluded that issues identified during the ERL-GB survey such as prohibited personal services indicators, contractor performance of inherently governmental functions, conflicts of interest, inadequate invoice review, inadequate statements of work and work assignments, and other previously reported contract management problems did not warrant further audit. Instead, these issues

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[2] These reports include: EPA's Management of Computer Sciences Corporation Contract Activities, Audit No. EINME1-04-0169-21000295 (issued March 31, 1992); Contracting Activities at Environmental Research Laboratory - Duluth, Audit No. E1JBF1-05-0175-2100443 (issued July 7, 1992); and Management of Extramural Resources at Environmental Research Laboratory - Athens, Audit No. E1JBF2-04-0300-3100156.

[3] CONTRACTS MANAGEMENT AT EPA: Managing Our Mission, Staff Report of the Standing Committee on Contracts Management, June 1992.

were included in a Special Review report[4], issued September 29, 1992, to the Assistant Administrator for Research and Development. This report was issued under provisions of OIG Manual chapter 150 for limited scope reviews. Since these issues were not fully developed through a detailed audit, the work was not performed in accordance with Governmental Auditing Standards. Our intent was to identify and report the existence of these problems to top ORD management for immediate action or for inclusion in on-going Agency corrective actions in these areas.

Audit of Award, Use, and Management of CAs

To assess the solicitation, award process, and ERL-GB's overall use, management, and oversight of CAs, we limited our review to 15 ERL-GB CAs. The sample was selected judgmental based on information obtained during an initial file review of all current CAs. We primarily selected those agreements which: 1) provided ERL-GB on-site services; 2) were awarded to institutions where key laboratory management had close relationships; 3) purchased large amounts of equipment; 4) provided for an inordinate amount of travel; 5) had large amounts budgeted for subcontracts or consultants; or 6) authorized other costs which appeared questionable.

Our general methodology for reviewing each CA in our sample was to: 1) conduct an initial interview with each project officer (PO) and obtain files; 2) perform in-depth reviews of all ERL-GB and PO files documenting the award, use, and management of the CAs sampled; and 3) conduct follow-up interviews with POs, on-site cooperator staff, and other ERL-GB managers (e.g., branch chiefs, laboratory director) where determined necessary. The purpose of this intensive review was to gain an overall understanding of the solicitation, award, use, and management of each agreement including an evaluation of related internal controls. Since the University of West Florida (UWF) was co-located with ERL-GB, additional audit fieldwork was performed at that university. In addition, we selected three other remote recipients for site visits. We conducted interviews with the university principal investigators (PI) and reviewed the PI and university records/files provided. Because of the distant locations of some cooperators included in our sample, we could not conduct in-depth interviews with their PIs or review related files. However, we did make telephone contact, when determined necessary, to address questions that arose during file reviews and interviews with ERL-GB POs.

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[4] Survey Report - ORD Environmental Research Laboratory, Gulf Breeze, FL, Report No. E1XMG2-04-0283-2700014, September 29, 1992.

At completion of our initial review of the sample ERL-GB CAs, we visited GAD to review related files and determine its role in ERL-GB's assistance decisions. At GAD, we interviewed award officials and grants specialists involved in the CAs reviewed. The audit fieldwork performed allowed us sufficient insight into ERL-GB operations, as related to CAs, for us to identify and substantively document specific problems as related to the laboratory's solicitation, award, use, management, and oversight of the various agreements.

The audit was conducted in accordance with Government Auditing Standards (1988 revision) issued by the Comptroller General of the United States. Our audit included tests of management and related FMFIA controls, policies, and procedures specifically related to assistance agreements, the FMFIA process, records management, and imprest fund operations. The findings in the report include material control weaknesses identified during the audit and our recommendations to correct the weaknesses, where appropriate.

Certain data used in this report as background and summary information for intramural and extramural support was extracted from EPA ORD Summary Analysis Reports for both ORD and ERL-GB for the years 1987 through 1992. No audit tests were performed to evaluate the adequacy of ORD's controls over the accumulation of this statistical data or the validity of the data included in the summary reports. Therefore, we can not and do not attest to the accuracy of the ORD Summary Analysis Reports used in this report.

Two other issues were identified, during our audit, which were outside the original scope of our review. However, in our opinion, these issues were significant enough to warrant further audit. These issues related to ERL-GB's overall implementation of: 1) an effective FMFIA process within its organization; and 2) a sound records management program to document management decision processes and laboratory operations. Because these issues related to ERL-GB's ability to establish an effective internal control system and provide supporting documentation for all operations, including CAs, additional audit steps were performed to develop these problem areas for the report. No other issues came to our attention as a result of specified audit procedures which we believed were sufficiently material to warrant further audit. However, our audit procedures were not designed to detect problems outside the scope of our review.

PRIOR AUDIT COVERAGE

Because of the substantial increase in the use of extramural agreements Government-wide, primarily due to increasing agency

workloads and limited Federal staffs, Congress and the Office of Management and Budget (OMB) have expressed concern over the use and control of these resources. Strong management controls are required to ensure that Government resources are properly used and adequately protected against fraud, waste, and abuse both internally and externally.

In response to the concerns of Congress and OMB, the EPA OIG has completed numerous audits and special reviews which demonstrated continuing problems in the way EPA Offices managed and controlled contracts and other extramural agreements[5]. A 1983 OIG audit (Audit No. E1gB2-11-0019-30828) of ORD extramural activities under contracts, CAs, and IAGs identified some of the same problems discussed in this report. More recent reports, issued over the past two years involving several ORD locations, have reaffirmed the existence of problems in the award, use, and management of contracts and other assistance agreements.

Such as:

- EPA's extensive use of extramural agreements to perform critical Agency functions and augment insufficient EPA staff.

- Lack of competition. Excessive, improper use of contract consolidations and modifications in lieu of open solicitation and competition for services. Misuse of CAs to obtain goods and services for the direct benefit of the Government and avoid the contracting process.

- Inadequate monitoring and quality assurance criteria to evaluate contractor and cooperator performance; and

- Potential conflicts of interest in the solicitation and award of contracts and other extramural agreements.

[5] See Appendix IV for list of prior audits concerning extramural management.

CHAPTER 2

IMPROPER AWARD, USE, AND MANAGEMENT OF COOPERATIVE AGREEMENTS

ERL-GB's award of cooperative agreements (CAs) was inconsistent with the Federal Grant and Cooperative Agreement Act (FGCAA). Our review of 15 CAs (potential value $10.4 million) disclosed in nine instances that ERL-GB managers used CAs (potential value $7.28 million) to procure goods and services when contracts were the appropriate funding instrument. Also, ERL-GB used CAs (potential value $631,300) in two other instances when a grant was the appropriate funding mechanism because no collaboration or EPA involvement occurred in the research performed. This occurred, in part, because of a lack of clear Agency guidance to determine when CAs should be used rather than contracts; and ERL-GB's approach of awarding CAs to educational and nonprofit institutions without proper consideration of the principal purpose of the research to be performed as required under the FGCAA. ERL-GB also considered EPA's anticipated involvement and interaction with these institutions rather than the primary beneficiary of the research in selecting the instrument to fund the research required. ERL-GB records did not document the principal purpose of the proposed research or the basis for selecting a CA as the instrument to fund the research.

ERL-GB's limited competitions and related awards gave the appearance of favoritism because repetitive awards were made to select universities or principal investigators (PI). Some of these institutions and PIs had received noncompetitive awards in prior years. However, because of ORD's stringent goals for competitive CA awards, ERL-GB began to make awards to these organizations and individuals through a limited competition process that exhibited few attributes of real competition as intended in ORD guidance and the FGCAA.

Through the CA award process, ERL-GB used off-site CA awards and related CA services to retain on-site contractor and cooperator staffs in apparent contradiction to an ORD policy to reduce on-site extramural support. ERL-GB moved on-site contractors and cooperators to off-site CAs; however, the people involved remained at the laboratory. ERL-GB POs negotiated off-site cooperator hiring of these individuals and assisted cooperators in preparing CA budgets for these on-site employees. These actions occurred because ERL-GB considered these long-term cooperator and contractor employees essential to the laboratory's research efforts. Such use of CA awards and related CA services resulted in EPA involvement in cooperators' decisions, exhibited evidence of personal service relationships between EPA staff and cooperators, increased rather than decreased on-site extramural support, and caused additional CA costs that may have been avoided without these additional on-site employees. Also, the

movement of contracted support services to CAs reinforces our conclusion that the principal purpose of some ERL-GB CAs is to provide direct support and benefit to laboratory research initiatives and that these CAs should be contracts.

Finally, ERL-GB did not establish effective controls to ensure that CAs were properly managed, terms of extramural agreements were complied with, and Government assets were safeguarded against waste or abuse. Also, insufficient documentation existed concerning ERL-GB's post-award management and oversight of CA activities.

CAs USED WHEN CONTRACTS WERE APPROPRIATE

Annual budgets, FTE ceilings, and ORD policies which limited intramural funding and directed extramural spending, personal biases against contracting with educational and nonprofit institutions, and confusion regarding the collaborative activities permitted under contracts versus CAs significantly influenced ERL-GB's selection and use of extramural agreements. The questionable uses of CAs were sometimes driven by ORD directives and policy (i.e., reduction in on-site support contracts) or a specific request from ORD to fund a research proposal (i.e., Louisiana State University, University of Maryland CA's). As a result, ERL-GB's use of assistance agreements did not always meet the intent and provisions of the FGCAA and may not have achieved the most economical and efficient use of Federal funds.

Background

Authorizing Statute and Related Congressional Intent

Public Law 95-224, the FGCAA of 1977 eliminates ineffectiveness and waste resulting from confusion over the definition and purposes of the legal instruments to select and use contracts, cooperative agreements, and grants. Congress also intended to preclude Federal agency circumvention of competitive procurement through inappropriate use of assistance agreements. The Act required that the choice and use of these legal instruments be clear to reflect the principal purpose and type of relationship expected between the Federal government, contractors, States, local governments, and other recipients in acquiring property and services and in providing Federal assistance.

The FGCAA is codified at Title 31 United States Code (U.S.C.), Sections 6301-6308. The FGCAA sets forth the following criteria which determines when a contract, cooperative agreement or grant should be used as the legal instrument which describe the

relationship between Federal agencies and the States, local government, and other recipient:

Instrument	Relationship
Contract	The principal purpose of the relationship is to acquire by purchase, lease, or barter, property or services for the direct benefit or use of the Federal government.
Cooperative Agreement	The principal purpose of the relationship is to transfer money, property, services, or anything of value to the recipient in order to accomplish a public purpose of support or stimulation instead of acquiring property or services for the direct benefit or use of the Federal Government; and there will be substantial involvement between the Federal agency and the recipient during performance of the activity.
Grant	The principal purpose of the relationship is to transfer money, property, services, or anything of value to the recipient in order to accomplish a public purpose of support or stimulation instead of acquiring property or services for the direct benefit or use of the Federal Government; there will be no substantial involvement between the Federal agency and the recipient during performance of the activity.

Under the FGCAA, Congress intended that the Government's principal purpose in using extramural funding would determine the proper funding instrument. Senate Report No. 95-449, dated September 22, 1977, from the Governmental Affairs Committee on the 1977 Act stated that:

> ... the objective of this added flexibility [authority to either employ contracts, grants, or cooperative agreements] is to require the agencies to make conscious decisions on whether a particular transaction or class of transactions is in fact a procurement transaction for the direct benefit of the government or whether it is an assistance transaction serving non-Federal public purposes [emphasis added]. The discipline of this choice will tend to prevent the use of grants [and cooperative agreements] to avoid competition.

Senate Report No. 97-180, dated August 13, 1981, related to hearings on amendments to the FGCAA Act, stated:

> Congress is making every effort to achieve economy and efficiency in the administration of Federal programs. These goals are subverted if agencies ignore the economies of competitive procurement and indiscriminately use grants [and other assistance agreements, i.e. CAs] in place of contracts....

Inappropriate Use of CAs

Based on ERL-GB records and staff interviews, management decisions to award CAs did not meet the intent of the FGCAA which was to assure the appropriate selection and use of contracts, cooperative agreements, and grants. In 9 of 15 CAs we reviewed, ERL-GB used less restrictive CAs to acquire property and services from a recipient for direct EPA benefit or use in lieu of the appropriate, controlled contracting process. For example, one CA was used to develop protocols and perform product testing on oil spill technologies. This agreement was to produce information on the effectiveness of particular products which could be used by EPA and other Federal agencies in making future selections of clean-up technologies. The primary beneficiaries of the testing would be the Federal government (i.e., EPA, National Oceanic and Atmospheric Administration (NOAA), and the U.S. Coast Guard). In another instance, a CA was used for the sole purpose of providing laboratory space and supplies for an ERL-GB scientist to conduct research in Hawaii. In another case, a CA was used to finance research performed by a OEPER employee enrolled in the cooperative education program. Other CAs provided field data directly to ERL-GB for use in an EPA computerized database that was collected by cooperators from sampling sites selected by EPA, using equipment provided by EPA, sampling procedures (protocols) established by EPA, under a predetermined schedule directed by EPA. In two other cases, CAs were being used when ERL-GB had no significant involvement in the research project. In both instances, a grant was the appropriate funding instrument.

For the 15 CAs in our sample, ERL-GB records related to CAs did not adequately document a principal purpose of support and stimulation which would have been the basis for awarding a CA or a grant as the proper funding instrument. Based on our review of laboratory and recipient documentation, and interviews with ERL-GB staff, we concluded that the principle purpose or original intent of 9 of the 15 CAs was for the direct benefit of EPA or the Federal government. Therefore, a contract should have been awarded to fund the proposed projects. Inappropriate uses of CAs included in our sample and the related CA dollar values are shown in the chart below. Details of CAs that we concluded were used

for the direct benefit of Federal government are summarized in Appendix V. CAs that should be grants are summarized in Appendix VI.

INAPPROPRIATE USE OF COOPERATIVE AGREEMENTS

Audit Conclusion Per Supporting Documentation	Sample of ERL-GB CAs	Estimated Value
Should Be Contract	9 a/	$ 7,283,762
Should Be Grant	2	$ 631,300
Correctly Awarded	5 a/	$ 2,446,427
Totals	15	$10,361,489

a/ Total sample was 15 CAs; however, the original CA to Texas A&M University was proper, but two subsequent CA supplements should have been contracts. Therefore, the original CA is counted as correctly awarded and the supplements are counted under should be contracts.

Senior ERL-GB managers were aware of the FGCAA but, without specific Agency guidance on its implementation and interpretation of the law, ERL-GB managers were allowed to make their own interpretations and application of the statute in the selection of extramural funding instruments. Personal biases of ERL-GB managers against using contracts and the contracting process, especially for funding research by educational and non-profit institutions, may have contributed to the inappropriate use of CAs. The laboratory director told us that contracts placed an unnecessary administrative burden on universities and that use of contracts could reduce participation in cooperative research by educational institutions. ERL-GB managers assumed that educational organizations and PIs would not want to work under a restrictive contract.

In addition, ERL-GB managers did not properly consider the principal purpose of the research as required under the FGCAA. Neither did ERL-GB official records adequately establish the principal purpose or the basis for selecting a CA as opposed to a contract. There was no documentation of principal purpose or justification for the funding instrument selected for any of the 15 CAs in our sample. ERL-GB managers incorrectly considered EPA's involvement or interaction with potential cooperators in selecting the instrument used in funding the proposed research.

For several CAs, ERL-GB POs explained that the proposed research could not be performed under a contract because the need for a dialogue (e.g., potential personal services) between ERL-GB and the recipients. However, the need for a dialogue or close collaboration (i.e., avoidance of a prohibited personal services contractual relationship) and the type of organization is not the criteria for deciding between a contract and a CA. Senate Report No. 97-180, dated August 13, 1981 stated:

> ...When choosing between procurement and assistance, the degree of anticipated involvement is of no consequence; the choice is governed solely by the principal federal purpose in the relationship.

If the principal purpose of the proposed agreement is to supply goods or services for the direct benefit of EPA, then a contract is in order. If the arrangement is principally intended to accomplish a public purpose of support or stimulation, then a CA or grant would be the proper funding instrument. Only after an agency has determined the principal purpose of a transaction does the degree of involvement by the Federal government become relevant criteria for selecting the funding mechanism (i.e., selection between a CA or grant).

One of the 15 CAs we reviewed was awarded when ERL-GB did not anticipate substantial involvement in the proposed research. In another case, a CA was awarded but substantial participation by the PO did not occur. The FGCAA requires the award of a grant when substantial Federal involvement is not anticipated in the proposed project. EPA policy requires that CAs be converted to grants when substantial participation does not occur after CA award (see Appendix VI for details). The laboratory director told us that ERL-GB used CAs because only ORD's Office of Exploratory Research (OER) is currently authorized to award grants. Therefore, ERL-GB should have referred the assistance proposals to OER for award of a grant or requested grant award authority from ORD Headquarters.

QUESTIONABLE USE OF OFF-SITE CAs TO REDUCE ON-SITE EXTRAMURAL SERVICES

ERL-GB used 4 of the 15 CA awards we reviewed to comply with an ORD policy directing, by the end of fiscal 1993, a 35 percent reduction in on-site LOE technical support contract and CA dollars ($983,499) and related staff years (reduction 39 persons) from 1991 levels. ERL-GB used these four agreements and other off-site CAs, not included in our sample (see chart on pages 19 and 20), to move individuals who provided support services under on-site contracts and CAs to off-site assistance agreements. Although ERL-GB's end-result appeared to numerically comply

(dollars and staff years) with the 35 percent reduction, in actuality, the personnel and a majority of the related services remained on-site at ERL-GB. The personnel and services were merely moved from one instrument to another. In addition, ERL-GB POs were involved in the cooperators' selection and hiring of these on-site extramural employees, prepared cooperator budgets related to these employees, and, in some instances, negotiated the salaries to be paid by cooperator's for these people's services to prevent any reduction in compensation. ERL-GB considered these long-term, non-Federal staff to be valuable and essential to the laboratory's mission and used creative means to retain their services on-site. This use of CA awards and related CA services (1) resulted in questionable PO involvement in cooperator staffing, budgets, and related decisions; (2) exhibited indications of personal services relationships between EPA staff and cooperators (i.e., on-site cooperators for off-site agreements, PO involvement in cooperator hiring of on-site staff and related CA budgets, and need for close dialogue or collaboration between POs and cooperator staff); (3) increased rather than decreased on-site extramural support by 29 percent; and (4) caused additional CA costs that may have been avoided without the addition of on-site staff to cooperator budgets. Further, the transfer of contracted services to CAs appeared questionable because these services were for direct support of ERL-GB research initiatives and, therefore, could not be properly funded under an assistance agreement.

Background

A March 16, 1992, memorandum from the Assistant Administrator for Research and Development outlined ORD's plan to significantly increase the total allocation of extramural resources to competitive, off-site cooperative research agreements. The Assistant Administrator's intent was to reduce LOE support type agreements and maximize competition for research CAs in order to obtain the best research scientists available in academic institutions nationwide. This re-allocation of resources was to develop long-term cooperative research relationships between ORD and leaders of the external scientific community.

The Assistant Administrator, in his March 16 memorandum, established as a goal a 35 percent reduction in on-site LOE contracts and CAs by the end of 1993. In particular, those extramural agreements providing direct support to in-house research programs were to be redirected to the award of competitive off-site CAs and competitive completion form (cost reimbursable) contracts. FY 1991 was used as the base year for measuring the reduction. This emphasis on increased extramural funding for off-site agreements was reflected in ERL-GB's 1992 budget which included a 61 percent increase in funding for CAs

over their 1991 budget versus a 55 percent decrease in contract funding from 1991.

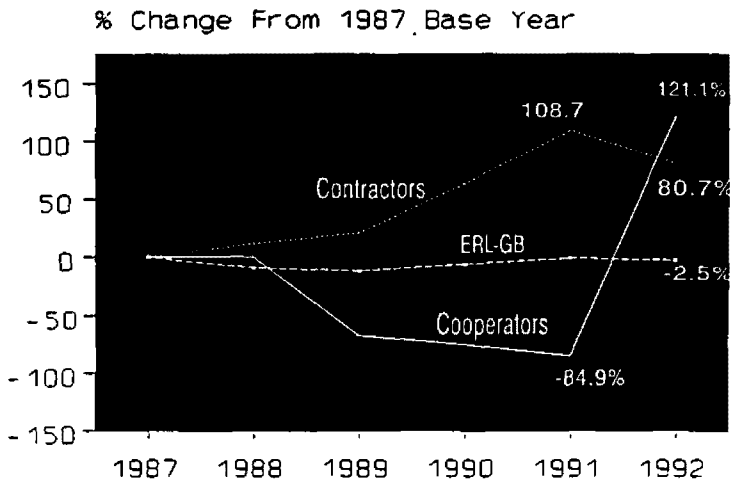
As previously stated, the Assistant Administrator directed the shift in extramural emphasis from on-site to off-site agreements in order to increase ORD relationships with the academic community and facilitate the best science possible at a reasonable cost. However, assistance agreements would not necessarily involve bids or cost/price analysis as normally required for contracts; therefore, the increased use of CAs would not necessarily ensure "a reasonable cost" in comparison to contracts. In addition, ERL-GB, in its efforts to comply with the Assistant Administrator's redirection of extramural resources, did not address the very different uses of contracts and CAs as set-forth in the 1977 FGCAA.

According to a December 1, 1992, memorandum from the ERL-GB director to the OEPER director, subject "Implementation Plan for Meeting the 35% Reduction in LOE Contract Expenditures," ERL-GB calculated its 35 percent reduction in on-site contracts and CAs as shown in the chart below.

	FY 1991 Base	FY 1994 Target
LOE Contract Costs	$2,512,997	$1,402,000
LOE CA Costs	$ 297,000	$ 0
LOE Base/Ceiling	$2,809,977	$1,826,498
LOE On-Site Contract	47 Person Years	22 Person Years
LOE On-Site CA	14 Person Years	0 Person Years
Redirected R&D Funds	$ 0	$ 983,499
Redirected LOE Staff	0 Person Years	39 Person Years

As shown above, ERL-GB planned to reduce its on-site LOE support from 61 person-years in the 1991 base year to 22 person-years by 1994 (a decrease of 39 positions). To accomplish its goal, ERL-GB proposed to negotiate a replacement on-site LOE contract with a 1994 base cost of approximately $1.4 million. A $1.1 million reduction from the $2.5 million level in 1991. In addition, two University of West Florida (UWF) CAs, which were included in the 1991 base as providing LOE support, were originally scheduled to terminate in July and September 1993. However, both UWF CAs were extended to September 1994 (one year) at no additional cost to the Government. ERL-GB indicated that subsequent CAs to UWF did not provide LOE type support.

The chart below reflects the significant shift of ERL-GB's on-site extramural support and related services from contracts to CAs between FYs 1991 and 1992. In just one year, on-site cooperator staff increased from a -84.9 percent to a positive 121.1 percent above the 1987 on-site cooperator level. At the same time on-site contractor staff decreased 28 percent (108.7% minus 80.7%) as compared to 1987.



ERL-GB Staff	0	-8.7	-11.7	-6	-0.7	-2.5
Contractors	0	12	20.9	62.8	108.7	80.7
Cooperators	0	0	-67.3	-74.9	-84.9	121.1

Gulf Breeze Lab

ERL-GB's plan for accomplishing ORD's goal of reducing on-site extramural support was evidenced in a January 14, 1993 memorandum written by an ERL-GB manager. In this memorandum, the manager discussed the plan being developed within his branch to reduce on-site contract and cooperator support. (A copy of this memorandum is included in Appendix VII.)

> ...it had been my impression that we were asked to a.) reduce our dependence on the contract [TRI] and b.) carefully decide which activities were to be covered by contract or COOP agreement... I have reduced the TRI staff from the original 26 employees (1992 level) to 18 employees. I am currently making plans to move [TRI employee] and [TRI employee] to Univ. of New Hampshire [PI's name] COOP agreement, and [TRI employee] and [TRI employee] to AARP [SEE

program]...These moves reflect a total staff reduction of 46%.

As a result, certain employees working under the Technical Resources, Inc. (TRI) on-site LOE contract at ERL-GB were subsequently moved to off-site CAs, while they remained on-site at ERL-GB. These long-term contractor employees at ERL-GB were obviously a valuable resource and had contributed substantially to accomplishment of the laboratory's mission.

As evidenced in the chart on the following pages, on-site extramural employees were repeatedly moved between contracts and CAs and, when possible, converted to EPA employees. As the highlighted area (March 1992 - initial on-site support funding reductions) denotes, ORD's policy directing a 35 percent reduction of on-site extramural support resulted in ERL-GB moving long-term cooperator and contractor employees, as well as some of the related services to off-site CAs in order to retain these services on-site. As shown on the following pages, some of these employees had previously moved from one extramural mechanism to another while remaining on-site at ERL-GB.

MOVEMENT OF ON-SITE EMPLOYEES BETWEEN EXTRAMURAL INSTRUMENTS

No	TITLE	Oct 1986	Oct 1988	Aug 1990	Feb 1991	Oct 1991	Mar 1992	Oct 1992	May 1993	Jun 1993	Aug 1993	Dec 1993
1	SIS - Biological Aide Biology Assistant	PB	—	TRI	TRI	TRI	TRI	TRI	TRAC	TRAC	TRAC	TRAC
2	Associate Programmer	—	—	—	—	CSC	CSC	TRI	TRI	AVANT	—	—
3	Biology Assistant	—	—	TRI,UWF	UWF	UWF	UWF	UWF	UWF	UWF	UWF	UFL
4	Research Aide EcoRisk Biology Associate	—	UWF	CSC	—	TRI	TRI	TRI	TRI	AVANT	OFF-SITE TRAC,UNT	OFF-SITE TRAC,UNT
5	SIS - Laborer Warehouse Clerk	FACIL	PSS	OTHER	COLEJ	COLEJ	COLEJ	COLEJ	SSI	SSI	SSI	SSI
6	Microbiology Technician Research Assistant	—	TRI	TRI	TRI	—	—	UWF	UWF	UWF	UWF	UWF
7	Microbiology Technician	—	—	—	—	TRI	TRI	TRI	—	TAMU	UO	UO
8	SIS - Biological Aide Microbiology Technician	PB	—	TRI	TRI	TRI	TRI	TRI	TRI	AVANT	AVANT	AVANT
9	Microbial Ecologist	—	TRI	TRI	MEBB	MEBB	MEBB	MEBB	MEBB	MEBB	MEBB	MEBB
10	SIS - Biological Aide Biology Assistant	EEB	EB	TRI	TRI	TRI	TRI	TRI	TRI	AVANT	AVANT	AVANT
11	Research Associate Microbiologist	U. ILL	U. ILL	U. ILL	TRI	MEBB	MEBB	MEBB	MEBB	MEBB	MEBB	MEBB
12	Physical Science Aide Microbiology Assistant	—	—	MEBB	MEBB	TRI	TRI	TRI	TRI	AVANT	AVANT	AVANT
13	Biolgy Assistant	—	—	TRI	TRI	TRI	TRI	TRI	TRAC	TRAC	TRAC	—
14	Chemist	—	—	—	—	—	—	TRI	SEE	SEE	SEE	SEE
15	Laboratory Aide	SEE	SEE	SEE	TRI	TRI	TRI	TRI	SEE	SEE	SEE	SEE
16	Dishwasher	—	—	—	—	TRI	UWF	UWF	UWF	UWF	UWF	—
17	SIS Biological Aide Microbiology Assistant	—	—	—	—	MEBB	MEBB	TRI	UWF	UWF	UWF	SBP
18	Microbiologist	TAI	TRI	TRI	TRI	TRI	TRI	TRI	TRI	AVANT	AVANT	AVANT,UNH
19	Microbiology Technician	—	TRI	TRI	TRI	TRI	TRI	UWF	UWF	UWF	UWF	UWF
20	Microbiologist Assistant	—	—	TRI	TRI	TRI	TRI	TRI	TRAC	TRAC	TRAC	TRAC
21	Aquatic Toxicologist	TAI	TRI	TRI	TRI	TRI	TRI	TRI	TRI	AVANT	AVANT	AVANT
22	SIS - Biological Aide Biology Assistant	—	EB	EB	EB	EB	EB	EB	EB	GCRL	GCRL	—
23	Microbiologist	—	—	TRI,NRC, TRI	TRI	TRI,UWF	UWF	UWF	UWF	UWF	UWF	UWF
24	Biology Assistant	—	—	PB	—	TRI	UWF	UWF	—	—	—	—
25	Biology Aide Press Sieve Technician	—	—	—	—	TRI	—	GCRL	—	—	TRAC	—
26	Post-doctoral	—	—	—	—	SBP	SBP	SBP	SBP	SBP	SBP	UFL
27	Research Microbiologist	—	MEBB	SBP	SBP	SBP	SBP	SBP	SBP	SBP	SBP	SBP
28	Microbiology Associate	—	—	TRI	TRI	TRI	TRI	TRI	TRI	UA	UA	AVANT
29	Microbiologist Site Manager	TAI	TRI	TRI	TRI	TRI	TRI	TRI	TRI	AVANT	AVANT	AVANT
30	SIS-Physical Science	—	MEBB	TRI	TRI	TRI	TRI	TRI	TRI	AVANT	AVANT	—

MOVEMENT OF ON-SITE EMPLOYEES BETWEEN EXTRAMURAL INSTRUMENTS

No	TITLE	Oct 1986	Oct 1988	Aug 1990	Feb 1991	Oct 1991	Mar 1992	Oct 1992	May 1993	Jun 1993	Aug 1993	Dec 1993
	Biology Assistant											
31	Biology Aide Field Operations	—	—	—	—	TRI	UWF	UWF	TRI	AVANT	AVANT	AVANT
32	Microbiology Assistant	—	—	TRI	TRI	TRI	TRI	TRI	UWF	UWF	UWF	UWF
33	Research Associate	—	—	----	----	UWF	UWF	UWF	UWF	UWF	UWF	UM
34	Microbiology Associate Chemistry Associate	—	—	TRI	TRI	TRI	TRI	UWF	UWF	UM	UM	UM
35	1987/8 - Post-doctoral 9/88 - Microbiologist 10/88 - 4/90 - Other Microbiologist	—	NRC,TRI Other	TRI	TRI	UWF	UWF	UWF	UWF	UWF	UWF	UWF
36	Research Aid	—	—	CSC	CSC	CSC	CSC	GCRL	GCRL	GCRL	GCRL	GCRL
37	Lab Manager	—	—	—	—	TRI	TRI	TRI	SEE	SEE	SEE	SEE
38	Equipment Specialist	—	TRI	COLEJ	COLEJ	COLEJ	COLEJ	COLEJ	SSI	SSI	SSI	SSI
39	Individual Contractor Project Manager Air Conditioning Spec.	CONTR	CONTR	COLEJ	COLEJ	COLEJ	COLEJ	COLEJ	SSI	SSI	SSI	SSI
40	Microbiology Associate	—	—	—	TRI	TRI	TRI	TRI	TRI	AVANT	AVANT	UWF
41	Biology Assistant	—	—	—	—	—	SIS	TRI	UWF	UWF	UWF	UWF
42	Microbiology Assistant Biological Aide	—	—	—	—	SIS,UWF	—	TRI	OTHER	UNH	UNH	UNH
43	Facilities Aide	—	—	RSS	RSS	COLEJ	COLEJ	COLEJ	SSI	SSI	SSI	SSI
44	Research Associate	—	—	—	—	UWF	UWF	UWF	UWF	UWF	UWF	NRC

AVANT - Avanti
COLEJ - Colejon Mechanical *
CONTR - Independent Contractor
CSC - Computer Sciences Corporation
GCRL - Gulf Coast Research Laboratory
EB - Ecotoxicology Branch
EEB - Ecological Effects Branch
FACIL - Facilities Staff
LAI - Labott Anderson, Inc.
MEBB - Microbial Ecology and Biotechnology Branch
NRC - National Research Council
PB - Pathobiology Branch
PSS - Program Support Staff
RSS - Research Support Staff
SBP - Southern BioProducts, Inc.
SEE - Senior Environmental Employment
SIS - Stay-in-School Employee
SSI - Steinhoff and Sandler, Inc.
TAI - Technology Applications, Inc. **
TAMU - Texas A&M University
TRAC - TRAC Laboratories - GCRL subcontractor
TRI - Technical Resources, Inc. ***
UA - University of Arkansas
UFL - University of Florida
U. ILL. - University of Illinois
UNH - University of New Hampshire
UNT - University of North Texas
UM - University of Minnesota
UO - University of Oklahoma
UWF - University of West Florida
* Replaced by SSI
** Replaced by TRI
*** Replaced by Avanti

For four off-site CAs in our sample, extramural personnel were moved from on-site contracts and CAs to these off-site agreements. File reviews and interviews indicated that ERL-GB POs were involved in varying degrees in the cooperator hiring of these on-site extramural employees. For at least three of these off-site CAs, the original assistance budgets submitted by cooperators were changed to include the additional on-site support. About $882,761 in CA costs were included in cooperator budgets for salaries, travel, and supplies for the on-site employees. Evidence was obtained that ERL-GB directly influenced

the cooperator's budget preparation to include provisions for on-site cooperator personnel. Examples of correspondence between cooperators and POs reflecting PO involvement in cooperator hiring of on-site personnel and related budget preparation are presented in Appendix VII.

For all four CAs, the positions were filled with current contractor or cooperator personnel located on-site at ERL-GB and these individuals remained at ERL-GB working under the new off-site agreements. ERL-GB managers and staff emphasized the need for the on-site support under off-site CAs for the benefit of collaboration and substantial involvement. However, the on-site personnel being hired under the off-site CAs were not previously cooperator employees who would normally be familiar with the proposed research but on-site contract/CA employees that ERL-GB needed to move to meet ORD's goal of reducing extramural support dollars and staff by 35 percent. Neither were these individuals serving in key cooperator positions with whom a PO would normally collaborate. In one case, the cooperator's Co-Investigator told us he did not know how the work being done on-site at ERL-GB related to his CA research objectives.

Between October 1991 and December 1993, 23 on-site contractor and cooperator employees were moved to CAs, subcontracts under CAs, or SEE[1] positions. During this same time-frame, the actual number of contractors, cooperators, and SEE employees located on-site increased by 29 percent (112 to 144) rather than decreasing. However, ERL-GB still reported to ORD Headquarters that it met the goal of reducing its dependency on on-site LOE contracts and CAs by 35 percent.

Two examples where on-site contract and CA employees were recently moved to off-site CAs follow:

University of Arkansas CA awarded September 1992, estimated value $599,176 - At ERL-GB's request, the University of Arkansas for Medical Sciences (UAMS) added an on-site employee to be located at ERL-GB to their application for assistance. The employee who was eventually hired under the CA was employed under ERL-GB's on-site LOE support contract. Evidence obtained primarily from the cooperator's files indicated that the ERL-GB PO directly influenced the cooperator's hiring of this person and participated in preparing the assistance budget related to this additional on-site CA employee. The total additional cost added

[1] The Environmental Programs Assistance Act of 1984 (P.L. 98-313) authorizes EPA to hire persons 55 years of age or older for technical support using grants or cooperative agreements under its Senior Environmental Employment (SEE) Program.

to the CA as a result of this on-site position was over $131,000[2].

A comparison of the original application for Federal assistance submitted by UAMS on July 9, 1992, and the final application for assistance, disclosed that the original application did not include any provision for an on-site employee at ERL-GB. There were only three people budgeted on the original application (PI, Co-I, post doc) and no one was to be located at ERL-GB. According to the budget, the total cost of the three year project was only $392,488. However, a revised application was submitted on July 23, 1992, which had a total budget of $479,674 and included an additional on-site employee for ERL-GB. The POs involvement in the cooperator's budget is reflected in a July 22, 1992, letter from the UAMS Co-I to the PO containing UAMS employee compensation and fringe benefits information for calculation of the on-site employee's CA costs. A copy of this letter in shown in Appendix VII.

The final assistance budget provided that the post doc position, officially planned at UAMS, would be located at ERL-GB while an additional research assistant would be hired at UAMS. As shown in UAMS' original budget and later confirmed to us by a UAMS investigator, the University originally planned for the post doc to be located at UAMS working collaboratively with them. However, after the full proposal was submitted, the EPA PO suggested that the UAMS investigators locate the post doc at Gulf Breeze to assist the PO. The PO said it was his idea to have a cooperator located at ERL-GB because CAs require collaboration and substantial involvement.

The PO received copies of all the applications for the post doc position and he and the PI discussed the candidates. Although the position in the approved CA budget was for a post doc with a Phd, the person who was eventually hired was not a Phd. The individual selected was an on-site TRI contract employee with a masters degree who served in a research associate position under the TRI contract and had previously worked as a technician for the CA PO as a contract employee. The PO, another ERL-GB scientist, and the TRI site manager all wrote letters of reference to UAMS for this contractor employee. The UAMS PI said the ERL-GB PO actively participated in the final selection for the post doc position because the person hired would be working directly with the PO at ERL-GB. The PO said he selected the TRI contract employee because this employee had developed very

[2] This amount includes the additional amount added for personnel/fringe benefits to compensate for the state tax in Arkansas ($20,490), an additional position added at UAMS ($85,244), and indirect costs associated with these amounts ($25,376).

important skills and, therefore, was the best qualified applicant for the on-site CA position.

Prior to his UAMS appointment, the ERL-GB on-site contract employee had worked directly with the PO who would oversee the UAMS CA. The newly appointed UAMS employee informed us that he once was the PO's technician under the TRI contract (a personal services relationship) but now, under the CA, the cooperator employee said he "works independently with the PO's guidance." When asked if he was still the PO's technician and whether he worked for the PO or PI, the cooperator would not answer the question directly but only replied that he "worked to get EPA's mission accomplished."

The PO told us that the on-site CA support could not be accomplished under a contract because it required his input into the on-site employee's work and EPA employees are "legally not supposed to talk to contractors at all" (e.g., prohibited personal services). However, the PO indicated that soon it would not be necessary for ERL-GB to move employees from the on-site contract (i.e., to meet ORD's mandated reduction). This must have occurred because this individual since our review has been moved back to the new on-site LOE contract with Avanti (see schedule on page 19, individual number 28).

Based on our review, we could not conclude that adding an additional person on-site to the UAMS CA improved collaboration between UAMS and ERL-GB. As a result of locating the post doc position at ERL-GB, the UAMS Co-I said he had to perform the work originally planned for the post doc position at the University. The Co-I stated that he did not know how the on-site UAMS employee's work would contribute to meeting the CA's research objectives.

Gulf Coast Research Laboratory (GCRL)/TRAC Laboratories CA awarded February 1991, estimated value $1,543,845 - On-site, temporary TRI contract employees were transferred temporarily to the GCRL CA in 1992 and directly to a subcontract under this same CA in 1993. During the first year of Environmental Monitoring and Assessment Program (EMAP) sampling (1991), the sediment toxicity testing work was performed by TRI on-site contract employees. During the second year (1992), the full-time sediment toxicity tasks continued to be done by TRI employees; however, the EPA PO told a GCRL PI that the five temporary TRI employees performing this task could not continue under the on-site contract in 1992. A letter, dated December 9, 1991, from the ERL-GB PO to the GCRL PI requesting that GCRL hire the temporary TRI employees is presented in Appendix VII. The GCRL PI subsequently hired these employees under the GCRL CA. In the third year of the CA (1993), further cuts in the on-site LOE contract resulted in all of the sediment toxicity tasks, along

with three permanent TRI employees, being moved to the GCRL CA. According to the PI, GCRL arranged a subcontract in 1993 with TRAC Laboratories, Inc. (TRACL) to hire all eight TRI employees (permanent and temporary) who were performing sediment toxicity tests under the CA and TRI contract. He said his purpose was to maintain continuity of personnel under GCRL's portion of the EMAP project.

The former permanent TRI employees confirmed to us that they were moved from the on-site TRI contract to a subcontract under the GCRL CA as a result of cuts in the on-site LOE contract. These cooperator subcontract employees performed the same on-site tasks for TRACL that they were responsible for under the TRI contract. According to one employee, the move to TRACL was not their idea. They were told "if you want your job, you will make the move." The PO said that the laboratory director required that the tasks be moved from the on-site LOE contract to the GCRL CA. The PI said that it was more efficient to do the work under a CA because of the required interaction between these employees and EPA staff (e.g., personal services restrictions under contracts).

Again, in our opinion, ERL-GB's intent in moving these contractor employees to a subcontract under the GCRL CA was driven by ORD's policy to reduce on-site LOE contract and cooperator support by 35 percent. The need for dialogue between EPA and the cooperators was not sufficient justification for placing these employees under a CA versus a contract. For the TRI contract employees moved to TRACL, their tasks did not change after transfer from the contract to the GCRL CA which further supports our prior conclusion that the work being performed under this CA directly benefitted EPA and should be funded through a competitive contract.

INDICATIONS THAT PERSONAL SERVICES RELATIONSHIPS MOVED FROM CONTRACTS TO CAs

ERL-GB and cooperator records and statements by POs indicated that personal services relationships could exist between ERL-GB POs and cooperator staffs, especially on-site CA funded staff. As discussed in this Chapter, ERL-GB personnel told us on several occasions that CAs were used in lieu of contracted services because contracts prohibited close dialogue and collaboration between Federal and contractor employees and that such close relationships between Federal employees and cooperator staff were not prohibited. As previously discussed in this chapter, on-site contractor personnel were moved to off-site CAs in order to comply with ORD's policy dictating a 35 percent reduction in on-site LOE technical support contracts and CAs. In addition, the need for close PO guidance or involvement in these individuals' work, which was not permitted under the on-site contracts,

prompted the use of off-site CAs. POs were substantially involved in cooperator hiring of these on-site contractor and cooperator employees and in adjusting cooperator budgets to include the salaries, benefits, travel and supplies for these individuals.

Copies of correspondence included in Appendix VII demonstrates PO and, in one instance, the laboratory director's involvement in CA on-site staffing. Also, the correspondence in at least two instances indicates that EPA scientists were supervising on-site contract personnel and continued this relationship when these individuals were transferred to off-site CAs. Investigators, for two CAs reviewed, confirmed that the ERL-GB POs were directing the work of the universities' on-site employees.

Although Title 48 of the Federal Acquisition Regulation (FAR), Section 37.104(a) prohibits personal services relationships between contractors and Federal employees, these FAR restrictions do not apply to CAs. However, ORD's Directive 2, entitled "Cooperative Relationships, Interim Guidance," issued October 1, 1992, stated that EPA personnel shall not supervise or direct the day-to-day activities of cooperator personnel. This interim guidance also provided that EPA shall have the right of review and concurrence in the qualifications of personnel proposed to fill the cooperator's key research positions; however, the guidance further stated that it was inappropriate for EPA personnel to become involved in the personnel processes of cooperating institutions. The on-site contractor employees that ERL-GB POs recommended or selected for off-site CAs did not occupy key cooperator positions. They were primarily hired as research assistants or placed in post-doc positions. In addition, the PO involvement in hiring went far beyond concurrence of key staff.

A joint memorandum, dated September 24, 1992, from the Acting Deputy Assistant Administrator for Finance and Acquisition, OARM, and the Deputy Assistant Administrator for ORD to office and laboratory directors, concerning the "current" shift of extramural resources from contracts to CAs stated the following:

> EPA's Code of Conduct states that EPA employees must not use their Government positions to "coerce, or appear to coerce, anyone to provide any financial benefit to themselves or others" (40 CFR [Code of Federal Regulations] 3.103(d)). The Code also states that EPA employees "must not take any action, whether specifically prohibited or not, which would result in or create the reasonable appearance of ...giving preferential treatment to any organization or person" (40 CFR 3.103(d)(2). Additionally, our regulations...(40 CFR 33.230(a)). ...prohibit EPA staff

> from directing whom assistance recipients should hire or whom they should contract with....

The subject memorandum further stated:

> Upon request by a recipient organization, EPA employees may provide a reference for individuals who are employed by EPA contractors and who are being considered for employment by the recipient institution. ...In doing so, however, EPA employees should take great care to avoid even the appearance of undue influence in hiring decisions, especially EPA officials who have a role in selecting the assistance recipient or in defining the scope and amount of the assistance received [i.e., POs].

For at least 3 of 4 CAs, on-site contract and cooperator employees were eventually hired by off-site cooperators. Evidence was obtained from ERL-GB or cooperator files that the POs requested and/or influenced the cooperators hiring of these on-site employees under the CA. One PO letter of reference for a contract employee was submitted after the PO had requested that the cooperator add this individual to the CA. As previously discussed, PO involvement in on-site cooperator staffing went far beyond reference letters.

For at least two CAs, the POs were directing the work of on-site cooperator staffs. In one instance (UAMS CA, Agreement No. CR820773), the Co-I, located at the cooperating institution, stated that he did not understand how the work of the on-site CA employee related to the CA research. The on-site cooperator employee was previously an on-site contractor employee who was selected by the PO to be an on-site research associate under the UAMS CA. The PO also participated in preparing the cooperator's budget related to this on-site employees salary. In addition, there were budgeted provisions for travel and supplies. Correspondence documenting certain PO involvement in the cooperator's hiring and budget for this employee is shown in Appendix VII. The ERL-GB PO and other ERL-GB staff wrote letters of recommendation to UAMS on behalf of the on-site contract employee. Further details of this condition were previously reported above.

Applicable on-site cooperator employees generally gave us "textbook" answers that PIs (sometimes located thousands of miles away) actually supervised the on-site cooperator staff. However, in contrast, university investigators stated that ERL-GB POs directed the work of their (cooperator) on-site employees. For example, the on-site UAMS employee told us that when he worked under the on-site contract he worked directly for the CA PO and was the PO's technician. He said under the UAMS CA he works

independently with guidance from the PO. The UAMS on-site employee would not tell us whether he was still supervised or directed by the PO. He only responded that he worked to accomplish EPA's mission. However, the UAMS Co-I told us the on-site employee received all his direction under the CA from the PO. As stated above, the PO said that the on-site CA support could not be accomplished under a contract because it required his involvement in the on-site employee's work and EPA employees could not talk directly to contract employees (e.g., prohibited personal services).

RECOMMENDATIONS - USE OF COOPERATIVE AGREEMENTS

We recommend that the Assistant Administrator for Research and Development ensure that significant improvements are made in ERL-GB's use of extramural agreements to comply with the FGCAA and EPA policy[3]. Specifically, we recommend that the Assistant Administrator:

- Review current ERL-GB CAs, including those cited in this report, and determine whether the principal purpose of these agreements are consistent with the FGCAA and EPA policy or whether contracts should have been awarded. Submit, where appropriate, any questionable agreements to GAD and Office of General Counsel (OGC) for assistance in determining the proper funding instrument. For those agreements found inconsistent with FGCAA and EPA policy, require ERL-GB to award contracts for any continuing project work when the related CAs expire.

- During ORD's established review process for laboratory CA RFPs, assistance applications, and decision memorandums, determine that the primary purpose of future agreements are to provide assistance and that the principle purpose is not to procure goods and services which directly benefit ERL-GB or ORD.

- Evaluate laboratory capacity for research projects in relation to mission and expertise before forwarding

[3] Several of the conditions related to use of CAs were previously reported in the OIG audit of the Athens ERL (Audit No. E1JBF2-04-0300-3100156, issued March 31, 1993). ORD and GAD agreed to take EPA-wide or ORD-wide corrective action. These corrective actions are currently in process or were taken after the CAs in our sample were awarded; therefore, no further recommendations were made in this report on these issues. Only recommendations specific to ERL-GB or related to new policies were addressed in this report.

research projects to ERLs for research funding. Consider awarding grants where substantial involvement of the laboratory with a cooperator is not envisioned.

- Evaluate ERL-GB's current initiative to reduce on-site support at ERL-GB to ensure it is consistent with ORD's directive to reduce on-site support. Also, determine whether ERL-GB's movement of contracted services to CAs are consistent with the FGCAA.

- Require ERLs to refer assistance applications to OER for grant award when the ERL does not anticipate substantial EPA involvement in the proposed research.

- Remind the ERL-GB director that ORD policy prohibits EPA employee supervision of cooperator employees or their involvement in cooperator personnel decisions other than approval of key personnel.

We also recommend that Assistant Administrator for Research and Development instruct the Director of ERL-GB to:

- Examine all ERL-GB CAs with on-site cooperator staff, including those cited in this report, to identify personal services relationships between ERL-GB and cooperator employees and take action to eliminate such relationships in accordance with current ORD policy prohibiting EPA employee supervision of cooperator staffs.

- Document the principal purpose of CAs and the basis for selecting a CA as the funding instrument in decision memorandums or other principal CA records.

- Establish controls to ensure that selection of funding instruments for research projects are consistent with the intent and provisions of the FGCAA.

- Instruct POs to refrain from direct involvement in cooperator personnel decisions and the preparation of budgets related to those decisions. Remind POs of EPA employee standards of conduct that prohibit employee favoritism or appearance of favoritism toward any organization or individual.

- Evaluate PO actions related to cooperator hiring and budgeting of former on-site contract employees to identify violations of Agency procedures and employee ethical standards. Take appropriate remedial or disciplinary action where appropriate.

- Take necessary action to remove on-site cooperator employees from off-site CAs where the on-site cooperators are not effectively contributing to the accomplishment of the CA research objectives.

- Establish procedures to ensure that personnel assigned to ORD work assignments funded under CAs interact with the recipients at the level anticipated during development of the agreement. The anticipated collaboration should involve more than required administrative oversight responsibilities.

INSUFFICIENT ASSURANCE OF FREE AND OPEN COMPETITION IN CA AWARDS

ERL-GB's competitive process for CA awards created the appearance of favoritism which could subject EPA to criticism of its funding process for extramural research. Although the majority of ERL-GB's CAs were "competitively" awarded, only 21 percent (7 of 34 CAs, estimated value $2.9 million) of ERL-GB's active CAs were nationally competed. Thirty-five percent (12 of 34 CAs, estimated value $8.6 million) were awarded through limited competitions, including two of ERL-GB's largest CAs of over $1 million each. Potential favoritism was indicated in repetitive awards through limited competitions to a select group of institutions who had received awards in prior years non-competitively or through other limited competitions. Also, questions arose as to the extent of competition under ERL-GB's nationally competed CA awards. Two of the 15 CAs we reviewed were awarded through a national competition and, in both cases, we identified potential review panel conflicts of interest (COI) and/or other irregularities which may have compromised the free and open competition for the CAs. The review panel for another limited competition did not include an ORD Headquarters staff member as required by ORD procedures. Potential COIs also existed for review panels involved in many of the limited competition and noncompetitive awards. As a result, insufficient assurance existed that CA funds were effectively utilized to obtain the best research at the least cost to the Government.

Background

One of the major purposes of the FGCAA was to maximize competition in the award of contracts and encourage competition, where deemed appropriate, in the award of grants and CAs. An ORD policy on competitive CA procedures, dated November 2, 1983, eliminated an earlier ORD requirement to compete all CAs of $100,000 or more in total project costs and gave laboratory directors the discretion to decide when to compete CAs. Under this policy, the concurrence of the Assistant Administrator for Research and Development was required only for those award

decisions where the total EPA cost was over $250,000. The decision to award a CA non-competitively was required to be justified in a memorandum included in the project file.

A revised ORD delegation of authority issued in November 1984 raised the laboratory director's approval authority for competitive CA awards up to $1 million. Approval authority for noncompetitive awards remained at $250,000.

The November 1983 ORD policy gave examples of situations that would justify a noncompetitive process. This included among others: (1) the unique capabilities of the recipient have placed it in a pre-eminent position, (2) the recipient has personnel who are considered the foremost experts in fields necessary to perform the work, and (3) the recipient has facilities, equipment or data which is specialized, vital to the effort, and which no one else can provide.

An ORD directive on the management of extramural resources, entitled, "COOPERATIVE RELATIONSHIPS, Interim Guidance," was issued on October 1, 1992, by the Assistant Administrator for Research and Development. This guidance reduced laboratory director approval of noncompetitive CA awards to $50,000 or less; however, ORD approval of competitive awards was increased to $5 million. The directive also established several different categories of CAs. According to the guidance, Research Project Agreements (RPA) were CAs intended to stimulate and support specifically defined research projects related to the environmental research program of individual ORD laboratories and the cooperating institutions. There were three ways RPAs could be awarded: (1) national solicitation, (2) limited solicitation; and (3) negotiated sole source. According to the guidance a limited solicitation had to be justified by evidence of a limited number of potential cooperators or other significant factors.

Chapter 3 of the ORD Policy and Procedures Manual, dated September 1986, addresses procedures for evaluating applications for both competitive and noncompetitive CAs. Both types of CAs must be technically reviewed by a panel of both in-house and extramural reviewers. ORD guidance indicates that competitive CAs must be advertised widely using all available means. The usual approach is to initially request and rate pre-proposals then request full proposals from the highest rated pre-proposals. According to the Procedures Manual, the panel or review team should be comprised of one person from ORD headquarters, one person from the ORD laboratory, and at least two extramural reviewers. If more than three proposals/applications are rated acceptable, the reviewers rank them. The laboratory director then makes the final selection for award from the top three proposals and a decision memorandum is prepared.

Synopsis of ORD's CA Review and Award Process

CAs could be awarded either competitively, as encouraged under the FGCAA Act, or non-competitively under certain conditions. The awards, within certain dollar thresholds ($250,000 noncompetitive, $1 million competitive[4]) were reviewed and approved by ORD Headquarters. Nine of the 34 active CAs (total maximum value of $17.1 million) awarded by ERL-GB were subject to an ORD review under these thresholds. However, only three were reviewed by ORD. All of the CAs awarded were subject to final review and approval by GAD.

Requests for Proposals (RFPs) were issued for competitive awards. Review panels, consisting of both laboratory and external scientists, reviewed and evaluated proposals for both competitive and noncompetitive awards. Based on these reviews, proposals were recommended for award in "decision memorandums." In making the CA awards, the Laboratory Director either approved or disapproved the decision memoranda based on the peer reviews and other organizational considerations. Post-award CA management was usually performed by EPA POs and cooperator project managers/PIs.

Limited Competition in CA Awards

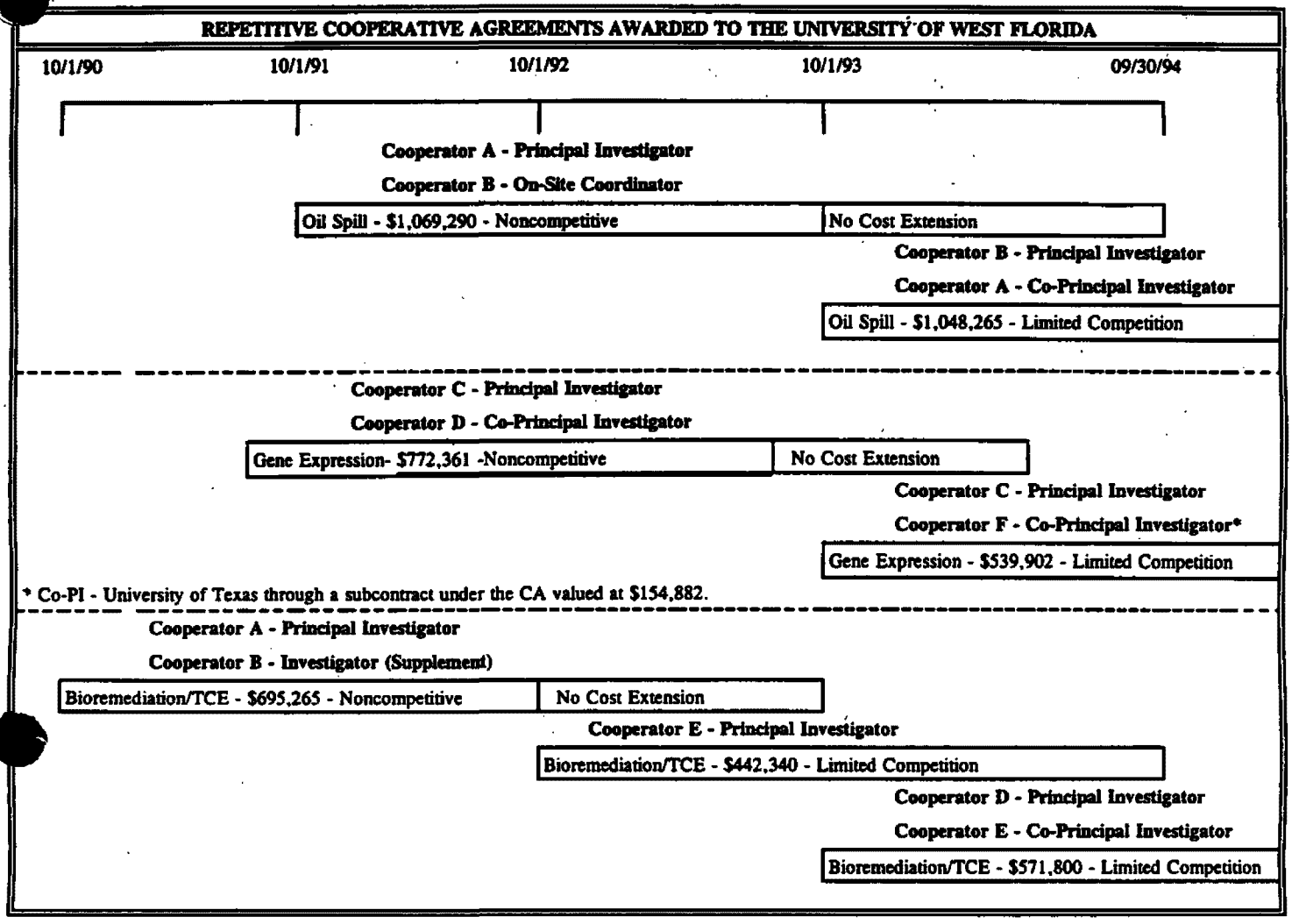
Twelve of ERL-GB's 34 active CAs were awarded through limited competitions, prior to any ORD guidance (Interim Guidance, October 1992) permitting limited solicitations. ERL-GB's use of limited solicitations exhibited a clear pattern of repetitive CA awards to universities and PIs who were previously awarded assistance non-competitively or through previous limited competitions. ERL-GB staff provided several reasons as to why CAs would be awarded through a limited versus national competition: (1) short time-frame for solicitation, (2) preclude misleading scientific community as to size of awards, and (3) limit a competition on a regional basis for a regional program (i.e., Gulf of Mexico Program). In our opinion, ERL-GB controlled the competitive process by isolating certain CA solicitations to a specific geographical area or to a select

[4] These thresholds were in effect for most of the CAs in our sample. The October 1992 interim guidance lowered the thresholds to $50,000 for noncompetitive awards and $5 million for competitive. On August 27, 1993, OEPER issued "Revised Delegations of Authority to Approve Contracts, Assistance Agreements, and Interagency Agreements" which further reduced laboratory director approval for both competitive and noncompetitive CA awards to $25,000 or less.

group of universities through the limited competition process instead of openly competing those CAs to the maximum degree feasible or justifying noncompetitive awards. ERL-GB's limited competition process created the appearance of favoritism when select universities and particular individuals at the universities received multiple and consecutive CA awards. Some at these universities were proposing the continuation of research which had previously been funded non-competitively. The most noticeable was the near-site university, UWF. By limiting competition, CA funds may not have been effectively utilized to obtain the best research at the least cost to the Government.

ORD Directive 1, "Management of Extramural Resources," dated March 16, 1992, provides for maximum national, peer reviewed competition for environmental research CAs. Limited competitions are only justified under ORD policy if evidence of a limited number of potential cooperators exists. Awarding a noncompetitive CA is also acceptable under ORD procedures as long as ERL-GB can appropriately justify its decision. If a noncompetitive award or limited solicitation can not be justified in accordance with ORD guidance, then maximum, national competition is required. However, according to the laboratory director, noncompetitive awards are no longer acceptable to ORD and justifying a noncompetitive award to ORD's satisfaction is next to impossible. However, ERL-GB did not properly justify the use of limited competitions based on evidence of a limited number of potential cooperators but used ORD criteria for noncompetitive awards to support limited solicitations. Because of the laboratory director's perception of ORD's current restriction on noncompetitive awards, ERL-GB may have used the limited competition process as a method to reclassify awards previously made "non-competitively" to a "competitive" category in order to meet ORD's goal to award a majority of CAs competitively.

While the limited competition process at ERL-GB gave the appearance of competition, actual awards gave the appearance of favoritism. For example, UWF (the near-site university) was originally awarded only noncompetitive CAs. Since ORD's push to compete all CAs, the CAs with UWF have been awarded through the limited competition process (See chart below).



ORD interim guidance issued in October 1992, did authorize limited competitions. However, a limited competition was to be justified by evidence of a limited number of potential cooperators or other significant factors. ERL-GB's primary justification for using limited competition was the same justification previously used for noncompetitive awards -- limited time-frames.

As shown in the chart, UWF has continuously been awarded projects in the same general research areas with the same investigators performing the research. As also shown above, the noncompetitive UWF CA for gene expression research was originally scheduled to end on September 8, 1993; however, on September 16, 1993 it was extended by ERL-GB with no additional Government cost through September 8, 1994. This extension would permit cooperator C time to prepare a new proposal for continuation of this research. However, cooperator C subsequently submitted a new gene

expression proposal through a limited solicitation before the prior CA was originally scheduled to end. UWF was subsequently awarded another CA through the limited competition process to begin in October 1993 continuing the gene expression work.

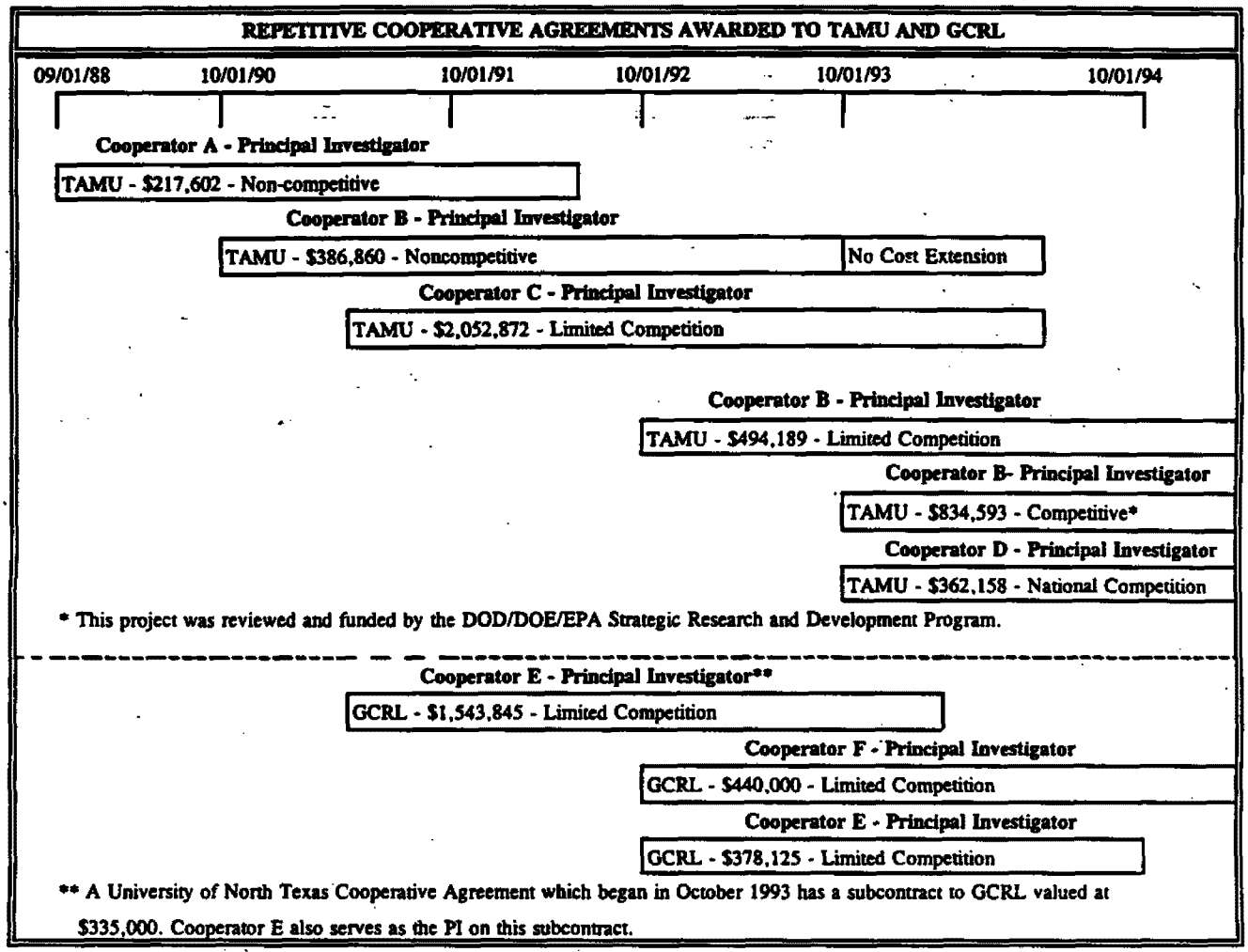
Close Relationships Between Cooperators and ERL-GB

Cooperator C has had a long-term relationship with ERL-GB. Upon completing graduate school, cooperator C (also individual number 23 in chart on page 19) came to ERL-GB in January 1989 to serve as an National Research Council (NRC) post-doctoral fellow; however, he was not scheduled to start working under the NRC CA (ORD-wide CA) until May 1989. According to cooperator C, TRI (the on-site contractor at the time) offered him a job for the interim. As a result, cooperator C was hired and worked for TRI from January until May 1989. He said he performed the same work under the TRI contract as he subsequently performed under the NRC agreement. The NRC agreement terminated in May 1990. Cooperator C then went back to work for TRI. While working for TRI, ERL-GB apparently expressed some interest in funding gene expression research and suggested that cooperator C submit a proposal. Since he was a contract employee and could not submit an assistance proposal, UWF agreed to submit the proposal on cooperator C's behalf. However, his possible employment with UWF was contingent on EPA funding the proposal. The proposed research was subsequently funded by ERL-GB under a noncompetitive CA awarded to UWF in September 1991. As shown above, a subsequent CA, to continue this same research, was awarded to UWF and cooperator C through a limited competition.

In another instance, cooperator E (see chart above) came to ERL-GB in 1987 as an NRC post-doctoral research fellow and then subsequently went to work for TRI (see chart page 20 - individual number 35). He was later hired in August 1991 by UWF to lead the bioremediation/trichloroethylene (TCE) research under a non-competitively awarded supplement to a UWF CA. When this CA was scheduled to end (September 30, 1992), cooperator E submitted a proposal through a ERL-GB limited solicitation to continue the bioremediation/TCE research. UWF was subsequently awarded a CA which began October 1, 1992. In addition, cooperator E was later listed as the Co-PI on another bioremediation/TCE proposal which was also submitted through another ERL-GB limited solicitation in 1993. The UWF PI for this proposal was previously listed as the Co-PI on the UWF Gene Expression CA which was scheduled to end in September 1993. As a result, a third bioremediation/TCE CA, to begin October 1, 1993, was awarded to UWF through the limited competition process.

Two other institutions/universities, GCRL and Texas A&M University (TAMU), were also awarded multiple CAs by ERL-GB through the limited competition process. Seven of ERL-GB's 34

active CAs (almost 21 percent) were awarded to these two institutions.



All 3 CAs awarded (estimated value $2.4 million) to GCRL were through the limited competition process. Two of these CAs had the same PI. In addition, a CA (estimated value $843,333), which was awarded in September 1993 through a national competition to the University of North Texas, had a subcontract with GCRL valued at $335,000. This subcontract research was also lead by the same GCRL PI as listed for the other two GCRL CAs. Two of the four CAs with TAMU (estimated value $604,462) were non-competitively awarded (before ORD's current restrictions on noncompetitive awards) and two subsequent CAs were awarded through the limited competition process (estimated value $2.5 million). One of the noncompetitive CAs and one of the limited competition CAs had the same PI. In addition, two new CAs (estimated value $1.2 million) were awarded to TAMU in 1993. One of these CAs also had the same PI as two of the other TAMU CAs.

CA Competitive Award Process Not Documented Or Performed As Required

ERL-GB did not fully document the decision process for the CA awards. In addition, ERL-GB either did not rank CA proposals solicited as required by Chapter 3 of the ORD Policy and Procedures Manual or did not document the ranking process. For all CA competitions reviewed during the audit, there was an general lack of documentation of the CA competitive selection process, especially the ranking of the proposals. The record control schedule in EPA Directive 2160 - Records Management Manual indicates that the CA award is to be documented and the documentation is to be retained in laboratory files. In addition, we were provided conflicting information regarding whether or not a ranking of proposals received actually occurred in many competitions. This lack of documentation and/or ranking of CA proposals resulted from inadequate ERL-GB controls over the CA award process and records preparation and maintenance. ERL-GB's inadequate records management system and control over official record preparation, maintenance, and retention are detailed in Chapter 4 of this report.

Questionable UWF CA Award Not Documented

For one limited competition at ERL-GB file documentation showed that two CAs were to be awarded; however, we determined that three CAs were actually awarded. The additional award was given to a UWF PI (UWF is the near-site university) who had been working on-site at ERL-GB since 1987 (see chart above). He had worked for UWF since 1991 on ERL-GB funded bioremediation/TCE research. Conflicting statements were provided by ERL-GB on how this third CA was awarded.

ERL-GB records showed that only the proposals from the University of Minnesota and the University of Arkansas were scheduled to be funded under the subject limited competition. According to file documentation and statements by the PO, the UWF proposal was to be rejected. The peer review committee had identified other proposals with greater scientific merit. However, despite the peer review process, the UWF proposal was eventually funded under this limited competition. A reviewer's note found in ERL-GB files questioned the laboratory's decision to fund the UWF CA.

> ... tells me his [UWF cooperator E] application was acted on by [Branch Chief] at the last minute and funded! How can this be justified on science quality -- outside reviews and the fact that [UWF cooperator E] receives support for the same TCE work on Biodeg coop because of the supplement for TCE field work. Why has [Branch Chief] not discussed this decision with members of the committee [committee member's names] -- this is

a matter he must be able to justify to himself and others.

According to the branch chief, the UWF CA was funded at the last minute with Department of Defense (DOD) Strategic Environmental Research and Development Program (SERDP) funds which were made available to ERL-GB during July and August 1992. The chief said they were notified they had SERDP money and it allowed them to fund the CAs in a different way than they had originally planned. The branch chief indicated that the research funded had to be of interest to DOD and the UWF proposal, which included work with TCE, was the only one that met this requirement (UWF was already performing TCE research on-site at ERL-GB under a prior CA). However, file documentation does not support this statement. The UWF CA commitment notice shows funding from ERL-GB's Superfund appropriation not SERDP.

While UWF's involvement in TCE research may have been a valid justification for awarding the CA under SERDP funding, this apparently was not the case. The decision to fund UWF was apparently made outside of the formal review process established to make the funding decisions under the limited competition process. In addition, the lack of documentation for making the decision to fund UWF obscured the entire process and raised questions of preferential treatment toward this institution in CA awards.

This limited competition allowed only a very short timeframe within which the applicants had to prepare and submit their proposals. The RFP was sent out on June 16, 1992, and applications were to be received no later than July 10, 1992. Thus, perspective applicants had less than one month to devise a research plan and prepare a <u>full</u> proposal, including applicable budgets and quality assurance plans. Two of the ERL-GB POs for the CAs awarded explained that the limited competition process was used because of the short timeframe available for making these awards. Short timeframes is a justification for noncompetitive awards under ORD guidance. However, ERL-GB managers were using this same criteria to rationalize the need for a limited competition.

The UAMS cooperator, who received a CA award under a limited competition, told us he had a proposal already under development when he received the RFP. This cooperator further stated that it would have been "absolutely impossible" for a researcher to prepare a full proposal from scratch in this short timeframe. The proposal he submitted was already drafted and only required some re-structuring before it was submitted to EPA. However, even with that headstart, the cooperator said he had to work long hours to meet the deadline. Already having a proposal drafted gave this on-site cooperator a competitive edge, but it also

created the appearance that he may have known of the upcoming RFP prior to it being issued.

ERL-GB needs to assure that limited competitions are properly justified and that CAs awarded through limited competitions exhibit fair and equitable treatment, represent effective use of Agency resources, and do not create the appearance of favoritism for one cooperator over another. In addition, ERL-GB needs to better control the selection process and ensure the process is properly documented for all CAs awarded.

In situations where a noncompetitive award would be justified and advantageous to the Government, ERL-GB should be allowed to award the assistance non-competitively. While the FGCAA encourages competition, it does not prohibit noncompetitive awards if they are a justifiable and prudent use of Federal funds.

ERL-GB Did Not Rank Proposals or Document the Process

For example, in one CA research competition (RFP issued June 16, 1992) we reviewed, ERL-GB staff told us proposals were ranked by the review panel; however, the ranking was not documented. According to ERL-GB staff, the ranking was done on a blackboard and was erased. As a result, there was no documentation of the decision process for the award of over $1.6 million in CAs. In another research competition (RFP issued July 30, 1990) in which three CAs and one interagency agreement were awarded (valued at $5.6 million), ERL-GB staff were unable to provide any documentation for the entire award process.

For the one national competition, involving the award of two CAs in our sample (RFP issued August 30, 1991), ERL-GB's records contained a full proposal evaluation grid which listed reviewers' scores of proposals requested by ERL-GB. The grid showed that proposals were rated on seven items and either provided reviewers scores for each of the categories or stated see "written comments". However, the grid did not provide each reviewer's overall rating of the proposal in all cases. In addition, the grid did not provide a rating which reflected a combined score for all reviewers. Further, each proposal did not have the same number of extramural or in-house reviews, e.g., not all proposals were reviewed by all review panel members. This could indicate that certain proposals were directed to certain reviewers to obtain favorable comments. Although the grid provided evidence that reviewers' comments were considered in the decision process, there was no overall ranking of the proposals as required by ORD procedures.

According to the laboratory director, ERL-GB did not ask for a ranking of CA proposals in all cases and the director debated the definition of a ranking as presented in ORD's Policy and

Procedure Manual. He said, "We [ERL-GB management] are the selecting officials", not others. The director said he sometimes personally ranked the proposals with help from ERL-GB staff. In the laboratory director's opinion, the decision of what proposals ERL-GB funded was an inherently governmental function. He said if the review panel (made up of in-house and external reviewers) gave them a ranking; then, the panel would be making the funding decisions not management. The director said, as a manager, he wanted the review panel's scientific input, but he also had to consider the Agency's mission, lab resources, etc., in his final decision.

In accordance with Chapter 3 of ORD's Policy and Procedures Manual, the laboratory director is the final decision official. However, the manual also requires a ranking by the reviewers as follows:

> If more than three proposals/applications are rated acceptable, the reviewers rank them...The ORD official makes the final selection for award from among the top three proposals/applications.

The purpose of the ranking is to document the rationale for the selection process and ensure that the best proposals get funded. Contrary to the laboratory director's comments, ranking CA proposals does not necessarily dictate selection, but rather indicates ranking as to scientific merit. If ERL-GB chooses to fund a CA which was not included in the top three proposals in the ranking, then the process should be documented to support this decision.

In 1993, after we requested information on prior CA competitions, ERL-GB began to document the ranking and overall decision process for CA selections. Prior to this time, the individual decision memorandums served as the sole record of the decision process. However, the decision memorandums did not disclose the results of the peer review process and sometimes misrepresented the extent of competition. For example, the decision memorandum for a UWF CA stated:

> This proposal was selected following a rigorous process of review and competition. A pre-proposal was submitted in response to a request for proposals (RFP) initiated by EPA/Biotechnology Risk Assessment Research Program staff. The request for pre-proposals appeared in Science magazine and was mailed individually to over 200 degree-granting universities in the United States and Canada. Over 150 responses were received and, after review, approximately 30 full proposals were requested. The subject proposal was competitively reviewed by external and internal reviewers against

proposals in a similar research topic area and was selected to fulfill EPA research needs.

Although the decision memorandum implies that this CA award was chosen from 30 full proposals, only fifteen of these proposals were requested by ERL-GB. The other 15 proposals were requested by other ERLs under a national, multi-laboratory RFP. In addition, ERL-GB's 15 proposals were further divided into six separate sub-categories for possible assistance funding: Survival/Colonization, Gene Expression and Transfer, Ecological Effects, Ecological Effects (MPCAs), Risk Control, and Detection. The UWF proposal, which was subsequently funded, was the only one received and listed under the Risk Control category. In our opinion, nondisclosure of the limits of this competition in the decision memorandum was misleading. The decision memorandum, as written, could lead a reader to believe that the proposal was selected from thirty proposals instead of a universe of one.

Potential Conflicts of Interest

Review Panel COIs

For 11 of the 15 CAs in our sample, potential review panel COIs were identified relative to the award of these CAs. According to ERL-GB staff, these COIs result from the small number of knowledgeable experts available to review research proposals. Review panel members were recommended by the prospective POs. In addition, ORD guidance requires reviewers from ORD Headquarters on the review panels for competitive CA awards; however, only two of the panels for our CA sample[5] complied with this requirement. The potential COIs for review panel members and other irregularities in the award process (see examples below) increased the potential for favoritism in the award of both competitive and noncompetitive CAs. The pervasive influence of the prospective PO over the review process also represented a significant control weakness.

The laboratory director told us that it was "easy to manipulate" the peer review system. When we informed the director that ORD wanted to eliminate the "good old boy" network for CA proposal reviews, the laboratory director replied that he did not, as he had been a part of this system for 25 years. He added that the abuses of the system were small compared to the total volume of what the peer review system has accomplished. He said he remained vigilant to abuses and potential abuses of the system.

[5] Seven of 15 CAs in our sample were classified as competitive awards.

However, several potential COIs were identified during audit fieldwork. These included:

- Panel members who had collaborated and/or published with the prospective PI, cooperator, or prospective PO (i.e., Miami University, National Energy Laboratory of Hawaii Authority (NELHA), University of New Hampshire (UNH), UAMS, TAMU, and two UWF CAs).

- Panel members who were recommended by the prospective PIs (i.e., Miami University, UWF, UNH).

- Panel members who did not sign the COI statement (i.e., Miami University, UNH, GCRL).

- A reviewer who ended up working under the CA he reviewed (i.e., UWF).

- A reviewer who was the PI on another CA with ERL-GB (i.e., UWF).

- A reviewer whose name was mentioned in the proposal as a collaborator (i.e., UWF).

CA Recipient COI

In addition to the potential review panel COIs listed above, we identified other COIs/irregularities related to the award of certain CAs at ERL-GB.

University of Maryland, Baltimore CA, awarded September 1991 for $21,110 - A COI situation was created in the award of this CA because (1) an EPA manager knowingly requested a part-time EPA employee (student cooperative) to prepare and submit a CA proposal related to his on-going Phd research and (2) the EPA employee transmitted the proposal, as a representative of the University of Maryland (the CA recipient), through ORD Headquarters to ERL-GB for funding (see further details in Appendix V). The transmittal letter for the initial proposal was submitted to ORD and ERL-GB using EPA letterhead stationary. The ERL-GB PO, the PI, and the subject EPA employee indicated that no graduate credit was received by this employee for the CA research; however, the Phd dissertation had not been completed at the time of our audit. The employee's current Phd adviser at the University of Maryland told us that this research could be used in this person's Phd dissertation. There is a "common theme" between the employee's Phd dissertation and the research performed under the CA because the dissertation will be on basic immunology and the CA work related to dolphin immunological systems. As a result, the EPA funded research could be presented

by the employee as a part of his Phd research anytime in the future.

The EPA employee's preparation and submission of the subject research proposal in April 1990 and May 1991 (the original proposal was not funded) was inconsistent with 40 CFR 3.103 which prohibits a Federal employee from using or creating the appearance of using his position for personal gain. This potential COI is further exacerbated by the employee's use of EPA letterhead to transmit the initial proposal in April 1990. This use of EPA letterhead to transmit the University's original research proposal further promotes the appearance that he was using his EPA employment for personal gain. The employee's actions are also potentially inconsistent with 40 CFR 3.103(d)(4) which requires a Federal employee to be impartial and objective in regard to matters or applications before the Federal Government and Title 18 U.S.C. Section 205(2) which prohibits an employee from acting as agent or attorney for a private party in connection with any matter or application before the U.S. Government in which the employee has significant personal or financial interest. The EPA employee who prepared and submitted the research proposal was obviously not impartial or objective toward this assistance application. In addition, in preparing and submitting CA proposals in April 1990 and May 1991 to OEPER and ERL-GB, the employee, in effect, was acting as agent or representative of the University of Maryland at the same time he was an EPA employee. Finally, the OEPER manager's request that the employee prepare the proposal, with knowledge that the research was related to the employee's concurrent graduate research, and the manager's subsequent request that ERL-GB fund the proposal assisted and aided the employee in potentially violating Federal employee ethical standards.

Both ORD's OEPER and ERL-GB were aware of the EPA employee's involvement in the CA proposal; however, GAD was apparently unaware that an EPA employee was the investigator (Co-I) who would perform the proposed research. GAD's Grants Operations Branch (GOB) Chief indicated that GAD does not consider those individuals listed as investigators when looking for potential COIs related to CA applications. Only the backgrounds of those individuals named as the cooperator's project manager and/or PI are reviewed for potential COIs. When we asked if it would be appropriate when the investigator was an EPA employee and also at the University working on his PhD, the branch chief said that if the CA was awarded for this employee's personal gain and benefit it would be inappropriate. The chief said it could be something the Office of General Counsel should look into as a COI situation.

EPA's Assistance Administration Manual, Chapter 15, Section 5.b., requires that either the CA or the assistance application

document the substantial Federal involvement anticipated in the proposed research project. This documentation must specify: what the Federal involvement will be, when it will be performed, how it will be accomplished, and who will be responsible for performing EPA's portion of the work. Neither the assistance agreement nor the University's assistance application properly documented the anticipated Federal involvement or who would perform EPA's portion of the work for this proposed research. Special conditions in the CA did provide for some collaboration and contacts between the ERL-GB PO and the cooperator's project manager, but there was no documentation that the basic research was to be performed by an EPA employee and, therefore, EPA's involvement in the project was almost 100 percent. If EPA's involvement had been properly documented in the proposed agreement or assistance application, GAD would have been alerted that almost 100 percent of this project was to be performed by Federal personnel.

University of New Hampshire CA, awarded September 1992 for $587,023 - In this nationally competed CA, the EPA PO had significant input into the cooperator's research proposal, particularly the microbiology portion.. He even provided "ideas and corrections" needed in the pre-proposal. The PO said he also talked with other CA applicants on the phone; however, their proposals were not as closely aligned to his expertise. In addition, these other applicants had more expertise in the proposed research area than this particular PI (who was funded) and, therefore, they did not need or request as much help. As discussed previously, this CA was subsequently used by ERL-GB to move on-site contractor employees to this off-site agreement.

Correspondence in ERL-GB files, indicated that "collaboration" was at a high level as early as the pre-proposal stage. In October 1991, the PI provided a "rough" draft of his preproposal to the PO. In a memorandum attached to the preproposal, the PI stated:

> ...What I need from you are some details for the experimental plan, what parts will need to be developed from scratch and your ideas on how to do that (any novel techniques that will need to be developed?), and a crude list of what you will need to do the work and what that will cost (personnel, supplies etc.) so I can put together a budget. Can you find out how the budgets work, i.e., do I need to have a separate contract for your part or will it go on my budget?

This same procedure was followed during the full proposal stage. When asked if it was common for POs to get full proposals in draft and for POs to offer specific comments before the proposal is officially submitted for review, the PO said that he had

previously looked at official full proposals and talked with researchers, but he had never read nor provided specific comments on any draft proposal until this one. He added that very few researchers took advantage of contacting the laboratory for technical advice because they did not recognize the need to make contact to develop collaboration. He stated that he spoke to the other researchers at the full proposal stage, but he felt it was too late at that point to begin initiating collaboration. When asked why this need for collaboration was not emphasized more in the RFP, the PO said it might discourage participation.

In conclusion, the ERL-GB PO's participation in the actual preparation of the preproposal and full proposal for a particular assistance applicant, to the exclusion of other competing applicants: (1) created a potential COI situation, (2) was inconsistent with the EPA employee code of conduct (40 CFR 3.103(d)(2)) regarding preferential treatment or creating the appearance of such treatment toward any organization or person, and (3) gave the appearance of favoritism in the eventual CA award process. This interaction occurred despite the fact that this proposal was part of a national CA competition. While such early collaboration in a noncompetitive award might be appropriate, in a national competition, such extensive and selective collaboration with one applicant during both the preproposal and full proposal development stages appears inappropriate.

We also concluded that the full extent of Federal involvement in the NELHA CA was not clearly documented in the agreement or assistance application. As in the University of Maryland CA, an EPA employee was to perform all of the proposed research and, therefore, EPA's involvement was almost 100 percent. This was not mentioned in the application or the agreement (see additional details regarding the NELHA in Appendix V).

RECOMMENDATIONS - COMPETITION AND CONFLICTS OF INTEREST

We recommend that the Assistant Administrator for Research and Development ensure that significant improvements are made in ERL-GB's solicitation process to remove any appearance of favoritism and ensure compliance with the intent of the FGCAA Act and EPA

policy[6]. Specifically, we recommend that the Assistant Administrator for Research and Development:

- Require ERL-GB Director to utilize free and open competition to the maximum extent practicable in accordance with current ORD policy and reduce the use of limited competition. In situations where a noncompetitive solicitation may be advantageous to the Government, the ERL-GB Director should recommend a noncompetitive award.

- Evaluate ERL-GB's CA competitive process for consistency with the FGCAA and Agency policy.

- Clarify ORD procedures for the competitive process. In particular, emphasize the importance of the evaluation and ranking of proposals, selection of recipients, and proper documentation of the entire process.

- Instruct OEPER managers to refrain from requesting CA research proposals from EPA employees where a potential COI or violation of Federal employee ethical standards could occur.

- Remind ORD and laboratory staffs that the Federal employee code of ethics precludes the appearance of using public office for personal gain and requires that Federal employees be impartial and objective toward applications and other matters before the Government. Also, remind employees that the U.S.C. prohibits Federal employees from acting as agents for any organization or individual regarding an application or other matter before the Federal government.

In addition, we recommend that the Assistant Administrator for Research and Development require the Director, Environmental Research Laboratory - Gulf Breeze to:

- Instruct ERL-GB staff involved in the award and management of extramural agreements to be alert for COI situations. In particular, caution employees against personal involvement or collaboration with potential CA recipients involved in a

[6] Several of the conditions related to CA competitions, COIs, and PO involvement in CA awards were previously reported in the OIG audit of the Athens ERL (Audit No. E1JBF2-04-0300-3100156, issued March 31, 1993). ORD and GAD agreed to take EPA-wide or ORD-wide corrective action. These corrective actions are currently in process or were completed prior to the CA awards in our sample; therefore, no further recommendations were made in this report on these issues. Only recommendations specific to ERL-GB or related to new policies were addressed in this report.

competitive solicitation unless care is taken to offer the same assistance to all those submitting proposals. Such pre-award involvement with one applicant creates the appearance of favoritism which is prohibited by EPA's employee code of conduct (40 CFR).

- For every competitive CA award, clearly document in the decision memorandum the true extent of competition in the award process.

- Review all future assistance applications and subsequent agreements to ensure that all Federal involvement in the research project is fully disclosed as required in EPA's Assistance Administration Manual.

MANAGEMENT OF COOPERATIVE AGREEMENTS NEEDED IMPROVEMENT

CAs were not properly managed after award to ensure compliance with agreement terms or that Agency resources were being effectively used and safeguarded by CA recipients. ERL-GB did not implement controls and procedures to determine compliance for extramural agreements or the propriety of fund expenditures by CA recipients. As a result, ERL-GB did not adequately oversee the financial status or technical progress of its CA research. Also, there was an overall lack of documentation of ERL-GB's CA post-award management and oversight. Lack of documentation for pre-award, as well as post-award management of CAs are further discussed in Chapter 4 of this report.

Background

Chapter 44 of EPA's Assistance Administration Manual, entitled "Project Officer Responsibilities," advises POs that they are the recipients' main point of contact with EPA. The Chapter states that "The Project Officer has the basic charge to manage and monitor the performance of work under the terms of the assistance agreement." It also states that the PO "must monitor technical aspects of work performed and ensure that the recipient complies with the terms of the assistance agreement." The PO must provide "documentation to the Assistance Administration Unit of correspondence, meetings, phone calls, etc., that have a significant bearing on the performance of either the project or the recipient or its contractors."

Prior Review

In May 1989, a one and half day Cooperative Agreement Management Review (CAMR) was performed at ERL-GB by two employees from the Grants Administration Division (GAD). This review was performed based on a protocol developed by GAD which defined the areas for

review. Overall, the findings were favorable. According to the review, "We believe the Lab provides the appropriate management controls to assure efficient and effective use of extramural research funds through cooperative agreements." However, no files were reviewed and the conclusions were based primarily on a questionnaire developed by GAD.

According to the section in the CAMR report entitled "Managing the Agreement", POs are primarily responsible for project monitoring. Items that are monitored include activities and outputs, special conditions, budget period end dates, budget increases, administrative amendments, and equipment. Site visits are conducted as travel funds allow and quality assurance site visits are scheduled when necessary. The CAMR stated that:

> Time did not permit GAD to review files. However, through discussions with the RSS [research support staff - Special Assistant for Extramural Research (SAER)], it appears the files are complete and there are no problems in this area.

One recommendation made was that ERL-GB consider inserting a critical job element on monitoring CAs in PO performance standards.

While the CAMR was basically favorable toward ERL-GB's CA program, it was very limited in scope. Therefore, the problems discussed in this and other chapters of this report were not identified.

Special Conditions Not Always Recognized or Followed

ERL-GB did not always comply with CA special conditions and did not ensure that the recipients complied. For example, although special conditions for 11 of the 15 CAs in our sample required that cooperator quarterly progress reports contain information on CA expenditures, POs were not requiring or receiving this information in these progress reports. In addition, ERL-GB POs did not know in some cases what special conditions were included in their respective agreements. The POs apparently did not read the CAs, as amended by GAD, after awards.

The laboratory director said historically progress reports did not contain information on expenditures. He said they assumed GAD was monitoring the financial status of CA recipients. Tracking financial information was not previously regarded as a responsibility of ERL-GB. However, the director stated that since the ERL-Athens audit reported that GAD was not monitoring CA financial activities, ERL-GB has been awaiting ORD guidance on this issue. We informed the laboratory director that one of the special conditions in most CAs required that progress reports

contain expenditure information. The laboratory director said, "If it says it that way, we would expect to get it."

For one CA (NELHA, CR820699) in our sample the special conditions required the recipient to submit quarterly progress reports to the EPA PO; however, the EPA PO, who actually performed the research, prepared the recipient progress reports. Not only did the PO prepare these reports, but he also submitted copies of them to both the cooperator's project manager and another researcher at NELHA.

For two other CAs reviewed (Miami University, CR820061 and UAMS, CR820773), a special condition was added which stated:

> The recipient understands that none of the funds for this project (including funds contributed by the recipient as cost sharing) may be used to pay for the travel of Federal employees or for other costs associated with Federal participation in this project.

For two CAs with this special condition, the POs were not aware that GAD had included this special condition. For one CA where the PI was a Federal employee (Food and Drug Administration), neither the PO, the PI, nor the Co-I were aware that the CA specifically precluded Federal employee travel using CA funds. While this CA application budgeted travel funds for the PI, the PI had not used CA monies for travel.

For two CAs in our sample (LSU, CR818568 and University of Maryland, CR818953), special conditions were added to ensure collaboration between the POs and PIs; however, both POs stated they did not collaborate with the PIs. In one of these CAs, a special condition was added to ensure the cooperator's project manager and the EPA PO communicated at least monthly. However, according to the PO, he and the PI had not communicated on a monthly basis except for the first few months of the project. This condition occurred because the CA project did not relate to ERL-GB's mission (see Appendix VI). Under the other CA, one special condition required the PO to be at the cooperating University during experimental analyses as part of the Federal collaboration. Another special condition required samples be provided to the PO at ERL-GB. However, neither of these special conditions were followed because of a shortage of travel funds and the PO's lack of time to participate.

Infrequent Site Visits Limited Effective Monitoring

ERL-GB POs did not make frequent site visits to cooperator locations primarily due to a lack of travel funds. According to ERL-GB personnel, site visits had been performed for 8 of the 15 CAs in our sample. The frequency of site visits varied between

POs from one visit per year, to one visit in three years, to no visits at all. When site visits were made, POs usually did not prepare the required trip reports and never forwarded copies to GAD for inclusion in the official files, as required by the Assistance Administration Manual, Chapter 44. Only three of the visits referred to above were documented in trip reports.

OMB Circular A-110 (dated July 1976) states that the Federal sponsoring agency shall make site visits as frequently as practicable to review program accomplishments and management control systems and to provide such technical assistance as may be required. EPA's Assistance Administration Manual, Chapter 44, Section 5b, also emphasized the use of site visits as a tool to monitor assistance agreements. The Manual states that site visits should be used to monitor: (1) actual versus scheduled performance/accomplishments, (2) condition of equipment/property used on, or purchased for, the project, (3) resources (personnel, equipment, facilities, etc.) charged to the project are actually used on the project, and (4) conditions that might adversely affect EPA's interest (i.e., change in the recipient's financial status, personnel problems, noncompliance with labor/civil rights laws, and/or over-extension of the facilities).

Chapter 44 of the Assistance Administration Manual further advises POs to provide constructive advice/criticism during site visits, but not to attempt to supervise either the project or the recipient's employees. In addition, POs are to prepare a trip report that highlights their findings and evaluates the quality of work being performed. Copies of the trip reports are to be provided to GAD's Assistance Administration Unit (AAU) for inclusion in the official file, as well as documentation of any follow-up actions that are taken.

The laboratory director said there should be trip reports for site visits to universities, but he did not effectively monitor to assure they were prepared by POs. The director said trip reports would probably be the "exception rather than the rule" at ERL-GB. He further said the laboratory's travel resources were too limited to permit many site visits and there were only a handful done in the last two years.

Site visits are probably the POs' best tool to monitor performance and expenditures under CAs. ORD and ERL-GB's limited travel funds for site visits and the lack of trip reports (documentation) by POs, when travel funds were available, weakens ERL-GB's ability to assure recipients' compliance with CA terms and to ensure that Federal assets are safeguarded.

Because of limited travel funds for POs to conduct site visits, ERL-GB included a special condition in some CAs which required PIs to travel to ERL-GB. According to the laboratory director,

cooperators have more flexibility with travel. Although this did not allow the PO to monitor resources or equipment/property used on the project, this procedure did permit POs to discuss progress of the research with applicable PIs and allowed some monitoring of CA performance.

ERL-GB POs Did Not Review CA Financial Status Reports (FSRs)

GAD staff received FSRs from the CA recipients, but did not forward these to ERL-GB POs, as required by EPA's Assistance Administration Manual. Without these FSRs, POs had little or no knowledge of expenditures under their CAs because cooperator progress reports did not contain information on agreement expenditures. According to the laboratory director, ERL-GB thought GAD was monitoring cooperator financial activities. None of the 11 POs for the 15 CAs in our sample reviewed FSRs or routinely required progress reports that contained cooperator financial expenditures for the funded research. Only one PO produced a progress report containing information on cooperator expenditures.

In 40 CFR 30.505, CA recipients are required to submit FSRs within 90 days after each budget period and within 90 days after the end of project completion or termination. According to Chapter 44, Section 5c, of the Assistance Administration Manual (dated December 1984), FSRs must be reviewed by the GAD's AAU to assure that the recipient uses the funds properly. A copy should be sent to the PO who should then review it in relation to the recipient's progress reports and notify the AAU if there are any exceptions.

The FSRs received by GAD are only required from cooperators at the end of each budget period. Since the first budget period of a CA is normally two years, this means that the Agency has no expenditure information during the first two years of the projects. In some cases, ERL-GB was extending the budget periods past two years, which allowed for a longer period before GAD received expenditure information. ERL-GB POs were also not monitoring expenditures under CAs. POs did receive status sheets from ERL-GB's SAER which showed CA amounts funded and budgeted amounts left to be funded and some POs stated that they reviewed CA budgets prior to funding. However, no specific monitoring was performed by ERL-GB POs to evaluate cooperator actual costs in comparison to budgeted costs. As a result, POs had little, if any, knowledge of expenditures made under their CAs.

Quality Assurance (QA) Audits Not Performed

For 12 of the 15 CAs we reviewed, ERL-GB did not perform QA audits. All 15 CAs had approved QA plans, but only the three EMAP CAs had received QA audits. According to the 1989 CAMR

review, QA site visits are scheduled by ERL-GB when necessary. However, ERL-GB officials agreed that the QA auditing function was an area of laboratory deficiency. The ERL-GB QA Officer said ideally he performed at least one QA audit during the life of an agreement, but the ideal was rarely accomplished. Generally, the PO was the only person who made site visits and they were not trained to do QA audits. As a result of insufficient QA reviews, there was a lack of assurance that the data being collected under CAs to develop national environmental policy was reliable or that all acquired data collected under these CAs was suitable for the user's intended purpose.

EPA's 1993 FMFIA report to the President and Congress, issued December 29, 1993, recognized EPA's QA program for assuring environmental data quality as a continuing material internal control weakness. The QA program was first identified as a material weakness in EPA's 1992 FMFIA report. According to the 1993 FMFIA report, ORD had taken corrective action to (1) focus top EPA management attention on the importance of QA, (2) provide QA compliance status reports and distribute policies and regulations to all senior managers, and (3) develop performance standards for all EPA managers responsible for environmental data collection activities. In 1994 ORD planned to initiate an on-site review process to assist managers in developing QA management plans and strengthening QA programs.

Although ORD's on-going corrective actions had not substantially improved ERL-GB's QA program as of September 1993, such actions should provide significant improvement in the near future. Therefore, we are only recommending corrective actions related to ERL-GB's specific QA deficiencies at this time.

RECOMMENDATIONS - MANAGEMENT OF COOPERATIVE AGREEMENTS

We recommend that the Assistant Administrator for Research and Development ensure that significant improvements are made in ERL-GB's management of CAs to ensure compliance with CA terms and applicable Agency guidance[7]. Specifically, we recommend that

[7] Most of the conditions related to CA management were previously reported in the OIG audit of the Athens ERL (Audit No. E1JBF2-04-0300-3100156, issued March 31, 1993). ORD and GAD agreed to take EPA-wide or ORD-wide corrective action on some of these problems. These corrective actions are currently in process or were taken near the end of our audit fieldwork; therefore, no further recommendations were made in this report on these issues. Only recommendations specific to ERL-GB or related to new policies were addressed in this report.

the Assistant Administrator require the Director, Environmental Research Laboratory - Gulf Breeze to:

- Provide POs all current, updated, Agency procedures and guidance necessary to effectively manage and document their management of extramural agreements through pre-award and post-award phases.

- Require that ERL-GB POs read and understand the special conditions of the CAs and ensure that the special conditions are followed by the recipient.

- Require frequent, periodic site visits by CA POs and review laboratory budgets to identify available travel funds to accomplish this critical control technique.

- Establish controls to ensure that PO trip reports are prepared for CA site visits and that these reports adequately document PO oversight of expenditures under extramural agreements.

- Establish procedures in consultation with GAD, to ensure that POs fulfill their financial oversight responsibilities through reviewing FSRs once POs start receiving FSRs[8] from GAD and requiring progress reports that contain required financial data. Any exceptions noted between the FSR, cooperator progress reports, and any other information obtained during site visits and overall management of the CA should be reported to ERL-GB management and GAD.

- Require applicable ERL-GB staff to perform QA audits of cooperator projects where possible, especially for near-site UWF CAs. Allocate sufficient travel funds and establish controls to ensure that ERL-GB staff document these QA reviews in appropriate ERL-GB files.

- Require POs to maintain adequate written records to document their management and oversight of CAs, including, but not limited to, all ERL-GB and recipient correspondence and telephone conversations relating to the award, performance, and closeout of assistance

[8] Although GAD had not submitted copies of FSRs to POs for CAs in our sample, GAD's July 1993 response to OIG's report on the Athens ERL indicated that GAD would develop a corrective action plan by February 1994 that would include forwarding of FSRs to applicable POs. Therefore, no further recommendations regarding this deficiency were included in this report.

agreements. POs should be provided with EPA's record control schedule for laboratories.

AGENCY RESPONSE AND OIG EVALUATION OF AGENCY COMMENTS

ORD concurred with the findings and recommendations presented in Chapter 2 and indicated that a corrective action plan to address the recommendations would be provided to the OIG as soon as possible (see Appendix I). ORD did express some concerns regarding two recommendations and the OIG's apparent interpretation of 31 U.S.C. and EPA guidance as presented in this Chapter. We modified the applicable recommendations to address ORD's concerns. Changes to the recommendations and our response to ORD's concerns related to the presentation of 31 U.S.C. and EPA guidance in this Chapter are included in Appendix I.

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CHAPTER 3

BETTER FMFIA IMPLEMENTATION NEEDED

A comparison of ERL-GB's 1992 and 1993 Federal Managers' Financial Integrity Act (FMFIA) documentation disclosed a substantial improvement in the laboratory's identification and documentation of critical event cycles, control objectives, and control techniques for related laboratory operations. Based on our discussions of deficiencies noted in the 1991 and 1992 FMFIA documentation, ERL-GB managers made a conscientious effort to improve the 1993 FMFIA process. As a result, ERL-GB significantly improved its 1993 FMFIA documentation which represented a big step forward in meeting Agency requirements and the intent of the FMFIA process. However, some improvements are still needed to refine control objectives and techniques. Better ERL-GB implementation of the FMFIA management control process is essential to assure efficient and effective laboratory operations and properly safeguard Agency resources. Proper FMFIA documentation and implementation may have prevented some of the problems related to CAs and records management which are cited in other chapters of this report.

ERL-GB management did not ensure that documented FMFIA controls and processes related to the management of CAs, critical records, imprest funds, and the FMFIA process were integrated into the laboratory's day-to-day operations. ERL-GB managers did not fully understand the importance of FMFIA and their responsibility for implementing and maintaining an effective internal control system[1]. Neither were ERL-GB managers adequately trained in FMFIA requirements nor always held accountable for managing effective internal control systems. Although ERL-GB's annual FMFIA assurance statements consistently indicated a strong, positive commitment to the FMFIA process, the extent to which ERL-GB actually integrated FMFIA objectives and controls into the laboratory's operations did not fully support this commitment. As a result, the laboratory's annual FMFIA assurance reports were based on incomplete information.

BACKGROUND

The FMFIA of 1982 requires each executive agency to establish internal accounting and administrative controls in accordance with standards prescribed by the Comptroller General. The goal of this legislation was not only to reduce the possible fraud, waste and abuse of Federal resources, but also to improve the

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[1] Controls or control systems referred to in this chapter pertain to FMFIA financial and management control processes only.

management of Federal operations. Therefore, effective systems of internal control established under the FMFIA pertain to the accomplishment of organizational goals as well as fiscal responsibility.

The Comptroller General charged the General Accounting Office (GAO) with establishing the internal control standards against which all Federal executive agency's internal control systems would be measured. The standards[2] emphasized that good internal controls were essential to achieve the proper conduct of Government business with full accountability for the resources made available. OMB Circular A-123, prescribed specific policies and procedures to be followed by Federal agencies in establishing, maintaining, evaluating, improving, and reporting on internal controls in their program and administrative activities. EPA Resources Management Directive (RMD) 2560 prescribes the policies and procedures for Agency implementation of FMFIA requirements.

MANAGERS NOT FULLY COGNIZANT OF FMFIA RESPONSIBILITIES OR ASSIGNED ACCOUNTABILITY FOR FMFIA IMPLEMENTATION

None of ERL-GB's managers we interviewed were clearly aware of their control responsibilities and understood the importance of implementing an effective internal control system. Neither were all managers with significant internal control responsibilities actively participating in the FMFIA process. In addition, none of the ERL-GB managers with significant FMFIA responsibilities, including the laboratory director, had been trained in FMFIA requirements except for the Management Control Coordinator (MCC). Therefore, neither ORD nor ERL-GB assured that laboratory managers were provided the training necessary to understand the FMFIA process and develop the skills necessary to effectively plan and organize the internal control process.

Performance Standards for FMFIA Responsibilities

The ERL-GB Program Internal Control Coordinator (PICC) indicated that there were seven management positions at the laboratory with significant internal control responsibilities. Our review of performance agreements for six ERL-GB managers assigned to these positions disclosed that three agreements had no performance standards for internal controls related to the manager's operations. Still, ERL-GB reported in its 1992 FMFIA Quality

[2] Standards for Internal Control in the Federal Government, June 1, 1983.

Control Evaluation Report that FMFIA responsibilities had been included in the performance standards of all appropriate managers and supervisors.

OMB Circular A-123[3], RMD 2560[4], and EPA's Internal Control Guidance for Managers and Coordinators (dated August 1988) require that each Agency maintain a written performance agreement for any senior executive service, merit pay or other employee with significant internal control responsibilities[5] and that the agreement contain performance standards related to internal control activities.

The PICC identified the following ERL-GB management positions and functions which have significant internal control responsibility and, therefore, should have FMFIA responsibilities written into their performance standards: laboratory director, deputy laboratory director, administrative officer, branch chiefs, environmental compliance officer, health and safety officer, and quality assurance officer. Our review of the 1992 and 1993 performance agreements for the director, deputy director, and administrative officer (PICC) indicated that significant improvements had been made in identifying internal control responsibilities in their 1993 performance agreements and that these standards generally met the requirements of RMD 2560 and EPA's Internal Control Guidance for Managers and Coordinators. However, we did note that the 1993 standards only emphasized control over administrative and financial activities not all of the laboratory operations.

Review of the 1992 and 1993 performance agreements for ERL-GB's three branch managers revealed no performance standards related to the FMFIA process or internal controls. As provided in EPA guidance, each manager having internal control responsibilities should have a standard, written performance agreement against which internal control performance can be recognized and evaluated. The performance agreement should outline specific

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[3] OMB Circular A-123, Revised: Internal Control Systems, August 4, 1986.

[4] EPA Resource Management Directive 2560: Internal Control, June 4, 1987.

[5] EPA's Internal Control Guidance for Managers and Coordinators, issued August 1, 1988, suggested specific language for a FMFIA performance standard at the Assistant Administrator, Regional Administrator, Senior Executive, and General Management/General Schedule levels.

internal control responsibilities and established performance standards which are specific to the employee under evaluation.

While performance standards were not in place for the branch managers, the Laboratory Director and FMFIA Coordinator indicated that ERL-GB managers had been briefed on FMFIA and branch managers were provided copies of annual internal control documentation. However, interviews with two of ERL-GB's branch chiefs disclosed that neither remembered participating in any part of the FMFIA process until August 1993 when they were requested to review internal control documentation prepared by the PICC and to suggest changes. One branch chief, who had been at the laboratory since October 1990, stated that he had not heard of FMFIA or seen any internal control documentation before August 1993. However, this manager had now realized that internal control documentation was something that he should continue to use, review, and change as needed. We concluded that the branch chief viewed the process as beneficial, because the whole branch had an opportunity to discuss internal controls and provide input which heightened each individuals awareness of established systems and the need for controls.

Those ERL-GB managers (branch managers) most responsible for day-to-day laboratory operations were insufficiently involved in ERL-GB's FMFIA process. This condition had an adverse impact not only on the general effectiveness of internal controls, but the overall implementation of the FMFIA process.

FMFIA Training

ERL-GB reported in its 1992 FMFIA Quality Control Evaluation Report that all SES, GM supervisors, and others with significant FMFIA responsibilities were trained or briefed on FMFIA and/or management controls. None of the ERL-GB managers we interviewed, including the laboratory director, had received any formal training on FMFIA requirements and procedures. The PICC said she had briefed the managers on FMFIA but she had received limited training and did not fully understand the process herself. Overall, our interviews with ERL-GB employees disclosed a general lack of knowledge about the FMFIA process and how it should be implemented at ERL-GB. ERL-GB managers' responses to our questions on the laboratory's FMFIA process and internal controls demonstrated that they were not fully cognizant of the purpose of FMFIA and their individual responsibilities as related to ERL-GB's internal control system. When managers and others having internal control responsibilities were asked: "Have you been told what your FMFIA/Internal Control responsibilities are?", we received replies such as: "Not to my recollection; my mind is vague on that activity; I don't understand your question; I may

have been told about such responsibilities, but if so, I have forgotten." This lack of training on FMFIA and an understanding of the purpose and goals of an established system of internal controls contributed to ERL-GB's ineffective implementation of FMFIA objectives and controls.

As part of the annual assurance letter for FMFIA, ERL-GB completed a Quality Control Evaluation Report which reflects the status of FMFIA implementation. The report requires that the assessable unit manager respond to specific statements regarding FMFIA implementation. One statement was: "All SES, GM supervisors, and others with significant FMFIA responsibility have been trained or briefed on FMFIA and/or management controls." ERL-GB responded positively to this statement in its 1991 and 1992 assurance letters but made no reference to any training or formal briefing provided to managers or staff other than the 3-day FMFIA workshop the administrative officer (designated PICC) attended in 1988.

Our review revealed no evidence that anyone at ERL-GB other than the PICC had received any formal FMFIA training until September 1993. The PICC described this initial training as a good introduction. However, based on current information she was receiving from ORD/OEPER and the OIG regarding FMFIA requirements, additional training would have been beneficial for both her and the other ERL-GB managers.

Orientation and training for new EPA managers with significant FMFIA responsibilities and no prior Federal government experience is especially critical. For example, ERL-GB's director came to his present position directly from a non-government environment and he received no initial training in the FMFIA process. The director told us that in making the change from an academic environment to ERL-GB's laboratory director there were a variety of things that he was not prepared for. He could have used training in all of them including FMFIA. The director commented that managers who come up through the Government ranks are exposed to processes and regulations, such as FMFIA, throughout their career. However, as an academic, these requirements were foreign to him.

EFFECTIVE IMPLEMENTATION OF FMFIA REQUIRES PROPER PLANNING

FMFIA implementation at ERL-GB did not have a planned approached as emphasized in Agency guidance. ERL-GB never formulated an annual or long-term work plan to effectively implement an internal control system as envisioned under FMFIA. Instead, ERL-

GB's overall response to FMFIA implementation was reactive not proactive.

EPA's Internal Control Guidance for Managers and Coordinators emphasizes that a yearly work plan is critical to the careful organization and efficient implementation of the internal control process. The guidance maintains that each MCC must develop an annual work plan at the beginning of each calendar year. The purpose of using an annual FMFIA work plan at ERL-GB would be to structure the internal control program within the assessable unit, establish accountability, goals, and time-frames, and formally involve management at all levels of the organization. Directing FMFIA implementation from a formal work plan would permit each manager to better understand his role and responsibilities in the process. EPA's FMFIA guidance suggests that the work plan include:

- planned training for personnel;
- scheduled actions required to correct previously identified internal control weaknesses which are followed in the Agency's Internal Control Corrective Action Tracking System (CATS), and reporting quarterly progress toward achieving the planned goals;
- established milestone dates for completing the internal control documentation, risk assessment, management control plan, and annual assurance letter;
- a schedule to conduct and document internal control reviews (ICRs) and alternative internal control reviews (AICRs) as reported and scheduled in the prior years assurance letter;
- established procedures to assist managers in identifying or assessing program weakness to enable the Laboratory Director and, eventually, the Assistant Administrator to provide reasonable assurance;
- planned actions that will correct weaknesses identified in prior audits and other studies; and
- a requirement that managers outline their specific internal control responsibilities in their performance standards.

Instead of a FMFIA work plan prepared at the beginning of each year, ERL-GB's PICC relied on the annual management control plan (MCP) prepared in August as her planning document. The MCP lists

the internal control reviews completed during the current calendar year and planned reviews for the next five years. This plan provides no structure for implementing FMFIA. In the PICC's opinion, work plans were only used by ORD and other Headquarters units in calling for required FMFIA documentation and reports.

In preparing ERL-GB's MCP, the PICC requested the laboratory director, branch chiefs, and other responsible individuals like the health and safety officer and the quality assurance officer to identify planned in-house and external reviews of FMFIA controls. For example, the Agency periodically performed reviews of the ERL-GB imprest fund and property management. There were also Health and Safety Reviews, Quality Assurance Reviews, and a review of VAX (computer) security among others. However, other than tracking ICRs, AICRs, and other reviews performed and planned, the MCP had little value as a FMFIA implementation plan and did not include any of the other items recommended in Agency guidance for inclusion in a FMFIA work plan.

A more detailed, formal planning document would not only assist the laboratory director and the PICC in fulfilling their FMFIA responsibilities, it would clearly convey to the branch chiefs and others performing internal control functions their FMFIA goals and responsibilities, and facilitate the laboratory director's year-end FMFIA reporting requirements. The plan itself would serve as a control technique to help assure effective FMFIA implementation throughout ERL-GB.

At a December 1993 exit briefing the laboratory director stated they planned to develop an FMFIA implementation plan for 1994.

INTERNAL CONTROL DOCUMENTATION INCOMPLETE

ERL-GB did not develop complete and adequate internal control documentation. Documentation did not incorporate all the recommended materials and represent all the event cycles involved in accomplishing ERL-GB's mission. Neither did the documentation reflect complete and implemented control objectives and techniques. The 1992 control documentation on file was incomplete and did not represent actual controls in place for some objectives. We attributed these deficiencies to the fact that managers in prior years were not fully aware of their FMFIA responsibilities and adequately trained in the purpose and requirements of FMFIA. As a result, managers did not completely understand the need for internal controls and did not establish a system to properly identify event cycles, control objectives, and control techniques.

OMB Circular A-123 specifies that agencies shall establish and maintain a cost-effective system of internal controls to provide reasonable assurance that Government resources are protected against fraud, waste, mismanagement or misappropriation and that both existing and new program and administrative activities are effectively managed to achieve the goals of the agency. Systems established to achieve OMB's internal control objectives are to be formally documented.

EPA's internal control guidance provides that FMFIA documentation should include two types of written materials. First, there should be system documentation which would: (1) include policies and procedures, organization charts, manuals, memoranda, flow charts, and other related information necessary to describe organizational structure, operating procedures, and administrative practices; and (2) communicate responsibilities and authorities for accomplishing programs and activities. Such documentation should be present to the extent required by management to effectively control their operations. Second, there should be review documentation to show the type and scope of reviews (ICRs and AICRs), the responsible officials, the pertinent dates and facts, the key findings, and the recommended corrective actions.

During our review of internal controls established for the management of CAs, implementation of FMFIA, records management, and the imprest fund, we found that ERL-GB's 1991 and 1992 documentation was incomplete and, in certain cases, inaccurate. Also, internal control review documentation did not exist as described in Agency requirements. While the actual internal review reports were generally maintained, they were not summarized and documented as instructed in Agency internal control guidance.

Significant Improvement In 1993 FMFIA Documentation

ERL-GB's 1993 internal control documentation (August 26, 1993) was a definite improvement over the previous years. According to the PICC, the 1993 documentation received three times the effort that was devoted in 1992. ERL-GB's objective in 1993 was to do a more thorough job documenting event cycles, control objectives, and control techniques. For 1993, the PICC reviewed the 1992 documentation and made the initial changes the PICC believed necessary. Then, the internal control documentation was sent to the laboratory's branch chiefs, quality assurance officer, health and safety officer, and others as determined appropriate for review and comment. In our opinion, this is a more logical approach for documenting the internal control process. Branch managers and their staff know more about what controls are

actually in place and working within their areas of responsibility. However, as discussed below, additional improvements are needed to refine this documentation.

Cooperative Agreement Management

Event cycles for CA award and administration were not included in ERL-GB's FMFIA documentation until July 27, 1991. ERL-GB's fiscal years 1991 and 1992 event cycle documentation referenced a 1991 ORD contractor's report on CA controls entitled "Documentation of Administrative Processes/Internal Controls of Cooperative Agreements" as their established internal controls. This document listed all possible controls for a CA program and did not necessarily represent the specific controls needed by ERL-GB to effectively manage its CAs. Not adequately documenting CA event cycles, control objectives and techniques, may have contributed to the CA management problems reported in Chapter 2.

As a result of identifying extramural management as a material weakness in its 1990 FMFIA report, ORD contracted for a review of its administrative processes and internal controls related to extramural management. The review objective was to assist laboratories in meeting their FMFIA event cycle documentation requirements. This contracted report on CAs contained an extensive list of possible controls for all levels of CA management. However, ORD specifically informed laboratories that the report was not to be used in its entirety in place of detailed FMFIA documentation, but merely as a guide in tailoring control plans to individual laboratory needs. The report's transmittal letter from the Director, Office of Research Program Management, stated:

> It is expected that individual offices and laboratories may use this report to evaluate and refine their internal controls documentation and to identify opportunities for improvement... Accordingly, the report is not intended to be a standard procedures manual for adoption by all laboratories, nor a compilation of all the variations in procedures.

Through 1992, ERL-GB still had not fulfilled its responsibility for preparing and documenting detailed control objectives and techniques for CA activities at ERL-GB as instructed by ORD. Without this detailed documentation, ERL-GB had no basis for testing and verifying the internal control processes related to CAs.

In 1992 ERL-GB also recognized extramural management (which includes CAs) as a material weakness in its FMFIA assurance

letter. In 1993, ERL-GB stated in its assurance letter that the laboratory had taken the initial action to correct this weakness by hiring a contract expert.

One of the most significant improvements made in ERL-GB's 1993 internal control documentation was defining control objectives and techniques for CAs. However, our review showed that some of the 1993 documented controls were not implemented or followed. For example:

> Control Technique: POs receive training on assistance agreements.

Three of eleven POs had not received PO training for assistance agreements at the time of our audit. One of the three includes the Branch Chief for the Microbial Ecology and Biotechnology Branch.

> Control Technique: Performance Standards and Position Descriptions include cooperative agreement responsibilities.

Four of the eleven PO's performance standards reviewed did not specifically include PO duties.

> Control Technique: Pre-proposal solicitations published in the Federal Register and appropriate technical publications, and notices sent to universities with programs in relevant research areas.

The national competition that we reviewed resulted in the award of five CAs totalling $ 2.5 million. However, the request for proposals was not published in the Federal Register as indicated in the control technique. The only advertisement placed was in Science magazine. For two other limited competitions we reviewed, there was no advertisement placed. Six CAs and one interagency agreement (IAG) totaling $7.2 million were awarded. In these two CA competitions, the request for proposals was provided only to those institutions that ERL-GB considered to have relevant research areas.

> Control Technique: PO reviews special conditions and requires reports/actions from Principal Investigator as specified.

Our review found that special conditions were not always complied with by ERL-GB or CA recipients. In these instances either the PO was not familiar with the special condition or did not require the recipient to comply. It was evident that neither ERL-GB nor

the recipient placed a high degree of importance on special conditions.

Administrative Management/Fund Controls

Our audit revealed other administrative management and fund control problems both related and unrelated to CAs. We concluded that these deficiencies could also be attributed to the inefficiency and ineffectiveness of ERL-GB's FMFIA process and related internal controls.

Records Management: ERL-GB identified an event cycle for records management with an internal control objective and related techniques in FYs 1991, 1992 and 1993. However, at the completion of our audit at ERL-GB (September 1993), these control techniques had not been implemented (See Chapter 4).

Between 1991 and 1992 the FMFIA control techniques for records management changed completely. For 1993, there was a small change as shown below:

Control Objectives	**Control Techniques** (examples)
FY 1991: Ensure that all records are maintained for easy retrieval and documentation.	-Personnel Coordinator - Maintain personnel file for all employees. -Program Staff maintain filing system and periodically purge. -Signed, dated copies of official documents filed by subject matter. -Chronological file contains copy of all correspondence.

Control Objectives:	Control Techniques (examples)
FY 1992/1993: Ensure adequate documentation of Agency policies and programs.	-Designate Records Officer. -EPA Records Management Manual updated and available. -Develop uniform lab-wide records procedures. -Chronological file contains copy of all correspondence. -Standardized file stations. -Designate file custodians for each file station. -Communicate regularly with Headquarters records managers (made objective in 1993).
FY 1993: Communicate regularly with Headquarters records managers.	-IMSD[6] conference calls. -IMSD weekly reports -IMSD yearly conferences

As shown above, FMFIA objectives and techniques were refined to better reflect requirements of good records management consistent with Agency guidance. However, as reported in Chapter 4, the techniques listed were generally not in place. For example, ERL-GB did not: (1) have standardized file stations and designated file custodians; (2) ensure that the Agency's Records Management Manual was updated and available to all record keepers; and (3) develop uniform laboratory-wide records procedures. Neither did the records documentation identify the laboratory staff who were responsible for performance of the individual control techniques. In addition, there were other control techniques that should have been recognized which were overlooked. For example, records responsibilities were not included in the performance standards of managers with significant records responsibilities. Also, EPA records control schedules which governed records creation, maintenance, and disposition were not widely distributed at ERL-GB until April 1993.

Based on our discussions with ERL-GB management concerning record management problems (see Chapter 4), ERL-GB identified records management as a material weakness in their 1993 FMFIA assurance letter.

[6] Information Management and Services Division, Office of Information and Resources Management.

Federal Managers' Financial Integrity Act (FMFIA): ERL-GB's 1991, 1992, and 1993 FMFIA documentation delineated control objectives and related techniques for FMFIA. The 1993 documentation further refined the techniques presented and generally assigned responsibilities for accomplishment. However, the FMFIA process should have formally recognized the input that should be provided by other ERL-GB managers having significant internal control responsibility. For example:

> Control Technique: PICC updates and reviews Event Cycle Documentation at least annually.

FMFIA documentation should recognize that branch managers and other personnel with significant internal control responsibilities should have regular input into the preparation of system documentation.

> Control Technique: PICC Plans FMFIA activities using calendars and documents sent by the ORD MCC, and the Management Control Plan (MCP).

This technique would be enhanced by adding a requirement to prepare an annual ERL-GB work plan for delineating and implementing various FMFIA actions during the year. This would provide better control and direction.

Imprest Fund: ERL-GB's 1991, 1992, and 1993 documentation delineated control objectives and related techniques for the imprest fund. The 1991 and 1992 documentation was very rudimentary and did not assign control responsibility. However, ERL-GB expanded the 1993 documentation to establish more specific control techniques. The refined techniques also assigned responsibility for accomplishment and, if these controls are effectively implemented, they should provide adequate control over the fund.

These and other examples where actual ERL-GB operations did not comply with the 1993 and prior control documentation raised questions concerning the accuracy of the documentation and the degree of ERL-GB's control over implementation. Internal control documentation should reflect actual controls in place and established controls should be consistently followed. ERL-GB has indicated that deficiencies will be corrected.

PERIODIC INTERNAL EVALUATIONS OF INTERNAL CONTROLS NOT PROPERLY PERFORMED

ERL-GB did not periodically or systematically test whether documented internal controls were adequate or functioning. To certify as to the adequacy of event cycle documentation and controls, Agency FMFIA guidance (RMD 2560) requires that control techniques be periodically tested to ensure proper implementation by management staff. Since ERL-GB officials did not test controls and ensure adherence with documented controls for CAs and other administrative activities, internal control weaknesses went undetected. As a result, critical control techniques identified in ERL-GB's FMFIA documentation were either not implemented or were not implemented as intended.

OMB Circular A-123 requires assessable unit managers to schedule ICRs/AICRs each year to review controls. Managers must prepare management control plans (MCPs) which identify component inventory (subunits), by assessable unit, with associated risk ratings and list ICRs/AICRs scheduled for a 5-year period. The OMB Circular states that ICRs/AICRs must test controls, evaluate the effectiveness of the controls, recommend corrective actions, and report on the results. OMB guidelines encourage use of AICRs to streamline the process, but Circular A-123 also states that the AICRs must "determine overall compliance and include testing of controls and the development of required documentation."

ERL-GB's 1993 MCP did not match the planned ICRs/AICRs with the component inventory by subunit as required in Agency Internal Control Guidance for Managers and Coordinators. The guidance provides examples of subunits as branches, staffs, groups, etc. ERL-GB's 1992 MCP identified five subunits: Directors Office, Program Support Staff, Research Program Staff, Ecotoxicology Branch, Pathobiology Branch, and the Microbial Ecology and Biotechnology Branch. However, the 1993 MCP did not identify any subunits. Consequently, the 1993 MCP did not reflect that the assessable unit manager had scheduled ICRs/AICRs that would assess controls in each subunit over a 5-year period. Additionally, ERL-GB relied solely on external ICRs/AICRs by EPA Headquarters and others to fulfill the review requirement. However, these reviews did not necessarily meet OMB criteria for internal control evaluations.

ERL-GB managers did not schedule any ICRs for 1991, 1992, and 1993 -- just AICRs to be performed by external groups. The large majority of the AICRs scheduled appeared to be primarily quality assurance and performance reviews which would not necessarily meet OMB criteria for examinations of internal controls. We reviewed documented AICRs from 1991, 1992, and 1993

and found that the OMB criteria for testing controls was not met or the review results were not documented sufficiently to determine if the criteria was met. None of the AICRs tested controls identified in the FMFIA event cycle documentation to determine whether the controls were working effectively. The only AICR which indicated some testing of controls was a 1992 Headquarters contract management improvement review which identified specific contract problems at ERL-GB. However, the contract management improvement review did not identify the scope of review or identify what, if any, controls were tested. All the AICRs were performed by EPA Headquarters units or other external reviewers and basically summarized discussions of program or administrative concerns. Only the 1992 contract management improvement review resulted in a formalized plan for corrective action.

ERL-GB did not plan and conduct its own ICRs/AICRs, because they apparently did not understand the underlying purpose and requirements for these internal evaluations. OEPER's PICC should have reviewed ERL-GB's MCP for acceptability and monitored the unit managers progress in meeting the FMFIA requirements. However, ERL-GB did not receive any apparent feedback from ORD on its MCP. Therefore, ERL-GB proceeded under the assumption that its approach toward developing the MCP and the scheduled reviews was acceptable to ORD. Scheduled AICRs in the MCP should test all internal control systems over a 5-year period. ERL-GB should plan to test those areas not currently covered under external reviews. ERL-GB should ensure that all the ICRs and AICRs reported on the MCP meet OMB and Agency requirements for internal evaluations of internal control systems.

OEPER OVERSIGHT OF ERL-GB's FMFIA IMPLEMENTATION NEEDED STRENGTHENING

Under EPA Order 1000.24, the Assistant Administrator for Research and Development, as "primary organization head" (POH), is responsible for overall development and maintenance of effective systems of internal control under FMFIA within ORD. EPA policies and procedures specifically state that one of the major objectives of the FMFIA internal control requirements is to provide the POH with reasonable assurance that "programs are efficiently and effectively carried out in accordance with applicable law and management policy."

The Assistant Administrator for ORD assigned, as his representative, a MCC who is assisted by other Headquarters PICCs located within each immediate ORD office. OEPER's PICC is responsible for coordinating, monitoring, and implementing the

Agency's FMFIA guidance within its remote laboratories. The OEPER PICC is also responsible for ensuring that progress is made in implementing FMFIA.

Interviews with ORD's MCC and OEPER's PICC, and a review of related files indicated that each assessable unit manager, including the ERL-GB Director, was individually accountable and authorized to independently implement the FMFIA process. ORD did provide, through OEPER, annual guidance on the preparation of internal control documentation and related reports which emphasized current Agency and ORD FMFIA initiatives. However, the FMFIA submissions were reviewed primarily to determine compliance with the annual guidance. There were no independent Headquarter's level reviews performed that would have specifically identified ERL-GB's FMFIA inadequacies reported in this chapter.

We were informed by the ORD MCC, that some of the FMFIA deficiencies noted in the report were common to other ORD offices and laboratories; however, there was no documentation that ORD senior management notified OEPER or ERL-GB of specific deficiencies in ERL-GB's FMFIA documentation and plans. For example, while ERL-GB's MCP contained obvious deficiencies in its plan and execution of internal reviews, there were no ORD records indicating that problems were brought to the attention of the laboratory. OEPER's PICC did not track or otherwise determine that ERL-GB's scheduled reviews of internal controls were actually performed or that such reviews met established OMB standards. Neither did OEPER analyze event cycle and control objectives and techniques, and other information provided in documentation submitted by ERL-GB to ensure that it was complete, consistent, and met OMB definitions. Instead, ERL-GB FMFIA submissions were accepted with little documented analysis or comment, relying primarily on the assessable unit manager's assurance to the Assistant Administrator that FMFIA was effectively implemented. However, as demonstrated in this Chapter, more needs to be done at the Headquarter's level to provide feedback to ERL-GB on FMFIA deficiencies and ensure that FMFIA is implemented by ERL-GB in a consistent and effective manner.

AGENCY ACTIONS TAKEN DURING OUR REVIEW

During our audit, ERL-GB managers devoted more time to the 1993 FMFIA process and included more input from ERL-GB staff than ever before. In addition, ORD has initiated scheduled teleconferences to discuss emerging FMFIA issues. Also, in late September, early

October 1993, ERL-GB's director, along with other ORD directors, received some initial training on FMFIA.

CONCLUSION

Effective internal controls are essential to safeguard Agency assets, preclude fraud, waste, and abuse, and ensure efficient and effective mission accomplishment. Internal control systems are only as good as the overall effort devoted to implement those systems. In ERL-GB's case, the FMFIA process did not adequately identify internal control weaknesses or ensure proper implementation of FMFIA control objectives and techniques relative to CAs and certain other administrative/management functions. ERL-GB managers did not recognize or understand the importance of FMFIA requirements. None of ERL-GB's managers had received training in FMFIA purposes and requirements. As a result, critical control objectives and techniques were either not identified in internal control documentation or improperly implemented. ERL-GB's noncompliance with FMFIA requirements may have contributed directly to the problems discussed in other chapters of this report.

RECOMMENDATIONS

We recommend that the Assistant Administrator for Research and Development require proper implementation of ERL-GB's FMFIA internal control process to ensure material weaknesses are properly identified and adequate controls are established for extramural resource management and administrative processes. Specifically, the Assistant Administrator should require the:

Director, Office of Environmental Processes and Effects Research to:

- Advise the ERL-GB director of the importance of proper implementation of the FMFIA and the establishment of effective internal control systems over critical laboratory operations.

- Include as part of any future on-site management review at ERL-GB the evaluation of FMFIA implementation.

- Require the OEPER PICC to increase oversight of ERL-GB's FMFIA process to assure that:

  * ERL-GB's internal control documentation is complete and all activities (event cycles) involved in the laboratory's mission, as related to other ERL submissions, are included.

PICC should also evaluate whether related control objectives and techniques appear sufficient to reduce the potential risks.

* Internal and external reviews listed on ERL-GB's MCP are designed to test controls, evaluate effectiveness of controls, recommend corrective actions, and report on the results.

In addition, the Assistant Administrator for Research and Development should require the:

Director, Environmental Research Laboratory - Gulf Breeze to:

- Establish more effective oversight of all laboratory FMFIA documentation and implementation to ensure that laboratory managers properly implement FMFIA requirements in compliance with statutory, EPA, and ERL-GB procedures.

- Include internal control responsibilities in the performance agreements of all managers.

- Closely monitor the laboratory's FMFIA process and verify that managers are held accountable for proper implementation of controls and appraised on their FMFIA performance.

- Arrange for or provide FMFIA training to all ERL-GB managers and personnel with internal control responsibilities.

- Require ERL-GB PICC to: (1) assure that assessable subunit managers' are cognizant of and perform their FMFIA responsibilities and (2) prepare and distribute an annual work plan to those having FMFIA responsibilities. The work plan should encompass all planned FMFIA activities for the year and assign responsibility for completion of each task with milestone dates. Progress in completing the plan should be tracked during the year with exceptions reported to the assessable unit manager.

- Continue to review FMFIA processes and update documentation at ERL-GB. In conjunction with OEPER, establish that:

  * Detailed control objectives and techniques are identified for all critical event cycles and are tailored to ERL-GB operations both administrative and operational.

  * Control objectives and techniques are documented in sufficient detail to permit the testing and evaluation of control implementation through ICRs and AICRs.

- Schedule and conduct AICRs/ICRs which cover controls for each subunit at least once every 5 years. Also, require the MCC to maintain an MCP that:

  * Lists all subunits, and schedules and tracks completion of reviews by those same subunits.

  * Lists only, as ICRs/AICRs, those scheduled reviews which are designed to: test the specific controls documented for the activity under review; evaluate effectiveness of those controls; recommend corrective actions; and formally report on the results as required by OMB Circular A-123.

  * Schedules reviews over a five year period which adequately cover the control objectives and techniques in the event cycle documentation.

- Require the PICC to track weaknesses identified by internal reviews and the corrective actions taken.

AGENCY RESPONSE

ORD concurred with the findings and recommendations presented in Chapter 3 and indicated that a corrective action plan to address the recommendations would be provided to the OIG as soon as possible (see Appendix I).

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CHAPTER 4

IMPROVEMENT NEEDED IN DOCUMENTING MANAGEMENT DECISIONS AND PROTECTING CRITICAL RECORDS

ERL-GB needs to consistently document critical organizational functions and management decisions and properly protect critical records related to CAs and other laboratory operations to avoid loss of valuable corporate knowledge and ensure protection of Government interests. Although the Agency's records management requirements for record maintenance, retention, and control were in effect since 1984[1], implementation by ERL-GB was not initiated until 1992 and had only been partially implemented at the conclusion of our audit. Record maintenance and retention practices in place reflected the individual preferences of laboratory managers and staff rather than Agency requirements, thus creating a patchwork of inconsistent, uncontrolled systems throughout the laboratory. Basically, insufficient direction, support, and priority by ERL-GB and ORD management prevented the timely implementation of a sound records management system at the laboratory. Records were created, maintained, and destroyed on an individual discretionary basis without regard for or proper awareness of Federal and Agency regulations. As a result, critical documentation regarding CA award and management was either never created or was missing from laboratory files. Also, evidence was obtained that records had been destroyed without documentation as to what was destroyed and whether such records were or were not controlled official documentation of management decisions or mission accomplishments.

Although Agency requirements for control and retention of in-house research documentation has existed, at least, since 1978, neither the Agency, ORD, or ERL-GB had procedures to ensure control and protection of research records in the possession of contractors and cooperators. ERL-GB contracts and CAs, on occasion, did contain references to 40 CFR, Part 30, which addressed the maintenance and control of financial records related to the particular contract or CA. However, there were no general or specific provisions for control of operational or research records created as a result of the contractors' or cooperators' activities. Contractors and cooperators were left to devise their own records management and retention systems. This created an unreasonable risk that valuable research documentation could be inadvertently lost or destroyed.

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[1] EPA Directive 2160, Records Management Manual, has been in effect since 1984. However, current EPA records control schedules have been in effect since 1978.

As a result of records maintenance and retention problems reported by the National Archives and Records Administration, ORD planned and initiated several major actions during this audit that should improve and enhance records management at ORD laboratories. The specific actions taken or planned for FY 1993 and the impact on ERL-GB's operations are discussed later in this chapter and summarized in Appendix VIII. After discussions of preliminary audit results with laboratory management, ERL-GB, in October 1993, reported records management as an Agency-level internal control weakness in its year-end Federal Managers' Financial Integrity Act (FMFIA) assurance letter to the Assistant Administrator for Research and Development.

BACKGROUND

Prior NARA Reviews of EPA Records Management

In 1977, the National Archives and Records Administration (NARA) inspected EPA's records management program and made recommendations for the establishment of a sound records management system within the Agency. In 1990, NARA conducted a follow-up evaluation of EPA's records management system[2] which involved visits to 52 EPA offices and included ORD Headquarters offices and selected field laboratories. NARA found that EPA had not implemented an Agency-wide records management program in accordance with its own guidance to ensure that records control schedules were appropriately applied. NARA reported that while EPA had improved its program in a number of areas, several of its 1977 recommendations still were not implemented. NARA concluded that EPA's inaction had resulted from a "... lack of senior management support and leadership for an improved records management program."

EPA Records Management Directives and Guidance

EPA's records management program is founded on EPA Directive 2160 - *Records Management Manual* (1984 edition). Additional policy guidance is provided in EPA Directive 2100 - *Information Resources Management Policy Manual*, Chapter 10 "Records Management" (1987 edition).

At the conclusion of our on-site audit fieldwork in September 1993, ERL-GB had not fully implemented a record management system

[2] A National Archives and Records Administration Evaluation: Records Management In The Environmental Protection Agency, February 19, 1992.

as specified in the subject Agency guidance. The same EPA-wide condition was reported by NARA in 1992.

ELEMENTS OF A SOUND RECORD MANAGEMENT SYSTEM NOT IMPLEMENTED

In the 1992 followup report, NARA identified five essential elements for an effective records management program:

- A clear definition of program objectives, authorities, and responsibilities.

- Sufficient and qualified staff to implement and administer the program.

- Formal and continuing training for staff members with records management responsibilities.

- Regular internal evaluations to monitor the effectiveness of the program and to identify real and potential problems within the program before they cause severe damage.

- Top-level management support to ensure that the above elements exist and are carried out.

EPA directives indicated that a records management system will identify the location of all critical records at a facility, especially the official files listed in Records Management Manual control schedules. These control schedules identify various files as official records, the period of required retention, and examples of documentation included in each category. ORD laboratories have a specific records control schedule in the Records Management Manual.

To safeguard these official records, EPA directives specify designation of official file stations, file custodians, and a records management officer (RMO) to control and maintain those official records identified in control schedules and other critical records as identified by Agency or laboratory management. In addition, EPA records management guidance provides for a vital records program to safeguard records needed for the Agency to function after an emergency or disaster and a vital records officer for each EPA location. EPA guidance further identifies specific laboratory records considered vital to Agency functions in the event of an emergency or disaster.

ERL-GB had not implemented the elements of a sound records management system to include appointment of sufficient qualified,

trained staff and proper designation of critical records as specified in Agency guidance. By not establishing a formal records management program and providing adequate guidance and training to those responsible for records, ERL-GB encouraged a situation where individuals with record keeping responsibilities developed their own records management methods and procedures. Individual managers and staff also determined individually what records to create and how they were to be maintained and controlled without proper consideration of NARA and Agency requirements (i.e., EPA's records control schedule for laboratory records as approved by NARA). In addition, records disposition procedures were determined by individual managers based on available file space rather than file retention timeframes established under EPA record control schedules. As a result, critical records were not created to document management decisions related to CA and other program operations. Also, records were destroyed without documentation as to what was destroyed or whether these records were of an official or critical nature.

Sufficient Qualified, Trained Staff

ERL-GB did not have sufficient, qualified and trained staff assigned to implement and administer its records program. In 1992, ERL-GB designated a RMO. This is the only records management position specified in Agency directives that had been designated at ERL-GB. Further, the individual designated as the RMO was overburden with other administrative duties and did not have sufficient time or staff to perform her records management duties. ERL-GB had not appointed a vital records officer, designated file custodians, and none of ERL-GB's staff having records maintenance responsibilities, including the RMO, had received required records management training. As a result, records management was given low priority.

The ERL-GB's Chief of Program Support - Administrative Office was designated as the RMO. However, records management was assigned as a collateral duty. The Chief's other areas of responsibility included personnel, budgeting, purchasing, payroll, training, property management, automatic data processing, program planning, and other miscellaneous administrative activities. The miscellaneous duties included serving as PO on four on-site contracts and as the designated FMFIA coordinator. According to EPA Directive 2160, Records Management Manual, local RMOs must not only be qualified to perform the duties assigned, but also

have the status and sufficient time to:

- develop policies, directives, and instructional materials governing the organization, maintenance, and disposition of all records within the organizational unit;

- provide staff advice, guidance, assistance, and training in all aspects of the records/information management program;

- coordinate and evaluate records management program efforts and effectiveness by making periodic surveys of information systems;

- plan and coordinate a Vital Records Program; and

- coordinate the retirement and retrieval of records to the Federal Records Center.

The Chief of Program Support with appropriate training, would be a qualified individual to perform as the laboratory's records manager. However, when the records manager was appointed, her workload was not adjusted to allow adequate time to effectively perform RMO duties. Neither was she provided additional staff to assist in accomplishing the objectives of records management. ORD's action plan, in response to the 1992 NARA review, stated that designated records managers would not only have the status but sufficient time to devote to establishing a sound records management program. However, this action was not properly implemented at ERL-GB.

At a December 1993 exit briefing, the laboratory director said that he was relieving the RMO of PO duties for three of the on-site contracts and making other adjustments in her workload to allow her more time for records management.

Identification and Control of Official Laboratory Records

ERL-GB had not completed a survey to identify laboratory recordkeeping requirements as proposed under EPA Directives and, therefore, did not possess adequate knowledge of laboratory records processes and the location of all official files. As a result, there were no officially recognized file stations except for records maintained in the ERL-GB Administrative Office and Office of the Director. Also, required file maintenance plans were not established for all areas where official records were maintained and there were no officially recognized file custodians.

During our review, official records were found in branch offices, and in the files of contractors, cooperators, and individual staff members. These locations had no assigned accountability for records management. None of these sites were recognized as official file stations. In addition, none of the sites, including the Administrative Office and the Office of the Director, were assigned file custodians or required to follow an approved file maintenance plan as specified in the Records Management Manual. Filing systems were individually developed and inconsistent between various laboratory offices. Therefore, records outside the Administrative Office and the Office of the Director were maintained on an unofficial basis without proper controls and protection from loss or destruction.

According to Chapter 7 of the Records Management Manual (Files Maintenance), 41 CFR requires that official file locations - "file stations" - be established for the filing of official records. A file station would be every separate location within an organizational unit where records of any kind are accumulated in an organized manner. A file custodian should be assigned responsibility for the operation of each file station in accordance with a formal file maintenance plan submitted to the local RMO.

Without knowledge of the various types of records being created at ERL-GB and oversight of records practices, management could not assure that management actions and laboratory operations were adequately documented, and that Government records were being appropriately maintained and disposed.

The laboratory director at the December 1993 exit briefing indicated that they had initiated an inventory of all records maintained at ERL-GB, however, the inventory is not yet complete.

Vital Records Program and Officer

Although EPA guidance identified specific laboratory records that were considered vital for emergency or post-emergency operations, ERL-GB had not recognized the need for a vital records program. Therefore, a vital records officer was not designated and procedures for safeguarding vital records specified in Agency guidance were not implemented. As a result, ERL-GB operations may not be adequately protected in case of disaster. Such a disaster could mean the destruction of ERL-GB's vital records resulting in the permanent loss of valuable program and research records and the disruption of program operations.

According to Chapter 4 of the Records Management Manual, vital records are records that are essential to the Agency in carrying

out its functions in emergency and post-emergency situations, and in protecting the legal rights or interests of individuals and the Agency. The selection of records as "vital" would include those of archival or research value, as well as those records with no lasting value that would be valuable during and after an emergency.

EPA's Records Management Manual also provided for the designation of a vital records officer at each laboratory. This officer would be responsible for implementing and administering ERL-GB's vital records program which would include identifying all of the laboratory's vital records and sending vital records to approved alternative sites for preservation. A copy of these records would be retained for laboratory use.

In 1977, NARA reported that EPA had directed a formal vital records program in Agency guidance; however, implementation had not occurred. NARA recommended that EPA implement its vital records program at all organizational levels. In the 1992 followup review, NARA reported that the status of EPA's vital records program was virtually unchanged and concluded that:

> Any significant loss of data through natural disaster or sabotage would devastate the performance capabilities of EPA and would adversely effect the numerous persons, organizations, and state and local governments the agency is supposedly protecting.

RECORDS MANAGEMENT - A LOW PRIORITY

It was not until 1991 that ERL-GB recognized records management as a controllable event cycle in its internal control documentation (See Chapter 3), and 1992, under prompting by ORD Headquarters, that a local RMO was designated. ERL-GB managers were not cognizant of EPA records management requirements and their individual responsibilities for effective implementation. Therefore, ERL-GB managers and their staffs did not recognize the importance effective records management played in day-to-day laboratory operations. At the time of our audit ERL-GB had not distributed existing guidance to establish a records management system consistent with Agency directives. As a result, ERL-GB operated under inconsistent records practices that did not always adequately document laboratory operations and safeguard the records that were created.

The ERL-GB staff we interviewed, who had record keeping responsibilities, confirmed that they were not provided any records guidance other than what was recently distributed by the

RMO in April 1993. This was old guidance which had been provided to ERL-GB by ORD Headquarters as a result of record management problems identified by the OIG in recent audits of other ERL laboratories. None of the individuals we interviewed during the audit, including the laboratory director's secretary, were familiar with general EPA directives on records management. Only one copy of EPA Directive 2160 could be located at ERL-GB. This copy was in the ERL-GB Administrative Office and it was incomplete.

At a December 1993 exit briefing, the laboratory director indicated the statement that records management at ERL-GB was "low priority" may be an incorrect description. He said until recently records management had "no priority" at ERL-GB.

CRITICAL RECORDS NOT CREATED OR PRESERVED IN CA AND CONTRACT FILES

Chapter 1 of the EPA Records Management Manual states that the Agency will make and preserve records to provide adequate and proper documentation of operations. In addition, Agency records may not be destroyed without the prior approval of NARA. NARA provides its approval of record retention and destruction in the form of EPA records control schedules. Since 1978, EPA has had a NARA approved records control schedule for research laboratory records [Records Management Manual, Appendix E (Transmittal TN28, November 13, 1978)]. A record control schedule represents the inventory of official/critical records within a program or activity. In addition to a records inventory, the schedule also provides a brief description of the file, the types of records to be included, and specific information on the period of retention and disposition instructions for each item. According to the Records Management Manual, all EPA employees are charged with the responsibility of ensuring that records actions agree with the records control schedules. Compliance with EPA's records control schedules is essential to ensure that records determined to have long-term value are properly prepared and adequately protected.

CA and Contract Records

In reviewing various CA PO files, inconsistencies were noted in what records were created and how they were maintained. As stated above, the records control schedule for laboratory records provides examples of documents that should be included in particular CA files. For example, research case files for projects conducted by cooperators should include proposals (including rejected proposals), applications, relevance reviews, decision memos, award and modifications, funding orders,

commitment notices, grant agreement, cost advisory reports, progress reports, and related correspondence including reports on site visits, telephone memos, and other records which may be created in the day-to-day management of the research project. However, the CA files we reviewed routinely lacked documentation which was specifically identified in the records control schedule.

For example, the 12 rejected proposals from a series of 17 full proposals for CA awards could not be located. These proposals were requested under a competitive nationwide request (August 30, 1991) resulting in the award of 5 CAs totalling $2.5 million. The records control schedule specifies that rejected proposals are to be retained for three years. At the time of our review (June 1993), less than two years had expired since this solicitation. The record keeper indicated that the rejected proposals were shredded due to file space shortage at ERL-GB. According to the record keeper, a new procedure had been put in place to document rejected proposals. Under this procedure the front page of the application, the transmittal letter, and the letter of acknowledgement for the proposals would be kept with all other information destroyed. At a December 1993 exit briefing, the laboratory director stated that he was not aware of this new procedure and it was not laboratory policy as far as he was concerned. Nevertheless, the record-keeper presented this as an acceptable approach for documenting rejected proposals and apparently thought that this decision was within her authority. This new proposed procedure, whether or not sanctioned by the laboratory director or even put in place, and the old accepted practice of destroying rejected proposals conflicted with the three year retention requirements established in the records control schedule. The potential existence of a records policy without the knowledge or approval of the laboratory director, in our opinion, further demonstrates the absence of control over records at ERL-GB.

In another CA research competition (June 16, 1992), the decision process for awarding $1.6 million in CAs was not documented to clearly show how the award selections were made. Conflicting statements were made by those involved in the awards on how the selections were determined. Accurate documentation of the decision process would have eliminated this confusion and provided evidence of an unbiased competitive award process. Our review further disclosed that CA POs consistently did not receive required reports/records from cooperators (i.e., progress reports) or document their own PO activities (i.e., site visits, telephone memos).

An example of insufficient documentation of contracting decisions was also found during our audit survey of ERL-GB extramural activities. Laboratory records could not be found that documented the decisions to (1) award a $4 million on-site 8(a) contract, (2) modify the same contract eight months after award to increase the maximum potential value by approximately $10 million, and (3) extend the contract for an additional year. The PO told us during the survey that he had no knowledge as to the location of the contract pre-award files. In addition, neither the PO nor other ERL-GB staff could provide specific information on the decision processes for this contract. The verbal statements provided by those involved in the contract were sometimes contradictory about what happened and why. However, without written records that documented what actually occurred there was no way to evidence the pre-award and contract management process. Files documenting contract award and management apparently had been prepared, but both past and current POs had no knowledge of the files or their current location. The original PO said that he had no personal knowledge of the files being destroyed; however, no ERL-GB files were ever sent to the Federal Records Center. Therefore, these files had been lost or destroyed without the POs knowledge.

In written response to this finding, the laboratory director stated that "... official contract procurement records and documentation are maintained in CMD, Cincinnati." This is true; however, official records which document contract award justifications/processes are required by ORD's laboratory records control schedule to be generated and maintained at ERL-GB. The purpose of records control schedules and the utilization of Federal Records Centers is to provide necessary controls to ensure that Government records are prepared, maintained, and safeguarded until no longer determined useful and then destroyed in accordance with approved NARA retention requirements.

Records Destruction

ERL-GB had not consistently followed the Agency's records control schedule for laboratory records. Those ERL-GB officials and staff with record keeping responsibility disposed of records based on their individual standards for retention, and stored records based on their perceived needs. When additional file space was needed, those records deemed to have long-term or permanent value were not forwarded to the Federal Records Center as required, but were destroyed or maintained on-site when possible. ERL-GB's primary storage space was located in a supply warehouse.

Approximately 70 boxes of various types of archived records were stored in a ERL-GB warehouse. According to ERL-GB managers, this represented all the laboratory's archived records. Only 70 cartons of archived records from the 1960's to 1993 indicated that many official records listed in the laboratory control schedule may not have been retained as required. In addition, as discussed in the previous section, ERL-GB's inability to produce scheduled records further indicates a lack of retention.

During the audit, OIG investigators obtained evidence that a number of laboratory records (primarily contract files) were destroyed prior to initiation of our audit survey (May 1992). These records were apparently destroyed by on-site contractor staff based upon instructions from EPA staff. However, the poor records procedures at ERL-GB precluded identification of the nature of the records destroyed and whether official laboratory records included in the laboratory records control schedule were properly disposed.

Records Storage

The storage space provided in the supply warehouse for archived records did not meet the standards established for records storage set by NARA at its Federal Records Centers. At the initiation of the audit, older ERL-GB records were stored on pallets in the supply warehouse intermingled with various types of supplies. Recently, ERL-GB moved these records to the attic of the supply warehouse. While this is an improved location, the space still does not adequately protect these records because the electrical equipment room has no humidity control or sprinkler system. In its 1992 report, NARA criticized other EPA facilities for using similar records storage arrangements in lieu of Federal Records Centers.

CRITICAL AGENCY RECORDS IN POSSESSION OF CONTRACTORS/COOPERATORS NOT PROTECTED

ERL-GB did not exercise control over records in the possession of contractors and cooperators. ERL-GB did not include provisions in contracts or CAs or issue specific instructions to contractors and cooperators related to the creation and maintenance of critical laboratory records produced under related contracts or agreements. The maintenance and preservation of information that contractors and cooperators generated in the process of performing under an agreement was left to their professional discretion. While quality assurance plans normally documented the scientific approach of the CA research, the extent of direction provided on documenting the research data developed

were statements such as: "... experimental procedures and primary data should be recorded in laboratory notebooks and computer files." Neither the quality assurance plans nor the extramural agreements specified contractor/cooperator requirements related to records creation, maintenance, retention periods, and disposition. Therefore, records created under an extramural agreement supporting research performance (e.g., records that could provide the basic support for research products or other work performed), which are not delivered to EPA on closure of the agreement, may not be adequately safeguarded.

ERL-GB's RMO stated that she was not aware of any guidance which addressed the issue of records in the hands of contractors and cooperators other than financial records. We agree. However, records generated under contract or CA may have significant value as a permanent record similar to that recognized for in-house research in the laboratory records control schedule. For in-house research, the records control schedule indicated that research project case files are subject to permanent protection. This would include documentation on originating, planning, conducting, and reporting on the research. According to the schedule, these types of records should be maintained at the laboratory for three years after completion of the project. After three years, the files should then be transferred to the Federal Records Centers. The files are kept at the Federal Records Centers for 20 more years of protected storage and then offered to the National Archives. If in-house research files are regarded as having such long-term value, the Agency should not accept any less protection for research project files developed under extramural agreements.

Both the laboratory director and the deputy director indicated that, while rare, there have been occasions when supporting data generated under extramural agreements had to be retrieved from the contractor or cooperator. The Agency RMO subsequently told us that he believed that cooperators and contractors should either be required to comply with EPA's record control schedules or deliver supporting research records directly to the Agency.

The laboratory director at the December 1993 exit briefing stated that retention/control requirements for contractor or cooperator operational records was not required and he did not believe such requirements were needed, especially for cooperators. He said cooperators receive assistance not contracts and the records created belong to the cooperator. He indicated such requirements would just add more overhead burden on academic institutions. However, we pointed out that retention of financial records was currently required under CAs and that cooperators and grantees were required to maintain records for possible audit. Therefore,

we saw no additional administrative burden for records retention provisions in line with EPA records management policies. However, EPA has the option of requiring the cooperator to deliver all research records (or a copy of such records) to the Agency upon completion of the agreement.

REGULAR INTERNAL EVALUATIONS OF RECORDS MANAGEMENT DID NOT OCCUR

ERL-GB did not regularly review existing laboratory records management practices for effectiveness and compliance with Agency policy. For example, an internal evaluation had never been performed of the ERL-GB's only official records management procedure (chronological correspondence files) to ensure proper staff implementation of the established policy. When asked about internal evaluations of ERL-GB records procedures, the RMO discussed reinforcing the requirement to provide two copies of all correspondence for chronological files at secretarial meetings. However, the RMO conceded that no testing had been performed to actually verify compliance. NARA emphasized in its report that regular internal evaluations of records procedures were necessary to determine the effectiveness of established records practices and to identify real and potential problems before they can cause severe damage.

Other than the requirement to forward copies of correspondence to the Administration Office for inclusion in a chronological file, there were no ERL-GB record procedures to evaluate. However, when ERL-GB does implement record procedures to create, maintain, and dispose of records in accordance with Agency policies and records control schedules, internal evaluations should be the primary management control to ensure that its policies and procedures are being properly implemented.

AGENCY ACTIONS TAKEN DURING THE AUDIT

In response to the February 1992 NARA report, EPA provided NARA a corrective action plan in July 1992 with individual plans for each major Headquarters program, including ORD. For its response, ORD drafted one basic plan to encourage records management continuity throughout ORD offices and laboratories. ORD recognized that, since the Office of Information and Resources Management (OIRM) had EPA-wide responsibility for issuing policies and procedures related to records management, extensive assistance and support from OIRM would be necessary to successfully complete many of its planned actions. ORD promised to work closely with OIRM in (1) reviewing existing records

guidance, (2) revising ORD records control schedules, and (3) implementing an acceptable records management program within ORD.

Corrective actions ORD proposed in response to the NARA report would also address many ERL-GB records management problems identified in this chapter. At the time of our audit, some of these actions had either been completed, were in process, or were planned for future action. However, several completed actions resulted in little improvement in records management at ERL-GB. Those actions planned for completion in fiscal 1993 and their direct impact on ERL-GB's record management are summarized in Appendix VIII.

CONCLUSION

ERL-GB's needs to significantly improve its records management to ensure creation of appropriate official records, protect critical research and operational records from loss or premature destruction, and preclude disruption of Agency operations in the event of disaster. Current records management practices were not consistent with Agency policies and procedures for records creation, maintenance, or disposition. With only minimal guidance on records management and without any formal records management training, ERL-GB staff were assigned records management as a collateral duty. As a result, records management did not receive proper emphasis at ERL-GB and records practices were often inconsistent and uncontrolled within ERL-GB's various operations. Required file documentation was found to be missing and, sometimes, unaccounted for. In addition, records were destroyed without proper accountability as to what was destroyed and whether these records were official controlled documentation of laboratory operations.

ORD needs to continue to move toward accomplishing its NARA corrective action plan to improve records management. In particular, ORD and OEPER need to ensure that ERL-GB moves in the same direction. ERL-GB has been slow in developing consistent record keeping practices in accordance with Agency directives and records control schedules.

RECOMMENDATIONS

Effective implementation of ORD's proposed corrective actions in response to the 1992 NARA report on EPA records management should provide significant progress in resolving most of the issues presented in this chapter. However, in addition to those actions already proposed or taken, we recommend that the

Assistant Administrator for Research and Development:

- Determine if research records in the possession of research contractors and cooperators have the same long-term value as the in-house research files described under existing records control schedules. If so, require that special conditions to extramural agreements contain appropriate direction on the creation, maintenance, retention, and disposition of these critical records.

- Evaluate whether records management is a pervasive problem in OEPER laboratories. If similar problems exist at other laboratories, OEPER and ORD should consider reporting records management as a material internal control weakness in their next FMFIA report.

Also, we recommend that the Assistant Administrator for Research and Development require the:

Director, Office of Environmental Processes and Effects Research to:

- Revise the ERL-GB laboratory director's performance standards to reflect the importance of good records management practices and his responsibility to ensure the effective implementation of a records management plan consistent with EPA's directives and records control schedules.

- Coordinate and assist ERL-GB in the implementation of sound records management policies and procedures and, as currently planned (see Appendix VIII) through on-site reviews, determine that ERL-GB implements and maintains an effective records management program.

Director, Environmental Research Laboratory - Gulf Breeze to:

- Provide sufficient time and/or resources for the Chief Program Support - Administrative Office to accomplish her RMO duties.

- Conduct a survey of all of current laboratory records to identify types of records maintained and current procedures for safeguarding and maintaining critical laboratory documentation.

- Based on the records survey, designate official file stations and assign file custodians to be responsible for records maintenance within their areas of responsibility.

- Schedule appropriate records management training for key managers, the RMO, and other staff with record keeping responsibilities (e.g., file custodians).

- Revise the performance standards of the RMO and all other key personnel having records responsibilities to include a critical performance element for sound records management and effective implementation of Agency directives and records control schedules.

- Establish laboratory procedures for the creation, maintenance, retention, and disposition of official records consistent with EPA's record control schedules for laboratory records. The procedures should include the proper utilization of the Federal Records Center for records storage.

- Identify those ERL-GB records that would be considered vital and subject to the special protection afforded such records under the EPA's vital records program. Once identified, implement a vital records program at ERL-GB as specified in EPA's Records Management Manual.

- Establish as an FMFIA control technique, regular internal evaluations of existing record management practices to determine the effectiveness of established records procedures and to correct problems that may cause premature loss or destruction of critical laboratory records.

- Provide visible support for the RMO's implementation of a records management program at ERL-GB consistent with established EPA directives and record control schedules.

AGENCY RESPONSE

ORD concurred with the findings and recommendations presented in Chapter 2 and indicated that a corrective action plan to address the recommendations would be provided to the OIG as soon as possible (see Appendix I).

AGENCY RESPONSE TO THE DRAFT REPORT AND OIG EVALUATION

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAR 24 1994

OFFICE OF
RESEARCH AND DEVELOPMENT

MEMORANDUM

SUBJECT: Management of Cooperative Agreements at ERL-Gulf Breeze, Draft Audit Report No. E1JBF2-04-0386

FROM: Gary J. Foley
Acting Assistant Administrator
for Research and Development (8101)

TO: Elissa R. Karpf
Associate Assistant Inspector General
for Acquisition and Assistance Audits (2421)

We have reviewed the draft audit report on Management of Cooperative Agreements at the Environmental Research Laboratory, Gulf Breeze, Florida (ERL-GB). Your audit staff has provided us with valuable insights concerning activities we need to undertake to strengthen our management systems. Please extend our thanks to the audit team for bringing these matters to our attention.

Except as noted below, we concur with the findings and recommendations and will correct all deficiencies highlighted in the draft audit report. We will provide you with a more detailed action plan and schedule as soon as possible.

The audit applies a model for assistance agreements that we believe may differ from that envisioned under USC 31 and EPA guidance. For example:

- Research activities that serve a public purpose and benefit EPA are not mutually exclusive concepts. As long as the principal purpose is public stimulation or support, then the use of assistance is proper. The audit appears to use the fact that research results are of interest or use to EPA as prima facie evidence that a contract should have been used. The test should be the principal purpose test.

- The audit calls for a type of financial monitoring by ORD project officers that may not be appropriate for assistance agreements according to the guidance and practices of the Grants Administration Division.

AGENCY RESPONSE TO THE DRAFT REPORT
AND OIG EVALUATION

- The audit's recommendation to "instruct POs to refrain from involvement in cooperator . . . budget preparation" should be revised. A critical difference between contracting and assistance management is in the Government's pre-award relationship with the outside party to the agreement. We believe that it is proper for Project Officers to "involve" themselves with cooperators prior to award. This can include discussions on the scope of work (and thus influence the budget). We concur that in competitive actions, all organizations must be treated fairly and equally. We also concur that EPA should not intervene in cooperator personnel decisions. However, the audit's recommendation as stated needs to be clarified so that it complies with EPA and Federal assistance management policy.

As part of our corrective action plan, we will work with the Grants Administration Division to ensure that our use of assistance agreements complies with USC 31 and EPA guidance. I would also urge your staff to ensure that its interpretation of EPA and Federal policy is consistent with the Grants Administration Division's -- or, if it is not, that the matter be resolved between your two respective offices.

As we have discussed previously, we would like audit findings to be explicit and definitive whenever possible. Where you have found mistakes, or good management practices, please be clear about it. A few examples from the first page of the "Principal Findings" section (page iii) illustrate what I believe we need to avoid (our emphasis in bold):

". . . ERL-GB managers used CAs (potential valued at $7.25 million) to procure goods and services when contracts were **the more appropriate funding instrument**"

". . . awards exhibited **attributes of favoritism**"

". . . **These questionable actions**"

". . . **Questionable EPA involvement in cooperators' decisions, exhibited evidence of personal service**"

These statements imply deficiencies without clearly stating them. We recommend that if the audit found favoritism, personal services or other wrong practices, to say so explicitly.

AGENCY RESPONSE TO THE DRAFT REPORT AND OIG EVALUATION

-3-

For your information, I am attaching the proposed response from ERL-GB which includes proposed corrective actions. This attachment is not to be used as ORD's official corrective action listing. We are in the process of reviewing these actions and will submit an ORD corrective action plan in the near future.

Finally, I would like to let you know that we appreciate the audit's positive statements about our efforts under way to improve our management activities. Just as we need to know where we are making mistakes, we also benefit from an objective auditor's findings concerning what we are doing right. Your highlighting the Laboratory's efforts to improve its Federal Managers' Financial Integrity Act (FMFIA) and your recommendations for further improvement will reinforce our management improvement efforts.

Thank you for the opportunity to comment on your draft report.

Attachment

OIG EVALUATION OF AGENCY RESPONSE

We agree with ORD that 31 U.S.C. (codification of FGCAA) and EPA guidance permits the use of CAs to fund research when the principal purpose is for public stimulation and support. However, we did not intend for the report to imply that the statutes or guidance preclude all research which may be of some benefit or interest to EPA. OIG interpretations and citations of 31 U.S.C. and EPA guidance used in this report were provided to OGC for review and comment and changes were made as recommended by OGC. Also, GAD did not take exception to our interpretation of guidance or statutes.

We did not state that research of interest or incidental benefit to EPA precluded the use of a CA to perform such research. All of the research performed under the 15 CAs we sampled, we believe, were of some interest or benefit to EPA or the CAs would not have been funded. The appearance of benefit to EPA may have been a criteria for selecting a CA for audit review, but no exception was taken if the CA files and ERL-GB staff interviews revealed that the principal purpose of the funded research was for public support and stimulation. As a result, in 6 of the 15 CAs reviewed we did conclude that the use of a CA or grant to fund the proposed research was proper because the principal purpose was public support and stimulation despite any obvious

AGENCY RESPONSE TO THE DRAFT REPORT AND OIG EVALUATION

EPA interest or indirect benefit to EPA's mission. However, in 9 instances we questioned the use of CAs because the preponderance of evidence obtained during the audit indicated that the principal purpose of the funded research was to benefit EPA directly and significantly.

In response to ORD's comments related to the recommendations regarding PO financial monitoring of CAs and PO involvement in cooperator budgets, we modified the language in the recommendations to address ORD's concerns.

We added the phrase "in consultation with GAD" to the recommendation concerning PO financial oversight responsibilities. However, we could not find any statement or recommended action in the report relative to financial oversight processes that were not already required in EPA's Assistance Administration Manual or in the special conditions of the applicable CAs.

We agree with ORD that POs should discuss proposed scopes of work with potential cooperators prior to CA award and be involved in the review and finalization of cooperator budgets to ensure efficient and effective use of CA monies. However, our recommendation was intended to address those instances where the PO was actually involved in preparing those parts of the cooperator's budget related to on-site cooperator personnel who were requested by the PO. This situation gives the appearance that the cooperator did not plan this position and the on-site staff are for the PO's (augmentation of PO resources) rather than the cooperator's benefit. Therefore, we changed the recommendation to state, "Instruct POs to refrain from direct involvement in cooperator personnel decisions and the preparation of budgets related to those decisions."

In conclusion, we also made editorial changes requested by ORD where we determined such changes were appropriate or did not affect the clarity of the report's findings.

GLOSSARY OF ACRONYMS AND ABBREVIATIONS

AA	- Assistant Administrator
AAU	- Assistance Administration Unit
AICR	- Alternative Internal Control Review
CA	- Cooperative Agreement
CAMR	- Cooperative Agreement Management Review
CFR	- Code of Federal Regulations
COI	- Conflict of Interest
EMAP	- Environmental Monitoring and Assessment Program
EMAP-NC	- Environmental Monitoring and Assessment Program - Near Coastal
EPA	- Environmental Protection Agency
ERL-A	- Environmental Research Laboratory - Athens
ERL-GB	- Environmental Research Laboratory - Gulf Breeze
FAR	- Federal Acquisition Regulations
FGCAA	- Federal Grant and Cooperative Agreement Act
FMFIA	- Federal Managers Financial Integrity Act
FSR	- Financial Status Report
FTE	- Full-Time Equivalent
FY	- Fiscal Year
GAD	- Grants Administration Division
GAO	- General Accounting Office
GCRL	- Gulf Coast Research Laboratory
IAG	- Interagency Agreement
ICR	- Internal Control Review
IG	- Inspector General
IMSD	- Information Management and Services Division
LOE	- Level of Effort
LPMIS	- Louisianian Province Information Management System
LSU	- Louisiana State University
MCC	- Management Control Coordinator
MCP	- Management Control Plan
NARA	- National Archives and Records Administration
NELHA	- Natural Energy Laboratory of Hawaii Authority
NETAC	- National Environmental Technology Applications Corporation
NOAA	- National Oceanic and Atmospheric Administration
NRC	- National Research Council
OARM	- Office of Administration and Resources Management
OEPER	- Office of Environmental Processes and Effects Research
OER	- Office of Exploratory Research
OGC	- Office of General Counsel
OIG	- Office of Inspector General
OIRM	- Office of Information and Resources Management
OMB	- Office of Management and Budget
ORD	- Office of Research and Development
PI	- Principal Investigator
PICC	- Program Internal Control Coordinator
PO	- Project Officer
POH	- Primary Organization Head
QA	- Quality Assurance

RARE - Regional Applied Research Effort
RFP - Request for Proposal
RMD - Resources Management Directive
RMO - Records Management Officer
ROC - Record of Communication
RPA - Research Project Agreement
SAER - Special Assistant for Extramural Research
SEE - Senior Environmental Employment
SERDP - Strategic Environmental Research and Development Program
TAMU - Texas A&M University
TCE - Trichloroethylene
TRACL - TRAC Laboratories, Inc.
TRI - Technical Resources, Inc.
UAMS - University of Arkansas for Medical Sciences
UNH - University of New Hampshire
UWF - University of West Florida

SAMPLE OF COOPERATIVE AGREEMENTS AUDITED

	Recipient	Number	Date Awarded	Total Project Costs
	Cooperative Agreements:			
1	Arkansas, University of	CR820773	09/28/92	$ 599,176
2	Gulf Coast Research Laboratory	CR818218	02/26/91	$ 1,543,845
3	Louisiana State University	CR818568	09/23/91	$ 236,858
3	Maryland, University of	CR817791	08/28/90	$ 394,442
2	Maryland, University of	CR818953	09/16/91	$ 21,110
1	Miami University	CR820061	09/14/92	$ 467,080
1	Minnesota, University of	CR820771	09/29/92	$ 527,320
2	Mississippi, University of	CR818217	02/08/91	$ 965,157
2	Natural Energy Laboratory of Hawaii Authority	CR820699	09/30/92	$ 42,830
1	New Hampshire, University of	CR820062	09/17/92	$ 587,023
2	Texas A&M University	CR816736	09/12/90	$ 386,860
2	Texas A&M University	CR818222	03/12/91	$ 2,052,872
2	West Florida, University of	CR817770	08/22/90	$ 695,265
2	West Florida, University of	CR818676	09/09/91	$ 772,361
2	West Florida, University of	CR818998	09/19/91	$ 1,069,290
				$10,361,489

1 - We concluded that the principal purpose of these agreements was to provide assistance to the recipients to accomplish a public purpose of support or stimulation.

2 - We concluded that the principal purpose of these agreements was to directly benefit the Federal Government and, therefore, they should have been awarded as contracts. For Texas A&M CA (CR816736), we only

took exception to the two cooperative agreement supplements totalling $121,032.

3 - We concluded that these CAs would have been more appropriately awarded as grants because there was no substantial involvement between EPA and the recipients.

PRIOR AUDITS OF EXTRAMURAL MANAGEMENT

OIG Audits:

1983 Review of the Office of Research and Developments Extramural Research Activities (Audit No. E1gB2-11-0019-30828), March 31, 1983.

ORD Locations: Office of Research and Development, Washington DC

Various laboratories at Research Triangle Park, North Carolina and Cincinnati, Ohio.

1986 Contract Management Practices at Environmental Monitoring Systems Laboratory - Las Vegas (Audit No. E1P25-09-0242-6000773), March 26, 1986.

ORD Location: Environmental Monitoring Systems Laboratory, Las Vegas, NV.

1992 EPA's Management of Computer Sciences Corporation Contract Activities (Audit No. E1NME1-04-0169-2100295), March 31, 1992.

ORD Locations: Office of Research Program Management

Atmospheric Research and Exposure Assessment Laboratory, Research Triangle Park, North Carolina.

Health Effects Research Laboratory, Research Triangle Park, North Carolina.

Environmental Research Laboratory - Gulf Breeze, Florida.

Environmental Research Laboratory - Corvallis, Oregon.

1992 Contracting Activities at Environmental Research Laboratory Duluth (Audit No. E1JBF1-05-0175-2100443), July 7, 1992.

ORD Location: Environmental Research Laboratory - Duluth, Minnesota

1993 Management of Extramural Resources: ORD's Environmental Research Laboratory - Athens, Georgia (Audit No. E1JBF2-04-0300-3100156), March 31, 1993.

ORD Location: Environmental Research Laboratory - Athens, Georgia

1993 ORD's Narragansett Environmental Lab Management of Extramural Resources (Audit No. E1JBF2-01-0275-3100236), June 16, 1993.

ORD Location: Environmental Research Laboratory, Narragansett, Massachusetts

COOPERATIVE AGREEMENTS INAPPROPRIATELY AWARDED IN LIEU OF CONTRACTS

Protocol Development and Product Testing Funded Under CA Directly Benefitted Federal Government

The University of West Florida (UWF) CA (CR818998, awarded September 1991 for $1,069,290) was used to develop test protocols (testing methods) and then test selected bioremediation products. Neither the CA decision memorandum nor any other record clearly documented the principal purpose of the CA or the basis for ERL-GB's selection of a CA as the proper funding instrument. Preaward documentation expressed the Federal government's need to know the reliability of oil spill technologies in order to effectively carry out Federal agencies' statutory responsibilities for oil spill cleanups. Based on record reviews and interviews of EPA staff, we concluded the protocol development and product testing performed under the UWF CA was for goods and services that directly benefitted the Federal government. Therefore, the work should have been performed through a competitive procurement (contract) instead of an assistance agreement.

The need to evaluate oil spill technologies evolved out of the experiences EPA had in dealing with the massive Alaskan oil spill in 1989. The Agency was suddenly confronted with a variety of oil spill remediation products. However, EPA and other Federal agencies (e.g., NOAA, U.S. Coast Guard) involved in oil spill cleanups had no way to evaluate the effectiveness of products used and proposed for use. The failure of some of the technologies had an adverse impact on the effectiveness of remediation efforts in the Alaskan oil spill. The Alaskan experience demonstrated a need to know, up-front, the real potential of new remediation products. As a result, ORD established a product testing program through the National Environmental Technology Applications Corporation (NETAC). NETAC is a non-profit corporation operated through the University of Pittsburgh. Under a separate CA, EPA provided NETAC funding to coordinate the product testing effort. NETAC was to do the initial work of assembling a group of products for testing and distributing them to the designated ORD laboratories. ORD laboratories were tasked with developing the protocols (test methods) which would be used in identifying safe and efficient bioremediation products for future oil spill cleanup efforts. During our audit survey at ERL-GB in May 1992, an ERL-GB manager told us that even though this "was not research," ERL-GB agreed to supervise the work under a CA. ERL-GB's selected approach was to use the services of UWF to develop the protocols and to perform the actual product tests on behalf of EPA. UWF was noncompetitively awarded a CA on September 19, 1991, for this work.

ERL-GB records show that, in order to define work needed under the CA, ERL-GB scientists actively participated in the preparation of UWF's CA proposal. In addition, according to the CA decision memorandum, ERL-GB required that the activities be performed on-site at ERL-GB in order "to provide the necessary guidance in methods development" and because of the "necessity for EPA scientists to actively participate in the protocol development ...." The proposal, the reviews of the proposal, the decision memorandum, and the PO all related the importance of the research to the laboratory's mission and ORD's research priorities. One of the reviewers of the CA proposal stated:

> Unlike many proposed research projects, this work is not intended as classical, basic research that is formulated by the Principal Investigator, but rather it is borne out of a specific EPA need to develop procedures for evaluating oil spill bioremediation products.

ERL-GB records indicated that ERL-GB initially considered using its on-site LOE contractor to perform the proposed research and product testing. We believe this would have been the more appropriate choice, but as stated in the CA decision memorandum: "This was not an option because we [ERL-GB] are at our [on-site contract] ceiling and cannot hire additional [contract] employees." The CA PO said that while it could have been possible to do this work under contract, they needed to be able to have a more interactive relationship than is now considered proper in a contractual relationship (e.g., personal services).

Based on our review, the intent of entering into this agreement was to produce data/information on particular products which could be used by EPA and other Federal agencies in making future selections of clean-up technologies. In our opinion, the fact that: 1) ERL-GB's on-site support contract was at ceiling and could not be used to conduct the proposed testing, 2) ERL-GB scientists anticipated the need for a close collaborative effort, and 3) the limited time available to conduct the work did not provide sufficient justification for using a CA over a contract. A contract would have been a more appropriate mechanism because the work was the result of a specific need of EPA and other Federal agencies and, therefore, clearly provided direct benefit to the Federal government. The need for collaboration enters into the decision process when deciding between a CA and a grant. Collaboration and dialogue between EPA staff and contractors are allowed under a contractual agreement as long as the association does not foster a personal services relationship.

In a memorandum, dated December 2, 1992, the Assistant Administrator for Administration and Resources Management (OARM) stated that CAs would be inappropriate to provide technical, analytical, and application review advice for direct EPA benefit

or when the proposed projects would produce specific information that would be directly incorporated into Agency technical, policy, or regulatory decisions. In our opinion, the UWF project fits this category and directly supports an initiative that ERL-GB had the responsibility to accomplish. In accordance with the FGCAA, the proper funding instrument would have been a contract.

CAs Provided Information for EPA Database

Four of the 15 CAs reviewed at ERL-GB were used to provide data in support of EPA's Environmental Monitoring and Assessment Program - Near Coastal (EMAP-NC)[1]. ERL-GB also used one of these off-site EMAP CAs to perform work previously performed under the on-site technical support contract. This action was in direct response to an ORD policy memorandum requiring the reduction of on-site extramural support (see Chapter 2, page 14). Neither the CA decision memorandum nor any other record clearly documented the principal purpose of the CA or the basis for ERL-GB's selection of a CA as the proper funding instrument. Based on record reviews and interviews, we concluded the work performed under the EMAP CAs was primarily for the direct benefit of the Federal Government. Therefore, the needed services should have been funded through a competitive contracting process.

EMAP-NC Cooperative Agreements

Institution	Agreement No.	Awarded	Value
Gulf Coast Research Laboratory (LC)	CR818218	02/26/91	$1,543,845
Texas A&M University (LC)	CR818222	03/12/91	$2,052,872
University of Mississippi (LC)	CR818217	02/08/91	$ 965,157
Texas A&M University (NC)	CR816736	09/10/91	$ 23,386
(Supplements) (NC)		12/10/92	$ 97,646

LC = Limited Competition.
NC = Noncompetitive award.

EMAP is a nationwide initiative being implemented by EPA's ORD in response to the demand for information on the condition of the nation's ecological resources. The EMAP is to assess and document the ecological status and trends in the nation's forests, wetlands, estuaries, coastal waters, lakes, rivers, and streams, Great Lakes, agricultural lands, and arid lands on an integrated and continuing basis.

[1] Program name was subsequently changed to Environmental Monitoring and Assessment Program - Estuaries.

For EMAP near coastal component, ecosystem health is being addressed by investigating the regional distribution of fish and bottom-dwelling animals. EMAP-NC is also determining what portions of estuaries can support these resources and finding out why certain areas do not support them. ERL-GB was responsible for EMAP-NC implementation and sampling in the Louisianian Province (includes Gulf of Mexico from north of Tampa Bay to the Mexican border.) All information generated during sample collection periods was incorporated into the Louisianian Province Information Management System (LPIMS) which is located at ERL-GB.

Laboratory records indicate that ERL-GB issued an RFP in July 1990 which included a very detailed description of the work required and how it would be performed. In fact, a comparison of the proposal submitted for one cooperator, who was awarded $1.5 million in EMAP funds, revealed that a majority of the proposal material came directly from ERL-GB's RFP.

For the EMAP CAs, ERL-GB selected the sampling sites, provided equipment, provided standardized protocols for sampling, and directed the time period within which the sampling should be performed. In addition, the RFP, the proposals, the POs and PIs, the decision memorandums, and the actual assistance agreements all referred to the fact that the cooperators would be providing needed data for EMAP-NC. According to the POs and PIs, collected data was the only required CA product which had to be submitted directly to ERL-GB for analysis and assessment.

The special conditions of the CAs demonstrated both the data collection purpose and EPA's direct control over the tasks. Cooperators were instructed to follow standardized protocols developed by EPA. One of the CA special conditions required that the cooperator's field crews follow the EPA PO's logistics schedule, phone in to ERL-GB daily prior to sampling, and report problems immediately to the Field Operations Center at Gulf Breeze relating to weather conditions and inability to sample scheduled sites. Another of the CA special conditions stated:

> All field data generated during the summer sample collection periods will be recorded on multi-part forms provided by the EPA Project Officer; subsequently entered into electronics form, within 24 hours, using computer programs and forms provided by the EPA Project Officer; and, transferred within the same 24 hour period, to the Louisianian Province Information Management System (LPIMS) located at the Environmental Research Laboratory - Gulf Breeze using software and toll-free data lines provided by the EPA Project Officer. Hard copy of the field data forms and back-up diskettes will be shipped to LPIMS within 6 days of collection unless specifically requested by the EPA Project Officer. No field data will be archived at the

[cooperator's institution] that has not already been transmitted to LPIMS.

When asked if EMAP was procurement or assistance, one EMAP PO stated that he was not sure of the difference between the two. However, in his opinion, the EMAP CAs qualified as assistance because there was a dialogue (i.e., close collaboration) between the laboratory and the universities. Another PO said there was no reason that the work could not be done under a contract. However, the PO further said the work was being done under CAs because it was research into how to set up a national monitoring program and the individual universities may utilize the data they collect in their own research. In addition, there was clearly a cooperative nature in the work between the universities and ERL-GB. One of the PIs also said that a CA allows interaction between EPA staff and cooperators and the EMAP sampling crews needed to be able to talk to EPA to modify the approach if necessary and to change the schedule.

The need for a dialogue between EPA and the cooperators, or cooperators eventual use of the information collected in their own research is not sufficient justification for using a CA in lieu of a contract. According to the FGCAA, the Government's principal purpose in negotiating the agreement would be the determining factor in selecting between instruments. The intent of entering into these agreements was to produce information to be included EPA's EMAP database. The detailed descriptions included in the RFP clearly show this work was for the primary benefit of providing data for the use of EPA in making future environmental decisions. A December 1992 memorandum, entitled "When to Use Contracts or Cooperative Agreements and Grants", issued by the Assistant Administrator for Administration and Resources Management, listed examples of activities that cannot be funded through assistance agreements such as the production of specific information that will be directly incorporated into Agency technical, policy, or regulatory decisions. Based on this criteria and other evidence obtained during the audit, we believe the appropriate funding mechanism to accomplish these tasks would have been a contract as EPA and the Federal government as a whole, were the primary beneficiaries of the information collected.

Cooperative Agreements Supported EPA Employee Research

Natural Energy Laboratory of Hawaii Authority (NELHA)

NELHA was noncompetitively awarded a CA (CR820699, awarded September 1992 for $42,830) for the purpose of providing equipment, supplies, and laboratory space in direct support of an ERL-GB scientist's research in Hawaii. Neither the CA decision memorandum nor any other record clearly documented the principal purpose of the CA or the basis for ERL-GB's selection of a CA as

the proper funding instrument. Because the estimated cost of this agreement was under the $250,000 threshold for noncompetitive awards in effect at the time[2], it was not subject to ORD Headquarters review. Because the CA provided direct support for an EPA research scientist, the principle purpose was not to provide "assistance" to NELHA, but direct benefit to EPA. Therefore, we concluded that a competitive procurement/contract would have been the appropriate funding mechanism for these goods and services.

An ERL-GB scientist and PO, who had previously developed acute fish toxicity tests for both the States of Florida and California, was asked by EPA's Region 9 in June 1991 to submit a proposal to develop a protocol for the same type toxicity tests for the State of Hawaii. In July 1991, this scientist wrote a preproposal in response to a Region 9 request for proposals. A full proposal followed in March 1992. Region 9 had been provided extramural funds through the Regional Applied Research Effort (RARE) Program. This is a program in which ORD provides money to the regions to assist them in the development or investigation of regional environmental issues. The ERL-GB scientist's proposal was one of three (out of thirteen submitted) that was selected by Region 9 for assistance awards. The RARE funds were subsequently transferred to ERL-GB. In September 1992, ERL-GB awarded a noncompetitive CA to NELHA which allowed the ERL-GB scientist to go to Hawaii to perform the research proposed.

NELHA provided the equipment, supplies, and space needed to conduct the research. The ERL-GB scientist, as a biologist, utilized the facilities provided under the CA to conduct the research. He primarily worked alone at NELHA. The CA did not provide funds for NELHA personnel. The PO, who performed the research, commented that this project was a "little weird" in that NELHA's participation in the project only consisted of providing facilities, equipment, and supplies.

According to ERL-GB's SAER, the laboratory had no allowable method for spending RARE money because extramural money can not be spent on internal operations. Therefore, ERL-GB used a CA to fund this project. Guidance on the RARE program does not generally prohibit the use of contracts but does prohibit contracts for RARE projects outside the scope of a laboratory's mission. The subject research was a part of ERL-GB's on-going research and, therefore, within the scope of its mission. The RARE program guidance, dated October 19, 1993, stated:

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[2] As of August 27, 1993, the laboratory director's approval authority for both competitive and noncompetitive CA awards was $25,000 or less. All CAs above this threshold required ORD Headquarters review.

> The [RARE] proposal must include: a RARE coversheet describing the project, a funding vehicle specifying the project manager and contractor or university that will be conducting the research.... [emphasis added]

In our opinion, a contract would have been the appropriate funding mechanism for this research. However, a contract would have required greater justification and award timeframe than a noncompetitive CA. In addition, the funds for supplies and space under a contract for an FTE would have counted against the R&D appropriation dollar limit for the use of R&D funds for direct FTE support. Use of a CA precluded the direct support from being counted against this R&D ceiling.

Not only did the ERL-GB scientist personally conduct the research, he wrote the research proposal and technically served as both the PO and PI under the CA. The ERL-GB scientist personally: (1) selected NELHA as the site to perform the research; (2) assisted in the preparation of the application for Federal assistance, which included his vitae (resume) not the NELHA project manager's (or PI); (3) directed purchases to be made under the CA; and 4) actually performed the research at NELHA. All of the reviewers of the CA proposal, external and internal, recognized that the ERL-GB scientist was technically the PI although the NELHA director was officially designated as the project manager (or official PI). The ERL-GB scientist could not officially serve as both the PO and PI. Based on information included in the assistance application, GAD should also have recognized that an EPA employee would actually be conducting the research and that NELHA had only minimal involvement in the work to be performed.

Although we question the use of a CA to directly support EPA staff research, we do not question the value of the research performed by the ERL-GB scientist at NELHA. The CA was used to support an FTE's research and the research directly benefitted EPA programs. As stated above, we therefore believe that a contract would have been the appropriate mechanism to procure the laboratory space and supplies provided under the agreement.

University of Maryland, Baltimore

The University of Maryland was noncompetitively awarded a CA (CR818953, awarded September 1991 for $21,110) to provide supplies and travel funds in direct support of a part-time EPA employee who worked in ORD's OEPER (cooperative student trainee). Neither the CA decision memorandum nor any other record clearly documented the principal purpose of the CA or the basis for ERL-GB's selection of a CA as the proper funding instrument. Although this CA was under the $250,000 threshold for noncompetitive CA awards in effect at the time and, therefore, not normally subject to outside ORD Headquarters (OEPER) review,

it was initially submitted to ERL-GB through the Deputy Director of OEPER. Since this CA did not provide "assistance" to the University, but direct support (direct benefit to EPA) in the form of supplies ($10,638 budgeted) and travel ($1,000 budgeted) for an ORD biologist's personal research interests (closely related to employee's Phd dissertation research), we concluded a contract or possibly a small purchase would have been the more appropriate funding mechanism. In addition, the use of R&D funds for FTE travel represents a potential unauthorized transfer of funds between the R&D and S&E appropriations since such costs are not authorized under the R&D appropriation and the S&E appropriation is to be used for EPA personnel costs including FTE travel.

The part-time OEPER employee was concurrently a Phd candidate ;at the University of Maryland. Because the OEPER employee had performed research, as a Phd candidate, concerning T-cell responses or immunological systems of rodents and performed other immunological work on dolphins over the past two years, OEPER management requested that the employee submit a related research proposal for assistance funding. A proposal was prepared by this part-time employee, listing himself as the co-investigator (Co-I) on the research proposal. The PI listed was the employee's Phd advisor at the University.

The original proposal, transmitted on EPA letterhead, was submitted through OEPER to ERL-GB for review in April 1990. However,the initial review was not favorable. The OEPER employee revised the proposal, removed his name as the Co-I, and re-submitted the proposal directly to ERL-GB in May 1991. Although the OEPER employee would actually perform the research, his name was not mentioned in the subsequent proposal other than in the Quality Assurance (QA) Narrative Statement as the person to receive samples at the University.

In a letter, dated June 25, 1991, to the laboratory director, an outside reviewer on the subsequent proposal stated:

> Unfortunately, due to loop-holes in the CO-OP systems, this work will probably be funded in it's entirety. The need for this kind of work to be done is great, however, there is not enough information provided to adequately evaluate whether the investigator has the expertise, equipment, technical assistance, or access to major lab space required to perform this type of study...[PI's name] is a well respected investigator and it is my hunch that he has not reviewed this proposal, other than perhaps conversationally.

Although it was apparently well known to both OEPER and ERL-GB, nothing in the formal proposal's application for Federal assistance indicated that the actual investigator for this CA was

a Federal employee. Therefore, GAD would not have discovered this problem in its review of the assistance application. However, a copy of the EPA employee's vitae (resume) in the GAD files identified him as an OEPER employee. GAD personnel informed us that they normally only review and evaluate the vitae of the proposed project manager or PI when reviewing CA applications. As a result, GAD may not have known that they were awarding a CA to fund the research of a Federal employee.

Both the PO and the OEPER employee said that he, as the investigator, performed all of the research under the CA. The PI said he only supervised the employee's work. The OEPER employee said the CA provided money for his supplies and travel while EPA paid his salary through the cooperative education program.

According to the laboratory director, this project was suggested to ERL-GB by OEPER. OEPER indicated that there was money available to devote to this dolphin research. Since the laboratory was trying to develop a Center for Disease Research, the laboratory director agreed to fund the CA because it was appropriate to ERL-GB's mission and he wanted to increase ERl-GB's visibility.

Subsequent to our December 15, 1993, exit briefing with the laboratory director, we received comments from the Deputy Director, OEPER that stated that no travel expenses were paid from CA funds for this part-time employee and that the research was in the area on which the employee was preparing a Phd dissertation. However, the CA budget included travel and the University of Maryland PI said that the OEPER employee was the only person who traveled under the CA. The University of Maryland subsequently provided us with a copy of a travel voucher showing that the OEPER employee and a research technician traveled to Sarasota, Florida using CA funds.

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COOPERATIVE AGREEMENTS INAPPROPRIATELY USED IN LIEU OF GRANTS

Louisiana State University

ERL-GB awarded a CA (CR818568, awarded September 1991 for $236,858), instead of a grant, to Louisiana State University (LSU) when there was no anticipated ERL-GB involvement in the project. This occurred because ERL-GB and other ORD laboratories were not authorized to award grants. As a result, ERL-GB used the only mechanism available to fund the proposed research - a CA.

In a letter to the chairperson of a Senate appropriation subcommittee, dated June 11, 1990, a U.S. Senator requested "...support for an add-on [to EPA appropriations] of $200,000 for a research project on the Formosan subterranean termite at Louisiana State University." According to a Senate Conference Report, dated October 18, 1990, fiscal year 1991 appropriations, EPA received "$200,000 for a research project on the Formosan subterranean termite at Louisiana State University." According to EPA's FY 1991 resource (appropriation) distribution list, this $200,000 appropriation add-on was allocated to the ORD.

Although this research did not relate to ERL-GB's mission at that time, ORD's OEPER gave ERL-GB the responsibility to find a cooperator at LSU to conduct the "ear marked" research on the formosan termites. ORD managers explained that laboratory missions are flexible and missions can be adjusted to include new assignments.

The ERL-GB PO could not readily explain to us why ERL-GB was selected for this task. According to CA records, the assigned PO brought his concerns with this award to the laboratory director.

> ...We'll have to handle this one fairly carefully. For example, we can't advertise it because the funds are earmarked (see attached memo) to the Louisiana State University...This research does not fit well into Environmental Protection, which is a concern to me.

ERL-GB subsequently requested a research proposal from LSU and a noncompetitive CA was awarded in September 1991 even though ERL-GB anticipated little involvement in the proposed research.

A special condition was added to the CA which gave the appearance that there would be some collaboration between ERL-GB and LSU. However, according to both the PO and the PI, no substantial EPA involvement occurred as was required to justify a CA over a grant when the CA was awarded. This type of research was not being performed at ERL-GB.

When we asked why a CA was awarded instead of a grant, the laboratory director stated that only ORD's OER is authorized to award grants and that OER does not award noncompetitive grants. Since ERL-GB was not allowed to award grants and anticipated no substantial involvement in the research, ERL-GB should have referred the "ear marked" project back to ORD Headquarters for consideration of an OER grant award. However, ORD managers stated that laboratory mission and expertise does not necessarily preclude the award of a CA in such cases. Missions can be adjusted and expertise can be developed because POs are trained scientists. ORD managers said ERL-GB and the PO chose not to be substantially involved in the proposed research. However, we concluded the use of the CA, in this case, was inappropriate because ERL-GB did not plan to have substantial involvement in the proposed research and such involvement has not occurred.

University of Maryland, College Park

This University of Maryland CA (CR817791 awarded August 1990 with a total budgeted cost of $394,442) was not converted to a grant when it became evident that ERL-GB would not have significant involvement in the research. The University of Maryland CA was intended to study the fate and persistence of genetically engineered organisms released into the environment. While this research did relate to the laboratory's mission because it concerned risk assessment, neither the PO nor anyone else at ERL-GB collaborated under the CA. The original, prospective PO, whose research area was related to this CA proposal, died before the CA was awarded. Subsequently, a new employee at ERL-GB was assigned to be PO. This PO told us that he came to ERL-GB around the time this project was being considered for funding and was subsequently assigned the project. However, the research being performed was not in the PO's research area and he chose not be involved with the research.

When we asked about collaboration under the CA, the ERL-GB branch chief explained there were varying degrees of substantial involvement. The degree ERL-GB cooperates varies from agreement to agreement. He said ERL-GB collaborates by reviewing quarterly reports, discussing projects in meetings, telephone calls, and at the "All Investigators" meeting (annual meeting of scientists to present and discuss research results). However, based on our file review and discussion with the PO, the PO's only involvement with this CA consisted of monitoring the agreement through progress reports submitted by the PI.

According to Attachment A of EPA Order 1000.19, anticipated substantial involvement during performance does not include the:

> ...normal exercise of Federal stewardship responsibilities during the project period such as site visits, performance reporting, financial reporting, and

audit to insure that the objectives, terms, and conditions of the award are accomplished.

Since the PO told us he only reviewed cooperator progress reports (which is included as a Federal stewardship responsibility) and did not collaborate under the CA, we concluded a CA was not the appropriate funding mechanism to accomplish this research task. In accordance with the FGCAA, a grant would have been a more appropriate mechanism.

The laboratory director told us that originally there was an intention for ERL-GB collaboration under this CA. However, due to unforeseen circumstances (death of the prospective PO), no collaboration took place. When the laboratory realized there would not be substantial EPA involvement as required to justify a CA over a grant, the CA should have either been converted to a grant in accordance with Chapter 1, paragraph 6c(4) of EPA's Assistance Administration Manual or the Laboratory director should have assured that the necessary collaboration took place.

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DOCUMENTATION ON ERL-GB INVOLVEMENT IN HIRING UNDER OFF-SITE COOPERATIVE AGREEMENTS

Pages 117 - 118: Letter, dated January 12, 1993, from a ERL-GB branch chief to the laboratory director for ERL-GB. The letter reflects the laboratory's plans to shift on-site contract employees to off-site CAs.

Pages 119 - 122: Two letters, dated September 9, 1993 and November 5, 1993, respectively, written by a former on-site contract (TRI) employee who was transferred by ERL-GB to the UAMS CA and who later resigned the CA position because of an apparent promise by the laboratory director to place him on the University of Minnesota CA. The Minnesota position did not materialize; therefore, this individual applied for unemployment compensation which is the purpose of these letters. This person was later hired by ERL-GB's current on-site technical support contractor, Avanti. Both letters evidence this persons close relationship with ERL-GB scientists. In the November 5, 1993 letter he refers to the ERL-GB PO for the UAMS CA as one of his supervisors.

Page 123: Letter, dated July 22, 1992, from UAMS Co-I to ERL-GB PO with UAMS compensation and benefits information so the PO can calculate budget for on-site CA employee (a TRI on-site contract employee at the time).

Page 125: Letter, dated September 3, 1993, from ERL-GB PO to University of Minnesota PI transmitting additions to CA budget (amounts for salary, fringe benefits, supplies) for UAMS on-site cooperator (former on-site contract employee) who was to be transferred from UAMS CA to the Minnesota CA. Letter acknowledges the ERL-GB director's knowledge and approval of this transfer. The purpose of this letter was apparently to fulfill the director;s promise to move the UAMS on-site cooperator to the Minnesota CA as shown in the letter on pages 125 and 126. However, funding for the additional position on the Minnesota CA could not be obtained and the transfer did not occur.

Page 126: Letter of reference, dated April 12, 1993, from the ERL-GB PO for the UAMS CA to the UAMS PI recommending an on-site contract employee for the on-site UAMS CA position.

Page 127: Letter, dated August 28, 1992, from the ERL-GB PO for the University of New Hampshire CA to the University of New Hampshire PI concerning his request that the University hire an on-site contract employee to an on-site CA position with the University of New Hampshire. The letter indicates that this contract employee had been working directly for an EPA scientist through the on-site contract.

Pages 129 - 131: Letter, dated December 9, 1991, from ERL-GB PO for GCRL CA to the GCRL PI concerning preparation of the 1992 CA budget. On page 132, item 3., the PO requests that the GCRL PI hire 5 temporary TRI employees under the GCRL CA. These individuals would be located at Gulf Breeze and would continue performing sediment toxicity testing under the EMAP program as they did under the TRI contract. The PO suggest a CA budget amount of $50,000 to $55,000 for these TRI employees.

Page 132: Letter, dated June 1, 1992, from GCRL PI to the GCRL director concerning GCRL hiring the five temporary TRI employees under the GCRL CA. The letter specifically states that EPA requested that GCRL hire these people under the CA.Pages 121 - 122: Letter, dated January 12, 1993, from a ERL-GB branch chief to the laboratory director for ERL-GB. The letter reflects the laboratory's plans to shift on-site contract employees to off-site CAs.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
ENVIRONMENTAL RESEARCH LABORATORY
1 SABINE ISLAND DRIVE
GULF BREEZE, FLORIDA 32561-5299

January 14, 1993

MEMORANDUM

SUBJECT: Contract support

FROM: [Branch Chief] [redacted]

TO: [ERL-GB Director]

In regard to contract support, it had been my impression that we were asked to a.) reduce our dependence on the contract and b.) carefully decide which activities were to be covered by contract or COOP agreement. I have made considerable efforts to accommodate both requests; through interactions with yourself and [ERL-GB Deputy Director] I have become more aware of those biotechnology aspects that can and perhaps should be considered as legitimate and legal contract activities.

Since no one has specifically asked for my input relative to staffing plans, and based on recent information suggesting that decisions have been made without an appreciation for our needs, I submit the following response to the above two requests.

I have reduced the TRI staff from the original 26 employees (1992 level) to 18 employees. I am currently making plans to move [TRI employee] and [TRI employee] to Univ. of New Hampshire ([UNH PI] COOP agreement), and [TRI employee] and [TRI employee] to AARP. [TRI employee] services will be replaced by additional AARP person (request will be forth coming). These moves reflect a total staff reduction of 46%. I assume the other Branches have made similar efforts in staff reduction.

Activities that I believe appropriately fall in the category of contract services, based largely on their ability to provide services on a branch-wide basis (i.e., no orientation toward a specific individual or project), can be divided into three categories; analytical chemistry support, microbiology support and field application support. The recommended staffing (in part conceptual, based on future demands) for these support services is as follows;

a.) Analytical Chemistry Support (WAM - [ERL-GB Scientist])

Coordinator - senior scientist ([TRI employee])	1
Methods Development - MS chemist ([TRI employee])	2
Extractions & Analysis - BS chemist ([TRI employee])	10

Extractions & Analysis - BS chemist (vacant)	15
Nutrient chemistry - BS chemist ([TRI employee])	13

b.) Microbiology Support (WAM - [ERL-GB Scientist] / [ERL-GB Scientist])

Coordinator - senior scientist ([TRI employee])	4
Sequencing - MS biologist ([TRI employee])	7
Culture collection - MS biologist ([TRI employee])	11
Monitoring - MS biologist (vacant)	6
Fermentations - BS biologist (vacant)	14

c.) Field Application Support (WAM - [ERL-GB Scientist])

Coordinator - senior scientist ([TRI employee])	3
Microcosms - MS biologist ([TRI employee])	8
Inoculation - MS biologist (vacant).	5
Biotreatability - MS biologist ([TRI employee])	9
Sampling & Analysis - BS biologists ([TRI employee])	12

The numbers (right hand side) reflect priorities of the positions relative to support needs. If you include [TRI employee] and [TRI employee], and assume that the above vacancies are filled in the near future, the projected total TRI staff for the MEBB Branch would be 17 or an overall reduction of 35% from the original 1992 levels.

Is this staffing plan appropriate or do I continue to dismantle the biotech contract support?

September 9, 1993

Dr. [UAMS PI]
Department of Health and Human Services
Food and Drug Administration
NCTR
Jefferson, AR 72079-9502

Dear Dr. [UAMS PI],

I want to thank you for the opportunity to work with you on the Arkansas/USEPA cooperative agreement. I have enjoyed this work experience and the progress we have made. Dr. [ERL-GB PO - UAMS CA] has encouraged me to contact Dr. [ERL-GB Scientist] here at the laboratory; he has offered me an opportunity to establish new avenues of research with him here in Gulf Breeze. Given his expertise and reputation, and my desire for additional professional growth in preparation for advanced degree candidacy, I believe this experience can be beneficial. Thus, I have decided to accept this offer.

I therefore wish to resign my position as Research Associate effective October 1, 1993. I inform you by FAX message to insure continuity in your collaborative efforts with Dr. [ERL-GB PO - UAMS CA] by early replacement, should you choose some overlap.

Again, thank you for the opportunity to work in this cooperative agreement; I shall look forward to maintaining future contact. If you need additional information, I shall reply promptly to your requests.

With my best regards,

[redacted]

[UAMS Cooperator]

cc: [ERL-GB PO - UAMS CA]
[UAMS Co-I]

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[redacted]

RECEIVED
[illegible]
U. C. Pensacola

November 5, 1993

Florida Department of Unemployment Compensation
P.O. Box 18970
Pensacola, FL 32523-8790

Dear Mr. [redacted]:

I am writing to appeal the decision concerning my unemployment benefits. The letter from your office dated 11/01/93 indicated that benefits were not payable because my reason for quitting was not attributable to the employer (the University of Arkansas). This is only partially true in my case. I did indeed send a letter of resignation to my supervisors both at the University of Arkansas and to cooperators at the U.S. Environmental Protection Agency in Gulf Breeze, FL. I began employment with the University of Arkansas on May 1, 1993 as a Research Associate via a position funded by the EPA through a cooperative agreement with the university. My position involved direct interaction with an EPA scientist at the Gulf Breeze laboratory, Dr. [ERL-GB PO - UAMS CA] . In July, I was approached by Dr. [ERL-GB Scientist] with the prospect of working with him in starting up his research program at the EPA lab. I could not do this under the scope of work outlined in the Arkansas cooperative agreement. Dr. [redacted] and I spoke several times with the laboratory director, Dr. [ERL-GB Director] concerning a mechanism by which a position could be created for me to begin my interaction with Dr. [redacted]. I was given assurance by Dr. [ERL-GB Director] on several occasions that a position would be available for my by October 1, 1993. Several memos were passed between Dr. [ERL-GB Scientist] and Dr. [ERL-GB Director] which indicated that there would be no problem in providing a position.

While these discussions were taking place, Dr. [redacted], an EPA scientist and co-principle investigator on the Arkansas cooperative agreement, learned of my potential move and became anxious for me to submit a letter of resignation. He desperately want to hire another person to replace me and the university would not begin the process until they received a dated letter from me. Dr. [redacted] approached me several times over the course of a two month period from July through August inquiring as to the status of my resignation. I later came to find out that the person whom he had in mind for the position was from another country who needed to have her visa renewed before the end of September. This could not be done without an official offer letter from the University of Arkansas - a letter which they could not provide until my resignation

officially made the position available.

After much discussion with Dr. [ERL-GB Director] and Dr. [ERL-GB Scientist] , all the necessary things appeared to be in order for me to begin work on October 1, under an existing cooperative agreement with the University of Minnesota. Under the advisement of Dr. [ERL-GB Scientist] , I submitted a letter of resignation on September 9, to the University of Arkansas stating that I wished to terminate my employment as of October 1, 1993, in order to move into a new position in collaboration with Dr. [ERL-GB Scientist] . I submitted this letter only after I had assurance from Dr. [ERL-GB Scientist] and Dr. [ERL-GB Director] that a position was available. When I submitted this letter, I felt somewhat obligated to Dr. [ERL-GB PO, UAMS CAI] as well as pressured by him. In retrospect, seeing how things have turned out, I would not have resigned my position but at the time I had no way of knowing that Dr. [ERL-GB Director] was not going to be able to keep his word and provide me with a position.

I found out only during the middle of the last week of September that the position I was promised was not going to materialize. At this point, it was too late to reverse my decision to resign as the University of Arkansas as they had already begun the process of hiring another person. So as of October 1, I found myself unemployed through no fault of my own. I fully intended to be employed by the University of Minnesota on October 1. The only thing I feel I am guilty of is puting my trust in some one by believing them at their word and giving into pressure to resign as a way of helping out a fellow colleague. I have already gotten a raw deal from the EPA and do not wish to receive the same treatment from the Department of Labor and Employment Security. I believe that I should be entitled to full unemployment compensation. I don't plan on being out of work for a long period of time but as one month has already passed, I am getting to the point of being in desperate financial straits. The information I have provided is true and accurate to the best of my knowledge. I can provide copies of memos if they are necessary. I hope the information provided here will enable you to reverse your decision and provide me with benefits. Please advise my as to your decision as soon as possible as I will pursue this matter with the help of legal counsel should it be necessary. Thank you for your assistance.

Sincerely,

[redacted] [redacted]

[UAMS Cooperator]

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MICRO 5016865359 Jul 22.92 15:20 No.009 P.02

July 22, 1992

Dr. [ERL-GB PO - UAMS CA]
U.S. EPA
Gulf Breeze, Florida

Dear [ERL-GB PO - UAMS CA]:

Here are some figures which may be helpful in determining if any extra money is required to support the postdoctoral associate.

Insurance Costs and Arkansas State Tax

Health insurance is mandatory and UAMS pays 60% of the monthly insurance premium. The costs to the individual to pay for 40% of the premium are as follows:

	cost per month
Employee coverage only	$68.67
Employee and spouse only	$154.38
Employee and children only	$121.33
Employee, spouse, children	$207.06

The cost for health insurance can be tax sheltered by deduction before taxes are paid.

Life insurance at 1 x salary is provided at no cost. Additional life insurance is available in increments of the annual gross salary, i.e., an additional $30 K or $60 K with cost depending on the age of the employee.

Dental insurance is optional. The family rate is $18 per month with no deductible and free coverage for 2 annual visits for checkup and cleaning.

Unfortunately, state tax is not optional. As an example, at 30,000 a married employee with 2 deductions (himself and spouse) with no tax shelter will pay $110.42 per month in state tax.

I hope you find this information to be helpful.

Sincerely,

[redacted]

[UAMS Co-I]

150

1 + 3 = 2 50

tax 1700

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FAX

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

September 3, 1993

Dr. [University of Minnesota PI]
Biochemistry
University of Minnesota
St. Paul, MN 55108

Dear [redacted]

I provide information on [redacted] which I hope is sufficient for your purpose at Minnesota.

Re: Cooperative Agreement Interaction:

[redacted] current stipend is appended with breakdown of fringe benefit, the tax, and his choice for level of retirement deposit with TIAA.

I suggest appointment at the same stipend as appropriate. Added items are $6,000 level of supply you suggested, Minnesota minor changes to the overhead level of 30.5 you mentioned. Whether you add an item for travel, meetings, etc., when appropriate, or consider authorization per your approval, I leave to your judgement.

An October 1, 1993 start date for one year is needed as optimal and beneficial for relief of his former fund source to open position and permit [redacted] joining our work promptly.

The arrangements made are understood with [redacted], our ERL Director, as supplement for a work opportunity to be funded, in full, in Fiscal Year beginning 1 October 1993.

I assume that [redacted] resume' and other academic data have reached you in complete form. We shall respond promptly, however, to any additional needs.

[redacted],

[redacted]
[redacted] Scientist]
Senior Research Microbial Biochemist

[redacted]

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
ENVIRONMENTAL RESEARCH LABORATORY
1 SABINE ISLAND DRIVE
GULF BREEZE, FLORIDA 32561-5299

12 April 1993

Dr. [UAMS PI]
Division of Microbiology (HFT-250)
National Center for Toxicological Research
3900 NCTR Road
Jefferson, AR 72079

Dear [UAMS PI],

This letter is written in support of [TRI employee] who has applied for a position as Research Associate to work on the Cooperative Agreement between the U.S. EPA and the University of Arkansas for Medical Sciences. [TRI employee] has worked with me for three years. During this time he has been involved in a project to study the biodegradation of aromatic hydrocarbons, primarily isopropylbenzene (cumene) and analogous compounds. He has cloned and characterized genes encoding catabolic pathways from several different bacterial strains using standard cloning techniques as well as Tn*1000* mutagenesis and analysis of gene products using a T7 expression system. He has chemically synthesized several pathway intermediates for use as standards and substrates in enzyme assays and has developed a novel method for assaying those enzymes of aromatic catabolic pathways that catalyze reactions involving hard-to-detect substrates and products.

[TRI employee] works hard and gets along well with others in the laboratory. He has been an important asset both for his knowledge of research techniques and of laboratory operations. He is someone to whom others in the lab look for advice and help. He acts on his own initiative to remedy problems that he encounters yet does not hesitate to ask questions. [TRI employee] is able to clearly and coherently discuss his own work as well as the work of others. The research that he has carried out while employed by Technical Resources, Inc. at the Gulf Breeze EPA lab has been of a very high quality and will result in at least four full-length publications.

I recommend him highly and without reservations.

Sincerely,

[redacted]

[ERL-GB PO - UAMS CAI], Ph.D.
Research Microbiologist

August 28, 1992

Dr. [UNH PI]
EOS
Univ. New Hampshire

(603) 862-1915

Dear [UNH PI],

A copy of a letter that is being sent to you is attached. I hope that this will help in at least initiating a hiring process. Hopefully, when the award is made we will have minimal down time. The prospective candidate is interested in salary $s and benefits. If you can send something down on the benefits package asap it might help in keeping this person from slipping through our fingers. I seem to be in competition for this person with someone else in our branch. I would like to be able to offer $22.5K to start if that will fit in the budjet and be in line with UNH position titles/qualifications.

The person is just out with a bachelor's, but has worked with me for about eight months on undergrad directed special problems, and summer intern kind of thing. She has been working for the past two months on a related project for someone else through the contractor.

I am not 100% sure I can get this one, she is looking to make some sort of decision by end of next week, I think it prudent to persue other candidates, and prepare to advertise in the mean while.

In related news, our lab is now on internet and e mail will arrive directly into my computer account. I will send you a message so that you can have my address (I lost the paper that had it)

Best wishes,

[redacted]

EPARDD@sulfbr.sbr.epa.gov

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
ENVIRONMENTAL RESEARCH LABORATORY
SABINE ISLAND
GULF BREEZE, FLORIDA 32561-5299

December 9, 1991

Dr. [GCRL PI]
Gulf Coast Research Laboratory
P.O. Box 7000
Ocean Springs, MS 39564

Dr. [GCRL PI]:

I would like to take this opportunity to commend you and your staff's efforts with regard to our Environmental Monitoring and Assessment Program cooperative agreement. After the first year's effort relating to sample collection, fisheries evaluations, benthic analyses, and sediment profiles, we are well on our way to creating a successful group collaboration to assess the ecological status of the Louisianian Province. Specifically, I would like to call special attention to the work completed by [redacted] and [redacted] (as well as their respective lab staffs) and [redacted] as a field team leader in the Eastern Subregion. I trust our excellent working relationship will continue and that we will enter into our second year of monitoring with enthusiasm and the satisfaction of knowing many of our logistical problems are behind us.

With regard to Year 2 of our three-year cooperative agreement, I need an operating budget from you delineating the costs associated with this year's effort. In ascertaining the budget I bring the following items to your attention:

1. The 1991 field effort involved collection from 202 sites (of which 75 occurred in the Eastern Subregion) at a per site cost of $1300 (not including cost share). This cost included crew chief and crew training. The 1992 field program will consist of 155 sites of which 60 fall in the Eastern Subregion. I expect to see some inflation in the per site cost but only nominally. In addition, as we provided the East Team with two contract personnel in 1991 at no cost to GCRL, we will provide three (3) contract personnel in 1992 (i.e., one crew chief and two crew members). As a result GCRL and its cooperating institution, University of Mississippi, will need to provide one crew chief and six (6) crew members as well

as alternates. The sampling window for 1992 will be from July 7 through August 31. Training (7-10 days) will be held at the Gulf Breeze facility and its length will depend upon the number of new crew members GCRL provides. I would expect a budget associated with field sampling to be between $78-84K.

2. The sediment characterization and benthic evaluations resulted in 840 cores and 622 benthic samples. This work was accomplished in 1991 for a cost of $335 per site. I anticipate 465 benthic samples and 620 sediment profiles in 1992. In addition, there has been much discussion within the program concerning our use of ethanol as a preservative. My understanding from your 1991 proposal is that ethanol would be used to archive samples after sorting, identification, and biomass measurements were completed. If this has not been the case, and we are storing benthic samples in ethanol prior to biomass determinations, we are in violation of the EMAP protocols. In 1992, all samples will be maintained in rose-bengal formalin before identification and returned to formalin for a minimum total storage time of three months before biomass determinations are made. I would expect a budget associated with benthos and sediment characterization to be between $155-$165K.

3. I would like to take the opportunity of the cooperative agreement to provide personnel to conduct sediment toxicity testing with Ampelisca and mysids in 1992. This would require 5 personnel for 6 months. These personnel would be located at Gulf Breeze ERL and would participate with a laboratory team at our lab assessing toxicity. These personnel would be returning members of our 1991 lab team but cannot be rehired through our on-site contractor. I would like to use this cooperative agreement to supply these staff. I would anticipate a budget associated with this activity to be $50-55K.

4. Thus, I would anticipate a fully loaded GCRL Year 2 budget in the range of $283-305K.

I have included the necessary forms to complete the budget information. I will need this data by January 15, 1992 with a letter committing GCRL to continue the work designated in our cooperative agreement. The letter needs to be signed by someone with technical/administrative authority and the budget must be signed by someone with fiscal authority.

If I can be of any further assistance in this process, please do not hesitate to contact me.

Sincerely yours,

[redacted]

[redacted], EMAP Louisianian Province Manager

Gulf Coast Research Laboratory

P.O. BOX 7000
703 EAST BEACH DRIVE
OCEAN SPRINGS, MISSISSIPPI 39564-7000

CONTROLLED BY THE BOARD OF TRUSTEES OF HIGHER LEARNING
STATE OF MISSISSIPPI
ADMINISTERED BY THE UNIVERSITY OF SOUTHERN MISS

MEMORANDUM

June 1, 1992

To: Dr. [GCRL Director], Laboratory Director

From: Dr. [GCRL PI], Study Officer, EMAP-NC

Subject: Exemption from EEOC Policy for EMAP summer hires

By way of this memorandum, I request that you set aside Gulf Coast Research [This page intentionally left blank] EEOC policies for hiring the following specific people to be for the period June 1 through about August 31, 1992: [TRI employee], [TRI employee], [TRI employee], [TRI employee], [TRI employee], [TRI employee], [TRI employee], and [TRI employee]. These people will be hired as temporary, full-time employees to work (with the possible exception of [TRI employee] who may work at least some of the summer at GCRL) in Gulf Breeze, Florida at the U.S. Environmental Protection Agency on the Environmental Monitoring and Assessment Program - Near Shore (EMAP-NC) contract. These people worked on this program last year at the Gulf Breeze location and have been specifically requested to return this year due to their individual knowledge of the project. Last year they were hired directly by EPA or on-site contractor; this year EPA has requested that GCRL hire them to work in Gulf Breeze. All necessary salary money is available in our EMAP-NC Cooperative Agreement (GCRL Account 3318).

Thank you for your consideration of this request.

cc: Dr. [GCRL]

6/1/92

[GCRL Director] -

After you (I hope) approve this request, I guess it needs to come back to me & I'll take it to Dr. [GCRL]. She & I have discussed this situation & this is how she wants to proceed

[GCRL PI]

PROPOSED ORD ACTION IN RESPONSE TO 1992 NARA REPORT AND IMPACT ON ERL-GB RECORDS MANAGEMENT

Records Personnel

Proposed Action: ORD pledged to ensure that each Headquarters office and laboratory had a designated part-time records manager and to work towards assigning a full-time records manager in each of its laboratories, if determined appropriate (when FTEs could be made available for this purpose). Also, to appoint vital records officers as required. This was to be accomplished in the first quarter of FY 1993. ORD plans to request the appointment of file custodians in all Headquarters offices and laboratories by the fourth quarter of FY 1994.

Impact on ERL-GB: ERL-GB's Director did appoint a part-time records manager in 1992. However, a vital records officer was never designated.

Performance Standards

Proposed Action: To ensure a management commitment to records management, ORD proposed to include a records management and internal control critical job element in all records managers' performance standards, thereby guaranteeing status and sufficient time to devote to the program. This was to be accomplished in the first quarter of FY 1993.

Impact on ERL GB: The FY 1993 performance standards for the ERL-GB RMO did not include a records management critical job element. However, a standard alone would not ensure status and sufficient time to devote to records management. Neither would a new critical job element for the RMO ensure top-level management support unless these ERL-GB managers had an equivalent commitment in their performance standards.

Records Briefings/Oversight

Proposed Action: ORD indicated that records mangers would brief all employees on their responsibilities to preserve the integrity of filing official records in the first quarter of FY 1993. Additional briefings would be conducted with the assistance of OIRM to educate staff on the value of central filing and consistent filing techniques to facilitate easy retrieval.

ORD pledged that Headquarters office records managers would give continued oversight to laboratory records managers through

conference calls each quarter, as a minimum, and laboratory visits as travel funds permit. Site reviews could be part of a Headquarters Records Management Task Force or a regularly scheduled Office Director's review.

Impact on ERL-GB: The proposed briefings and quarterly conference calls have not occurred at ERL-GB. However, during the last week of September 1993, a headquarters team reviewing the management of contracts, CAs, and interagency agreements did apparently discuss records during one of their sessions.

Records Training

Proposed Action: ORD committed to develop a training program for ORD Records Managers in the second quarter of FY 1993.

Impact on ERL-GB: The ERL-GB RMO had not been made aware of any planned ORD training.

Internal Controls

Proposed Action: ORD indicated that records management would be included as an ORD-wide Internal Control Event Cycle for 1993 with appropriate internal controls.

Impact on ERL-GB: ERL-GB did include records management as an event cycle in its FMFIA internal control documentation for 1993. However, the internal controls identified were not sufficient to ensure that an effective records management system would be developed at ERL-GB. In addition, some of the controls cited in the FMFIA documentation did not exist at ERL-GB (see Chapter 4).

Records Management Guidance

Proposed Action: ORD indicated that it would request guidance from OIRM in the first quarter of FY 1993 on the establishment of official files contents, and the identification of ORD vital records. In the second quarter of FY 1993, ORD planned to ask OIRM's assistance in developing procedures for evaluating records keeping and, if appropriate, conduct an evaluation of records at one Headquarters program office to demonstrate the proposed evaluation techniques.

Headquarters records managers were assigned the task of coordinating policies and procedures with their laboratory counterparts for consistency. The Headquarters staff were to ensure that the laboratories had current OIRM manuals on records management and ORD guidance on file cutoffs.

Impact on ERL-GB: ERL-GB did not have current OIRM Directives on records management and ORD Headquarters had not coordinated with the ERL-GB RMO on policies and procedures. OEPER did forward some miscellaneous records management documents in June 1993, including records control schedules for laboratory records; a draft chapter for EPA Directive 2100 on records management, dated March 18, 1993; handouts entitled "What is a Record," "Disposition of EPA Records and Nonrecord Materials," "Model Regional Records Management Operating Procedures Manual," and "Using the Federal Records Center - A Guide For Headquarters Staff;" and a telephone directory of each regional federal records center. However, no laboratory specific instructions or direction were provided except that laboratories should utilize federal records centers. Through September 1993, there was no indication that any additional guidance or coordination had been provided to ERL-GB by OIRM, ORD, or OEPER.

Establish Records Management Requirements

Proposed Action: ORD planned to do an extensive review of its current program office records to establish up-to-date inventories; records schedules; implementation plans and procedures. To help in this effort, ORD established a Headquarters Records Management Task Force consisting of coordinators from each ORD Headquarters office to give oversight to ORD's records management both at Headquarters and at its laboratories in the fourth quarter of 1992. The Records Management Task Force was to coordinate the ORD Headquarters offices and laboratories effort and after reviewing present records schedules prepare revised disposition schedules for both Headquarters offices and the field.

Impact on ERL-GB: At ERL-GB there had been no independent efforts to establish records implementation plans/procedures related to records control schedules. The laboratory director stated that about a year ago they initiated, but did not complete, an inventory of all laboratory records currently maintained at ERL-GB. While there may be activity at the Headquarters level to get records management on track, it had not occurred at ERL-GB.

As a result of records management weaknesses identified during this audit and communicated to the laboratory director, records management at ERL-GB was recognized as an Agency level weakness in internal controls. This was reported to the Assistant Administrator for Research and Development in ERL-GB's year-end assurance letter, dated October 25, 1993. After reviewing Agency and ORD guidance on records management, ERL-GB intends to develop a laboratory action plan to guide implementation of a comprehensive records management program.

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