OFFICE OF INSPECTOR GENERAL
CORPORATION FOR NATIONAL AND
COMMUNITY SERVICE

Letter Report Regarding Plan for OIG Concurrence with the Certification of New Grants Management and Cost Accounting Systems

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Office of Inspector General
Corporation for National and Community Service
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EXECUTIVE SUMMARY

Purpose

The Office of Inspector General (OIG) engaged KPMG to assist in planning to satisfy Congressional requirements expressed in the conference report for the Corporation for National and Community Service's (the Corporation) fiscal 2001 appropriations act. The objective is to recommend an approach that will enable the OIG to fulfill its responsibilities as assigned by the Congress to concur with the Corporation's certification that adequate cost accounting and grants management systems have been acquired, implemented, and conform to all Federal requirements, or not, as appropriate.

Legislative and Regulatory Background

Act. Language in the FY 2001 appropriations act for the Corporation directs the Corporation to acquire a cost accounting system, an integrated grants management system, and a central archive for all grant, cooperative agreement and related documents.

Conference Report. The Conference Report for the FY 2001 appropriations act includes wording that prohibits salary increases for Corporation senior managers until the Corporation certifies, with the IG's concurrence, that an adequate cost accounting and grants management system has been acquired, implemented, and conforms to all Federal requirements.

Senate Report. The Senate Report for the FY 2001 appropriations act directs the Corporation to ensure that the cost accounting system and the grants management system conform to Federal requirements, including those established for such systems by the Joint Financial Management Improvement Program (JFMIP).

Federal Financial Management Systems Requirements

FFMIA. The Federal Financial Management Improvement Act (FFMIA) of 1996 codified the JFMIP financial systems requirements as a key benchmark that agency systems must meet in order to be substantially compliant with systems requirements provisions under FFMIA. The Corporation is not specifically required to be audited under the Federal Financial Management Improvement Act (FFMIA). However, the Government Corporation Control Act (31 U.S.C. 9101 et seq.) does require OIG to annually audit the Corporation's financial statements.

OMB. OMB Circular A-127, *Financial Management Systems,* which provides guidance on the implementation of the Chief Financial Officers Act (CFO Act) of 1990, and the Federal Managers' Financial Integrity Act of 1982, requires that each agency establish and maintain a single, integrated financial management system, and requires all agency financial management

systems to conform to the functional requirements defined in the series of publications entitled Federal Financial Management Systems Requirements.

JFMIP. The Joint Financial Management Improvement Program is a joint undertaking of the U.S. Department of the Treasury, the General Accounting Office (GAO), the Office of Management and Budget (OMB), and the Office of Personnel Management (OPM), working in cooperation with each other and other agencies to improve financial management practices in the Federal government.

JFMIP has published the Federal Financial Management System Requirements (FFMSR) series of documents to provide a uniform basis for the standardization of financial management systems. The first in the series, Core Financial System Requirements (FFMSR-1) was published in January 1998. Since then other FFMSRs have been published for various financial functions, such as Human Resources and Payroll Systems, Travel Systems, etc. The FFMSRs that are most relevant for the Corporation are:

- JFMIP-SR-00-3, *Grant Financial Management System Requirements*, June 2000;
- FFMSR-8, *System Requirements for Managerial Cost Accounting*, February 1998; and
- FFMSR-1, Core Financial System Requirements, November 2001.

The FFMSRs require each agency to integrate its unique requirements with the government-wide JFMIP standard requirements. The FFMSRs are the minimum requirements that agency systems must meet, and are not intended to be all-inclusive. They are also intended as guidance for reviews of system compliance with FFMIA requirements.

GAO. GAO has published a corollary document set to the FFMSRs. The GAO documents provide checklists for auditors and others who are reviewing systems for compliance in meeting the JFMIP System Requirements. Pertinent GAO documents include:

- GAO-01-911G, *Grant Financial System Requirements - Checklist for Reviewing Systems Under the Federal Financial Management Improvement Act*;
- GAO/AIMD-99-21.2.9, *System Requirements for Managerial Cost Accounting Checklist - Systems Reviewed Under the Federal Financial Management Improvement Act of 1996*; and
- GAO/AIMD-00-21.2.2, *Core Financial System Requirements - Checklist for Reviewing Systems Under the Federal Financial Management Improvement Act.*

General Requirements for Management of Information Systems

OMB. The policies contained in OMB Circular A-130, *Management of Federal Information Resources*, govern general agency management of information systems. These policies apply to all agency information resources, including financial management systems. Appendix III to OMB Circular A-130, *Security of Federal Automated Information Resources*, establishes a minimum set of controls to be included in Federal automated information security programs and assigns Federal agency responsibilities for the security of automated information.

For each major application system OMB Circular A-130 requires that:

- Responsibility for the security of each major application system be assigned to a senior management official;
- There be an application security plan for each major application;
- There be an independent review or audit of the security controls in each application at least every three years; and
- A management official authorizes use of the application system in writing prior to initial operation of the system, and re-authorize it at least every three years thereafter.

Corporation Actions to Comply with the Congressional Direction

Cost Allocation Model/System. The Corporation began a Cost Accounting Initiative in fiscal year 2000. It contracted with PricewaterhouseCoopers LLP (PwC), an independent public accounting firm, to develop a Cost Allocation Model and database using Microsoft Access software. PwC was also engaged by the Corporation to assess the Corporation's compliance with Federal accounting standards, specifically the Statement of Federal Financial Accounting Standards Number 4, *Managerial and Cost Accounting Concepts and Standards for the Federal Government*, (SFFAS No. 4). PwC concluded that in all areas, except one, the Corporation was in compliance with SFFAS No. 4. In that one area PwC concluded the Corporation was in partial compliance.

Grants Management System. In early 2000 the Corporation engaged STR LLC, a professional services company, to assist the Corporation in designing a grants management system called E-Grants. In December 2000 the Corporation again contracted with STR to develop and implement the new grants management software. The Corporation is currently in the process of implementing the system. Implementation is due to be completed in 2003.

In July 2001, OIG engaged KPMG to conduct an independent assessment of the risks associated with the Corporation's initiative to develop a new grants management system. The scope of the engagement was limited to an assessment of project management. It did not include an assessment of the functions or design of the system that was being developed. KPMG concluded that the Corporation had adequately managed the project.

Records Archive. In 2002 the Corporation constructed a file room that will become the central archive for all grants, cooperative agreements and related records.

What is to be Certified?

On January 25, 2002, the Deputy IG for Audit and Policy sent an e-mail requesting that the Chief Information Officer (CIO) describe what the Corporation's plans were for certifying the new grants management system as required by the Congress, and what information would be provided to the OIG.

On February 5, 2002, the CIO sent an e-mail to the Deputy IG[1] which stated the following:

> "As for the certification process, a normal A-130 accreditation is planned and an accreditation package will be provided."

Based on the CIO's e-mail message, the Corporation appears to have initially interpreted the term "certify" in the Congressional language to solely mean the security certification and accreditation of systems as required by OMB Circular A-130.

However, a review of the legislative history shows that the requirements the Congress specifically intended are the ones published by the JFMIP. This is clearly stated in the Senate report for P.L. 106-377: "The Corporation is directed to ensure that the cost accounting system and the grants management system conform to Federal requirements, including those established for such systems by the Joint Financial Management Improvement Program."[2]

This understanding of the Congressional intent would indicate that the Corporation should certify two systems to the Congress, not just one, and that both systems should conform to the JFMIP requirements, as well as the OMB Circular A-130 requirements. It can also be inferred that the Congress would expect to be informed that the Corporation had implemented a central archive for grants, cost share agreements and related documents as instructed. The scope of the IG's concurrence should cover all three elements.

Recommendations

Scope. To comply with the Congressional intent, it is recommended that OIG ascertain:

- That the Corporation's new grants management system, in both its design and its implementation, meets the relevant OMB and JFMIP requirements;
- That the Corporation's cost accounting system meets the relevant OMB and JFMIP requirements and the standards established in SSFAS-4, *Managerial Cost Accounting Concepts and Standards for the Federal Government*, and
- That the Corporation has acquired and implemented a central archives serving as the repository for all grant, cooperative agreement, and related documents.

Tasking.

For both the grants management system and cost accounting system, the basic task is to determine whether the system complies with OMB Circular A-130 and relevant portions of the JFMIP FFMSR series. However, it is recommended that two separate compliance audit tasks be established, one for each system, to facilitate tailoring the scope, depth and timing of the evaluations to the specific circumstances for each system.

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[1] See full text of CIO e-mail message in Appendix A to this report.

[2] Senate Report, 106-410, September 13, 2000, Departments of Veteran Affairs and Housing and Urban Development, and Independent Agencies Appropriations Act, 2001, Corporation for National and Community Service, National and Community Service Programs Operating Expenses (including Transfer and Rescission of Funds), Committee Recommendation.

The cost accounting system is already in full operation and evaluation of its implementation could begin whenever OIG chooses. Documentation regarding that system is already available from audits and assessments that have previously been performed, including:

- The general controls evaluation performed by KPMG during the FY2001 audit of the Corporation's financial statement related to the Cost Allocation Model.
- The work PricewaterhouseCoopers (PwC) has done in assessing the Corporation's compliance with Statement of Federal Financial Accounting Standards (SFFAS) No. 4. However, PwC also developed the Cost Allocation Model/System for the Corporation which may limit the extent of possible reliance.
- The PwC documentation of the Cost Allocation System.
- The re-accreditation security assessments of Momentum conducted by the Corporation.
- The Electronic Data Processing (EDP) general controls reviews of Momentum conducted by KPMG in conjunction with the annual financial statement audits.
- The Government Information Security Reform Act (GISRA) security assessments of Momentum conducted by KPMG in FY 2001 and FY 2002.

The situation for the grants management system is quite different. The system is not yet in full operation. It has not yet undergone a security controls assessment for either GISRA or the financial statement audit. And, although KPMG performed a Project Risk Management Review of the system while it was under development, the information gathered at that time concerning the design of the system was incidental to the review's purpose.

Methodology.

For evaluation of compliance with the JFMIP FFMSR requirements, it is recommended that the corresponding GAO "Checklists" be used as the basis for building the JFMIP portion of the audit work program.

For evaluation of the OMB Circular A–130 requirements it is recommended that the audit work program be based on Government Accounting Office's (GAO) Federal Information System Controls Audit Manual (FISCAM).

For each system, a three-phase approach to assessing compliance is recommended. The first phase would be an evaluation of the functional design of the system. If the design appears to meet the JFMIP requirements, then the evaluation would proceed to the second phase to look at actual implementation. However, if functionality required by the JFMIP standards is not found in the system design, the assessment of the implementation of that functionality should be held in abeyance, until Corporation management advises OIG that the design has been modified and the functionality implemented. If the extent to which the JFMIP requirements have not been met is significant, OIG might choose to delay any immediate assessment of the system implementation.

The third phase would be to ascertain compliance with OMB Circular A-130 requirements.

It is suggested that the audit tasking include a requirement that systematic identification of all significant security and internal controls be done during the design assessment phase, including

ones not specifically required by JFMIP, but necessary for the Corporation's specific functions. The purpose would be to establish a solid baseline for future system based audits.

Timing.

There is no explicit deadline stated in the Congressional guidance for the Corporation to certify that it has met the Congressional requirements. And, at this point the Corporation has not elaborated a plan for certification and accreditation. However, the Corporation has stated its intention to do so in FY 2003, and can be expected to ask for OIG concurrence in the foreseeable future.

OIG has the choice of waiting until the Corporation takes action and then reacting to the situation, or of being more proactive.

Because the cost accounting system is in full operation, and documentation about the system is available, OIG could get started with a compliance evaluation of the system at any time. The chief advantage would be that having the cost accounting piece out of the way lessens the potential for needing to do everything during one big crunch, while under pressure from the Corporation for OIG to provide concurrence.

OIG might wish to set up the compliance audit task as a series of sub-tasks, so that the results of the early tasks could be evaluated, before the next is assigned. This would allow OIG to retain latitude in deciding on performance of subsequent tasks. Each sub-task would be completed in sequence prior to beginning the next.

A similar approach could be used for the grants management system. Evaluation of the system design could begin prior to full implementation of the system. As this task was nearing completion, OIG could determine whether the system implementation had proceeded far enough to be ready for evaluation, or whether it should be held in abeyance.

Because the documents to be held in the central archive relate to grants, it is logical that verification of the central archives be considered a part of the grants management system audit task.

KPMG

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Legislative and Regulatory Background

The FY 2001 appropriations act for the Corporation directs the Corporation to acquire a cost accounting system, an integrated grants management system, and a central archive for all grant, cooperative agreement and related documents.

The Conference Report for the legislation prohibits salary increases for Corporation senior managers until the Corporation certifies, with the Inspector General's concurrence, that an adequate cost accounting and grants management system has been acquired, implemented, and conforms to all Federal requirements.

The Senate report for this legislation clarifies the Congressional intent. It directs the Corporation to ensure that the cost accounting system and the grants management system conform to Federal requirements, including those established for such systems by the Joint Financial Management Improvement Program (JFMIP).

The relevant, specific wording for each of these reports is provided in the excerpts that follow:

Public Law 106-377[3]

The Departments of Veteran Affairs and Housing and Urban Development, and Independent Agencies Appropriations Act, 2001, Public Law 106-377, October 27, 2000, authorized $31,000,000 for administrative expenses

> ".[w]ith not less than $2,000,000 targeted for the acquisition of a cost accounting system for the Corporation's financial management system, an integrated grants management system that provides comprehensive financial management information for all

[3] Departments of Veteran Affairs and Housing and Urban Development, and Independent Agencies Appropriations Act, 2001, Public Law 106-377, October 27, 2000, Corporation for National and Community Service, National and Community Service Programs Operating Expenses (including Transfer and Rescission of Funds).

Corporation grants and cooperative agreements, and the establishment, operation and maintenance of a central archives serving as the repository for all grant, cooperative agreement, and related documents, ..."

Conference Report[4]

"That the conferees agree that the Corporation is prohibited from providing any salary increases (with the exception of locality adjustments and other adjustments provided to all government employees) or bonuses to its senior management until the Corporation has certified, with the IG's concurrence, that an adequate cost accounting and grants management system has been acquired, implemented, and conforms to all Federal requirements."

Senate Report[5]

"The Committee remains troubled by the Corporation's inability to provide information to the Congress or the American taxpayer on what they are getting in return for the funds provided to the Corporation. Currently, the Corporation is only able to provide anecdotal examples and data on a budgeted basis for its programs. The IG has repeatedly stressed the importance of a cost accounting system that would be able to track and provide information on how programs are actually performing. The Committee was disappointed to learn that the Corporation has been slow in responding to these concerns. Accordingly, the Committee has included bill language to direct the Corporation to use $2,000,000 out of its allocation for program administration for the acquisition of a cost accounting system for the Corporation's financial management system, an integrated grants management system that provides comprehensive financial management information for all Corporation grants and cooperative agreements, and the establishment of, operation and maintenance of a central archives serving as the repository for all grant, cooperative agreement, and related documents. **The Corporation is directed to ensure that the cost accounting system and the grants management system conform to Federal requirements, including those established for such systems by the Joint Financial Management Improvement Program**. [Emphasis added] The Corporation is also directed to provide a report that describes its progress to date for each of these areas, expenditures for the period by category (e.g. contract or salaries), purpose, amount, as

[4] Conference Report on H.R. 4635, House Report 106-98, October 18, 2000, Departments of Veteran Affairs and Housing and Urban Development, and Independent Agencies Appropriations Act, 2001 (House of Representatives – October 18, 2000), Corporation for National and Community Service, National and Community Service Programs Operating Expenses (including Transfer and Rescission of Funds).

[5] Senate Report, 106-410, September 13, 2000, Departments of Veteran Affairs and Housing and Urban Development, and Independent Agencies Appropriations Act, 2001, Corporation for National and Community Service, National and Community Service Programs Operating Expenses (including Transfer and Rescission of Funds), Committee Recommendation.

> Corporation is prohibited from providing any salary increases (with the exception of locality adjustments and other adjustments provided to all government employees) or bonuses to its employees graded at management levels or above until the Corporation has certified with the IG's concurrence, that an adequate cost accounting and grants management system has been acquired, implemented, and conforms to all Federal requirements."

A brief description of the Joint Financial Management Improvement Program (JFMIP) cited in the Senate Report follows.

Joint Financial Management Improvement Program

The Joint Financial Management Improvement Program (JFMIP) is a joint undertaking of the U.S. Department of the Treasury, the General Accounting Office (GAO), the Office of Management and Budget (OMB), and the Office of Personnel Management (OPM), working in cooperation with each other and other agencies to improve financial management practices in the Federal government. The program was given statutory authorization in the Budget and Accounting Procedures Act of 1950 (31 USC 65 as amended). Leadership and program guidance are provided by the four principals of the JFMIP, who are the: Comptroller General of the United States, Secretary of Treasury, Director of the OMB, and Director of OPM. Each principal designates a representative to serve on the JFMIP Steering Committee, which is responsible for the program's general direction. The Executive Director of JFMIP is a permanent member of the Steering Committee, and is also responsible for day-to-day operations of JFMIP.

The Chief Financial Officers (CFO) Act of 1990, the Government Performance and Results Act (GPRA) of 1993, the Government Management Reform Act (GMRA) of 1994, and the Federal Financial Management Improvement Act (FFMIA) of 1996 mandate improved financial management, assign clearer responsibility for leadership to senior officials, and require new financial organizations, enhanced financial systems, and audited financial reporting.

The FFMIA mandated that agencies implement and maintain systems that comply substantially with Federal financial management system requirements, applicable Federal accounting standards, and the U.S. Government standard general ledger (SGL) at the transaction level. The FFMIA statute codified the JFMIP financial systems requirements as key benchmarks that agency systems must meet to be substantially in compliance with FFMIA. The goal is government wide financial management systems and compatible agency systems, with standardized information and electronic data exchange, to support program delivery, safeguard assets, and manage taxpayer dollars.

To provide a uniform basis for the standardization of financial management systems as required by the CFO Act of 1990 and the FFMIA of 1996, each agency must integrate its unique requirements with the government wide standard requirements promulgated in the JFMIP series of publications entitled *Federal Financial Management System Requirements* (FFMSR) as illustrated below.

JFMIP Federal Financial Management System Requirements

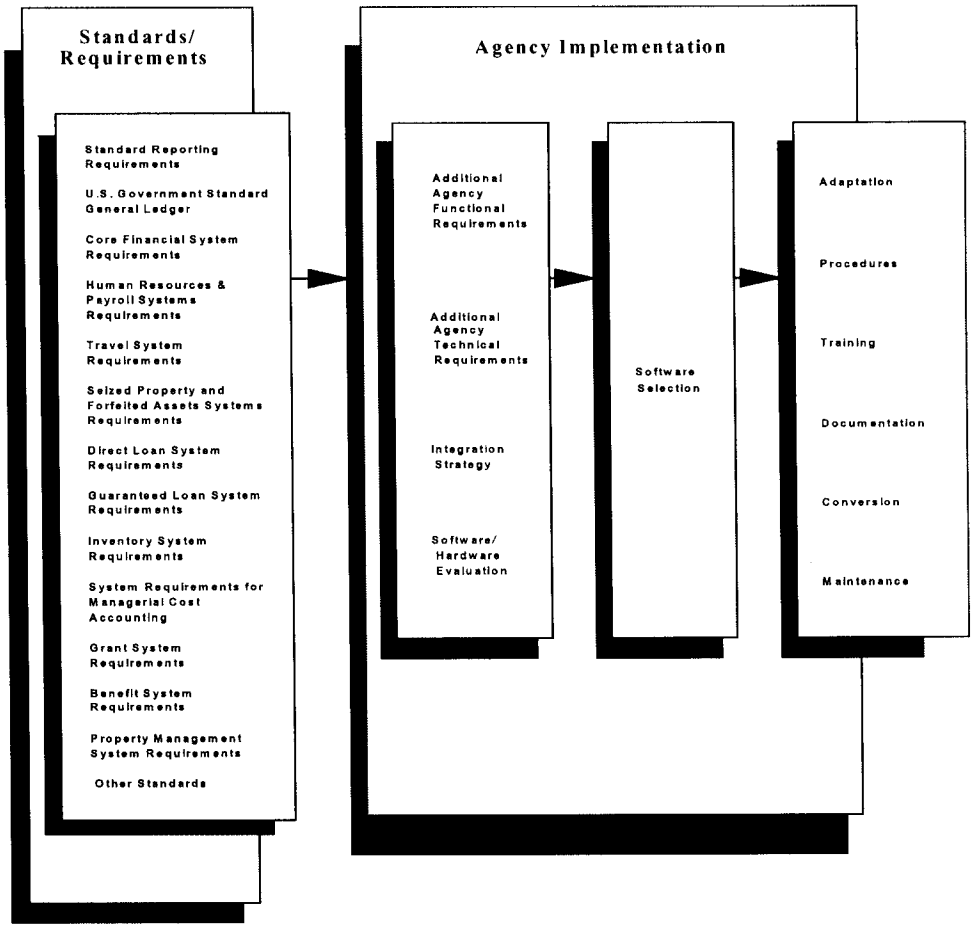


Illustration 1

The *Framework for Federal Financial Management Systems* describes the basic elements of a model for integrated financial management systems, the relationships between the model elements, and specific considerations in developing and implementing integrated financial management systems. Each of the other documents in the series, beginning with *Core Financial System Requirements*, describes the functional requirements for a particular type of system.

JFMIP *Core Financial Systems Requirements*

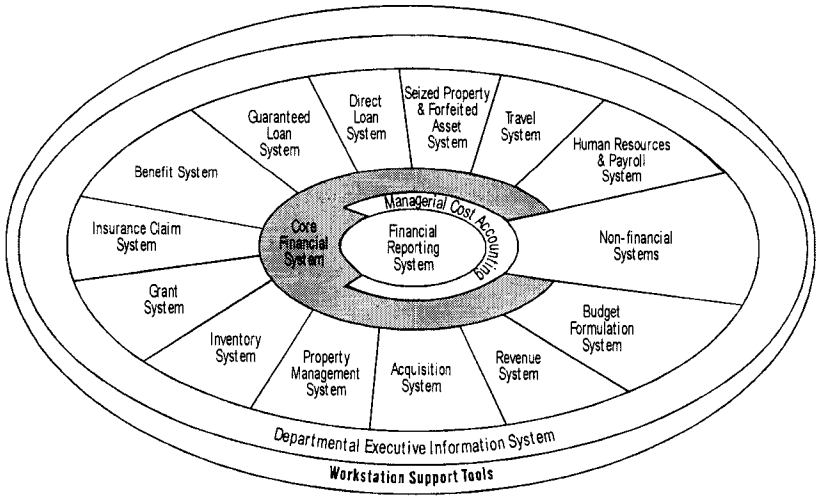
The CFO Act of 1990 and financial management systems policy described in OMB Circular No. A-127, *Financial Management Systems* require that each agency establish and maintain a single, integrated financial management system. Agency financial management systems are information systems that track financial events and summarize information to support the mission of an agency, provide for adequate management reporting, support agency level policy decisions necessary to carry out fiduciary responsibilities, and support the preparation of auditable financial statements.

These systems must be linked together electronically to be effective and efficient. Summary data transfers must be provided from agency systems to central systems to permit summaries of management information and agency financial performance information on a government-wide basis.

The agency financial management systems architecture depicted in Illustration 2 shows the typical components of an integrated Federal financial management system. Although this does not necessarily represent the physical design of the system, it does identify the system types needed to support program delivery/financing and financial event processing for effective and efficient program execution.

Illustration 2

Agency Systems Architecture



The JFMIP *Core Financial Systems Requirements* document is the basis for evaluating core financial system software for compliance with JFMIP requirements, through a testing process that links test scenarios to the requirements presented in the document. JFMIP tests commercial

software functionality against these requirements and qualifies the software as meeting mandatory requirements.

Each agency is required to integrate its unique requirements with these government-wide standard requirements to provide a uniform basis for the standardization of financial management systems as required by the CFO Act of 1990, FFMIA of 1996, and other statutes.

The following is a brief description of the major functions of a core financial system. Appendix C provides a description of each function. Illustration 3 depicts the major functions within the core financial system.

Core Financial System

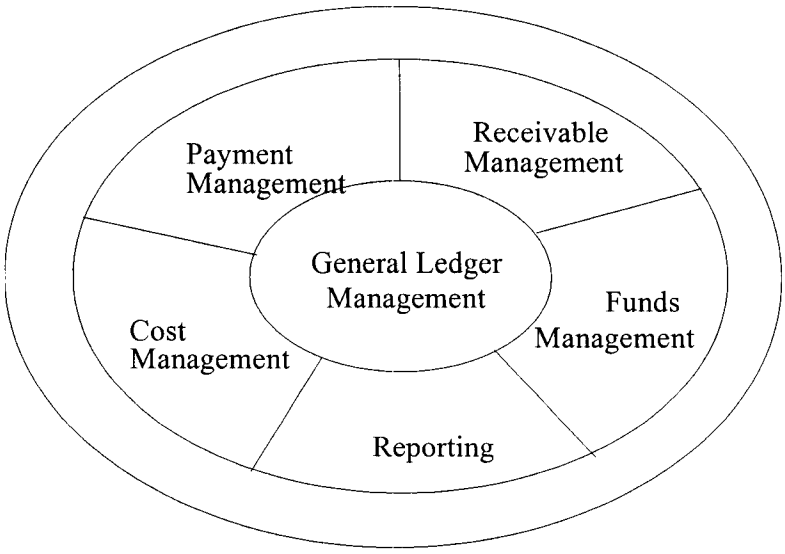


Illustration 3

A single financial event will require processing by more than one function within the core financial system. The core financial system management function affects all financial event transaction processing because it maintains reference tables used for editing and classifying data, controls transactions, and maintains security. Likewise, the general ledger management function is involved either directly or indirectly with financial events since transactions to record financial events must be posted to the general ledger either individually or in summary. Any transactions involved in budget execution will use the funds management function.

An example of a financial event affecting multiple functions is a payment including additional charges not previously recorded, such as interest costs due to late payment or additional shipping charges allowed by the contract. This transaction would: (1) originate in the payment management function, (2) be edited for funds availability and update balances in the funds management function for the excess costs and to move the undelivered order amount to an expenditure status, (3) update cost amounts controlled by the cost management function,

(4) update the general ledger balances in the general ledger management function, and (5) be edited against reference data and update audit trails in the core financial system management function.

JFMIP System Requirements for Managerial Cost Accounting Systems

JFMIP FFMSR-8, *System Requirements for Managerial Cost Accounting,* February 1998, is one of a series of JFMIP publications on Federal financial management system requirements. This particular document is called *System Requirements for Managerial Cost Accounting*, rather than *Managerial Cost Accounting System Requirements,* because cost accounting functions may be supported by many types of systems, such as the core financial system, inventory and fixed asset systems, programmatic systems, and others, in addition to systems dedicated to cost accounting.

JFMIP FFMSR-8 is based on the requirements of SFFAS Number 4, *Managerial Cost Accounting Concepts and Standards for the Federal Government. SFFAS No. 4* requires reporting entities to perform at least a certain minimum level of cost accounting and to provide a basic amount of cost accounting information necessary to accomplish the many objectives associated with planning, decision making, and reporting. This minimum level includes collecting cost information by responsibility segments, measuring the full cost of outputs, providing information for performance measurement, integrating cost accounting and general financial accounting with both using the standard general ledger, providing the appropriate precision of information (it should be useful but not unnecessarily precise or refined), and accommodating any of management's special cost information needs that may arise due to unusual or special situations or circumstances. While each entity's managerial cost accounting should meet these basic requirements, the standard does not specify the degree of complexity or sophistication of any managerial cost accounting process.

The JFMIP *System Requirements for Managerial Cost Accounting* document presents requirements for software designed to support managerial cost accounting in a Federal agency. It contains:

• Information Requirements – the types of data that systems need to maintain to support managerial cost accounting.

• Functional Requirements – the functional requirements pertaining to systems supporting managerial cost accounting.

• Integration Requirements – the basis for required data interchanges between systems that support managerial cost accounting directly with other systems that provide or receive cost data or related information.

Appendix D provides a brief summary of the JFMIP System Requirements for Managerial Cost Accounting Systems.

JFMIP Grant Financial Management System Requirements

JFMIP-SR-00-3 *Grant Financial System Requirements,* dated June 2000, is the first functional requirements document issued for grant financial systems for the Federal government. It is one of a series of functional systems requirements documents published by the Joint Financial Management Improvement Program (JFMIP) on Federal financial management systems. The grant financial system requirements document is intended to identify the minimum financial system requirements necessary to support grants programs. It is not intended to identify the full scope of functional program requirements associated with grants management programs. Each agency is required to integrate its unique requirements with the government wide standard requirements to provide a uniform basis for the standardization of financial management systems as required by the CFO Act of 1990 and the FFMIA of 1996.

Grant financial systems are an integral part of the total financial management system for a number of Federal agencies. Grant financial systems support programmatic objectives and interact with core financial systems to: record advances, collections and disbursements in the general ledger consistent with the standard general ledger; validate funds availability; update budget execution data; and record other grant related transactions.

All grant financial systems must provide, as a minimum, the following qualities:
- Complete and accurate funds control;
- Complete, accurate, and prompt recording of obligations;
- Complete, accurate, and prompt payment of grantee payment requests;
- Complete, accurate, and prompt generation and maintenance of grant financial records and transactions;
- Timely and efficient access to complete and accurate information, without extraneous material, to those internal and external to the agency who require the information;
- Timely and proper interaction of the grant financial system with core financial systems and other existing automated systems; and
- Adequate internal controls to ensure that the grant financial system is operating as intended.

Functional requirements of Federal grant financial systems can be segregated into two general categories, mandatory and value-added. All requirements in the JFMIP-SR-00-3 document are mandatory, unless otherwise identified as value-added. Definitions for these two categories of requirements are:

Mandatory - Mandatory requirements describe the minimum acceptable functionality necessary to establish a system or are based on Federal laws and regulations. Mandatory requirements are those against which agency heads evaluate their systems to determine substantial compliance with systems requirements under the FFMIA. These requirements apply to existing systems in operation and new systems planned or under development.

Value-added - Value added requirements describe optional features and may consist of any combination of the following: (1) using state of the art technology, (2) employing the preferred or best business practices, or (3) meeting the special management needs of an individual agency. Agencies should consider value added features when judging systems options. The need for these value-added features in agency systems is left to the discretion of each agency head.

Grant financial management activities can be further categorized based on types of activities within the overall grants process. The JFMIP system requirements document provides functional requirements based on the following categories:

- Commitments
- Decommitments
- Obligations
- Payments
- Cost Accruals
- Financial Reports
- Interest Collections
- Grant Closeout
- Records Retention
- General System Requirements

Appendix E provides a brief summary of the JFMIP Grant Financial System Requirements.

GAO Checklists for Reviewing Systems Under the Federal Financial Management Improvement Act

JFMIP's Federal Financial Management System Requirements documents identify various criteria that an agency must meet to substantially comply with FFMIA requirements. GAO has issued a corollary series of checklists that parallel JFMIP's Federal Financial Management System Requirements documents to assist (1) agencies in implementing and monitoring their core systems and (2) management and auditors in reviewing agency core systems to determine if they substantially comply with FFMIA. Filling out the checklist allows agencies to systematically determine whether specific systems requirements are being met. GAO intends that the checklists be used in conjunction with the JFMIP source documents and OMB's Implementation Guidance for the FFMIA.

The GAO checklists that are specifically applicable are:

- GAO-01-911G, *Grant Financial System Requirements – Checklist for Reviewing Systems Under the Federal Financial Management Improvement Act*
- GAO/AIMD-00-21.2.2, *Core Financial System Requirements – Checklist for Reviewing Systems Under the Federal Financial Management Improvement Act*

- GAO/AIMD-99-21.2.9, *System Requirements for Managerial Cost Accounting Checklist – Systems Reviewed Under the Federal Financial Management Improvement Act of 1996*

Regulatory Requirements

OMB A-127

OMB Circular No. A-127, *Financial Management Systems*, sets forth general policies for Federal financial management systems. Each agency is required to establish and maintain a single, integrated financial management system. To support this requirement, each agency must have an ongoing financial systems improvement planning process and perform periodic reviews of financial system capabilities. In addition, each agency must maintain financial management systems that comply with uniform Federal accounting concepts and standards promulgated by the Federal Accounting Standards Advisory Board (FASAB) in its Statements of Federal Financial Accounting Standards (SFFAS), which constitute generally accepted accounting principles for the Federal government. A synopsis of OMB Circular A-127 is provided in Appendix B.

OMB Circular A-130

The policies contained in OMB Circular A-130, *Management of Federal Information Resources*, govern general agency management of information systems. These policies apply to all agency information resources, including financial management systems. Appendix III to OMB Circular A-130, Security of Federal Automated Information Resources, establishes a minimum set of controls to be included in Federal automated information security programs and assigns Federal agency responsibilities for the security of automated information.

For each major application OMB Circular A-130 requires:

"A management official to authorize use of the application system in writing prior to initial operation of the system, and re-authorize it at least every three years thereafter. Management authorization confirms that the application's security plan as implemented adequately secures the application, and implies accepting the risk of each supporting system used by the application."[6]

[6] OMB Circular A-130, "Management of Federal Information Resources," Appendix III "Security of Federal Automated Information Resources," Section 3.b.4. "Authorize Processing", p. 48.

National Institute of Standards and Technology (NIST) Guidelines for the Security Certification and Accreditation of Federal Information Technology Systems – Initial Public Draft

NIST Special Publication 800-37, Guidelines for the Security Certification and Accreditation of Federal Information Technology Systems, was issued on October 28, 2002 as an "initial public draft". When issued in final form, it will supercede NIST FIPS Pub 102, Guidelines for Computer Security Certification and Accreditation, September 1983. NIST SP 800-37 establishes a standard process, general tasks and specific sub-tasks to certify and accredit Information Technology (IT) systems supporting the executive branch of the Federal government. It provides a new approach to certification and accreditation that uses a standardized process to verify the correctness and effectiveness of security controls employed in an IT system to ensure adequate security is maintained. The use of standardized, minimum security controls for low, moderate, and high levels of concern for confidentiality, integrity, and availability will be defined in companion NIST Special Publication 800-53 and the employment of standardized verification techniques and verification procedures will be defined in companion NIST Special Publication 800-53A. Both publications are due to be released in Spring 2003.

Although SP 800-37 has only been made available in draft form, it is likely that the final version will be issued in a time frame that is relevant to the certification of the new E-Grants system to the Congress. Beyond that, it may be desirable for the Corporation to use the new methodology described in SP 800-37, because the document introduces concepts with regard to certification and accreditation that could be a better fit for the Corporation. For example, SP 800-37 describes a range of Security Certification levels that correspond to the criticality and sensitivity of the system, rather than a one size fits all approach.

Corporation Actions to Comply with Congressional Direction

Development of E-Grants

In early 2000 the Corporation engaged STR LLC, a professional services company, to assist the Corporation in designing a grants management system. In December 2000 the Corporation again contracted with STR to develop and implement the new grants management software.

OIG – Grants Management System Project Management Assessment

OIG engaged KPMG in July 2001 to conduct an independent assessment of the risks associated with the Corporation's project management practices associated with the Corporation's initiative to develop a new grants management system (known as E-Grants). The project focused on identifying risks associated with the Corporation's project management practices that could interfere with its ability to successfully complete the acquisition and implementation of a new grants management system, and, consequently, might impair its ability to certify a new system, as required by the Congress. The scope of the engagement was limited to an assessment of

project management. It did not include an assessment of the functions or design of the system that was being developed. KPMG concluded that the Corporation had adequately managed the project.

Cost Allocation Model

The Corporation began a Cost Accounting Initiative in fiscal year 2000. It contracted with PricewaterhouseCoopers LLP (PwC), an independent public accounting firm, to develop a Cost Allocation Model and database using Microsoft Access software. PwC was also engaged by the Corporation to assess the Corporation's compliance with Federal accounting standards, specifically the Statement of Federal Financial Accounting Standards Number 4, *Managerial and Cost Accounting Concepts and Standards for the Federal Government*, (SFFAS No. 4). PwC concluded that in all areas, except one, the Corporation was in compliance with SFFAS No. 4. In that one area PwC concluded the Corporation was in partial compliance.

Construction of a File Room

During 2002 the Corporation constructed a file room to be used as a central archive for grants, cost share agreements and related documents as directed in the Congressional language.

Certification of the E-Grants system

On January 25, 2002, the Deputy IG for Audit and Policy sent an e-mail requesting that the CIO describe what the Corporation's plans were for certifying the new grants management system as required by the Congress, and what information would be provided to the OIG.

On February 5, 2002, the CIO sent the following e-mail reply to the Deputy IG[7]:

> "As for the certification process, a normal A-130 accreditation is planned and an accreditation package will be provided."

Appendix A contains the full text of the OIG and CIO e-mails.

What is to be Certified?

Because of the use of the term "certify" in the Congressional language, the Corporation appears to have initially interpreted the Congressional language to mean the security certification and accreditation of systems required by OMB Circular A-130[8].

However, a review of the legislative history shows the requirements the Congress specifically had in mind are the ones published by the JFMIP. This was clearly stated in the Senate report on P.L. 106-377: "The Corporation is directed to ensure that the cost accounting system and the

[7] See full text of Deputy IG e-mail message in Appendix A to this report.
[8] See text of CIO e-mail message in Appendix A to this report

grants management system conform to Federal requirements, including those established for such systems by the Joint Financial Management Improvement Program."

This interpretation of the Congressional intent would indicate that the Corporation should certify two systems to the Congress, not just one, and that both systems should conform to the JFMIP requirements, as well as the OMB Circular A-130 requirements. It can also be inferred that the Congress would expect to be informed that the Corporation had implemented a central archive for grants, cost share agreements and related documents as instructed. The scope of the IG's concurrence should cover all three elements. If the Corporation agrees with this understanding of the Congressional language and documents how the systems meet the JFMIP requirements, it may make the OIG's task smaller than if the Corporation does not agree. But in either case, it should be possible for OIG to proceed to carry out it responsibilities.

Recommendations

Scope. To comply with the Congressional intent, it is recommended that OIG ascertain the following:

1. Grants Management System.

That the Corporation's new grants management system, in both its design and its implementation, conforms to the requirements of:

- JFMIP-SR-00-3, *Grant Financial Management System Requirements*
- Relevant portions of JFMIP-SR-02-01, *Core Financial System Requirements*
- OMB Circular A-127, *Financial Management Systems*
- OMB Circular A-130, *Management of Federal Information Resources*
- OMB Circular A-123, *Management Accountability and Control*

2. Cost Accounting System.

That the Corporation's cost accounting system conforms to the requirements of:

- JFMIP FFMSR-8, *System Requirements for Managerial Cost Accounting*
- JFMIP *Managerial Cost Accounting Guide, February 1998*
- Relevant portions of JFMIP-SR-02-01, *Core Financial System Requirements*
- OMB Circular A-127, *Financial Management Systems*
- OMB Circular A-130, *Management of Federal Information Resources*
- OMB Circular A-123, *Management Accountability and Control*
- SSFAS 4, *Managerial Cost Accounting Concepts and Standards for the Federal Government*

3. Central Archive.

That the Corporation has, as part of its improvement of grant management processes, acquired and implemented a central archives serving as the repository for all grant, cooperative agreement and related documents.

Tasking.

For both the grants management system and cost accounting system, the basic task is to determine whether the system complies with OMB Circular A-130 and relevant portions of the JFMIP FFMSR series. However, it is recommended that two separate compliance audit tasks be established, one for each system, to facilitate tailoring the scope, depth and timing of the evaluations to the specific circumstances for each system.

The cost accounting system is already in full operation and evaluation of its implementation could begin whenever OIG chooses. In addition, there is relevant information already in-hand from audits and assessments that have previously been performed, including:

- The general controls evaluation performed by KPMG during the FY2001 audit of the Corporation's financial statement related to the Cost Allocation Model;
- The work PricewaterhouseCoopers (PwC) has done in assessing the Corporation's compliance with SFFAS No. 4. (However, PwC also developed the Cost Allocation Model/System for the Corporation which may limit the extent of possible reliance);
- The PwC documentation of the Cost Allocation System.
- The re-accreditation security assessments of Momentum conducted by the Corporation.
- The EDP general controls reviews of Momentum conducted by KPMG in conjunction with the annual financial statement audits.
- The GISRA security assessments of Momentum conducted by KPMG in FY 2001 and FY 2002.

The situation for the grants management system is quite different. The system is not yet in full operation. It has not yet undergone a security controls assessment for ether GISRA or the financial statement audit. And, although KPMG performed a Project Risk Management Review of the system while it was under development, the information gathered at that time concerning the design of the system was incidental to the purpose of the review.

Methodology.

1. Grants Management System.

OMB Circular A-130 Compliance. A review of the system accreditation documentation that will be provided per the Corporation CIO's message of February 5, 2002, may be sufficient to

determine compliance with OMB Circular A-130. Independent verification by the OIG in the form of a Federal Information System Controls Audit Manual (FISCAM) audit, however, would be the preferred alternative, because E-Grants is a new system that OIG has not previously audited.

JFMIP Compliance. There has been no prior independent evaluation on which OIG could rely. However, much useful information concerning the design of the E-Grants system was collected during the KPMG Project Risk Management review that should still be pertinent.

For the evaluation of compliance with the JFMIP requirements, it is recommended that the relevant GAO "Checklists" be used as the basis for building the JFMIP requirements portion of the audit work program:

- GAO-01-911G, "*Grant Financial System Requirements – Checklist for Reviewing Systems Under the Federal Financial Management Improvement Act*".
- GAO/AIMD-00-21.2.2, *Core Financial System Requirements – Checklist for Reviewing Systems Under the Federal Financial Management Improvement Act.*

2. Cost Accounting System

OMB Circular A-130 Compliance.

The general controls evaluation performed by KPMG during the FY2002 GISRA audit and FY2002 audit of the Corporation's financial statement could provide much of the information needed to assess A-130 compliance.

JFMIP Compliance.

For the evaluation of compliance with the JFMIP requirements, it is recommended that the relevant GAO "Checklists" be used as the basis for building the JFMIP requirements portion of the audit work program:

- GAO/AIMD-99-21.2.9, *System Requirements for Managerial Cost Accounting Checklist – Systems Reviewed Under the Federal Financial Management Improvement Act of 1996*; and
- GAO/AIMD-00-21.2.2, *Core Financial System Requirements – Checklist for Reviewing Systems Under the Federal Financial Management Improvement Act.*

It may be possible for OIG to rely to a large extent on the work PwC has already done in assessing the Corporation's compliance with SFFAS No. 4.

However, because PwC developed the Cost Allocation Model for the Corporation, it is recommended that at least some independent assessment be made of compliance with JFMIP requirements, and that GAO/AIMD-99-21.2.9, "*System Requirements for Managerial Cost Accounting Checklist – Systems Reviewed Under the Federal Financial Management Improvement Act of 1996*" be the basis for the assessment.

The Cost Allocation Model that the Corporation uses is a small system and by itself may not require much additional analysis. However, evaluating whether the JFMIP functional cost accounting requirements have been met will involve understanding interrelated portions of the core financial system, Momentum. Therefore, it is recommended that a two-step approach to assessing compliance be taken, as was recommended for grants management. In the first phase an evaluation of the functional design of the system would be done, then, if the design appears to meet the requirements, actual implementation would be evaluated as a second phase.

For each system, a three-phase approach to assessing compliance is recommended. The first phase would be an evaluation of the system's functional design. If the design appears to meet the JFMIP requirements, then the evaluation would proceed to the second phase to look at actual implementation. However, if functionality required by the JFMIP standards is not found in the system design, the assessment of the implementation of that functionality should be held in abeyance, until Corporation management advises OIG that the design has been modified and the functionality implemented. If the extent to which the JFMIP requirements have not been met is significant, OIG might choose to delay any immediate assessment of the system implementation.

The third phase would be to ascertain compliance with OMB Circular A-130 requirements.

It is suggested that the audit tasking include a requirement that systematic identification of all significant security and internal controls be done during the design assessment phase, including ones not specifically required by JFMIP, but necessary for the Corporation's specific functions. The purpose would be to establish a solid baseline for future system based audits.

Timing.

There is no explicit deadline stated in the Congressional guidance for the Corporation to certify that it has met the Congressional requirements. And, at this point the Corporation has not elaborated a plan for certification and accreditation. However, the Corporation has stated its intention to do so in FY 2003, and can be expected to ask for OIG concurrence in the foreseeable future.

OIG has the choice of waiting until the Corporation takes action and then reacting to the situation, or of being more proactive.

Because the cost accounting system is in full operation, and documentation regarding that system is available, OIG could get started with a compliance evaluation of it at any time. The chief advantage would be that having the cost accounting piece out of the way lessens the potential for needing to do everything during one big crunch, while under pressure from the Corporation for OIG to provide concurrence.

OIG might wish to set up the compliance audit task as a series of sub-tasks, so that the results of the early tasks could be evaluated, before the next is assigned. This would allow OIG to retain latitude in deciding when, what and who for subsequent tasks' performance. Each sub-task would be completed in sequence prior to beginning the next.

A similar approach could be used for the grants management system. Evaluation of the system design could begin prior to full implementation of the system. As this task was nearing completion, OIG could determined whether the system implementation had proceeded far enough to be ready for evaluation, or whether it should be held in abeyance.

Because the documents to be held in the central archive relate to grants, it is logical that verification of the central archives be considered a part of the grants management system audit task.

The recommended sequence for all tasks is as follows:

1. Cost Accounting system design – compliance with JFMIP requirements

2. Cost Accounting system design – compliance with A-130 and other directives

3. Cost Accounting system implementation – compliance with JFMIP requirements

4. Cost Accounting system implementation – compliance with A-130 and other directives

5. Central Archive – verification of existence and extent to which used

6. Grants Management system design – compliance with JFMIP requirements

7. Grants Management system design – compliance with A-130 and other directives

8. Grants Management system implementation – compliance with JFMIP requirements

9. Grants Management system implementation – compliance with A-130 and other directives

APPENDIX A

CORPORATION PLANS FOR CERTIFICATION

[Text of February 5, 2002 e-mail message from Davis Spevacek, CNS Chief Information Officer, to Terry Bathen, CNS Deputy Inspector General]

From: Spevacek, David [SMTP:DSPEVACE@cns.gov]
Sent: Tuesday, February 05, 2002 3:11 PM
To: Terry Bathen
Subject: RE: Request for Information - Certification of Electronic GMS

Terry, in response to your questions:

1. The Corporation plans to deploy the eGrants system at the end of April. Training of Corporation staff will occur in May and June. The actual dates outside users will begin to use the system to apply for grants and complete FSRs and progress reports will depend on the grant cycle for the individual program. I think this is where the 18-month figure comes from. The timeline is being refined each week. I will send you our most recent version of the high-level schedule when it is updated in two days. Please keep in mind that this schedule is frequently changed and is dependent on a number of things, the most important of which is testing.

2. The Grants Management System will be accredited using the criteria which is spelled out in OMB Circular A-130.

3. The Grants Management System initially will be accredited as a separate system in accordance with OMB Circular A-130. After the system's initial accreditation, the system will be incorporated into the e-SPAN accreditation effort.

4. The operational testing and evaluation of the system is in progress and will continue through implementation. The documentation of these efforts will be maintained and will be available for OIG staff review at their convenience. As for the certification process, a normal A-130 accreditation is planned and an accreditation package will be provided. That package will contain the same documents that have been provided for other major system accreditations.

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-----Original Message-----
From: Terry Bathen [SMTP:T.Bathen@cnsoig.gov]
Sent: Friday, January 25, 2002 11:21 AM
To: wzenker@cns.gov; wanderson@cns.gov; dspevacek@cns.gov; thanley@cns.gov; Dan Lybert; Luise S. Jordan
Subject: Request for Information - Certification of Electronic GMS

The language in the conference report for the Corporation's FY2001

appropriations act states that the Corporation should certify, with the Inspector General's concurrence, that an adequate electronic grants management system has been acquired, implemented, and conforms to all federal requirements.

In preparing to satisfy this requirement and to identify the necessary audit resources, OIG requests that the CIO provide responses to the following questions by February 1, 2002. Your timely reply will greatly facilitate the ability of the Corporation and OIG to prepare for likely Congressional questions concerning GMS development and certification during anticipated oversight and appropriations hearings in March 2002.

1. It is our understanding that the Corporation intends to implement the new grants management system in stages extending over an eighteen month period beginning in April 2002. Please provide the Corporation's proposed timeline, along with a high level description of the system's functionality at each stage following April 2002 and the current schedule for implementing each such stage to achieve full operational capabilities.

2. Describe the criteria that the Corporation plans to use for system accreditation.

3. Describe the process that the Corporation will employ to accredit the system as it proceeds though the various stages of the implementation process. Obviously the system initially deployed in April 2002 will be very different from the fully operational one that is functioning in October 2003.

4. Provide a list of any information that you plan to provide to OIG relative to your operational testing, evaluation, and certification of the new GMS system and furnish a basis for OIG to discharge its responsibility to review and comment on the the entire certification process.

APPENDIX B

Regulatory Requirements for Federal Financial Management Systems

Synopsis of OMB Circular A-127, *Financial Management Systems*

OMB Circular No. A-127, *Financial Management Systems*, sets forth general policies for Federal financial management systems. Each agency is required to establish and maintain a single, integrated financial management system. To support this requirement, each agency must have an ongoing financial systems improvement planning process and perform periodic reviews of financial system capabilities. In addition, each agency must maintain financial management systems that comply with uniform Federal accounting concepts and standards promulgated by the Federal Accounting Standards Advisory Board (FASAB) in its Statements of Federal Financial Accounting Standards (SFFAS), which constitute generally accepted accounting principles for the Federal government.

The following excerpts from A-127 describe the scope and applicability of A-127, the interrelationships among OMB Circulars A-127, A-123 and A-130, and the requirement to conform to existing applicable functional requirements for the design, development, operation, and maintenance of financial management systems as defined in a series of publications entitled Federal Financial Management Systems Requirements issued by the Joint Financial Management Improvement Program (JFMIP).

Portions of the circular particular relevance have been placed in bold font. Portions of lesser relevance have been omitted and dots (...) inserted in place of the text.

> "1. Purpose. OMB Circular No. A-127 (hereafter referred to as Circular A-127) prescribes policies and standards for executive departments and agencies to follow in developing, operating, evaluating, and reporting on financial management systems.
>
> ---
>
> 2. Rescission. ...
>
> ---
>
> 3. Authorities. This Circular is issued pursuant to the Chief Financial Officers Act (CFOs Act) of 1990, P.L. 101-576 and the Federal Managers' Financial Integrity Act of 1982, P.L. 97-255 (31 U.S.C. 3512 et seq.); and 31 U.S.C. Chapter 11.
>
> ---
>
> 4. Applicability and Scope.
> a. The policies in this Circular apply to the financial management systems of all agencies as defined in Section 5 of this Circular. Agencies not included in the CFOs Act are exempted from certain requirements as noted in Section 9 of this Circular.
>
> b. The policies contained in OMB Circular No. A-130, "Management of Federal Information Resources" (hereafter referred to as Circular A-130) govern agency management of information systems. The policies contained in Circular A-130 apply to all agency information resources, including financial management systems as defined in this Circular.

c. The policies and procedures contained in OMB Circular No. A-123, "Internal Control Systems," (hereafter referred to as Circular A-123) govern executive departments and agencies in establishing, maintaining, evaluating, improving, and reporting on internal controls in their program and administrative activities. Policies and references pertaining to internal controls contained in this Circular serve to amplify policies contained in Circular A-123 or highlight requirements unique to financial management systems.

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5. Definitions. For the purposes of this Circular, the following definitions apply: The term "agency" means any executive department, military department, independent agency, **government corporation** [emphasis added], government controlled corporation, or other establishment in the executive branch of the government." ... [9]

"6. Policy. ...

The Federal government's financial management system policy is to establish government-wide financial systems and compatible agency systems, with standardized information and electronic data exchange between central management agency and individual operating agency systems, to meet the requirements of good financial management. These systems shall provide complete, reliable, consistent, timely and useful financial management information on Federal government operations to enable central management agencies, individual operating agencies, divisions, bureaus and other subunits to carry out their fiduciary responsibilities; deter fraud, waste, and abuse of Federal government resources; and facilitate efficient and effective delivery of programs through relating financial consequences to program performance.

In support of this objective, each agency shall establish and maintain a single, integrated financial management system that complies with ..."[10]

"An agency's single, integrated financial management system shall comply with the characteristics outlined in Section 7 of this Circular.

7. Financial Management System Requirements. Agency financial management systems shall comply with the following requirements:

a. Agency-wide Financial Information Classification Structure. ...

b. Integrated Financial Management Systems. ...

c. Application of the U. S. Government Standard General Ledger at the Transaction Level. ...

d. Federal Accounting Standards. ...

e. Financial Reporting. ...

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[9] OMB Circular A-127, *Financial Management Systems*, Transmittal Memorandum No. 1, July 23, 1993, p. 1.

[10] OMB Circular A-127, *Financial Management Systems*, Transmittal memorandum No. 1, July 23, 1993, p. 3.

f. Budget Reporting. …

g. **Functional Requirements. Agency financial management systems shall conform to existing applicable functional requirements for the design, development, operation, and maintenance of financial management systems. Functional requirements are defined in a series of publications entitled Federal Financial Management Systems Requirements issued by the Joint Financial Management Improvement Program (JFMIP).** [Emphasis added] Additional functional requirements may be established through OMB circulars and bulletins and the Treasury Financial Manual. Agencies are expected to implement expeditiously new functional requirements as they are established and/or made effective.

h. Computer Security Act Requirements. …

i. **Documentation. Agency financial management systems and processing instructions shall be clearly documented in hard copy or electronically in accordance with (a) the requirements contained in the Federal Financial Management Systems Requirements documents published by JFMIP** [emphasis added] or (b) other applicable requirements.

j. Internal Controls. …

k. Training and User Support. …

l. Maintenance. …"[11]

"9. Assignment of Responsibilities.

a. Agency Responsibilities. Agencies shall perform the financial management system responsibilities prescribed by legislation referenced in Section 3 "Authorities" of this Circular. In addition, each agency shall take the following actions: ...

2. Develop and Maintain Agency-wide Financial Management System Plans.

Agencies are required to prepare annual financial management systems plans. …

Agencies not covered by the CFOs Act [emphasis added] shall prepare plans following the CFO Financial Management 5- Year Plan guidance but are not required to submit the plans to OMB. Financial management system plans shall be an integral part of the agency's overall planning process and updated for significant events that result in material changes to the plan as they occur."[12]

End of OMB Circular A-127 quotation.

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[11] OMB Circular A-127, *Financial Management Systems*, Transmittal memorandum No. 1, July 23, 1993

[12] OMB Circular A-127, *Financial Management Systems*, Transmittal memorandum No. 1, July 23, 1993

OMB Circular A-130

The policies contained in OMB Circular A-130, *Management of Federal Information Resources*, govern general agency management of information systems. These policies apply to all agency information resources, including financial management systems.

Appendix III to OMB Circular A-130, Security of Federal Automated Information Resources, establishes a minimum set of controls to be included in Federal automated information security programs and assigns Federal agency responsibilities for the security of automated information.

For each major application OMB Circular A-130 requires:

- Responsibility for the security of each major application be assigned to a management official knowledgeable in the nature of the information and process supported by the application.
- An application security plan for the adequate security of each major application, taking into account the security of all systems in which the application will operate. The plan must be consistent with guidance issued by NIST.
- An independent review or audit of the security controls in each application be performed at least every three years.
- A management official to authorize use of the application system in writing prior to initial operation of the system, and re-authorize it at least every three years thereafter. Management authorization confirms that the application's security plan as implemented adequately secures the application, and implies accepting the risk of each supporting system used by the application.

System accreditation and periodic re-accreditation are specific A-130 requirements.

> "4) Authorize Processing. Ensure that a management official authorizes in writing use of the application by confirming that its security plan as implemented adequately secures the application. Results of the most recent review or audit of controls shall be a factor in management authorizations. The application must be authorized prior to operating and re-authorized at least every three years thereafter. Management authorization implies accepting the risk of each system used by the application."[13]
>
> Both the security official and the authorizing management official have security responsibilities. In general, the security official is closer to the day-to-day operation of the system and will direct or perform security tasks. The authorizing official will normally have general responsibility for the organization supported by the system.
>
> Management authorization should be based on an assessment of management, operational, and technical controls. Since the security plan establishes the security controls, it should form the basis for the authorization, supplemented by more specific studies as needed. In addition, the periodic review of controls should also

[13] OMB Circular A-130, "Management of Federal Information Resources," Appendix III "Security of Federal Automated Information Resources", Section 3.b.4. "Authorize Processing", p. 48.

contribute to future authorizations. Some agencies perform "certification reviews" of their systems periodically. These formal technical evaluations lead to a management accreditation, or "authorization to process." Such certifications (such as those using the methodology in FIPS Pub 102 "Guideline for Computer Security Certification and Accreditation") can provide useful information to assist management in authorizing a system, particularly when combined with a review of the broad behavioral controls envisioned in the security plan required by the Appendix.

Re-authorization should occur prior to a significant change in processing, but at least every three years. It should be done more often where there is a high risk and potential magnitude of harm."[14]

[14] OMB Circular A-130, "Management of Federal Information Resources", Appendix III "Security of Federal Automated Information Resources", Section 5.b.3.4. "Authorize Processing", p. 58

APPENDIX C

Synopsis of JFMIP Requirements for Core Financial Management Systems

JFMIP Core Financial Systems Requirements

The JFMIP *Core Financial Systems Requirements* document is the basis for evaluating core financial system software for compliance with JFMIP requirements, through a testing process that links test scenarios to the requirements presented in this document. JFMIP tests commercial software functionality against these requirements and qualifies the software as meeting mandatory requirements. JFMIP also uses this process to test government agency software compliance for those agencies that provide accounting systems to other Government agencies on a cross-service arrangement. For cross-servicing agencies, this testing is voluntary.

Each agency is required to integrate its unique requirements with these government-wide standard requirements to provide a uniform basis for the standardization of financial management systems as required by the CFO Act of 1990, FFMIA of 1996, and other statutes.

Financial management systems in the Federal government must be designed to support the vision articulated by the government's financial management community. This vision requires financial management systems to support the partnership between program and financial managers and to assure the integrity of information for decision-making and measuring of performance. This includes the ability to:

- Collect accurate, timely, complete, reliable, and consistent information;
- Provide for adequate agency management reporting;
- Support government-wide and agency level policy decisions;
- Support the preparation and execution of agency budgets;
- Facilitate the preparation of financial statements, and other financial reports in accordance with Federal accounting and reporting standards;
- Provide information to central agencies for budgeting, analysis, and government-wide reporting, including consolidated financial statements; and
- Provide a complete audit trail to facilitate audits.

In support of this vision, the Federal government must establish and maintain government-wide financial management systems and compatible agency systems, with standard information and electronic data exchange, to support program delivery, safeguard assets, and manage taxpayer dollars.

Integrated Financial Management Systems

Financial management systems must be designed with effective and efficient interrelationships between software, hardware, personnel, procedures, controls, and data contained within the systems. To be integrated, financial management systems must have, as a minimum, the following four characteristics:

(1) Standard data classifications (definition and formats) established and used for recording financial events;

(2) Common processes used for processing similar kinds of transactions;

(3) Internal controls over data entry, transaction processing, and reporting applied consistently; and

(4) A design that eliminates unnecessary duplication of transaction entry.

The CFO Act of 1990 and financial management systems policy described in OMB Circular No. A-127, *Financial Management Systems,* require that each agency establish and maintain a single, integrated financial management system. Without a single, integrated financial management system to ensure timely and accurate financial data, poor policy decisions are more likely to occur due to inaccurate or untimely information. Managers are also less likely to be able to report accurately to the President, the Congress, and the public on government operations in a timely manner. Scarce resources would more likely be directed toward the collection of information rather than to delivery of the intended programs. Also, upgrades to financial management systems that are necessary to keep pace with rapidly changing user requirements cannot be coordinated and managed properly. The basic requirements for a single, integrated financial management system are outlined in OMB Circular No. A-127.

Having a single, integrated financial management system does not necessarily mean that each agency must have only one software application covering all financial management system needs. Rather, a single, integrated financial management system is a unified set of financial systems and the financial portions of mixed systems[15] encompassing the software, hardware, personnel, processes (manual and automated), procedures, controls, and data necessary to carry out financial management functions, manage financial operations of the agency, and report on the agency's financial status to central agencies, Congress, and the public. However, it does not mean that all information is physically located in the same database.

Unified means that the systems are planned and managed together and linked together electronically in an efficient and effective manner to provide agency-wide financial system support necessary to support the agency's financial management needs.

Interfaces where one system feeds data to another system following normal business and transaction cycles (such as recording payroll data in general ledger control accounts at specific time intervals) may be acceptable as long as the supporting detail is maintained and accessible to managers. Additionally, for determining compliance with FFMIA, the implementation guidance issued by OMB requires that the posting rules in the feeder system must not be contrary to the standard general ledger posting rules. Interfaces must be automated unless the number of transactions is so small that it is not cost-beneficial to automate the interface. Reconciliation between systems, where interfaces are appropriate, must be maintained to ensure data accuracy.

Agency financial management systems are information systems that track financial events and summarize information to support the mission of an agency, provide for adequate management reporting, support agency level policy decisions necessary to carry out fiduciary responsibilities, and support the preparation of auditable financial statements.

[15] A mixed system is an information system that supports both financial and non-financial functions of the Federal government or components thereof. See OMB Circular No. A-127.

Agency financial management systems fall into four categories:

(1) Core financial systems,

(2) Other financial and mixed systems (such as inventory systems),

(3) Shared systems, and

(4) Departmental executive information systems (systems to provide information to all levels of management).

These systems must be linked together electronically to be effective and efficient. Summary data transfers must be provided from agency systems to central systems to permit summaries of management information and agency financial performance information on a government-wide basis.

The agency financial management systems architecture depicted in Illustration 4 shows the typical components of an integrated Federal financial management system. Although this does not necessarily represent the physical design of the system, it does identify the system types needed to support program delivery/financing and financial event processing for effective and efficient program execution.

Agency Systems Architecture

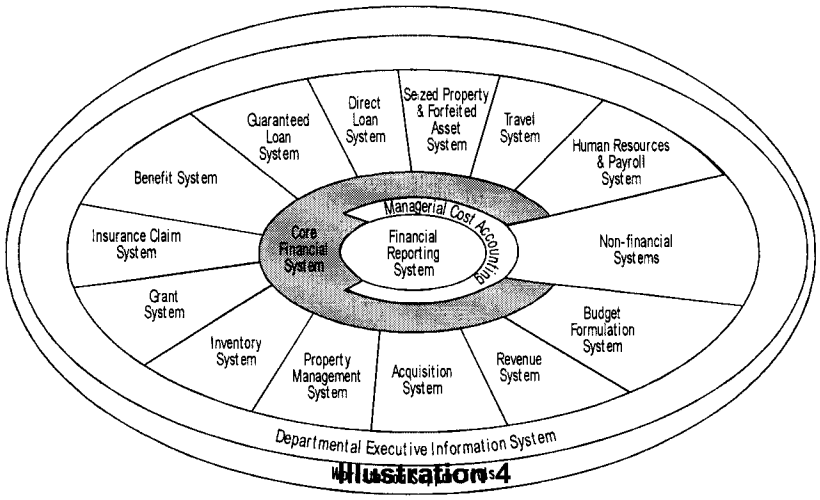

Illustration 4

Policy

Government core financial systems, as an integral component of the Federal Agency Systems Architecture (see Illustration 4) are relied on to control and support the key financial management functions of an agency. In addition to reporting on results of operations, these functions include managing: the general ledger, funding, payments, receivables and costs. The core financial system receives data from other financial and mixed systems and from direct user input, and provides data and supports processing for other systems. Federal core financial systems must provide consistent and standardized information for program managers, financial managers, agency executives and oversight organizations. Furthermore, all core financial systems, whether being designed and implemented or currently in use, must operate in accordance with laws, regulations, and judicial decisions.

Financial management system development and implementation efforts shall seek cost effective and efficient solutions as required by OMB Circular No. A-130, *Management of Federal Information Resources*. Agencies are required to use commercial-off-the-shelf (COTS) software to reduce costs, improve the efficiency and effectiveness of financial system improvement projects, and reduce the risks inherent in developing and implementing a new system. However, as stated previously, the agency has the ultimate responsibility for implementing sound financial management practices and systems, and cannot depend on a vendor or contractor to do this for them.

To promote effectiveness in COTS software, JFMIP is responsible for three major functions: Updating and communicating financial management system requirements so that COTS software vendors and agencies can better understand the Federal market requirements; testing and qualifying COTS software; and maintaining a web site (www.jfmip.gov) with information available on the certified core financial management systems software. This information should reduce agency acquisition cost and risk when implementing COTS products because they will have already been tested and certified as meeting JFMIP requirements.

Management Controls

Core financial systems must incorporate appropriate controls to ensure the accuracy of data entry, completeness and consistency of transaction processing and reporting, as stated in OMB Circular No. A-127. Certain controls are typically incorporated into software applications, such as input controls. Other controls such as proper segregation of duties may be implemented as a feature of software functionality, as a manual process, or both. The *Core Financial Systems Requirements* document contains some specific requirements for implementing basic management controls within the appropriate functional area. Additionally, the document incorporates global security requirements. Specifically, TH-1 through TH-8 require system changes only by "authorized users." These requirements preclude the need to qualify other functional requirements with references to authorized users. Ultimately, each agency is responsible for implementing adequate controls to ensure the core financial system is operating as intended.

Summary of Functional Requirements

The following is a brief description of the major functions of a core financial system. Illustration 5 depicts the major functions within the core financial system.

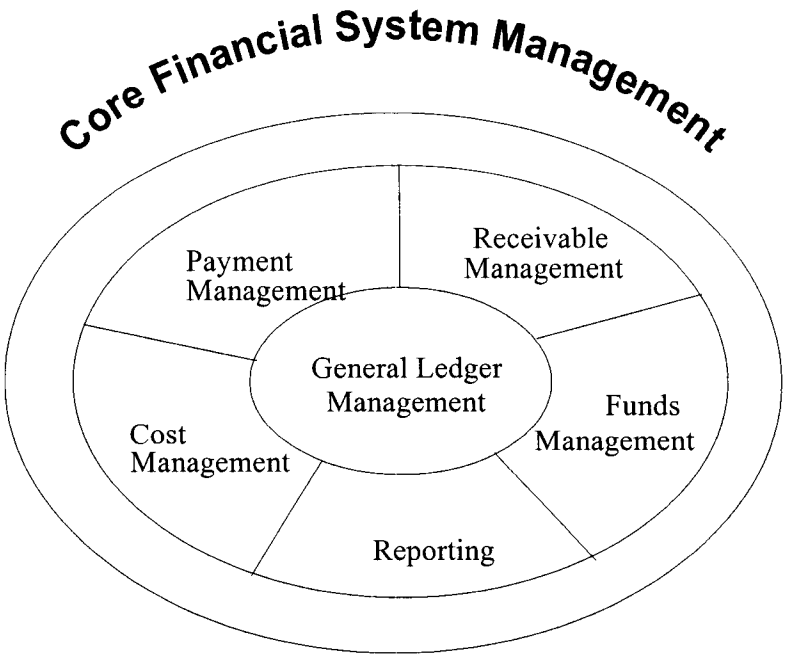

Illustration 5

A single financial event will require processing by more than one function within the core financial system. The core financial system management function affects all financial event transaction processing because it maintains reference tables used for editing and classifying data, controls transactions, and maintains security. Likewise, the general ledger management function is involved either directly or indirectly with financial events since transactions to record financial events must be posted to the general ledger either individually or in summary. Any transactions involved in budget execution will use the funds management function.

An example of a financial event affecting multiple functions is a payment including additional charges not previously recorded, such as interest costs due to late payment or additional shipping charges allowed by the contract. This transaction would: (1) originate in the payment management function, (2) be edited for funds availability and update balances in the funds management function for the excess costs and to move the undelivered order amount to an expenditure status, (3) update cost amounts controlled by the cost management function, (4) update the general ledger balances in the general ledger management function, and (5) be edited against reference data and update audit trails in the core financial system management function.

Core Financial System Management

The core financial system management function consists of all the processes necessary to maintain the financial system in a manner that is consistent with established financial management laws, regulations and policy. This function sets the framework for all other core financial system functions. The core financial system management function consists of the following processes:

- Accounting Classification Management
- Transaction Control

General Ledger Management

General ledger management is the central function of the core financial system. The general ledger is the highest level of summarization and must maintain account balances by the accounting classification elements established in the core financial system management function. For example, account balances must be maintained at the internal fund and organization level. Depending on the agency's reporting requirements, some or all of the general ledger accounts may have balances broken out by additional elements of the accounting classification. All transactions to record financial events must post, either individually or in summary, to the general ledger, regardless of the origin of the transaction.

The general ledger management function consists of the following processes:

- General Ledger Account Definition
- Accruals, Closing, and Consolidation
- General Ledger Analysis and Reconciliation.

Funds Management

Each agency of the Federal government is responsible for establishing a system for ensuring that it does not obligate or disburse funds in excess of those appropriated or authorized. The funds management function of the core financial system is an agency's primary tool for carrying out this responsibility.

The funds management function consists of the following processes:

- Budget Preparation
- Budget Formulation
- Funds Allocation
- Budget Execution
- Funds Control.

Note that budget formulation functionality is covered by this core requirements document.

Payment Management

The payment management function should provide appropriate control over all payments made by or on behalf of an agency. Agencies initiate payments to: vendors in accordance with contracts, purchase orders and other obligating documents; state governments under a variety of programs; employees for salaries and expense reimbursements; other Federal agencies for reimbursable work performed; individual citizens receiving Federal benefits; recipients of Federal loans; and other payees for various reasons. Designated payment organizations (specified agency or Treasury organizations) accomplish payments. Certain agencies that are authorized to make their own disbursements must comply with the provisions pertaining to "delegated disbursing authority" contained in *Treasury Financial Manual* (TFM) - 4, Volume I and applicable requirements below.

The payment management function consists of the following processes:

- Payee Information Maintenance
- Payment Warehousing
- Payment Execution
- Payment Confirmation and Follow-up.

Receivable Management

The Receivable Management function supports activities associated with recognizing and recording debts due to the government, performing follow-up actions to collect on these debts, and recording agency cash receipts. A receivable is recognized when an agency establishes a claim to cash or other assets against other entities. This section also addresses accounting for miscellaneous cash receipts.

The receivable management function consists of the following processes:

- Customer Information Maintenance
- Receivable Establishment
- Debt Management
- Collections and Offsets.

Cost Management

The cost management function of the core financial system attempts to measure the total cost and revenue of Federal programs, and their various elements, activities and outputs. Cost management is essential for providing accurate program measurement information, performance measures, and financial statements with verifiable reporting of the cost of activities. The term "cost" refers to the monetary value of resources used or sacrificed or liabilities incurred to achieve an objective, such as to acquire or produce a good or to perform an activity or service. A "cost object" is any activity, output or item whose cost and revenue are to be measured.

The level of sophistication of the cost management function needed by an agency depends on the requirements of the agency and the operational nature of the programs involved. For example, if an agency's primary mission is to produce a product or service for sale, the costing function typically will be accomplished in the managerial cost accounting system that is integrated with the core financial system. However, in any core system, certain basic functions must be present.

The cost management function consists of the following processes:

- Cost Setup and Accumulation
- Cost Recognition
- Cost Distribution
- Working Capital and Revolving Fund.

Reporting

The core financial system must be able to provide timely and useful financial information to support: management's fiduciary role; budget formulation and execution functions; fiscal management of program delivery and program decision making; and internal and external reporting requirements. External reporting requirements include the requirements for financial statements prepared in accordance with the form and content prescribed by OMB, reporting requirements prescribed by Treasury, and legal, regulatory and other special management requirements of the agency.

The reporting function consists of the following processes:

- General Reporting
- External Reporting
- Internal Reporting
- Ad hoc Query.

Summary of Technical Requirements

Technical requirements have been established to help ensure that a core financial system: is capable of meeting a wide variety of workload processing demands; provides transaction processing integrity and general operating reliability; incorporates standard installation, configuration and operating procedures; and does not conflict with other administrative/program systems or other agency established IT standards.

Core financial systems subject to JFMIP testing must meet the mandatory technical requirements specified in this section. Additionally they should strive to include the functionality listed as value-added requirements. The requirements are listed in the following subcategories:

- General Design/Architecture
- Infrastructure

- User Interfaces
- Interoperability
- Workflow/Messaging
- Document Management
- Internet Access
- Security
- Operations and Computing Performance

Most technical requirements are stated in general terms to allow vendors maximum flexibility in designing compliant financial systems. Individual agencies are encouraged to add specific workload and interoperability requirements considered unique to their respective IT environments when evaluating packages for acquisition.

Transaction Control Process

The transaction control process defines, maintains and executes the posting and editing rules for transactions that are processed in the core financial system. In addition to recording transactions originally entered into the core financial system, the core financial system must be able to process and record transactions originating in other systems. In order to provide the basis for central financial control, the core system must track such transactions and related information.

The transaction control process is further categorized as transaction definition and processing activities, and audit trail activities.

Transaction Definition and Processing. OMB Circular No. A-127 requires common processes to be used for processing similar kinds of transactions throughout an integrated financial management system to enable transactions to be reported in a consistent manner. It also requires financial events to be recorded by applying the requirements of the standard general ledger at the transaction level. This is accomplished by defining a standard transaction(s) for each accounting event. Standard general ledger accounting transactions typically update multiple budgetary and proprietary accounts based on a single accounting event. The core financial system must ensure that all transactions are handled consistently, regardless of their point of origin. It also must ensure that transactions are controlled properly to provide reasonable assurance that the recording, processing, and reporting of financial data are properly performed and that the completeness and accuracy of authorized transactions are ensured.

Mandatory Requirements

To support the transaction definition and processing activity, the core financial system must provide the capability to:

- Use standard transactions when recording accounting events. The standard transactions must specify the postings to the general ledger accounts, and update document balances and any related tables (e.g., available funding).
- Allow the user to include proprietary, budgetary and memorandum accounts in the definition of a standard transaction.
- Record transactions consistent with standard general ledger posting rules.
- Reject a transaction or provide a warning message when attempting to post a transaction that would cause general ledger debits and credits to be out-of-balance.
- Allow users to define and maintain standard rules that control general ledger account postings for all accounting events. The process of defining posting rules can be accomplished in a variety of ways; including (but not limited to) using: transaction codes, screen "templates," derivation rules, and others.
- Enable users to selectively require, omit, or set a default value for individual accounting classification elements. For example, a budget object class code value is not necessarily needed when recording depreciation expense.
- Update all applicable general ledger account balances (i.e., budgetary, proprietary and memorandum accounts) based on a single input transaction.
- Define, generate and post compound general ledger debit and credit entries for a single transaction. Accommodate at least 10 debit and credit pairs or 20 accounts when defining and processing a single transaction.
- Allow users to define and process system-generated transactions, such as automated accruals (e.g., payroll accrual entries), pre-closing and closing entries, cost assignment transactions, recurring payments, and transactions that generate other transactions in those cases where a single transaction is not sufficient.
- Automatically liquidate, partially or in full, the balance of open documents by line item. This capability will be used in the liquidation of various documents such as commitments, obligations, undelivered orders, payables, receivables, and advances, upon the processing of subsequent related transactions (e.g., liquidate an obligation upon entry of the related receiving report).
- Automatically determine and record the amount of upward or downward adjustments to existing obligations upon liquidation, cancellation or other adjustment. This is to include transactions entered directly to the core system and those received from interfaced modules or systems.
- When adjustments are made to existing obligations or previously recorded expenditures, automatically distinguish between upward and downward adjustments to un-expired and expired budget authority, and generate the appropriate general ledger postings, without user intervention.

- Relative to expired funds, provide an overrideable error message when attempting to post (previously unrecorded) obligations to current year general ledger obligation accounts.
- When recording adjustments to prior year obligations (including previously expended authority), automatically classify upward and downward adjustments as paid and/or unpaid according to the status of the related obligation or expenditure. This is to include transactions entered directly to the core system and those received from interfaced modules or systems.
- Control the correction and reprocessing of all erroneous transactions through the use of error/suspense files. Erroneous transactions must be maintained until either corrected and posted or deleted at the specific request of a user.
- Provide immediate, on-line notification to the user of erroneous transactions. Advise reason for error and provide the ability to enter corrections on-line.
- Provide controls to prevent the creation of duplicate transactions. For example, prevent the use of the same unique transaction identification number (e.g., document number).
- Provide a warning message when the user attempts to input an external vendor invoice number that has already been recorded for the related vendor.
- Validate the fields for all accounting classification elements required to process the transaction prior to posting.
- Enter, edit, and store transactions in the current accounting period for automatic processing in a future accounting period.
- Put transactions in a hold status (saved, but not processed or posted) within the core system (i.e., importing transactions from a spreadsheet or database application is not acceptable). Allow users to select held transactions and continue processing at a later date.
- Capture the six-digit trading partner code (as specified by Treasury) when processing all transactions that directly involve another Federal entity (i.e., both parties to a transaction are Federal entities).
- For all transactions, capture transaction dates (effective date of the transaction) and posting dates (date transaction posted to general ledger).
- Automatically determine the posting date from the system date for all transactions. Automatically associate a default accounting period for each transaction, but allow user to override.
- Automatically reverse entries by the following parameters: transaction or document type, date range, schedule numbers, transaction identification number (i.e., document number) range, and trading partner.
- Post to the current and prior months concurrently until the prior month closing is complete.

- Provide and maintain on-line queries and reports on balances separately for the current and prior months. At a minimum, balances must be maintained on-line for both the current and prior months until the prior month closing is complete.
- Post to the current fiscal year and prior fiscal year concurrently until prior year-end closing is complete.
- Provide and maintain on-line queries and reports on balances separately for the current and prior fiscal years. At a minimum, balances must be maintained on-line for both the current and prior fiscal years until the prior fiscal year closing is complete.

Value-added Requirements

To support the transaction definition and processing activity, the core financial system should provide the capability to:

- Perform validation checks for use of certain general ledger accounts associated with specific authority (e.g., Imprest fund, borrowing authority) prior to posting a transaction.

Audit Trails. Adequate audit trails are critical to providing support for transactions and balances maintained by the core financial system. While audit trails are essential to auditors and system evaluators, they are also necessary for day-to-day operation of the system. For example, they allow for the detection and systematic correction of errors.

Mandatory Requirements

To support the audit trail activity, the core financial system must provide the capability to:

- Provide audit trails to trace transactions from their initial source through all stages of related system processing. The initial source may be source documents, transactions originating from other systems (e.g., feeder systems), or internal system-generated transactions.
- Select items for review based on user-defined criteria by type of transaction (e.g., by obligation transactions, vendor, date range). Examples of reasons to select items are payment certification and financial statement audits.
- Provide audit trails that identify document input, change, approval, and deletions by user.

Cost Management Function

Statement of Federal Financial Accounting Standards (SFFAS) No. 4, *Managerial Cost Accounting Concepts and Standards for the Federal Government*, promulgated by Federal Accounting Standards Advisory Board (FASAB), prescribes the managerial cost accounting concepts and standards for the Federal government. The managers and

executives who have the need for cost information should drive cost management in agencies. SFFAS No. 4 states:

> "... based on sound cost accounting concepts and are broad enough to allow maximum flexibility for agency managers to develop costing methods that are best suited to their operational environments."

The term "cost" refers to monetary value of resources used or sacrificed or liabilities incurred to achieve an objective, such as to acquire or produce a good or to perform an activity or service.

The level of sophistication of the cost management function needed by an agency is dependent on the requirements of the agency, and the operational nature of the programs involved. For example, if an agency's primary mission is to produce a product or service for sale, the costing function typically will be accomplished in the managerial cost accounting system that is integrated with the core financial system. Programs with less crucial cost information needs might perform cost management functions by analytical or sampling methods. However, in any core system, certain basic functions must be present. For example, SFFAS No. 4 requires that cost information developed for different purposes should be drawn from common data sources, and that cost reports should be reconcilable to each other.

The cost management function consists of the following processes.

- Cost Setup and Accumulation
- Cost Recognition
- Cost Distribution

Once management has identified the cost objects it needs and the corresponding structure has been set up in the accounting system, the system accumulates cost data accordingly. Finally, cost information is prepared and distributed to managers. A "cost object" is any activity, output, outcome, or item whose cost and revenue are to be measured, such as, organizational units, programs, projects, targeted outputs, specific contracts, specific customers, work orders, and GPRA program/activities, etc.

Cost Setup and Accumulation Process

The cost setup and accumulation process identifies and tracks cost data associated with the specific cost objects required by management. This process provides for the establishment of identifiers for the desired cost objects in the processes, systems and applications that make up the accounting system, and for the subsequent collection of cost data. An agency's financial management system must allow the establishment of cost object identifiers consistent with the stated needs of its financial and operational managers. Ideally, the financial system will allow this to be done in a straightforward manner, without undue complexity. The cost setup and accumulation process provides the data needed for accountability over the financial execution of public programs, meaningful comparisons to measure compliance with management policies, evaluation of the efficiency and economy of resources used in the various activities, and support for

fees, services, or products. It also provides a basis for linking operational results to the budget and performance measures.

Mandatory Requirements

To support the cost setup and accumulation process, the core financial system must provide the capability to:

- Use the agency's accounting classification elements to identify and establish unique cost objects (for the purpose of cost and revenue capture, accumulation and reporting). Cost objects might include: organizational units, programs, projects, activities, targeted outputs, specific contracts, specific customers, work orders, etc.
- Allocate and distribute the full cost and revenue of cost objects as defined in SFFAS No. 4. Full cost includes: support costs provided by other responsibility segments, both internal and external; identifiable support costs provided by other government agencies such as pension and other retirement benefits; unfunded costs such as accrued annual leave that accrue in the current reporting period; depreciation expense; and, amortization costs.
- Allocate and distribute the full cost of goods and services provided by one Federal entity to another.
- Track current cost information against prior month and prior-year-to date cost data for selected cost objects, and track progress against pre-determined plans.
- Identify all costs incurred by the agency in support of activities of revolving funds, trust funds, or commercial functions, including the applicable portions of any related salaries and expense accounts identified with those activities.
- Accumulate non-financial data relating to cost objects such as output units to allow the calculation of both total and unit costs.
- Transfer (and trace) cost data directly to and from other cost systems/applications that produce or allocate cost information.
- Calculate prices, fees, and user charges for reimbursable agreements and other purposes using full cost, consistent with the guidance of OMB Circular No. A-25, *User Charges*.

Cost Recognition Process

Recognition of the effects of transactions in financial systems is fundamental to the accounting process. The recognition process determines when the results of an event are to be included in financial statements and ensures that the effects of similar events and transactions are accounted for consistently within the Federal government.

Mandatory Requirements

To support the cost recognition process, the core financial system **must** provide the capability to:

- Use the accrual basis of accounting when recognizing costs and revenue. Recognize costs in the period of time when the events occurred regardless of when ordered, received or paid for. Recognize revenue when earned.
- Associate with the appropriate cost objects, the reductions of balances such as inventories, prepaid expenses and advance payments as the balances are used or liquidated.
- Identify and record costs incurred by each cost object, including input of costs from feeder systems, such as inventory, travel, property management (depreciation), or payroll.
- Assign indirect costs on a cause-and-effect basis, or allocate costs through any reasonable and consistent basis such as a percentage of total cost incurred, direct labor hours used, square footage, or metered usage.
- Perform multi-layer overhead distributions that are user-defined (at least three levels of distribution) using multiple rates, fixed amount and other appropriate allocation methods.

Cost Distribution Process

The managerial cost accounting concepts and standards contained in SFFAS No. 4 are aimed at providing reliable and timely information on the full cost of programs, their activities and outputs. The information is to be used by stakeholders, executives and managers in making decisions about allocating resources, authorizing and modifying programs, and evaluating program performance. Program managers can also use the cost information for making managerial decisions to improve operating efficiency. Ultimately, the effectiveness of a cost management program lies in the way managers use the cost information asked for and reported to them.

Mandatory Requirements

To support the cost distribution process, the core financial system must provide the capability to:

- Distribute information (such as income statements and status of funds reports) on costs and revenue associated with cost objects.
- Provide consistent information on financial, budget, and program matters in different reports. For example, bills generated for customers in the receivables system should match customer status reports generated by the cost management system for the same periods.

- Use historical information to conduct variance and time-series analyses, and to demonstrate the fairness and appropriateness of rates and charges that are based on actual historical costs.
- Distribute costs to other cost objects regardless of how they were originally assigned.
- Provide an audit trail that traces a transaction from its origin to the final cost object(s).

APPENDIX D

Synopsis of JFMIP Requirements for Managerial Cost Accounting

In describing the purposes of using cost information, Statement of Federal Financial Accounting Standards (SFFAS) No. 4 says, "In managing federal government programs, cost information is essential in the following five areas: (1) budgeting and cost control, (2) performance measurement, (3) determining reimbursements and setting fees and prices, (4) program evaluations, and (5) making economic choice decisions." An agency's managerial cost accounting system(s), whether manual or automated, should be able to provide cost information with sufficient supporting detail to allow sound decision-making in each of these five areas.

Summary of Information Requirements

The managerial cost accounting system shares summary data with the core financial system and other transaction processing systems. It manipulates this data to support management's analysis and reporting of cost information. Data is captured by the managerial cost accounting system consistent with these information requirements and processed according to functional requirements. It is shared with and returned to other systems and reported according to the reporting requirements. In order for all this to be done systematically, the data needs to be defined and classified.

The summary information classification structure consists of three separate but related information classification structures: financial, operations, and program. The managerial cost accounting system shares the summary information classification structure defined in the JFMIP *Framework for Federal Financial Management Systems* with other financial management systems.

Financial Information Classification Structure

The financial information classification structure is the primary structure for capturing accounting information, including costs, revenues, and units of input, such as labor, inventory, etc.

Operations Information Classification Structure

The operations information classification structure is used to measure the efficiency of an operation and associate costs to outputs. The operations unit is the organization unit and/or program contained in the financial information classification structure for which the costs of outputs are needed. In addition, this structure includes standards, which represent planned results, that provide a basis for evaluating how efficiently the agency is producing outputs.

Program Information Classification Structure

The program information classification structure is used to measure program effectiveness and associate costs to outcomes where feasible. The program unit should correspond with the program in the financial information classification structure. In

addition, this structure includes goals and objectives that provide a basis for evaluating the effectiveness of a particular program.

Summary of Functional Requirements

The term "managerial cost accounting system" is used in a generic sense to indicate those portions of an agency's integrated financial management system that together provide managerial cost accounting information for the agency or component parts. An agency's managerial cost accounting system may be comprised of several system applications (or parts thereof), and in fact may not be separately identifiable in an agency's inventory of financial management systems. The major requirements can be grouped into the following functional areas:

- System Administration
- Data Capture
- Cost Assignment
- Cost Classification
- Cost Monitoring

A managerial cost accounting system should perform the following functions:

- System administration to maintain the relatively static information that controls other system functions, manage application-level security, and manage data storage for the entire system.
- Data capture to obtain data that is more dynamic than the data maintained by the system administration function. This includes capturing data on costs, units (e.g., of inputs, of outputs), exchange revenues, and gains and losses.
- Cost assignment to assign costs to intermediate and final cost objects (e.g., outputs) either using direct tracing, on a cause-and-effect basis, or on a prorated basis using a cost allocation methodology.
- Cost classification to determine values of inventory, property, plant, and equipment; stewardship investment amounts; and performance measures.
- Cost monitoring to manage costs, operations, programs, and outputs according to management needs and external reporting requirements.

Summary of Integration Requirements

The sources of the following integration requirements are OMB Circular A-127, *Financial Management Systems,* and the JFMIP *Framework for Federal Financial Management Systems*, especially the Systems Architecture chapter of that document.

The agency systems architecture shown below provides a logical perspective identifying the relationships of various agency systems. Although this architecture does not necessarily dictate the physical design of the system, it does identify the system types

needed to support program delivery/financing and financial event processing for effective and efficient program execution.

To be integrated, financial management systems need to have the following characteristics as described in OMB Circular A-127:

- Common data elements
- Common transaction processing
- Consistent internal controls
- Efficient transaction entry

Managerial cost accounting systems should be fully integrated with other agency systems, that is, designed to eliminate unnecessary duplication of transaction entry and share data elements without re-keying or reformatting. In fact, managerial cost accounting functions may be so integrated into one or more of an agency's financial management systems that there is not a readily identifiable managerial cost accounting system per se. Other agencies may find it more practical or beneficial to implement software specifically designed for managerial cost accounting that draws data needed from other parts of an agency's single, integrated financial management system.

Managerial cost accounting system functions need to draw financial and non-financial (e.g., units) data from the core financial system, inventory system, payroll or labor distribution system, property management system, and others. This data may include but is not limited to labor costs, material costs, depreciation expense, labor hours, and number of items produced.

Managerial cost accounting also needs to provide data to the core financial system, inventory system, property management system, financial reporting system, and possibly others. Examples of data provided include work-in-process values, finished goods values, and data for the Statement of Net Cost.

In most cases, the managerial cost accounting system itself is not a point of original entry for financial transactions, but instead uses data originally entered into or generated by other systems, such as labor costs and hours from a payroll system, depreciation expense from a property management system, travel costs from a travel system, material and other costs from procurement and inventory systems, and other information maintained by the core financial system. There may be some situations in which financial transactions might be entered directly into the managerial cost accounting system, but this is not considered to be a standard, government-wide requirement, and extreme care should be taken to maintain proper internal control and avoid double-counting or missing costs.

APPENDIX E

Synopsis of JFMIP Grant Financial Management Systems Requirements

The Federal Financial Management Improvement Act (FFMIA) of 1996 codified the JFMIP financial systems requirements documents as a key benchmark that agency systems must meet, in order to be substantially in compliance with systems requirements provisions under FFMIA.

The Grant Financial System Requirements document is intended to identify financial systems requirements necessary to support grant programs. It does not intend to identify the full scope of functional program requirements.

Federal Financial Management Framework

Grant Financial Management Systems Requirements is one component of a broad program to improve Federal financial management that involves the establishment of uniform requirements for internal controls, financial systems, financial information, financial reporting and financial organizations.

Each agency should integrate its unique requirements with these government wide standard requirements to provide a uniform basis for the standardization of financial management systems as required by the CFO Act of 1990 and the FFMIA of 1996.

Financial management systems in the Federal government must be designed to support the vision articulated by the government's financial management community …

This vision includes the ability to:

- Collect accurate, timely, complete, reliable and consistent information;
- Provide for adequate agency management reporting;
- Support government-wide and agency-wide policy decision making;
- Support the preparation and execution of agency budgets;
- Facilitate the preparation of financial statements and other financial reports in accordance with Federal accounting and reporting standards;
- Provide information to central agencies for budgeting, analysis and government wide reporting, including consolidated financial statements; and
- Provide completely documented audit trail to facilitate audits.

In support of this vision, the Federal government must establish government-wide financial management systems and compatible agency systems, with standardized information and electronic data exchange, to support program delivery, safeguard assets, and manage taxpayer dollars.

OMB Circular A-127, *Financial Management Systems* requires that each agency establish and maintain a single integrated financial management system. To be integrated, financial management systems must have, as a minimum, the following four characteristics:

- Standard data classifications (definitions and formats) established and used for recording financial events;
- Common processes used for processing similar kinds of transactions;
- Internal controls over data entry, transaction processing, and reporting applied consistently; and
- A design that eliminates unnecessary duplication of transaction entry.

Having a single, integrated financial management system does not necessarily mean having only one software application for each agency covering all financial management systems needs. Rather, a single, integrated financial management system is a unified set of financial systems and the financial portion of mixed systems encompassing the software, hardware, personnel, processes (manual and automated), procedures, controls, and data necessary to manage the financial operations of the agency, and report the agency's financial status to central agencies, Congress, and the public.

Unified means that systems are planned and managed together, operated in an integrated fashion, and linked together electronically in an efficient and effective manner.

Integration means that the system's user is able to have one view into systems whereby, at whatever level a user is accessing the system, the user can obtain the needed information efficiently and effectively through electronic means. Integration does not mean that all information must be located in the same database.

Interfaces, where one system feeds data to another system following normal/transaction business cycles such as grants obligations recorded in the general ledger control accounts at the same time the grants awards are made, may be acceptable as long as the supporting detail is maintained and accessible to managers. In such cases, interface linkages must be electronic unless the number of transactions is so small that it is not cost-beneficial to automate the interface. Reconciliations between systems, where linkages are appropriate, must be maintained to ensure the accuracy of the data.

Grant Systems

Grant financial systems support programmatic objectives and interact with core financial systems to: record advances, collections and disbursements in the general ledger consistent with the standard general ledger: validate funds availability; update budget execution data; and record other grant related transactions.

All grant financial systems that are being designed and implemented, or are in use, must operate in accordance with existing laws and regulation. It is the responsibility of each agency to be knowledgeable of the legal requirements governing its grants financial operations.

All grant financial systems must provide, as a minimum, the following qualities:

- Complete and accurate funds control;
- Complete, accurate, and prompt recording of obligations;

- Complete, accurate, and prompt payment of grantee payment requests;
- Complete, accurate, and prompt generation and maintenance of grant financial records and transactions;
- Timely and efficient access to complete and accurate information, without extraneous material, to those internal and external to the agency who require the information;
- Timely and proper interaction of the grant financial system with core financial systems and other existing automated systems; and
- Adequate internal controls to ensure that the grant system is operating as intended.

Initiative to Streamline Grant Payment Systems in the Federal Government

In June 1998, the Chief Financial Officers (CFO) Council released a report endorsing the use of one of three existing systems by the Federal government for grants payments by October 1, 2002. All civilian Federal departments and agencies are to use one of the following two systems: the Automated Standard Application for Payment System (ASAP) provided by the Financial Management Service (FMS) of the U.S. Department of the Treasury and the Federal Reserve Bank of Richmond; and the Payment Management System (PMS) provided by the Department of Health and Human Services. The third system is operated by the Department of Defense. It should be stressed that the CFO Council endorsed these systems for the grant payment process only. The Federal Commons Project is the beginning of the transition from agency independent electronic grant administration initiatives toward a common government electronic grant administration business model that provides technological flexibility for grant recipients.

APPENDIX F

References

Introduction

The following list identifies many of the government-wide accounting standards, laws, regulations, and other mandates that pertain to JFMIP financial system requirements. It is important to note that some of the government-wide financial system requirements are based on common need or usage, rather than regulations.

Federal Legislation

Accounting Standardization Act of 1995

Budget Enforcement Act

Cash Management Improvement Act

Chief Financial Officers Act (CFO) Act of 1990 (Public Law 101-576)

Clinger/Cohen Act (Information Technology Management Reform Act) (Division E of Public Law 104-106)

Computer Security Act of 1987 (Public Law 100-235)

Debt Collection Improvement Act (DCIA) of 1996

Federal Financial Management Improvement Act (FFMIA) of 1996

Federal Managers' Financial Integrity Act (FMFIA) of 1982

Federal Records Act of 1950, as amended (Records Management by Federal Agencies, 44 U.S.C § 3101 et. seq.)

Freedom of Information Act of 1982 (5 U.S.C § 552)

Government Management Reform Act (GMRA) of 1994

Government Performance and Results Act (GPRA) of 1993 (Public Law 103-62)

Government Paperwork Elimination Act

Omnibus Reconciliation Act of 1993 (Public Law 103-66)

Paperwork Reduction Reauthorization Act of 1986 (Public Law 104-13)

Prompt Payment Act of 1982 and Amendments of 1996

Rehabilitation Act Amendments of 1998 (Workforce Investment Act) (Public Law 106-246)

United States Codes and Regulations

5 U.S.C. § 552 contains provisions of the Freedom of Information Act.

31 U.S.C. § 1301(a) (the "Purpose Statute"), requires that monies be expended only for the purposes for which appropriations were made.

31 U.S.C. §§ 1341, 1342, 1349–51, 1511–19 (jointly referred to as the "Anti-deficiency Act"), prohibits obligating more money than an agency has or before it gets the money, accepting voluntary services or monies not specifically allowed by law, and obligating more money than has been appropriated or allotted in a time period.

31 U.S.C. § 1501 (the "Recording Statute") requires that an obligation be recorded when, and only when, it is supported by written evidence of a binding agreement (an offer and its acceptance) for goods or services for a purpose authorized in the appropriation.

31 U.S.C. § 1502 (a) (the "Bona Fide Needs Statute") requires that obligations against an appropriation be limited to a specific time-period and that obligations be charged to the appropriation in force when the obligation is made.

31 U.S.C. § 3302 (b) (the "Miscellaneous Receipts (Deposit) Statute"), requires that, except for trust funds and revolving funds, collected monies from any source must be deposited in the Treasury as soon as practicable without deduction for any charge or claim.

31 U.S.C. § 3512, requires the head of each executive agency to establish and maintain systems of accounting and internal control designed to provide effective control over, and accountability for, all assets for which the agency is responsible.

44 U.S.C. § 3101 addresses records management within Federal agencies.

5 C.F.R. § 1315 is the codification of former OMB Circular No. A-125, "Prompt Payment."

Office of Management and Budget Guidance

OMB Bulletin 01-09, *Form and Content of Agency Financial Statements*

OMB Circular No. A-11, *Preparation and Submission of Budget Estimates*

OMB Circular No. A-11, *Planning, Budgeting, and Acquisition of Capital Assets (Part 3) Supplement to Part 3, Capital Programming Guide*

OMB Circular No. A-25, *User Charges*

OMB Circular No. A-34, *Instructions on Budget Execution*

OMB Circular No. A-109, *Policies for Acquiring Major Systems*

OMB Circular No. A-123, *Management Accountability and Control*, 6/95

OMB Circular No. A-127, *Financial Management Systems*, 7/93

OMB Circular No. A-130, *Management of Federal Information Resources*, 12/00

OMB Circular No. A-134, *Financial Accounting Principles and Standards*

Federal Accounting Standards

Statements of Federal Financial Accounting Standards (SFFAS), specifically:

SSFAS 1, *Statement of Federal Financial Accounting Concepts*

SFFAS 3, *Accounting for Inventory and Related Property*

SSFAS 4, *Managerial Cost Accounting Concepts and Standards*

SSFAS 5, *Accounting for Liabilities of the Federal Government*

SFFAS 7, *Accounting for Revenue and Other Financing Sources*

SSFAS 10, *Accounting for Internal Use Software*

JFMIP System Requirements

JFMIP FFMSR-0, *Framework for Federal Financial Management Systems*, January 1995

JFMIP-SR-00-3, *Grant Financial Management System Requirements*, June 2000

JFMIP FFMSR-8, *System Requirements for Managerial Cost Accounting,* February 1998

JFMIP *Managerial Cost Accounting Implementation Guide,* February 1998

JFMIP-SR-02-01, *Core Financial System Requirements,* November 2001

JFMIP-SR-02-02, *Acquisition Financial System Requirements,* June 2002

JFMIP-SR-01-01, *Benefit System Requirements,* September 2001

JFMIP-SR-99-5, *Human Resources and Payroll System Requirements,* April 1999

JFMIP-SR-99-00, *Travel System Requirements,* July 1999

JFMIP-SR-00-4, *Property Management System Requirements,* October 2000

Other Applicable Standards, Guidelines, and Regulations

Electronic and Information Technology Accessibility Standards (issued by the Architectural and Transportation Barriers Compliance Board)

Federal regulations established by the National Archives and Records Administration

Federal regulations issued by the National Institute of Standards and Technology (NIST)

Rules related to payment formats issued by The Electronic Payments Association (also called NACHA)

The Treasury Financial Manual (TFM), specifically including:

I TFM-2-3100 Instructions for Disbursing Officers' Reports

I TFM-2-3300 Reports of Agencies for which the Treasury Disburses

I TFM-2-4000 Federal Agencies' Centralized Trial-Balance System

I TFM-2-4100 Debt Management Reports

I TFM-6-5000 Administrative Accounting Systems Requirements

I TFM-6-8040 Disbursements

I TFM-6-8500 Cash Forecasting Requirements.