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CARE—Based Audit Methodology

To Review And Evaluate Agency Accounting And Financial Management Systems

GAO

United States General Accounting Office

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Here is an exposure draft of GAO's "Control and Risk Evaluation (CARE) -Based Methodology For Reviewing and Evaluating the Operations of Agency Accounting and Financial Management Systems."

The guidance in the manual is for GAO auditors who review agency accounting and financial management systems. We believe, however, that the methodology is readily adaptable to agencies' own required internal control reviews as well as agencies' reviews of their accounting systems. For this reason, the manual will be available to the federal community.

We are developing additional methodology for reviewing the development of accounting and financial management systems. When finished, we will incorporate this guidance too, in the manual.

We are releasing the methodology for a 3-month comment period to selected GAO professional staff, financial management, and audit officials in the major federal agencies, and private professional firms that assist federal agencies in developing accounting and financial management systems.

I am looking forward to receiving your comments. Please forward them to me at Room 6015, GAO Building, 441 G Street NW, Washington, D.C. 20548. Be assured all your comments will receive our prompt and careful attention.

Sincerely yours,

Virginia B. Robinson
Associate Director,
Accounting Systems Policy
and Audit Methodology

CARE-BASED AUDIT METHODOL-
OGY TO REVIEW AND EVALU-
ATE AGENCY ACCOUNTING
AND FINANCIAL MANAGEMENT
SYSTEMS

E X E C U T I V E   S U M M A R Y

Public policy of our country, expressed in law,
requires the internal control and accounting
systems of the executive branch agencies to be
effective and of high quality. The General
Accounting Office (GAO) has developed an audit
methodology for determining conformance with this
policy. The methodology is intended for the use of
GAO auditors and, as suggested guidance, for
inspector general staffs and others engaged in
similar audits.

LEGAL REQUIREMENTS

Public policy on internal control and accounting
systems is embodied in the provisions of the
Accounting and Auditing Act of 1950 and the Federal
Managers' Financial Integrity Act of 1982.

The 1950 act requires the head of each executive
agency to establish and maintain accounting and
internal control systems which meet the following
objectives to provide

--full disclosure of financial activities,

--adequate financial information for agency
    management,

--effective internal controls over all funds,
    property, and other assets, and

--reliable financial information for develop-
    ment and support of budget requests, for
    budget execution, and for Treasury central
    accounting.

The 1950 act requires further that the accounting
systems conform to the accounting principles and
standards prescribed by the Comptroller General,
and directs GAO to periodically review the systems.

The Federal Managers' Financial Integrity Act of
1982 added significant provisions to the 1950 act.
The provisions strengthen the requirement for
effective internal controls. The act requires that

the Comptroller General develop standards for

agency internal controls, and agency controls must

conform to the standards. The act requires further

that controls must meet the following objectives:

--obligations and costs comply with applicable

law;

--all assets are safeguarded against waste,

loss, unauthorized use, and misappropriation;

and

--revenues and expenditures are recorded and

accounted for properly so that accounts and

reliable financial and statistical reports may

be prepared and accountability of the assets

may be maintained.

The act requires agencies to perform reviews to

determine compliance with these requirements and

directs the Office of Manmagement and Budget (OMB),

in consultation with the Comptroller General, to

develop guidelines for the reviews. Further, agen-

cy heads are to report to the President annually as

to whether or not their internal control systems

comply with the requirements, and whether or not

their accounting systems conform to the Comptroller General's principles and standards.

GAO AND OMB REQUIREMENTS

The Comptroller General's standards for internal control are contained in GAO's accounting series publication Standards for Internal Controls in the Federal Government. The Comptroller General's principles and standards for accounting systems are in title 2 of the GAO Manual for Guidance of Federal Agencies. Additional requirements are in titles 4 through 8 of the manual. The Comptroller General's standards are consistent with and support the objectives of internal control and accounting set forth in the law.

OMB guidance for agency reviews of their internal control systems is in OMB Circular A-123, Internal Control Systems, and OMB's Guidelines for the Evaluation and Improvement of and Reporting on Internal Control Systems in the Federal Government. The guidelines, developed in consultation with GAO, support and are consistent with the Comptroller General's standards and the objectives of the law.

GAO AND AGENCY AUDITS

GAO, under its general mandate to review the opera-
tions of the executive branch, as well as its
specific mandate to review and approve accounting
systems, plans to audit the internal control and
accounting systems of the executive agencies. The
objectives of the audits are to determine

--whether internal controls conform to the
Comptroller General's standards and OMB
policy and guidelines for internal controls
and meet the objectives of the law,

--whether accounting systems conform to the
Comptroller General's principles and standards
for accounting systems and meet the objectives
of the law, and

--whether accounting systems effectively and
efficiently provide management--both internal
and external (the Congress, OMB, and Treas-
ury)--useful, timely, reliable, comparable,
and complete financial information needed for
effective and efficient management of public
financial resources and public programs.

The GAO audit methodology is designed to meet these audit objectives. Further, GAO believes the methodology is readily adaptable to the agencies' own required internal control and accounting systems reviews. Therefore, the methodology is available to the federal community.

GAO'S AUDIT METHODOLOGY--CARE

GAO calls its audit methodology "Controls and Risk Evaluation (CARE)." It is adaptable to any organizational level--an entire agency, a major component of the organization, an operational unit, or an individual system. A key feature of the methodology is its emphasis on risk assessment, which greatly optimizes audit staff effectiveness: The methodology is organized into four segments: (1) general risk analysis, (2) transaction flow review, (3) compliance testing, and (4) substantive testing. The work performed in each succeeding segment is based on the results of the preceding one.

GAO emphasizes that effective use of the methodology requires a large measure of knowledge, training and professional judgment. The methodology is not to be viewed as a rigid or arbitrary checklist approach.

GENERAL RISK ANALYSIS

In the general risk analysis segment of CARE, the auditor acquires an overview of the activity to include such items as its mission and operations, its organization, and its funding. Also, the auditor will gain an understanding of the general control environment, including general controls over computer operations. Further, the auditor acquires a general understanding of the overall financial management structure, including the budgeting and accounting system. The auditor, for each system in the structure, makes a preliminary determination of the internal control objectives and the relevant principles and standards.

Finally, the auditor applies a number of risk ranking factors to each system in order to identify the systems of greatest risk—that is, vulnerability to fraud, abuse, and mismanagement. This ensures that scarce audit resources are focused on areas where they can make the greatest contribution. Factors considered include magnitude of funds involved, potential impact of ineffective operation, sources of input, degree of automation, known problems, and recency of prior audits. The systems with the highest risk rankings will be subjected to

further review in the second CARE segment, transaction flow review.

TRANSACTION FLOW REVIEW

In the second segment of CARE, transaction flow review and analysis, the auditor indentifies each selected system's major types of transactions and refines a determination of the internal control objectives. The auditor then determines and documents, for each major type of transaction, the flow of information through the system. This involves flowcharting information through the procedures, records, files and reports. By analyzing the flow, the auditor identifies the control techniques used and determines whether they meet the system's control objectives. The auditor also determines whether all accounting standards relevant to the system are being met. Further, the auditor is alert for any inefficiencies in the automated data processing system.

This study provides the auditor an understanding of the internal control strengths and weaknesses of the systems. This, in turn, gives the auditor a basis for further ranking the systems in terms of the reliance that can be placed on them. Based on

this ranking, the auditor selects systems for com-
pliance testing, the third segment of CARE.

COMPLIANCE TESTING

In the third segment of CARE, compliance tests and
analysis, the auditor determines whether the pro-
cesses and controls identified in transaction flow
review actually operate and function as understood
and intended.

For each automated system to be tested, the auditor
designs a set of test transactions. The test
transactions are of two broad types—valid and
invalid. The valid transactions contain no er-
rors. They are entered into the system to deter-
mine whether valid transactions will process
through to completion of the cycle. Invalid trans-
actions are designed to contain errors. The audi-
tor enters these transactions to determine whether
the system actually identifies and rejects them.

For a manual system or for any manual part of an
automated system, the auditor "walks" actual trans-
actions through the manual processes. This invol-
ves interviewing the individuals who·handle
transactions, observing the procedures followed,

and examining applicable records. Through this exercise, the auditor systematically verifies that the control techniques, identified in the transaction flow review segment, actually operate and function as understood and intended.

Based on the results of compliance testing, in combination with the results of transaction flow review, the auditor will form an overall opinion of the system and its internal controls. In addition, after considering the potential impact of any deviations from these requirements, as well as the agency's planned corrective actions, the auditor may decide to perform substantive testing, the fourth segment of CARE.

SUBSTANTIVE TESTING

In the fourth segment of CARE, substantive tests and analysis, the auditor determines the impact of deviations from standards and other requirements. For this segment, audit steps must be tailored to the specific situation. As a generalization, however, this segment tests actual agency transactions and examines related records, files, and reports. Also, computer assisted audit techniques are an

invaluable tool for this segment. As a result of this segment, GAO will, as a general rule, report the deviations and their impact to the head of the agency, together with GAO's recommendations for correction.

ORGANIZATION OF THE MANUAL

GAO's CARE manual consists of a main body, containing eight sections, and a set of nine appendixes.

The main body is organized as follows:

--Section 1 - Introduction.

--Section 2 - Definition of a federal accounting system and scope of GAO audits.

--Section 3 - Interrelationship of control objectives, accounting principles and standards, and internal controls.

--Section 4 - General risk analysis segment-- objectives, scope, work steps, and work products.

--Section 5 - Risk ranking of systems.

--Sections 6, 7, and 8 - Transaction flow
review, compliance testing, and substantive
testing segments, respectively.

The appendixes are organized as follows:

--Appendixes I through IV - Key policy issuan-
ces--OMB's Circular A-123 and guidelines,
the Comptroller General's internal control
standards, and the Financial Integrity Act.

--Appendix V - Quick reference guide to the
work steps.

--Appendix VI - Examples of documentation
produced in a CARE audit.

--Appendix VII - Control objectives.

--Appendix VIII - Examples of control objec-
tives related to control techniques.

--Appendix IX - Bibliography.

Presenting the work steps, documentation, and con-
trol objectives materials as appendixes facilitates

the auditor's extracting and reproducing them for inclusion in individual audit workpapers.

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GAO maintains a continuing interest in the usefulness and effectiveness of CARE. Accordingly, GAO welcomes reports of experience with the methodology, including practical problems encountered, as well as suggestions for improvement. These should be submitted to Mrs. Virginia Robinson, Associate Director, Accounting and Financial Management Division.

FOREWORD

GAO has developed an audit approach entitled "Controls and Risk Evaluation-Based (CARE-Based) Audit Methodology for Reviewing and Evaluating the Operations of Agency Accounting and Financial Management Systems" to

- --identify an agency's accounting and financial management systems,

- --identify and evaluate the adequacy of controls in these systems, and

- --determine the degree of compliance of an agency's accounting system with the Comptroller General's accounting principles, standards, and other requirements.

It is important to note that the work steps and procedures in the document should not be applied rigidly or arbitrarily. As with any audit, the auditor must not only exercise professional judgment and assess the relevance and appropriateness of program steps to the specific situation but also add, modify, or delete steps as necessary.

The audit methodology is comprised of an executive summary, a work program, and a series of nine appendixes. The executive summary is for top financial management and audit executives who want a top level overview of the methodology. The work program is for operational financial management and audit staffs who manage the reviews and evaluations of systems.

The appendixes provide detailed guidance to financial management and audit staff who review and evaluate systems.

Most accounting and financial management systems are automated. To assist in evaluating the general and application controls in these systems, evaluation questionnaires and checklists are included in the appendixes. They are drawn from the 1981 GAO audit guide "Evaluating Internal Controls in Computer-Based Systems." When users of the CARE methodology have questions about how to use these appendixes they should consult the 1981 guide.

Currently, GAO is testing and refining a methodology for auditing computer-based systems that will revise and update the 1981 guide. When this work is completed, GAO will seek the comments of the audit community. This work will complement the CARE approach and may be incorporated in the CARE manual.

GAO's methodology is acknowledgedly complex. This reflects the increasing complexity of contemporary federal accounting and financial management systems. Because of its complexity, GAO believes auditors should be trained in the methodology in order to effectively apply it; they should not try to apply this guidance before such training.

We are releasing this draft for a 3-month period of testing and commenting to all GAO professional staff, financial management and audit officials in the major federal agencies, as well as selected private professional firms that assist federal agencies in designing, developing, and implementing accounting

and financial management systems. Please direct your comments to Mrs. Virginia Robinson, Associate Director, Accounting and Financial Management Division, Room 6015, General Accounting Office, 441 G Street NW, Washington DC, 20548.

Sincerely yours,
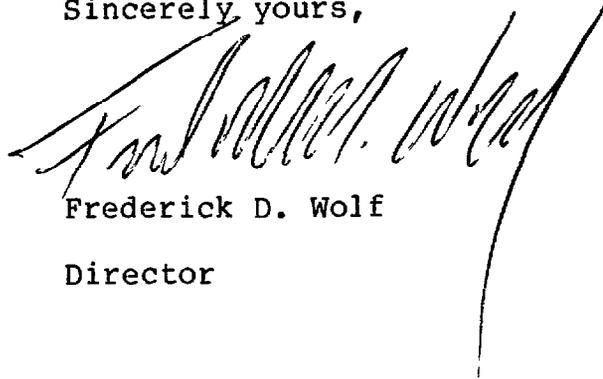
Frederick D. Wolf

Director

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ABBREVIATIONS

ADP   Automated Data Processing

AFMD   Accounting and Financial Management Division

CAATS   Computer Assisted Audit Techniques System

CAN   Common Account Number

CARE   Controls and Risk Evaluation

CAS   Central Accounting System

CTA   Control Test and Analysis

DFAFS   Departmental Federal Assistance Financing System

FPAO   Fraud Prevention and Audit Oversight

GAO   General Accounting Office

GRA   General Risk Analysis

IG   Inspector General

IMPAC   Information Management for Planning and Coordination

NIH   National Institutes of Health

OMB   Office of Managment and Budget

STA   Substantive Test and Analysis

T&A   Time and Attendance

TFRA   Transaction Flow Review and Analysis

SECTION 1

INTRODUCTION

The requirements for effective agency internal controls and accounting systems are promulgated in both law and government-wide policy statements. Key laws and policy statements are the Budget and Accounting Procedures Act of 1950 (31 U.S.C. 3500), the Federal Managers' Financial Integrity Act of 1982 (Public Law 97-255)(see Appendix II), GAO's Policy and Procedures Manual for Guidance of Federal Agencies (titles 2 through 8), and Office of Management and Budget (OMB) Circular A-123, Internal Control Systems. (See Appendix I.)

The Budget and Accounting Procedures Act of 1950 makes each agency head responsible for establishing and maintaining adequate systems of accounting and internal control. The systems are required to conform to the accounting principles, standards, and other requirements prescribed by the Comptroller General. The principles and standards are set forth in title 2 of the GAO manual. Titles 4 through 8 of the manual contain additional requirements.

Also, OMB issued Circular A-123 in October 1981, which requires each executive agency to develop and maintain adequate systems of internal control. It prescribes several actions agencies must take to evaluate and strengthen internal controls. The Federal Managers' Financial Integrity Act of 1982 amended the 1950 act. It requires each agency to make periodic evaluations of its internal control systems and report annually to the

President and the Congress. The report is to state:

--whether or not its internal accounting and administrative

controls meet the Comptroller General's standards and the

objectives set forth in the act, and

--whether or not its accounting system conforms to the

Comptroller General's principles, standards, and related

requirements.

In addition, where the internal controls or the accounting
system do not meet these criteria, the statement is to describe
planned corrective actions.

The Comptroller General's internal control standards are set
forth in GAO's April 1983 pulication, <u>Standards for Internal
Controls in the Federal Government</u>. (See appendix III.) Subse-
quently, OMB, in consultation with the Comptroller General,
developed guidelines for agencies to use in evaluating their
systems of internal accounting and administrative control. These
are set forth in OMB's December 1982 <u>Guidelines for the Evalua-
tion and Improvement of and Reporting on Internal Control Systems
in the Federal Government</u>. (See appendix IV.)

CONTROL STRUCTURE OF THE
FEDERAL GOVERNMENT

Control over the federal government and its program, admin-
istrative, and financial operations is carried out on both a
governmentwide level and an individual agency level. In order to

effectively control federal operations, the control techniques implemented at both levels must complement each other.

EFFECTIVE SYSTEMS--KEY TO GOVERNMENTWIDE AND AGENCY LEVEL CONTROL

Governmentwide controls are based on the separation of powers between the legislative and executive branches of the federal government. As shown in figure 1 on the next page, the legislative and executive branches establish goals and objectives to control governmentwide planning and programming.

Congress sets federal program and administrative goals and provides the resources to the executive branch agencies needed to achieve these goals through (1) laws authorizing specific pro- grams and administrative responsibilities for theagencies, and (2) appropriation acts to provide them with needed resources.

Congress obtains information on the results of operations and the use of resources through information supplied by the agencies, other organizations, and individuals at oversight and appropriation hearings. Based on this information, Congress can judge whether the agencies stayed within authorized goals and resource constraints.

The executive branch can only conduct operations Congress authorizes and must stay within resource limits Congress sets in appropriation acts. The executive branch central control agencies ensure that all agencies stay within these limits. These control agencies are the Office of Management and Budget,

Federal Information Requirements
Planning Chart

INFORMATION LEVELS

PUBLIC CONCERNS

CONGRESSIONAL GOALS & OBJECTIVES

PRESIDENTIAL GOALS & OBJECTIVES

STRATEGIC PLANNING & PROGRAMMING

PROGRAM STRATEGY
- DEFENSE PLANS
- FOREIGN POLICY
- SCIENTIFIC RESEARCH
- ENERGY UTILIZATION
- ENVIRONMENTAL QUALITY
- AGRICULTURE
- COMMERCE
- NATURAL RESOURCES
- TRANSPORTATION
- COMMUNITY DEVELOPMENT
- EDUCATION
- SOCIAL SERVICES
- HEALTH
- INCOME SECURITY
- VETERANS BENEFITS
- JUSTICE

PERSONNEL STRATEGY
- PERSONNEL NEEDS
- BENEFIT PLANS
- PERSONNEL POLICIES
- OUTYEAR PROJECTIONS

FINANCIAL STRATEGY
- BUDGET GUIDANCE
- ACCOUNTING POLICY
- OUTYEAR PROJECTIONS
- CREDIT POLICY
- TAX POLICY
- DEBT POLICY
- PRIORITY DETERMINATION
- PERFORMANCE MEASURES

PROPERTY STRATEGY
- FACILITY REQUIREMENTS
- MAKE/BUY ANALYSIS
- OUTSIDE VENDOR POLICY
- INVENTORY STOCKING RULES
- LAND USE POLICY
- STRATEGIC MATERIALS PLANS

OPERATING PLAN FORMULATION

- PROGRAM AUTHORIZATIONS
- PROGRAM PLANS

- POSITION PLANS
- STAFFING PLANS

- FINANCIAL PLANS
- CASH PLANS

- SPACE PLANS
- EQUIPMENT PLANS
- MATERIALS PLANS

EXECUTION CONTROL

- OVERSIGHT & EVALUATION
- PROGRAM CONTROL

- POSITION CONTROL
- PERSONNEL SELECTION EVALUATION
- WORK FORCE MONITORING

- COST CONTROL
- FUNDS CONTROL
- CASH CONTROL
- COLLECTIONS CONTROL

- PROCUREMENT CONTROL
- PROPERTY CONTROL

TRANSACTION PROCESSING

- LEGISLATIVE SUPPORT
- ENTITLEMENTS
- GRANTS & LOANS

- JOB CLASSIFICATIONS
- POSITION DEFINITION
- APPLICATIONS
- QUALIFICATION TESTS
- TRAINING
- PERSONNEL DATA
- PAYROLL
- FRINGE BENEFIT
- EXPENSE ACCOUNTS
- PERFORMANCE APPRAISAL

- BUDGET FORMULATION
- EXPENDITURE ACCOUNTING
- REVENUE ACCOUNTING
- GENERAL ACCOUNTING
- DEBT SERVICE
- PAYABLES
- CASH DISBURSEMENTS
- CASH RECEIPTS
- FEES AND TAXES

- PURCHASING
- INVENTORY CONTROL
- SECURITY
- MAINTENANCE
- ASSETS
- CONSTRUCTION MANAGEMENT
- VEHICLE MANAGEMENT

FIGURE 1

the Office of Personnel Management, Treasury, and the Executive Office of the President.

The central control agencies promulgate policy, procedures and regulations, and allocate resources to guide and control executive agency operations. This guidance is based on laws, including appropriation acts, passed by the Congress and signed by the President. The central control agencies also receive routine reports from the agencies on the results of operations which they use to ensure that the agencies comply with central direction and stay within resource allocations. The central control agencies report to the President and the Congress.

The governmentwide controls will work effectively only if the Congress and the central control agencies receive current, complete, and accurate information on prior program and adminis- trative accomplishments. Congress also needs to know the finan- cial results of operations to support the appropriation process and to carry out its oversight responsibilities. Similarly, the central control agencies must also receive reliable information to carry out effectively their central control functions.

The primary source of the information needed by the Congress and the central control agencies is from the agencies that carry out authorized programs. Consequently, controls at the indivi- dual agency level should focus on ensuring that reliable, timely, and accurate information be recorded and reported. This includes information on program accomplishments as well as financial results of operations.

Additional governmentwide controls are provided through federal audit agencies. Specifically, GAO in the legislative branch and the inspectors general in the executive branch help provide assurance that federal operations and related use of resources conform to national goals and objectives. However, their audits are no substitute for reliable, timely, and accurate information, which is needed as well for effective control over operations and resources by agency level management.

Thus, reliable and timely information is the key to effective control at both the governmentwide and agency level. The sources of this information are the agencies' budget, accounting, and other financial management information systems. To be successful, these systems must include effective manual and/or automated procedures--control techniques--over the capturing, recording, summarizing, and reporting of information. Thus, the controls of these systems are the focus of our efforts to improve control over government operations.

OVERVIEW OF GAO's
AUDIT METHODOLOGY--CARE

GAO has developed an audit methodology entitled Controls and Risk Evaluation (CARE-Based) audit methodology to Review and Evaluate Agency Accounting and Financial Management Systems" to (1) evaluate the effectiveness of controls in agency level financial and other management information systems and the reliability of the information they produce, as well as, (2) determine conformance with the Comptroller General's accounting principles,

standards and related requirements. The CARE-Based audit method-
ology is designed to guide the auditor in evaluating the effec-
tiveness of the control environment of an individual agency, a
major organizational component, an operational unit, or a system.

Once the scope of audit has been decided--an entire agency,
component operational unit, or individual system--CARE guides the
auditor in viewing all aspects of the selected entity's opera-
tions as part of the control environment and management control
system. This is in accord with OMB's Circular A-123 and the
requirements of the Federal Managers' Financial Integrity Act.
For example, both CARE and OMB require vulnerability (risk)
assessments and internal control reviews, as well as considera-
tion of all aspects of program and administrative operations.

STRUCTURE OF GAO's CARE
AUDIT METHODOLOGY

The CARE-based audit methodology provides a four segment
approach to the review and evaluation of an agency's accounting
and financial management systems and related control environ-
ment. The CARE audit segments are

   (1) general risk analysis,

   (2) transaction flow review and analysis,

   (3) compliance tests and analysis, and

   (4) substantive tests and analysis.

Figure 2, on the next three pages, graphically portrays the
overall structure and interrelationships of the four segments.

The results of the work done in each succeeding segment

CARE AUDIT APPROACH

(1) GENERAL RISK ANALYSIS

```
Obtain and Review          Obtain and Review          Obtain Background          Validate Financial
Background Material         Results of Prior           Financial Management       Management Systems
On Entity                  Reviews of Entity             Systems                  Inventory With Pro-
--Mission                  --IG Reviews               --System Inventory         grams Administrative
--Budget Authority         --GAO Reviews              --ADP Environment          Functions and Budget
--Organization             --Internal Audit           --Relationships            Authority
--Programs                   Reviews                     Between Systems
                           --FIA Results
                           --OMB A-123 Results
```

```
Financial Management Sys.              Budget Systems. Identify:
--Accounting Standards                 --Process and Timeframes
--Control Objectives                   --Control Objectives
--Other Requirements                   --Tie To Accounting Sys.
```

```
Describe:
-- Fin. Mgmt.
   Structure
   of Entity

-- Gen. Mgmt.
   Control
   Strengths/
   Weaknesses
   to Include
   ADP
```

```
-- Risk Rank
   Systems

-- Select Sys-        (A)
   tems for
   TFRA
```

1-8

FIGURE 2

CARE AUDIT APPROACH

(2) TRANSACTION FLOW REVIEW AND ANALYSIS

(A) → **Select Systems For TFRA**

Finan. Mgmt. Systems: Rev. Sys. Documentation and:
- --Develop Data Flow
- --Identify Internal
- --Control Techniques

Budget Systems: Review System Documentation and:
- --Develop Data Flows
- --Identify Internal Control Techniques

Identify:
- -- Internal Control Strengths and Weaknesses By Sys.
- -- Use of ADP and Sys. Manaual Resource

Identify:
- -- Internal Control Strengths and Weaknesses By Sys.
- -- Tie to Accounting Systems Use of ADP and Manual Resources

Summarize For Each System Reviewed:
- -- Internal Control Strengths/Weaknesses
- -- Use of ADP and Manual Resources

Risk Rank Systems

ADP Weaknesses — Yes

Select Sys. For Compliance → **(B)**

Schedule Major Weaknesses of ADP Resources AS Separate Review (IMTEC Division)

Prepare and Issue Report To Agency And/Or Congress

1-9

FIGURE 2 (Cont.)

CARE AUDIT APPROACH

(3) COMPLIANCE TESTS AND ANALYSIS

```
B → [Develop Compliance Tests for Systems Selected for Testing] → [Complete Compliance Tests and Analyze Test Results] → <Does Each Comply With Control Requirements And P&S> --Yes--> [Close out Audit; Issue Letter To Agency Head]
```

<Are Substantive Tests Needed> --No--> [Prepare and Issue Report To Agency And/Or Congress]

(4) SUBSTANTIVE TEST AND ANALYSES

[Develop Substantive Tests]

[Complete Substantive Testing and Analyze Test Results]

[Prepare and Issue Report to Agency And/Or Congress]

FIGURE 2 (Cont.)
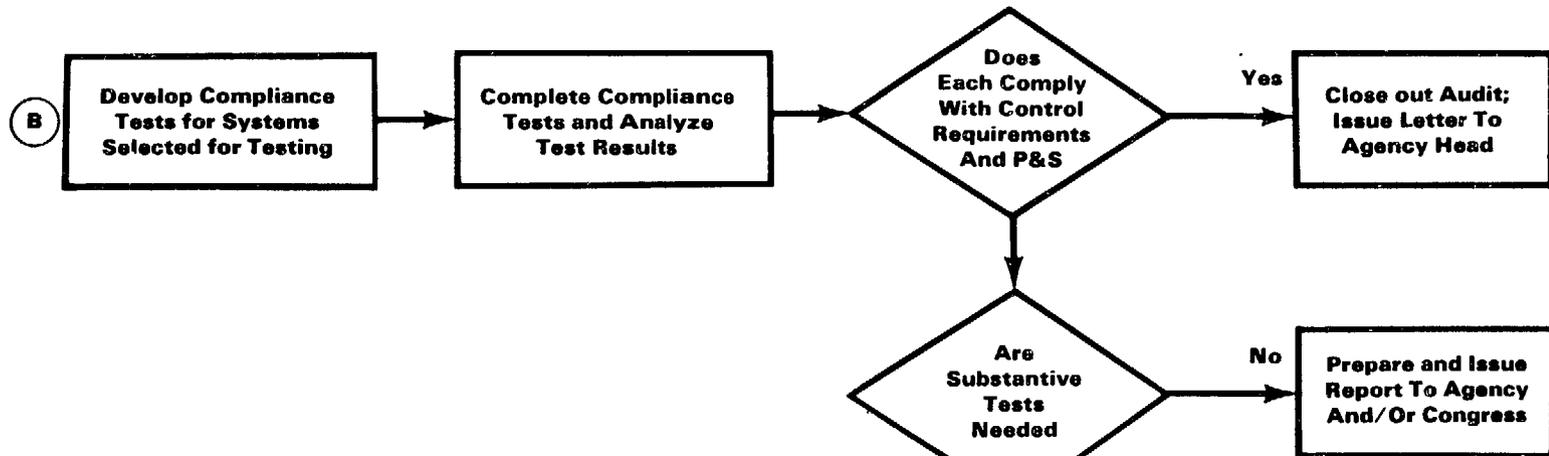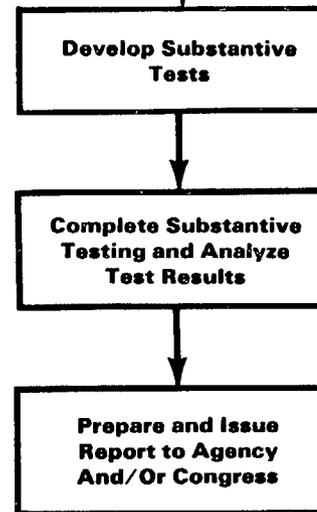
builds on the results of the work done in the preceding one. Upon completion of all four work segments, CARE will result in (1) a permanent file on the agency (or part of an agency selected for review) that describes its financial management structure and its internal control strengths and weaknesses, (2) a risk ranking of the systems in the structure, (3) a determination as to whether the accounting systems comply with GAO principles and standards, and/or (4) a report to the agency or the Congress on major weaknesses in the financial management systems.

General Risk Analysis

The overall objectives of the general risk analysis (GRA) segment are to (1) identify the strengths and weaknesses in the agency's general control environment and assess its overall adequacy, (2) identify the individual systems that comprise the financial management structure, and (3) select systems for further review.

The general risk analysis segment of CARE focuses on several steps.

-Understanding and documenting the overall mission; specific program, administrative, and financial responsibilities; authorized resources; and organizational structure of the agency.

--Understanding and documenting the general control environment of the agency to include general controls over supporting computer operations.

--Identifying and documenting the financial management structure of the agency to include both accounting and

budgeting systems.

--Identifying the accounting standards, internal control
objectives, and other requirements that the individual
systems in the structure must satisfy.

--Initial risk ranking of the systems to aid in selecting
those to be reviewed in the next segment.

Upon completion of the general risk analysis segment, an
initial financial management systems profile of the agency is
developed and a validated inventory of systems for the transac-
tion flow review and analysis segment are determined.

Transaction Flow Review
and Analysis

The overall objectives of the transaction flow review and
analysis (TFRA) segment are to (1) identify the internal control
strengths and weaknesses in the systems selected for review, (2)
identify major inefficiencies in their use of ADP resources, and
(3) complete a final risk ranking of selected systems based on
the internal control strengths and weaknesses identified.

The transaction flow review and analysis segment focuses on

--identifying and documenting--by using flowcharting
techniques--the flow of transaction information through
the systems,

--identifying and documenting the internal control tech-
niques included in the system(s),

--evaluating the effectiveness of the internal control
techniques in satisfying the accounting principles and
standards, internal control objectives, and other

requirements established for the systems in the general

risk analysis segment,

--identifying and documenting the system's internal control

strengths and weaknesses, and

--identifying and documenting major inefficiencies in the

use of ADP and other resources used by the systems.

Upon completion of the transaction flow review and analysis

segment, the auditor should have a

--summary for each system reviewed describing its purpose

inputs, files and outputs, ADP equipment used, costs,

internal control strengths and weaknesses, and flow of

information through the system;

--final risk ranking of the systems based on assessment of

the strengths and weaknesses;

--recommendations, if appropriate, for separate jobs to

review any major control weaknesses in use of ADP

resources; and

--selecton of systems for compliance tests and analysis.

COMPLIANCE TESTS
AND ANALYSIS

The overall objective of the compliance tests and analysis

segment is to determine whether each selected system captures,

records, processes, and reports financial transactions in confor-

mance with the Comptroller General's accounting principles,

standards, and other requirements, and whether it meets its

internal control objectives. This analysis will provide the

basis for GAO to plan further systems work at the various executive agencies.

Compliance tests involve processing through a system, limited tests that cover the full range of manual and automated transactions that the system is designed to process. This involves processing test transactions containing both valid and erroneous information. The objective is to determine whether the system complies with accounting principles, standards, and related requirements.

The compliance tests and analysis segment focuses on

--verifying that the internal control techniques, identified in the Transaction Flow Review and Analysis segment, actually are present and function as designed, and

--determining the extent to which the systems will process erroneous information, based on the internal control weaknesses identified for each system during the transaction flow review and analysis segment.

Upon completion of the segment, an overall assessment of the systems is made, resulting in either

--a determination as to whether the compliance tests indicate the system conforms in all material respects to GAO's principles, standards other requirements, and meet internal control objectives;

--a report with recommendations for improvements to the agency and/or the Congress if the results of the compliance tests indicate the system deviates from these requirements; or,

--if a system deviates in material respects from these re-
quirements, a determination to perform substantive tests
of actual transactions and account balances to demonstrate
the effect may be made.

Substantive Tests and Analysis

The overall objectives of the substantive tests and analysis
(STA) segment are to (1) develop the evidence on adverse impact
of material deviations from requirements in order to convince
management of the need for correction, and (2) develop recommen-
dations for correction.

Upon completion of the segment, we will report to the agency
head and/or the Congress (1) the material deviations from requi-
rements, (2) their adverse affect on financial operations, and
(3) our recommendations for correction.

SECTION 2

DEFINITION OF A FEDERAL ACCOUNTING SYSTEM
AND SCOPE OF GAO AUDITS

The Budget and Accounting Procedures Act of 1950 (1)

defines federal agency financial management as including the

functions of budgeting, accounting, financial reporting, and

auditing and (2) makes the Comptroller General responsible for

promulgating federal accounting and financial reporting prin-

ciples and standards and for reviewing agency accounting

systems. The 1956 amendment to the 1950 act also requires that

agency budgets be based on the actual cost of operations and

that agency accounting systems support agency management control

systems. Consequently, agency accounting systems should be

considered an integral part of agency financial management and

management control systems and should support the budgeting,

auditing, accounting, and financial reporting functions.

GAO's Policy and Procedures Manual for Guidance of Federal

Agencies sets forth federal accounting and financial reporting

principles, policies, standards, and other requirements. On

April 18, 1983, the Comptroller General issued a definition of a

complete agency accounting system. This definition stated:

> "A complete accounting system ...is one estab-
> lished to assist in the financial management
> functions of budget formulation and execution,
> proprietary accounting, and financial report-
> ing. It is the total structure of methods and
> procedures used to record, classify, and report
> information on the financial position and oper-
> ations of a governmental unit of any of its

funds, balanced account groups, and organizational components. Accounting systems shall be comprised of the various operations involving the authorizing, recording, classifying, and reporting of financial data related to revenues, expenses, assets, liabilities, and equity."

In most agencies, the accounting system is comprised of a set of subsystems. When taken together, these systems authorize, record, classify, and report financial data related to revenues, expenses, assets, liabilities and equity; and support the agency's financial management and management control processes. Figure 3 shows the component parts of the financial management and management control processes.

FIGURE 3

The Financial Management Process

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                    ┌─────────────────┐
              ┌────►│   PLANNING &    │────────┐
              │     │  PROGRAMMING    │        │
              │     └─────────────────┘        │
              │                                ▼
       ┌─────────────┐                 ┌─────────────┐
       │    AUDIT     │                 │   BUDGET    │
       │ EVALUATION   │                 │ FORMULATION │
       └─────────────┘                 └─────────────┘
              ▲                                │
              │     ┌─────────────────┐        │
              │     │    BUDGET       │        │
              └─────│  EXECUTION &    │◄───────┘
                    │  ACCOUNTING     │
                    └─────────────────┘
```
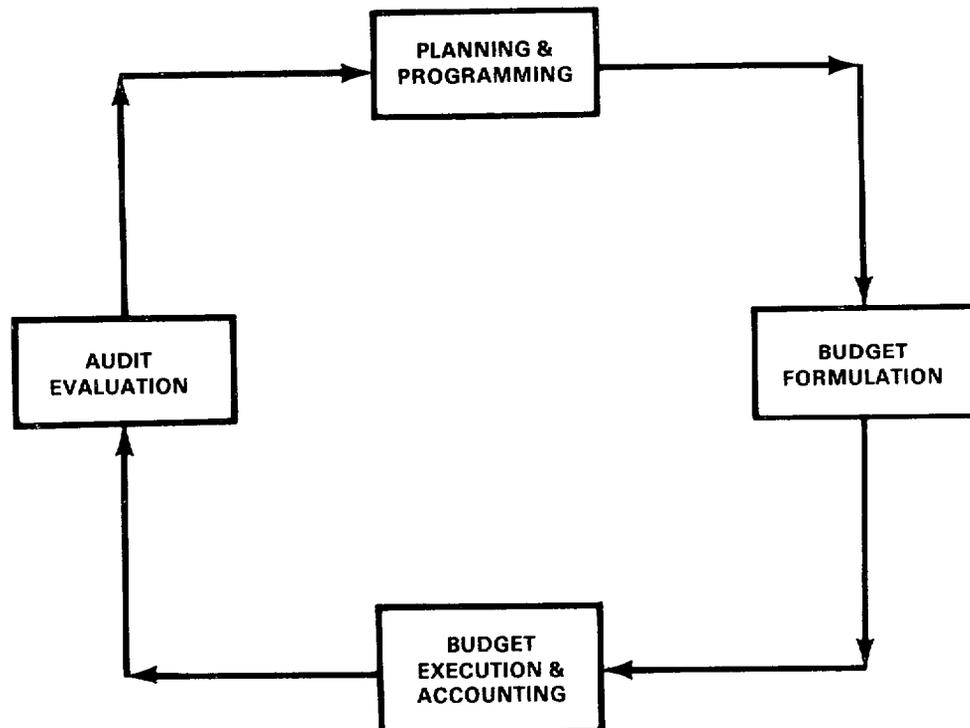
GAO's CARE-based audit methodology is designed to include in its scope of work the agency's accounting and financial management systems that capture, record, summarize, and report financial transaction information related to the financial management processes of budget formulation and budget execution and accounting. Consequently, the audit methodology includes in its work scope agency systems for

--development of budget requests,

--authorization of the use of resources,

--management of liabilities,

--receipt of revenue,

--disbursement of funds,

--control of assets,

--control of appropriated funds, and

--development and issuance of reports on the financial status of assets, liabilities, appropriated funds, and agency financial operations.

In order for an agency's accounting system to be effective, it should control appropriated funds; protect funds and other resources from loss and mismanagement; and fairly report on the financial results of operations, status of funds, and other resources. To accomplish this, the accounting system must exchange reliable information between the component systems. Similarly, in order for an agency's budget request to be based on the past results of operations, the budget formulation system must receive timely, reliable cost information from the accounting system.

Finally, for governmentwide financial controls (discussed in section 1) to be effective, the executive branch central control agencies must receive reliable information from agencies' accounting and budget systems. Figure 4, on the next page, shows the relationships between governmentwide and agency level financial management requirements and controls.

The CARE-based audit methodology is an audit approach designed to encompass the agency's manual and/or automated systems that capture, record, summarize, and report information, and comprise the overall accounting system. It focuses on

--identifying the flow of information between the component systems that constitute an agency's accounting system and the flow of information between the accounting and budget systems,

--evaluating the reliability of the systems' information; and

--identifying, testing, and evaluating the controls provided in the individual systems that constitute the overall accounting system.

KEY POINTS:

--A complete accounting system encompasses the total financial management system structure to record, classify, and report an agency's financial information.

--The financial management process, to be reliable, must use the accounting system information for budget formulation, execution, and accounting.

--Agency level financial controls must be effective for governmentwide financial controls to work.

--CARE is a systems audit approach to determine the adequacy of an agency's overall accounting system, in both its manual and automated aspects.

Federal Financial Management Information Requirements Planning Chart

Figure 4

INFORMATION LEVELS

STRATEGIC PLANNING & PROGRAMMING

FINANCIAL STRATEGY

- BUDGET METHOD
- ACCOUNTING POLICY
- OUTYEAR PROJECTIONS
- CREDIT POLICY
- TAX POLICY
- DEBT POLICY
- PRIORITY DETERMINATION
- PERFORMANCE MEASURES

OPERATING PLAN FORMULATION

FINANCIAL PLANS

BUDGET FORMULATION	BUDGET IMPLEMENTATION
• REVENUE ESTIMATES	• APPROPRIATIONS
• COST ESTIMATES	• OTHER BUDGET AUTHORITY
• OUTPUT MEASURE ESTIMATES	• APPORTIONMENTS
• NEW BUDGET AUTHORITY	• DEPARTMENT ALLOTMENTS
• TAX EXPENDITURE ESTIMATES	• REPROGRAMMING DETERMINATIONS
	• DEFERRALS
	• RECISSIONS
	• PRO FORMA STATEMENTS

CASH PLANS

- OUTLAY PROJECTIONS
- RECEIPT PROJECTIONS
- DEBT ISSUE & RETIREMENT SCHEDULES
- INVESTMENT PLANS
- INTEREST RATE FORECASTS
- LOAN ISSUE & RETIREMENT

EXECUTION CONTROL

COST CONTROL
- DEPARTMENT PROGRAM COST ANALYSIS
- INTERAGENCY PROGRAM COST SUMMARY
- RESPONSIBILITY REPORTS
- ACCOUNTABILITY REPORTS
- PROJECT STATUS
- PERFORMANCE ANALYSIS
- PROGRAM AUDITS

FUNDS CONTROL
- FINANCIAL STATEMENTS
- APPROPRIATION MONITORING
- CONTRACTOR/GRANTEE STATUS
- CONGRESSIONAL COMMITTEE SUMMARY
- EXPENDITURE ANALYSIS
- GEOGRAPHIC BREAKDOWNS
- APPROPRIATION CONTROL
- RECONCILIATIONS
- REVENUE ANALYSIS
- DEBT MANAGEMENT EVALUATION
- FINANCIAL AUDITS

CASH CONTROL
- CASH POSITION EVALUATION
- PAYABLES MONITORING
- CASH REQUIREMENTS FORECAST
- CASH PERFORMANCE MONITORING
- BANK RECONCILIATIONS
- FLOAT ANALYSIS

COLLECTION CONTROL
- RECEIVABLES MONITORING
- DELINQUENCY EVALUATION
- COLLECTION PATTERNS
- AUDITS

TRANSACTION PROCESSING

EXPENDITURE ACCOUNTING
- COMMITMENTS
- OBLIGATIONS
- ACCOUNT DISTRIBUTION
- INTERAGENCY TRANSFERS
- IN KIND CONTRIBUTIONS
- LEASES
- ADJUSTMENTS

REVENUE ACCOUNTING
- ACCOUNT DISTRIBUTION
- INTERAGENCY TRANSFERS
- ADJUSTMENTS

GENERAL ACCOUNTING
- FUND ENTRIES
- JOURNAL VOUCHERS
- TRANSFERS
- ADJUSTMENTS

DEBT SERVICE
- DEBT ISSUE
- MATURITY DATES
- INTEREST RATES
- PREMIUM DISCOUNT AMORTIZATION
- PRINCIPAL PAYMENT
- INTEREST PAYMENT

PAYABLES
- INVOICES
- OBLIGATION LIQUIDATIONS
- DISCOUNTS
- PAYMENT SCHEDULE

CASH DISBURSEMENTS
- PAY AUTHORIZATIONS
- CHECKS
- REGISTERS
- LETTERS OF CREDIT
- EFT

CASH RECEIPTS
- DEPOSITS
- TRANSFERS

FEES & TAXES
- ASSESMENTS
- FILINGS
- TAX RETURNS
- RENTS
- ROYALTIES
- INTEREST & DIVIDENDS
- PENALTIES

SECTION 3

INTERRELATIONSHIP OF CONTROL OBJECTIVES, ACCOUNTING PRINCIPLES AND STANDARDS, AND INTERNAL CONTROLS

The CARE-Based audit methodology is structured to: (1) identify the financial transactions initiated and processed by an agency based on its budget authority and by its program and administrative functions, (2) group similar transactions into transaction cycles, (3) identify the agency accounting systems that process transactions in the identified cycles, and (4) identify the internal control objectives for agency systems and evaluate the control techniques included in the systems in terms of their ability to achieve control objectives.

An agency's financial transactions are determined by its authorized program and administrative functions and by its budget authority. The identified financial transactions can be grouped into transaction cycles to facilitate further analysis. An individual agency's accounting system should be designed to process, control, and report on the financial transaction cycles determined by its program and administrative functions.

An agency, for example, that administers grant programs will generate many transactions related to authorizing the funding of grants. These transactions could be grouped into a grant cycle. Another agency resonsible for enforcing federal regulations may primarily generate procurement and salary transactions. These transactions could be grouped into an expenditure cycle.

TYPICAL PAYROLL TRANSACTIONS
TO BE INCLUDED IN A TEST DECK

Nature of test transactions	Purpose or explanation of test transaction	How a system with effective controls will handle the transactions						
		Reject	Print error message	Reject in certain circum- stances	Cut back to allowable maximum	Process without cut back	Automat- ically compute correct amount	Automat- ically adjust leave records
5. Change an employee's annual leave category before it is due to be changed.	To determine whether the system will reject invalid updates. The annual leave category is based on the amount of creditable service an employee has, computed from the employee's service computation data. Employees with less than 3 years of service are in category 4; employees with 3 to 15 years of service are in category 6; employees with more than 15 years of service are in category 8. The program should reject any attempt to change a leave category before it is due to be changed.	X	X					

TRANSACTION CYCLES	EXAMPLES OF TRANSACTIONS
Administrative Control of funds	Commitment and obligation of funds
Budget Formulation	Preparation of the budget request
Reporting	Preparation, distribution,and use of reports for agency financial management

Since agency accounting systems are either partially or fully automated, the CARE-based audit methodology includes an agency-wide Automatic Data Prcessing (ADP) cycle. For ADP operations, general control features are needed and are implemented to control overall computer operations. These controls affect all the agency's automated accounting systems. Therefore, the CARE-based audit methodology includes guidance to help the auditor identify and evaluate general control objectives and techniques for the ADP cycle.

IDENTIFY TRANSACTIONS, TRANSACTION CYCLES, ACCOUNTING SYSTEM(S) AND RELATED BUDGET AUTHORITY

An agency's detailed budget request is included in the President's annual budget request sent to the Congress andincludes the amount of funding requested for each of the agency's authorized programs and administrative functions. The specific transactions, transaction cycles, and accounting systems identified for a particular agency must be related to the line items in its detailed budget request. The reconciliation of transactions, cycles, and systems to budget line items should ensure that all types of agency transactions are identified.

Relating agency transactions, cycles, and systems to budget authority is done by:

--Listing all the actions--economic events--an agency should take to execute its budget authority,

--Relating the economic events to the specific accounting transactions that should be recorded to reflect the occurrence of all economic events,

--Grouping of similar transactions into cycles, and

--Relating the cycles to the systems comprising an agency's overall accounting system that should capture, record, process, and report the transactions.

The following table presents an example of this analysis.

CYCLE	ECONOMIC EVENT	TRANSACTION	ACCOUNTING SYSTEM/ CYCLE
Personnel/ payroll	Hiring an employee	SF/50 action	Personnel/ payroll system
Personnel/ payroll	Recording biweekly time and attendance	Time and attendance record	Payroll/ personnel system
Expenditure	Advance of funds to grantees	Notification of grant award	Grant Management/ administrative control

After all economic events, transactions, transaction cycles, and agency accounting systems have been related to the agency's detailed budget authority, the audit staff develops the list of components of the agency's complete accounting system. The next step in the CARE-based audit methodology is

to identify control objectives for the agency's complete accounting system and the control techniques included in the system that are designed to ensure that the control objectives are met.

IDENTIFY CONTROL OBJECTIVES FOR THE AGENCY'S ACCOUNTING SYSTEM

To help ensure the production of reliable information by an agency accounting system(s), the Comptroller General has issued federal accounting and financial reporting standards in GAO's Policy and Procedures Manual for Guidance of Federal Agencies. This manual also sets other requirements that federal agency accounting systems should meet. Appendix VII sets forth the detailed accounting, financial reporting, and other requirements for agency accounting systems.

Control objectives are also set forth in laws that establish specific programs--primarily entitlement, benefit payments, and grant programs. The audit staff must, based on the programs assigned a particular agency, identify the specific laws that created the programs run by the agency in order to identify control objectives included in these laws. Appendix VIII, for example, presents the required control objectives for the Veterans Administration's Compensation and Pension Programs.

Once the control objectives for an agency's accounting system have been identified and documented, they become the criteria against which the operations of the accounting system(s) and the reliability of the information produced will be evaluated.

IDENTIFY AND EVALUATE CONTROL
TECHNIQUES IN AN AGENCY'S
ACCOUNTING SYSTEM

The control objectives provide the criteria under which an agency's accounting system should operate to produce accurate and reliable information. An agency's accounting system(s) should include processing and internal control procedures--control techniques--which should operate to ensure that control objectives be met.

Procedures are the manual and/or automated steps included in an accounting system to capture, record, process, and report financial transactions for a specific administrative cycle or program. Internal control procedures are independent from processing steps and are those procedures in an accounting system used to provide reasonable assurance that:

--all economic events and related transactions are
   completely and timely recorded, summarized, and
   reported;

--established procedures are followed,

--obligations and expenditures do not breach congres-
   sionally granted spending authority;

--revenues and expenditures are accurately and com-
   pletely accounted for and properly safeguarded;

--funds, assets, and liabilities are safeguarded from mis-
   management, loss, or theft; and

--financial reports (1) support managerial decision
   making (2) fairly present the financial results of

program and administrative operations, and (3)
reasonably present the status of funds, assets, and
liabilities.

The primary objective at the completion of work using the
CARE-Based audit methodology is to evaluate the adequacy of
internal control procedures in agency accounting systems and
determine if these procedures are adequate to ensure that system
control objectives are being met. Upon completion of the audit,
the auditor should be able to conclude whether or not an
agency's accounting system(s) satisfy GAO's accounting princi-
pals and standards in all material respects.

<u>Key points</u>

--The CARE audit approach is heavily dependent on analyses
  of types of transactions and related controls to evalu-
  ate the adequacy of the operating system(s) to meet the
  system control objectives.

--Each agency's accounting system is unique and includes a
  different combination of subsystems and cycles to
  accomplish the overall system control objectives,
  including the GAO's accounting principles, standards,
  and other requirements.

SECTION 4

GENERAL RISK ANALYSIS SEGMENT--
OBJECTIVES, SCOPE, WORK STEPS,
AND WORK PRODUCTS

The objectives of the general risk analysis segment are to
(1) identify the strengths and weaknesses in the agency's general
control environment and assess the overall adequacy of the agen-
cy's general controls over financial operations, (2) identify the
individual systems and financial control objectives that make up
the agency's financial management cycles, and (3) risk-rank the
inventory of systems for further review.

The specific task objectives to be met in the general risk
analysis segment are:

Task I --Understand and document the overall mission; specific
        program, administrative, and financial responsibili-
        ties; authorized resources; and organizational struc-
        ture of the agency.

Task II --Understand and document the general control environment
        of the agency including general controls over opera-
        tions.

Task III --Identify and document the financial management struc-
        ture of the agency to include both accounting and
        budgeting systems.

Task IV --Identify and document agency financial management
        control cycles and objectives for accounting and
        budgeting system(s) used by the agency.

Task V   --Risk-rank the validated inventory of agency financial

management systems based on general controls and infor-

mation obtained in this segment.

WORK PRODUCTS FOR THE GENERAL
RISK ANALYSIS SEGMENT

At the completion of work called for in the general risk

analysis segment of the CARE audit approach, the audit staff

should have completed two products:

--a financial management profile of the agency selected for

review, and

--a validated inventory with risk ratings of the agency

accounting system(s) and cycles.

TASK I - MISSION, SPECIFIC
RESPONSIBILITIES, AUTHORIZED
RESOURCES, AND ORGANIZATIONAL
STRUCTURE OF THE AGENCY

In documenting the mission, specific program, administrative,

and financial responsibilities, authorized resources (budget

authority); and organizational structure of the agency selected

for review, the audit staff should develop a thorough body of

knowledge on

--the specific program, administrative, and financial func-

tions assigned the agency and the specific organizational

components and key management officials in the agency that

are responsible for carrying out each assigned function;

--the budget resources allocated to each specific program,

administrative, and financial function and the key manage-

ment officials responsible for ensuring that the agency

budget authority be properly executed;

--the organizational components and key management officials in the agency that should receive information on (1) the financial results of program, administrative, and financial operations and (2) the financial status of appropriated funds and other resources; and

--the organizational components and key management officials in the agency that are responsible for providing required reports to the Congress and the executive branch central control agencies.

The end product of this part of the general risk analysis segment is a workpaper summary of agency financial management systems.

Detailed Work Steps

1. Obtain the organization chart and mission statements for the agency and for each of the agency's major organizational components.

2. For each organizational component, determine all of the programs, administrative, and financial functions it performs.

3. Obtain the current budget authority for the agency and relate the budget authority to each of the agency's organizational components and to each of the agency's program, administrative, and financial functions.

4. Identify and document the key management officials and their specific responsibilities for each of the agency's specific program, administrative, and financial functions.

5. Prepare a workpaper summary (see appendix VI-GRA 1 for an example) (1) relating the agency's specific program, adminis- trative, and financial functions to the agency's current budget authority, (2) listing the agency's organizational components and key management officials responsible for each of the agency's program, administrative, and financial func- tions, and (3) indicating the number and type of financial management cycles and systems the agency operates and whether they appear to be reasonable.

TASK II - GENERAL CONTROL ENVIRONMENT
OF THE AGENCY

In documenting the general control environment of the agency, including supporting computer operations, the audit staff should develop a thorough body of knowledge on

--how the agency is organized to respond to the requirements of the Federal Managers' Financial Integrity Act of 1982 and Office of Management and Budget (OMB) Circular A-123,

--how the agency's office of the inspector general (IG) is organized,

--the number and type of reviews of the agency's financial operations and financial management systems done by the IG

--and known internal control weaknesses based on issued IG, internal audit, GAO, special system study group reports and the agency's self-evaluation of internal controls under the Federal Managers' Financial Integrity Act and OMB Circular A-123.

The end product of this part of the general risk analysis segment is a work paper summary on the agency's general approach to internal control and the key unresolved internal control issues and weaknesses.

OMB Circular A-123 and Financial Integrity Act

The requirements of OMB Circular A-123 and the Financial Integrity Act are important parts of an agency's systems of accounting and internal control. The following work steps are designed to guide the auditor in looking at an agency's compliance with the A-123 circular and the Integrity act's requirements. At the present time, compliance is being monitored by GAO staff specifically assigned this responsibility. The work steps are intended for use at such time as the function might need to be incorporated into systems audits. At the present time the auditor's review should be limited to examining the statements and reports to identify known weaknesses (in effect, work step 1 below).

Detailed Work Steps

1. Obtain agency statements and reports submitted to satisfy requirements of the Federal Managers' Financial Integrity Act of 1982 and documentation of agency actions to satisfy OMB Circular A-123.

2. Determine how the agency identified those areas for which internal control reviews were or will be performed.

3. Determine whether internal control reviews will be performed for all high-risk critical areas on a timely basis. Also,

ascertain if internal control reviews will be performed for other areas.

4. Determine what actions the agency has planned or has taken to assure that the degree of internal control testing and analysis will consider the risks and potential benefits (such as how much it will cost to test a control versus how critical the control is or how much risk we are taking by not testing the control).

5. Determine who will perform internal control reviews (managers, internal review staffs, inspector general, management analysts, or outside contractors) and consider whether their level of knowledge and expertise are adequate.

6. Determine to what extent the inspector general or internal audit staffs are involved in the internal control review process, and evaluate whether they have provided adequate guidance and assistance.

7. Determine if the agency has established adequate formal follow-up systems to (1) log and track corrective actions and target dates, (2) develop plans to implement corrective actions, and (3) monitor whether actions are implemented in an effective and timely manner.

8. Determine how the agency's follow-up system is notified of weaknesses and related corrective actions identified by
   --vulnerability assessments, and
   --internal control reviews.

9. Determine how the follow-up system ensures that:

> --vulnerability assessments be scheduled and completed in a timely manner,
>
> --internal control reviews be scheduled and completed in a timely manner, and
>
> --corrective actions resulting from vulnerability assessments and internal control reviews be implemened in an effective and timely manner.

10. Determine inspector general and/or internal audit involvement in assuring corrective actions are implemented effectively and prommptly and what, if any, plans exist for subsequent audits. In addition, determine how the follow-up system will be used to support the agency's annual reports to the President and the Congress.

Audit Reports

Reports issued by inspectors general, internal auditors, special system study groups, and GAO can provide (1) assessments of an agency's internal controls and accounting systems that an agency may or may not address in its self-assessment, and (2) information on unresolved internal control and accounting system deficiencies. The following work steps should guide the audit staff in reviewing issued audit and special system study reports. Coordinate with the Accounting and Financial Management Division's Fraud Prevention and Audit Oversight Group before initiating any work in an inspector general or internal audit organization. This is to avoid duplication of any work the group has completed or has underway. Also, the group maintains a library of information on audit organizations including report listings, information on

budget and staffing, and the inspector general's semiannual reports. Further, work step 18 below requires coordination with the group for any relevant information in the hotline files. The group maintains these files on an automated data base with a variety of data sorting methods.

Detailed Work Steps

11. Determine and document agency internal audit and inspector general coverage of agency's financial operations. In doing this work, obtain:

    --Internal audit and IG reports that deal with financial
    --and ADP operations for the past 3 years, and
    --Internal audit and IG plans for review of financial and
    --ADP operations for the next 2 years.

12. Prepare summary schedules (see appendix VI-GRA 2 for an example) of internal audit and inspector general findings related to (1) financial operations and (2) ADP operations for the past 3 years. Indicate actions taken by the agency in response to these findings.

13. Obtain the annual inspector general's report to the Congress for the past 3 years.

14. Obtain any reports issued by external study groups pertaining to a system under review that were issued during the past 3 years.

15. Prepare schedules (see appendix VI-GRA 6 for an example) for the systems under review to summarize findings in internal audit, inspector general and/or special system study group reports.

16. Obtain any GAO reports pertaining to a system under review issued during the past 3 years.

17. Prepare schedules (see appendix VI-GRA 7 for an example) for the systems under review to summarize findings in GAO reports.

18. Obtain any information GAO's Fraud Prevention and Audit Oversight Group has on the agency, its major organizational components, or any of its systems and summarize this information on a schedule (see appendix VI-GRA 8 for an example).

19. Obtain any written plans for the development and upgrading of financial systems and summarize these plans on the summary schedule (see appendix VI-GRA 4 for an example).

20. Obtain any written plans for the development of new ADP capability and the upgrade of existing ADP capability to include the approximate cost of the enhancement. Summarize these plans on a summary schedule (see appendix VI-GRA 5 for an example).

21. Determine and document, through discussions with key personnel, the existing mechanisms/systems used to ensure that:

    --appropriations (spending limits) not be breached,

    --resources be controlled and safeguarded fom inadvertent loss, waste, or outright theft, and

    --program, administrative, and other operations be carried out according to management's plans.

TASK III - FINANCIAL MANAGEMENT
STRUCTURE OF THE AGENCY

Identifying and documenting the agency's accounting and
budget system(s) is the most important part of the survey. If
this work is not done carefully, the review will not include all
systems that account for, control, and report on all financial
transactions of the agency. Usually, an agency's accounting and
budget system(s) are a small part of the agency's total inventory
of information processing systems.

Under the Federal Managers' Financial Integrity Act of 1982,
all executive branch agencies should have developed an inventory
of their accounting and budget development systems. Consequently,
if this inventory has been completed by the agency, the audit
staff should use it as a starting point.

Most automated systems interface with manual processes that
(1) prepare transaction information for processing, (2) utilize
reports produced by the computer, and (3) check the completeness
and accuracy of computer processing. By starting with the automa-
ted systems, the audit staff will be led to the manual processes
that interface with each automated system.

Work Steps

1. Obtain, if available, the inventory of accounting system(s)
    and budget formulation systems developed by the agency pursu-
    ant to the requirements of the Federal Managers' Financial
    Integrity Act.

2. Obtain or develop an inventory of the automated systems oper-
    ated and used by the agency. Include a brief description of
    each system.

3. Based on the system descriptions included in the agency's
    inventory of automated systems, develop an initial list of
    the agency's accounting system(s), and budget formulation
    systems.

4. Compare the inventory obtained in work step 1 with the inven-
    tory obtained in work step 3 and reconcile any
    differences between the two inventories through discussions
    with appropriate agency officials.

5. Compare the reconciled inventory developed as a result of
    work step 4 with the workpaper summary developed in task II
    in this segment. Note any organizational components; speci-
    fic program, administrative, or financial functions; or
    specific line items of budget authority not covered by
    accounting and budget formulation systems in the inventory.

6. Identify and document, through discussions with cognizant
    agency officials, the accounting and budget formulation
    systems that cover the agency's organizational components;
    specific program, administrative, and financial functions;
    and line items of budget authority disclosed as a result of
    completing the comparison called for in task II of this
    segment.

7. Develop a validated inventory (see appendix VI-GRA 9 for an
    example) of the agency's accounting system(s) and budget
    formulation systems based on the results of completing work

steps 5 and 6. This inventory should include the following:

--system name,

--brief description of processing done by system,

--system analyst responsible for the system,

--telephone number for cognizant system analyst,

--agency computer center at which system is run,

--annual system operating costs,

--organizational component supported by system,

--program, administrative, or financial function supported by system,

--amount of budget authority or amount of assets, liabilities, receipts or disbursements accounted for and controlled by the system,

--main outputs of the system,

--main users of the system's output, and

--known internal control and accounting system weaknesses.

For the agency computer centers that support the agency's accounting and budget development systems, complete the following work steps.

8. At each of the agency's computer centers, identified in step 7 above, complete checklist 2 in appendix VI and complete the following questionnaires and profiles in appendix VI:

Questionnaire 1 - Executive ADP Management Committee

(see appendix VI-GRA 11)

Questionnaire 2 - Internal Audit (see appendix VI-GRA 12),

Questionnaire 3 - External Audit and Studies

(see appendix VI-GRA 13)

Profile 1 (Top Management Control Profile)

(see appendix VI-GRA 14),

Questionnaire 4 - ADP Organizational Controls

(see appendix VI-GRA 15),

Questionnaire 5 - System Design, Development, and

Modification Controls

(see appendix VI-GRA 16),

Questionnaire 6 - Data Center Management Controls

(see appendix VI-GRA 17),

Questionnaire 7 - Data Center Protection Controls

(see appendix VI-GRA 18),

Questionnaire 8 - System Software Controls

(see appendix VI-GRA 19),

Questionnaire 9 - Hardware Controls

(see appendix VI-GRA 20), and

Profile 2 (General Controls Profile)

(see appendix VI-GRA 21).

For large departments or agencies with numerous and widely dispersed offices, time and audit resource limitations, may as a practical matter, preclude performing this work step for each center. In such cases, it may be necessary to limit this step to selected locations (such as regional offices, field offices, and installations) believed to be representative.

TASK IV--ACCOUNTING STANDARDS,
OTHER SYSTEM REQUIREMENTS,
INTERNAL CONTROL REQUIREMENTS,
AND OBJECTIVES FOR THE AGENCY'S
SYSTEMS

The focus of this part of the work in the general risk
Analysis segment of the CARE audit approach is to identify the
appropriate cycle and the related control objectives that the
agency's accounting and budget systems should be designed and
operated to meet. GAO's Policy and Procedures Manual for Guidance
of Federal Agencies presents the accounting and other requirements
for federal agency systems. These must be identified to the
appropriate cycle, control objectives, and control techniques.
Appendix VIII presents general guidance on acceptable control
objectives and techniques for different cycles applicable to
accounting and budget systems.

In addition to accounting and other system requirements
presented in GAO's Policy and Procedures Manual for Guidance of
Federal Agencies, control objectives are also set forth in laws
that establish specific programs such as entitlement, benefit, and
grant payment programs. Thus, the audit staff must review the
laws that created the programs run by the agency to determine
control objectives required for each program.

Accounting Systems

1. Based on the validated inventory of agency accounting sys-
    tem(s) developed in task III, identify the applicable titles
    of GAO's Policy and Procedures Manual for Guidance of Federal
    Agencies and related cycles that apply to the accounting
    system(s) selected for review.

2. Obtain, if available, control objectives developed by the agency pursuant to its efforts to comply with section 4 of the Federal Managers' Financial Integrity Act and validate the agency developed control objectives against GAO's accounting system requirements identified in work step 1 and amend the agency list as appropriate.

3. If the agency has not already done so, develop control objectives for the accounting system(s) using appendix VII, which provides guidance on control objectives and techniques in GAO's manual.

4. Based on the validated inventory of agency accounting system(s) developed after completing task III above, identify systems that authorize, account for, control, summarize, and report transactions that pertain to specific programs.

5. Obtain, if available, control objectives for the programs, cycles and related agency accounting systems identified in work step 4 that were developed by the agency pursuant to section 4 of the Federal Managers' Financial Integrity Act. Validate the agency-developed control objectives against the provisions of the laws authorizing the programs.

6. If the agency has not already done so, develop control objectives for the subsystems identified in work step 4 based on the authorizing legislation for the agency's programs and the guidance in appendix VIII.

7. Prepare a summary schedule (see appendix VI-GRA 22 for an example) of control objectives for the agency accounting system(s) selected for review. This schedule should include:

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--accounting system,

--brief system description,

--source of control objectives: GAO's <u>Policy and</u>
   <u>Procedures Manual for Guidance of Federal Agencies</u>,
   specific legislation (public law), or agency manage-
   ment, and

--List of control objectives for each system.

8. Determine the agency's organizational component responsible
   for developing and/or compiling the annual budget request
   submitted to the Office of Management and Budget, to the
   President, and ultimately to the Congress. Document the pro-
   cess used for budget formulation. Obtain, for a selected
   fiscal year's budget, a sampling of inputs received by the
   responsible component.

9. Determine the budget systems used by each major organiza-
   tional component of the agency. Develop a flowchart on how
   information flows into and is reported out of the organiza-
   tional component. The flowcharts should be prepared for:

   --each budget system showing the interrelationship among
      the subsystems which comprise the system,

   --the budget systems showing the interrelationship among
      the budget systems and any other financial systems, and

   --the budget systems showing the interrelationship with
      the agency's accounting system(s).

10. Obtain a sampling of the budget inputs received by the
    agency headquarters from its organizational components for
    a selected fiscal year.

11. Obtain the selected fiscal year's budget submission sent to the President, Office of Management and Budget, and the Congress.

12. For each of the agency's major organizational components:

    --obtain a sampling of the selected fiscal year's budget submissions sent to the agency's headquarters,

    --flowchart the process to develop annual budget submissions to be sent to the agency's headquarters, including all inputs to the budget formulation process, all files maintained, and all outputs produced; and

    --determine whether or not annual budget submissions are based on the financial results of prior years' program and administrative operations.

13. Determine whether or not the agency's budget submission was based on aggregations of the budget submissions prepared by the agency organizational components, and, for the sample submissions, if differences exist, determine their amount and why they occurred.

TASK V--RISK RATING AND
RANKING OF SYSTEMS

The agency's systems should be rated and ranked according to the general system controls identified in this segment. Each system should be evaluated as high, medium, or low risk for each factor. Each system should be given a composite reliability score. Section 5 discusses this methodology in detail.

1. Based on the guidance in section 5 of this work program, risk-ranking of systems, evaluate the assigned risk-rating

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of low, medium, and high for each of the risk-ranking factors for each system reviewed.

2. Compute a composite reliability score for each system based on the risk ratings assigned and the weighting system discussed in section 5 of this work program.

3. Prepare a summary workpaper schedule (see appendix VI-TFRA 14 for an example) of the risk rankings and composite reliability score assigned each system.

4. Prepare a schedule (see appendix VI-TFRA 15 for an example) of systems according to their assigned composite reliability scores. These systems should be grouped into three categories: overall high, medium, and low risk. See section 5, risk ranking of systems, for guidance in preparing this schedule.

KEY POINTS

--General risk analysis should result in a financial
management profile of the agency, a validated inventory of
accounting system(s), and a general controls risk rating.

--The financial profile should include an overview of:
  (1) the agency structure,
  (2) the mission and financial functions performed,
  (3) the budget organization and process,
  (4) agency implementation of A-123 and the Integrity
       act,
  (5) accounting system(s) and known problems,
  (6) accounting system(s) and related subsystems,
  (7) General controls including ADP and manual
       operations,
  (8) list of accounting system(s) with related
       cycles and control objectives, and
  (9) assessment of the budget process and the degree
       that actual financial information is used.

--The validated inventory of accounting systems includes
both financial management systems and budget systems.
This inventory will serve as the basic for the next
phase of CARE.

SECTION 5

RISK RANKING OF SYSTEMS

Once the general risk assessment (GRA) segment is complete
and the inventory of an agency's financial management systems
has been established, the auditor will make an initial decision
on the order in which the systems will be reviewed. In small
agencies with only a few systems, that decision should not be
difficult. In large agencies with numerous systems, however, a
technique is needed to rank the systems in terms of their rela-
tive vulnerability to fraud, abuse, mismanagement, and failure
to meet GAO's internal control standards and accounting princi-
ples and standards -- relative risk. A ranking process is
especially useful for optimizing the use of audit resources in
large agencies where it would be impractical to review all sys-
tems concurrently .

A ranking procedure cannot be absolutely precise because
of the dependence that is necessarily placed on the auditor's
judgment in both developing the ranking and in ultimately
selecting systems for review. Nonetheless, the procedure pres-
cribed below provides a systematic three-step approach to risk
ranking.

> --Evaluate each system in terms of certain risk factors
>   (characteristics) and assign a numeric risk value for
>   each of the factors: 3-high, 2-medium, 1-low.

> --Assign an importance weight to each factor and compute a
>   composite numerical score for each system.

--Rank the systems in order of vulnerability based on the composite scores.

Details on each of these steps follows.

EVALUATING SYSTEMS
IN TERMS OF
RISK FACTORS

Numerous factors could be considered in determining a given system's vulnerability. Based on past audit experience, however, the 12 factors listed in the following pages should be considered in developing the ranking. The list is not meant to be all-inclusive but rather provides a reasonable means for accomplishing the ranking objective while expediting the review work.

It is not practical to develop exact criteria for assigning numeric risk values for each risk factor for every agency system and situation. However, broad guidelines can be provided. The guidelines discussed below require the use of professional judgment in assessing the risk associated with each factor and should be considered in relation to the information gathered in the general risk assessment.

The reasons for assigning high, medium, or low risk should be documented (see exhibit 5-1) to permit verification and allow another auditor to reach basically the same conclusions. The guidelines as well as the risk factors may be periodically revised as opportunities for improvement of the ranking procedure develop. The risk factors are not listed in order of importance.

A. Purpose of system. This risk factor considers the potential effect of a system not operating properly and failing to perform its intended function. Systems crucial to controlling the use of funds and other resources or operating the organization will generally be considered high risk because of the exposure to loss or disruption of operations. Systems accounting for other assets and liabilities may be ranked medium. Systems that only record and report summary financial data and are not crucial to operations may be ranked low.

B. System documentation. Complete and current system documentation, including a general system description, functional requirements, and data requirements, is needed to ensure proper system maintenance and operation. If little or no documenation is available, or evidence indicates that system changes have not been documented, the system should normally be ranked high. A system may be ranked low if it appears that appropriate emphasis has been given to fully documenting the system during its development and subsequent changes. A system may be ranked medium if the documentation is complete except for recent changes.However, if the recent undocumented changes were major system changes, a high-risk ranking would generally be warranted.

C. Dollar volume controlled by the system. The greater the dollar volume of assets or transactions controlled by a system, the greater the risk. However, the dollar value thresholds for determining high, medium, or low risk for a given system must be determined on a system-by-system basis considering each agency's total authority. For example, at one agency with $280 billion in budget authority, systems controlling $5 billion or more were ranked high, those controlling less than $150 million were ranked low.

D. Amount of system maintenance. Systems that have become outmoded or fail to consistently meet requirements frequently require a high degree of maintenance (such as system changes and modification) simply to keep them operational. Through discussion with agency systems personnel and examination of system maintenance logs, some assessment can be made to determine if the system should be ranked high due to a relatively large amount of maintenance in relation to the system's age. A system may be ranked low if the maintenance efforts expended appear minor or routine. As with dollar volume, exact risk thresholds cannot be specified and should be assessed for each system considering the total maintenance effort expended by the organization.

E. Verification of input. The risk associated with this factor decreases as the ability of a system to verify

resources may be ranked low. This is another factor that is not easily quantified and must be judged in relation to each organization's total computer resources.

I. <u>Known system problems</u>. By considering unresolved audit findings and the results of consultant studies and internal management reports reviewed in the general risk assessment, the auditor can determine the existence of any previously identified significant system problems--those that preclude the system from meeting its stated goals--that warrant a high-ranking. The system may be ranked medium if the known problems would not prevent the system from meeting its goals or low if no problems have been previously identified.

J. <u>Recency of audit</u>. Systems that have never been audited should be ranked high, while those that have had comprehensive or full-scope audits within the past 2 years generally may be ranked low. Systems with limited scope audits or audits that were performed between 2 and 5 years ago should be ranked medium. An additional consideration in assessing vulnerability under this factor is whether the system is known to have been changed significantly since the most recent audit was completed. If so, the system may be ranked high.

K. <u>Statutory requirements met</u>. Some systems may be depended on to allow an organization to meet certain

statutory requirements, such as provisions of the
Prompt Payment Act or the Anti-Deficiency Act. If the
system does not operate properly, the organization may
be in violation of law. Only two levels of risk are
associated with this factor: high, if the system is
relied on for compliance with statutes, or low, if
no connection to statutory requirements exists.

L. Involvement of users and auditors in systems design.
Assurance is generally greater that a system is pro-
perly designed and adequate internal controls are
incorporated if the system users and independent audi-
tors actively participated in the system's design and
implementation. A system for which such participation
took place would be ranked low. If only the users or
the auditors participated, the system would be ranked
medium. A high-risk ranking would be given for this
factor if neither the users nor the auditors
participated.

ASSIGNING WEIGHTS TO RISK
FACTORS AND COMPUTING
COMPOSITE SCORES

Weights are assigned to each ranking factor based on their
relative importance in assessing risk. The weights shown below
were developed by rating each factor in order of importance on
a scale of 1 to 5 based on prior experience in reviewing
accounting systems and internal controls.

	Factor	Weight
A.	Purpose of system	4.4
B.	System documentation	4.3
C.	Dollar volume controlled by the system	4.4
D.	Amount of system maintenance	3.9
E.	Verificatin of input	4.4
F.	Degree of automation	3.8
G.	Number of other dependent systems	4.5
H.	Amount of computer resources used	3.2
I.	Known system problems	3.7
J.	Recency of audit	3.8
K.	Statutory requirements met	4.5
L.	Involvement of users and auditors in system design	4.0

Different weights could be developed for a specific organization provided the weights are used consistently in ranking the systems.

To develop a composite score for each system, the weights are multiplied by the risk ranking values and the products totaled, as shown in the following example.

Risk Factor	Numeric Risk Value	Weight	Composite Score
A	3	4.4	13.2
B	2	4.3	8.6
C	2	4.4	8.8
D	1	3.9	3.9
E	3	4.4	13.2
F	3	3.8	11.4
G	2	4.5	9.0
H	1	3.2	3.2
I	3	3.7	11.1
J	2	3.8	7.6
K	1	4.5	4.5
L	2	4.0	8.0

TOTAL: 102.5

RANKING SYSTEMS
IN ORDER OF RISK

Using the composite scores, the systems are listed in descending order so that they may be categorized according to their relative vulnerability to fraud, abuse, and mismanagement. The ranking factors are primarily geared to automated systems. For completely or partially manual systems, some of the factors may not be applicable. To make the composite scores for those systems comparable to the scores for which all factors are applicable, the following procedure may be used:

--Divide the system's composite score by the number of factors on which the system was assesssed to develop an average for each factor. For example, if the composite score is 110 and only 10 of the 12 factors were applicable to the system, the average for each factor would be 11.

--Multiply the average for each factor computed above by 12 (the total number of factors prescribed for the ranking system). The resulting revised composite score could then be used for that system in ranking it with the other systems.

KEY POINTS

The ranking technique provides a systematic
approach to estimating the relative vulnerability of an
organization's financial management systems. Once the
ranking process is complete, two products can be
developed: a report advising management of the systems
considered high risk, and an audit plan for
reviewing the systems in order of priority. The final
audit plan should consider any special circumstances that
would justify not reviewing a high-risk system,
such as if the system will be replaced or otherwise
discontinued in the near future. The rationale for not
reviewing any high-risk system should be fully
documented in the audit plan. A more conclusive
statement on each system's vulnerability can be made
after performing the transaction flow review and analysis
described in the following section

EXHIBIT 5-1

WORKSHEET FOR PREPARING SYSTEMS
RISK RANKING SCORES

Factor	Risk 3-high 2-med 1-low	X	Weight	=	Composite score	Explanation for risk assigned: (use suffi-cient space to fully describe)
A. Purpose of system	_____		4.4		_____	
B. System documentation	_____		4.3		_____	
C Dollar volume controlled by the system	_____		4.4		_____	
D. Amount of system maintenance	_____		3.9		_____	
E. Verification of input	_____		4.4		_____	
F. Degree of automation	_____		3.8		_____	
G. Number of dependent systems	_____		4.5		_____	
H. Amount of computer resources used	_____		3.2		_____	
I. Known system problems	_____		3.7		_____	
J. Recency of audit	_____		3.8		_____	
K. Statutory requirements met	_____		4.5		_____	
L. Involvement of users and auditors in system design	_____		4.0		_____	

TOTAL

=====

SECTION 6

TRANSACTION FLOW REVIEW AND ANALYSIS SEGMENT--OBJECTIVES, SCOPE, WORK STEPS, AND WORK PRODUCT

The objectives of the transaction flow review and analysis segment are to review selected accounting financial and budget systems to (1) document how the system(s) process transactions, (2) document control techniques included in the system(s), (3) evaluate the effectiveness of the internal control techniques of each system in meeting control objectives, and (4) complete a final risk ranking of the selected systems based on the internal control strengths and weaknesses in the system(s).

Achieving the objectives for this segment will require the audit staff to:

TASK I   Determine and document how information flows through each selected system from initial input of transaction information through final output of reports.

TASK II   Determine whether the outputs produced by each selected system meet users' information needs and achieve the system(s) control objectives.

TASK III Identify and document the control techniques included in each selected system.

TASK IV   Evaluate the adequacy of control techniques to implement the system's control objectives. Document any material internal control weaknesses.

TASK V   Complete a final risk ranking of the systems

selected for review based on material internal

control strengths and weaknesses disclosed

during the transaction flow review and analysis

segment, and select system(s) for compliance

testing based on the revised risk ranking.

SELECTION OF SYSTEM(S)
OR SUBSYSTEM(S) FOR REVIEW

At the start of this phase the auditor needs to decide

what system(s) will be included in the analysis. The CARE-based

audit approach allows the auditor to select the entire agency's

accounting and related budget system(s), one or more systems,

or a single system or even part of a system for review. The

selection depends on a combination of the objective(s) of the

audit, the risk ranking developed in the previous segment, and

the judgment of the auditor.

TASK I - SYSTEM INFORMATION FLOWS

The purpose of determining and documenting how transac-

tion information flows through a system is to develop a thorough

understanding how a system captures, records, processes, and

reports transaction information. The documentation of data

flows through a system is the starting point for identifying

control techniques included in the system.

For each of its systems, the agency should routinely main-

tain current documentation that describes in detail system oper-

ations and data flows. This kind of documentation is needed to

facilitate and support:

--designing, implementing, and testing needed system modi-

fications and upgrades.

--training new staff in system operations, and

--performing internal control evaluations required by the

Federal Managers' Financial Integrity Act.

The audit staff should expect the agency to have available
much of the documentation needed to support the GAO system data
flow analysis. Many federal agencies, however, do not emphasize
the need for maintaining current, complete, and comprehensive
system documentation. Still, some documentation should be
available to support the Financial Integrity Act requirements.
The audit staff should consider the following sources of infor-
mation available in the agency.

--Working papers generated in completing the vulnerabil-

ity assessments and internal control reviews required

under the Federal Managers' Financial Integrity Act and

OMB Circular A-123.

--System users manuals.

--System documentation maintained by the computer system

analysts.

--Computer center system instructions for computer

operators.

--Discussions with system users and cognizant computer

system analysts.

Work Steps

1. Obtain or prepare for each system a detailed written

description of what the system is supposed to do and

how it is designed to operate. This written description
should include a detailed discussion of all manual or
automated edit and validation checks of the input data.

2. Obtain data record layouts for all inputs, machine media
records, and outputs-- both hard-copy reports and machine
media files.

3. Identify all recipients of system outputs including hard-
copy reports and machine media files. Recipients of
system outputs include agency personnel for hardcopy
reports and other agency systems for machine media files.

4. For each of the agency's systems selected for review,
complete the following checklist, questionnaires, and
profile, if applicable, in appendix VI.

Checklist 3   - Background Information
on Computer Application
(appendix VI-TFRA 1)

Questionnaire 10 - Data Origination Controls
(appendix VI-TFRA 2)

Questionnaire 11 - Data Input Controls (appendix
VI-TFRA 3)

Questionnaire 12 - Data Processing Controls
(appendix VI-TFRA 4)

Questionnaire 13 - Data Output Controls (appendix
VI-TFRA 5)

Profile 3   - Application Controls Profile
(appendix VI-TFRA 6)

5. Flowchart how information is processed and reported into and out of the selected systems to include both hard copy reports and machine media files.

Three levels of flowcharts are to be prepared.

--Top level flowchart depicting the accounting system(s) used by an agency with its control objectives. (See appendix VI-TFRA 7 for an example.

--Intermediate level flowchart depicting information flows between system(s). (See appendix VI-TFRA 8 for an example.

--Detailed flowcharts identifying control techniques and data flows. (See appendix VI-TFRA 9 for an example.)

6. Obtain or prepare a detailed written description of how each system uses the ADP resources--computer terminals, magnetic tape drives, magnetic disk packs, card reader/ punches, printers, and computer central processing units---in the computer centers.

7. Prepare a written summary (see appendix VI-TFRA 10) for each system that includes the following sections:

--purpose of the system (control objectives);

--discussion of how the system uses available computer resources;

--description of system control techniques, inputs, files, processing steps, outputs, computer equipment used and identification of the computer center;

--edits and validation checks of input data;

--system flowchart to include the relationship with other

systems; and

--complete list of users of system hardcopy reports.

TASK II - USERS' PERCEPTION OF USEFULNESS OF SYSTEM OUTPUTS

This part of the transaction flow review and analysis seg-
ment focuses on determining whether or not a selected system
produces reliable and useful information from the users' per-
spective. It is important to note that determination of relia-
bility and usefulness of reports is a major overall goal of the
audit; this specific task, however, is limited to determining
users' perceptions. To assess users' beliefs as to the reliabi-
lity and usefulness of the information produced by an accounting
system or any of its related subsystems, GAO has developed a
"User Satisfaction Questionnaire." (See appendix VI-TFRA 11.)

Work Steps

1. Obtain a completed "User Satisfaction Questionnaire "

from users of reports generated by the systems selected

for review. This work step should be coordinated with

AFMD's Design, Methodology and Technical Assistance

Group.

2. For each system selected for review, summarize the re-

sponses to the questionnaire and develop an overall

conclusion, based on this summarization, as to users'

perceptions of the reliability and usefulness of the

reports and information.

TASK III - CONTROL TECHNIQUES IN EACH SYSTEM

Part of the work called for in the general risk analysis
segment involved developing control objectives for the agency's
accounting system(s) based on the applicable laws covering
specific program and administrative fuctions and the provisions
in GAO's Policy and Procedures Manual for Guidance of Federal
Agencies. In completing TASK I work steps 1 through 7 (sys-
tem(s) information flows), the audit staff documented the sys-
tem(s) operations in detail. The work called for in this part
of transaction flow review and analysis segment require the
audit staff to match identified control objectives control tech-
niques. For example:

Control Objective	Control Technique
Paychecks should be issued to entitled persons.	Comparison of personnel and payroll files prior to computing and issuing a paycheck.
Grants should only be awarded for purposes authorized by statute.	Management panel review of proposed grant awards before they are issued to grantees.

Work Steps

1. For each system selected for review, prepare a work
   paper schedule (appendix VI-TFRA 13) showing:

--control objectives based on the information in the

work paper summary prepared in accordance with the

work completed in the general risk analysis seg-

ment, and

--control techniques based on the information in each

system summary prepared in acordance with work in

TASK I in this segment of the work program.

2. Validate the internal control objectives and techniques

included in the schedules prepared in work step 1 with

available control objectives and techniques identified

by the agency in the work it did to meet the require-

ments of the Federal Managers' Financial Integrity

Act.

3. Annotate the schedule prepared pursuant to work step 1

with any agency-developed specialized internal control

techniques for each system.

TASK IV - EVALUATE EFFECTIVENESS OF CONTROL TECHNIQUES IN MEETING CONTROL OBJECTIVES

Based on the information developed and scheduled, the

audit staff must (1) evaluate the adequacy of the stated control

techniques included in each system selected for review and their

success in meeting established control objectives and (2) iden-

tify internal control strengths and weaknesses for each system.

To accomplish this, the audit staff should consider:

--known accounting and internal control weaknesses identi-

fied in the general risk analysis segment,

--the general controls over the agency computer operations

in the general risk analysis segment,

--the results of the "User Satisfaction Questionnaire"

   sent to users of reports from the systems reviewed, and

--the specific control techniques identified in each sys-

   tem after documenting the data flows.

This will be a very time consuming task, and the auditor

must use judgment in identifying material internal control

strengths and weaknesses. Internal control systems should pro-

vide reasonable assurance that the control objectives of the

system(s) will be achieved. The costs of some benefits are

often subjective and likely to require cost estimates of factors

such as additional personnel and ADP measures. The auditor

should also consider whether a savings could be achieved by

eliminating an existing ineffective control.

Work Step

   Annotate the work paper schedule prepared for each system

   reviewed in TASK III - work step 1-3 with material inter-

   nal controls strengths and weaknesses.

TASK V - FINAL RISK RANKING AND SELECTION OF THE SYSTEMS FOR COMPLIANCE TESTS

   The initial risk ranking of the agency's system(s) comple-

ted at the end of the general risk analysis segment to reflect

its ability to protect agency funds and other resources from

fraud, waste, and mismanagement, should be revised based on the

internal control strengths and weaknesses identified in this

segment. Each system should be evaluated in terms of the 12

risk factors and rated as having high, medium, or low risk for

each factor. Each system reviewed should be given a revised

composite reliability (risk) score based on the individual

scores for the risk factors. This revised rating will be one ofthe key factors in selecting system(s) for the compliance tests and analysis segment.

Work Steps

1. Based on the guidance in section 5 of this work program, risk ranking of systems, reevaluate the assigned risk rating of low, medium, and high for each of the risk ranking factors for each selected system reviewed.

2. Compute a revised composite reliability score for each selected system reviewed based on the risk ratings assigned for each system and the weighting system discussed in section V of this work program, risk ranking of systems.

3. Prepare a summary work paper schedule of the revised risk rankings and composite reliability score assigned each system reviewed. (See appendix VI-TFRA 14 for an example of this workpaper schedule.)

4. Prepare a schedule of systems selected for review according to their revised composite reliability scores. These systems should be grouped in three categories: overall high, medium, and low risk. See section 5, risk ranking of systems and appendix VI-TFRA 15.

5. Update the financial management profile of the agency or major organizational component of the agency selected for review. (See appendix VI-TFRA 16 for the format of the financial management profile.)

6. Based on the specific audit objectives for a particular

review and on the risk ranking of agency system(s) included in the transaction flow review and analysis segment of the work program, the audit staff should select system(s) for the compliance phase.

KEY POINTS:

--The selection of system(s) for review is dependent on the auditor's judgment and objectives of the review.

--The transaction flow review should document the information flows, evaluate the system controls, and risk rank the systems selected for review.

--Evaluation of system controls is highly subjective and time-consuming. The auditor should only spend a reasonable amount of time to evaluate controls identified in the general risk analysis phase in combination with controls noted in the transaction flow phase.

--Risk ranking of the selected systems is a method to quantify the degree of risk based on specific factors.

--Selection of system(s) for compliance testing should be based on both audit objectives and the revised risk ranking.

SECTION 7

COMPLIANCE TESTS AND ANALYSIS

Compliance tests are used to determine whether valid transactions are processed in accordance with the system design and whether the system reacts appropriately to invalid transactions. These determinations, along with those made during the transaction flow and analysis work, will be the basis for the auditors' conclusions as to whether the operating system complies with accounting principles and standards and related requirements.

A basic concept of this methodology is that the compliance testing covers the full life cycle of the transaction. This would include, for example, a transaction's initial authorization, its processing through the system, and its ultimate posting to the accounts or listing in output reports. This life cycle will often involve both manual and automated procedures and controls.

The effectiveness of procedures and controls that are common to different types of transactions should be evaluated prior to the compliance testing. The compliance tests, which focus on procedures and controls in specific applications, will build upon the assessments that are made by the auditor during the transaction flow review and analysis. By including each type of transaction and by testing for both valid and invalid transactions, the auditor insures that the scope of the work covers all applicable procedures and controls.

The auditor, however, will need to exercise judgment in either manual or automated applications to assure that reasonable balance is obtained between the need for coverage of all types of transactions and the increased audit cost of more inclusive testing. To the extent that compliance testing involves fully automated processing of transactions, only one transaction of each type needs testing because all such transactions will be processed identically by the system. Where manual procedures are involved, a risk occurs that even identical transactions may be processed differently, requiring testing of more than one transaction of each type.

TESTING TRANSACTIONS
IN MANUAL PROCESSES

For a manual system or for any manual part of an automated system, the auditor should first "walk actual transactions through" the manual processes. This involves interviewing the individuals who handle the transactions, observing the procedures followed, and examining applicable records. Through this exercise, the auditor should systematically verify that the required manual control techniques, as determined in the TFRA segment, are actually being utilized on a consistent basis. In certain high risk situations, such as in payroll or other disbursement operations, the auditor should also consider preparing "dummy" transactions and submitting them through normal channels without prior knowledge of the personnel who process the transactions. Such transactions could be devised to include improper authorizing signatures and other improper or

incomplete data. If such testing is deemed advisable, the Office of General Counsel and top-level management of the agency under review should be consulted, particularly in tests which may result in erroneous payments being generated.

DESIGN OF TEST
TRANSACTIONS FOR
AUTOMATED SYSTEMS

Testing of transactions in an automated system will normally require use of specially devised test transactions based on information obtained during the previous segments. Specifically, the audit staff should have become familiar (1) in the GRA segment with relevant laws and regulations for which compliance should be tested and (2) in the TFRA segment with data processing system procedures and input and output formats for all types of transactions to be processed.

Also, the audit staff should already have a thorough knowledge of system objectives and operating procedures. This knowledge should have been obtained in the TFRA segment by reviewing and analyzing system flowcharts, operating instructions, and other documentation. The auditor should now use this knowledge and the analysis made in these previous segments to develop transactions that will test the system's ability to accurately process valid data and consistently reject invalid data.

The auditor should not overlook using test data developed by operating personnel. These test transactions, often used for "debugging" programs during the development of computer systems, may fulfill the auditor's requirements with only minor

alteration. Before using the agency's test data, however, the auditor should determine whether it includes samples for all conditions which should be tested, including those involving invalid data. If it does not, the auditor should add transactions designed to test for those conditions.

An auditor may devise test causing invalid data to be rejected or "flagged" in several ways.

--Entering alphabetic characters when numeric characters are expected and vice versa.

--Using invalid account or identification numbers.

--Using incomplete or extraneous data in a specific data field or omitting the field entirely.

--Entering illogical conditions in data fields which logically should be related.

--Entering a transaction code or amount that does not match the code or amount established by operating procedures or controlling tables. For example, if the valid codes for employee status in a payroll system are a, b, and c, the code to be entered would be something other than a, b, or c. Another example is entering a salary amount which is incompatible with a controlling salary table.

--Entering transactions or conditions that will violate limits established by law or by standard operating procedures. An example, in a payroll system, is the entry of x+2 dollars as an employee's gross pay when x

dollars is the maximum gross pay allowed by law for the highest grade.

Before processing test data transactions through the computer, the auditor must predetermine the correct results for subsequent comparison with actual results.

PROCESSING TEST TRANSACTIONS
THROUGH AN AUTOMATED SYSTEM

Several approaches are available to test computer programs to update records. Some approaches will be suitable for batch processing, while others will be more practical for on-line or interactive processing. In any case, cooperation of the agency's system users and ADP personnel is essential to the expedient and successful completion of this segment of the review. Arrangements should be made for access to user data. Computer time will have to be scheduled for the creation of the test files and the processing of the test transactions.

--In a batch processing system, files against which test transactions will be processed can be set up with copies of actual records, with fictitious records created by the auditor, or with a combination of both actual and fictitious records.

--Using another approach, special audit records, kept in the agency's current file, are used. This method would be appropriate in either batch or on-line environments.

--A possible third approach for using agency records is to process test transactions against actual records in the agency's current file. In this approach, the auditor

merges test data with the "live" transactions and pro-

cesses it against actual records during a regular pro-

cessing run.

Although there may be situations where the third approach is

the only test method available, the auditor must be aware that

its use presents complications. Test transactions processed

against actual records must be carefully controlled to prevent

undesired changes or results, and test data used to update

actual records must later be reversed. This method entails

substantial risk of inadvertent changes and distortions in

agency records and reports.

--Another approach, which should not be overlooked,

is the possibility of working around the computer to

achieve all or part of the test objectives. Using this

technique, the auditor compares the actual data entered

into the system during normal operations with actual

results as shown by edit listings and output reports.

Using copies and/or fictitious
records to set up
a separate test file

To use the first of the above described approaches the

auditor must have a part of the agency's file copied to create

a test file. From a printout of this file, the auditor selects

records suitable for the test. The auditor then updates the

test file with both valid and invalid data, using the agency's

programs to process the test transactions.

In some situations, it may be desirable to create fictiti-

.ous records by preparing source documents and processing them

with the computer program(s) the agency uses to add new records to its file. Procedures for testing these records are the same as those for copied records.

An advantage of using fictitious records is that they can be tailored for particular conditions and they eliminate the need to locate and copy suitable agency records. This advantage is usually offset, however, when many records are needed because their creation can be complex and time-consuming when compared to the relatively simple procedure of copying a part of the agency's file.

Often, the most practical approach is to use a test file which is a combination of actual and fictitious records. In this approach, copied records are used whenever possible and fictitious records are used when necessary to test conditions not found in the copied records.

By using either copied or fictitious records or a combination of both in a separate test run, the auditor avoids the complications and dangers of running test data in a regular processing run against an agency's current file. Disadvantages of making a separate test run are that computer programs must be loaded and equipment set up and operated for audit purposes only, thus involving additional cost.

Using special audit records
maintained in the current
Agency File

Special test records are often kept by the agency in their current file for their own testing purposes. Using this approach, the auditor includes test data with "live" transac-

tions. The test data then update the files' special records during a regular processing cycle. The special test records are easy to identify because they are given references which show they are fictitious. For example, the records may contain references to nonexistent cost centers. During normal processing, these records remain inactive because "live" activity does not affect fictitious cost centers.

This approach makes it unnecessary to load programs and perform other setup work solely to process test data. Since a system can be tested under normal operating conditions, test transactions can be processed faster and at less cost than when the auditor uses copied or fictitious records in a separate test run.

The auditor should recognize, however, that processing test transactions concurrently with "live" transactions may inadvertently change or distort the agency's records. Also, data processing personnel conceivably could activate these records (for example, by changing fictitious cost centers or employees to real ones). This approach may also necessitate clerical adjustments to correct the reports for the presence of test data. Finally, data owners may object to having these audit records "clutter" their file. The auditor must weigh (1) the risk of using actual records or special audit records in the current file against (2) the cost of having additional runs of computer programs being tested. Processing test data concurrently with "live" data to update current records must be approached with great care. When test transactions are to be

processed, the use of copied and/or fictitious records in a separate test file is preferred whenever possible.

ANALYZING COMPLIANCE TEST

The results of the compliance test are compared against the predetermined results. A difference between actual and predetermined results should be thoroughly analyzed to determine the cause and the corrective action needed. The difference may indicate a weakness in the system's automated controls. If there is a control weakness, the auditor should then consider recommending a control to compensate for the weakness. Controls should be cost-effective and automated whenever practical.

COST BENEFIT CONSIDERATIONS

Internal controls are expected to provide reasonable assurance that the control objectives for a given system will be achieved. The standard of reasonable assurance recognizes that the cost of a control technique should not exceed the benefit to be derived. Placing a dollar value on some benefits, such as more accurate reporting, will often be highly subjective. Where sufficient testing has been done, however, the auditors may have convincing evidence that additional controls would reduce losses or otherwise provide measurable benefits. Cost determinations are likely to require estimates of such factors as additional personnel and ADP costs. In evaluating costs, consideration should also be given to whether a savings could be achieved by eliminating an existing ineffective control.

Persuasive evidence proposing new cost-beneficial controls cost beneficial will improve the chances for accepting the auditor's recommendations will and reduce the need for substantive testing.

Work Steps

In order to carry out some of the following ADP-related work steps, it will be necessary for the auditor to obtain appropriate cooperation and assistance from agency ADP staff and system users. In a batch processing environment, arrangements will need to be made for obtaining copies of master files, creating the desired job streams, scheduling needed computer time, and listing output products. In an on-line environment, the auditor will need to become familiar with terminal access and data entry conventions or obtain assistance from ADP specialists.

The audit staff should complete the following work steps for each system selected for testing:

1. Based on the analysis of the system's procedures and controls made in earlier segments of the review, determine the types of transactions and conditions to be tested.

2. For any manual aspects of transaction processing, determine compliance with the applicable procedures and control techniques that were previously identified in TFRA Task III work step 1. Walk actual transactions through the manual portions of the system.

3. Determine the types of records to be included in the testing based on the data flows for each system identified in TFRA Task I work steps 1 through 7.

4. Obtain copies of master records and/or prepare fictitious records for processing with the test transactions.

5. Using a printout of the records, predetermine the end result for each test transaction for comparison with actual processing results. Appendix VI-CTA-1 presents an example of tests and predetermined test results for a federal civilian payroll system.

6. In batch processing systems, verify that the programs used for processing the test transactions are the same as those used for normal system processing.

7. Ascertain that any changes to programs during the review have been documented and that the changes have been tested and approved by the agency.

8. Print the after-test contents of all agency records and compare with the predetermined results (see step 5) to see whether the programs performed as expected.

9. Summarize and evaluate the impact of any instances of noncompliance with prescribed procedures and controls; develop recommendations for needed corrective actions, with due regard to cost benefit considerations.

10. Discuss results of compliance tests with appropriate agency officials and ascertain their willingness to take corrective actions.

11. Based on results of step 10, determine the nature of formal reporting and decide whether substantive testing is warranted.

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KEY POINTS:
--Compliance testing consistss of limited tests that cover
  the full range of manual and automated transactions,
  including both valid and invalid conditions, to evaluate
  whether the system complies with accounting principles,
  standards, and related requirements.

--Several methods are available for processing test
  transactions through an automated system.  Consideration
  of the environment-batch, on-line, and potential
  risks such as the destruction of agency files-will
  influence which method to use.

--During compliance testing, results are predetermined for
  comparison to actual results.  The results are
  thoroughly analyzed and cost-effective recommendations
  are made whenever applicable.
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SECTION 8

SUBSTANTIVE TESTS AND ANALYSIS SEGMENT

The objectives of substantive tests are to (1) determine the extent to which the potential erroneous transactions disclosed through compliance testing may have occurred and (2) estimate the effect of the erroneous transactions, which can normally be measured in dollar amounts.

As discussed in the previous section, if the audit staff believes the agency will take corrective action based on the results of the compliance tests, substantive testing may not be necessary even though compliance tests disclose that agency system(s) fail to meet established control objectives in material respects. On the other hand, substantive tests should be performed if the audit staff believes that the agency will not take corrective actions based on the results of the compliance tests, or possibly if fraud or abuse is suspected. In the latter case, a determination must be made whether sufficient evidence exists for referral to the agency inspector general and other appropriate authorities.

The auditor should examine the guidance in chapter 2 of GAO's General Policy Manual in determining whether substantive tests are necessary before a referral is made. In any event, substantive tests will focus on the specific weaknesses previously identified and will measure the extent of the problem caused by the failure of the system(s) to meet established control objectives.

Substantive testing involves selecting and testing actual transactions and records. Prior work should enable the auditor to develop a plan that is well tailored to documenting the adverse effect.

In a payroll system, for example, the results of the transaction flow review and analysis segment could show that the system (1) retains payroll records for separated employees on the active payroll file until annual W-2 Forms are prepared, (2) accepts payroll transactions to be posted to separated employees' payroll records after separation, and (3) issues paychecks to all employees with active records on the payroll file unless time and attendance records are processed showing that employees were on leave without pay. In this case, the results of the compliance tests and analysis segment could show that payroll transactions might be routinely processed to activate separated employees' payroll records, issue paychecks to the separated employees, and deactivate the separated employees' payroll records. Substantive tests, in this case, could be designed to compare the amount of pay that these employees should have received up to their separation date with the total paid according to the current payroll record.

In cases where the agency uses automated systems, the substantive tests of transactions and records can be efficiently done through the use of computer assisted audit techniques (CAATS). GAO uses DYLACOR Corporation's DYL 260 and 280 software packages which are computerized data retrieval and analysis systems. In-house specialists can assist the auditor

in using the DYL systems as well as with the proper utilization
of sampling techniques.

DETAILED WORK STEPS

Before the following work steps can be executed, the audi-
tor may need to make arrangements with agency ADP personnel and
system users to obtain necessary computer resources and back-up
files.

The audit staff should perform the following work steps
for each agency system selected for substantive testing:

1. Design and carry out substantive tests to document and
   measure the extent of adverse impact on agency opera-
   tions that occurs because of the previously identified
   weaknesses in system procedures and controls. The
   selection of transactions for testing should be sta-
   tistically sound to permit valid estimates of the
   actual impact.

2. Summarize and evaluate test results.

3. Develop findings and recommendations for discussion
   with agency management and for formal reporting.

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KEY POINTS:
   --During substantive testing, actual transactions and
     records are selected and tested to document and measure
     the extent of adverse impact on agency operations due
     to previously identified weaknesses.
   --In testing automated systems, GAO uses computerized
     data retrieval packages, such as DYL280, to assist the
     auditor.
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APPENDIX I

Office of Management and Budget (OMB) Circular A-123 (Revised)

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF MANAGEMENT AND BUDGET
WASHINGTON, D.C. 20503

AUG 16 1983   CIRCULAR No. A-123
                                    Revised

TO THE HEADS OF EXECUTIVE DEPARTMENTS AND ESTABLISHMENTS

SUBJECT: Internal Control Systems

1. <u>Purpose</u>. This Circular prescribes policies and standards to be followed by executive departments and agencies in establishing, maintaining, evaluating, improving, and reporting on internal controls in their program and administrative activities.

2. <u>Rescission</u>. This revision replaces Circular No. A-123, "Internal Control Systems," dated October 28, 1981.

3. <u>Background</u>. The Accounting and Auditing Act of 1950 requires the head of each department and agency to establish and maintain adequate systems of internal control. Office of Management and Budget (OMB) Circular A-123, issued in October 1981, promulgated internal control standards and a system of agency responsibilities and requirements to address the numerous instances of fraud, waste, and abuse of Government resources and mismanagement of Government programs resulting from weaknesses in internal controls or breakdowns in compliance with internal controls.

   The Federal Managers' Financial Integrity Act, P.L. 97-255, (hereafter referred to as the Act), amended the Accounting and Auditing Act of 1950. The Act's requirements and objectives are basically the same as the original Circular's, except that the internal accounting and administrative control standards are to be prescribed by the Comptroller General; annual evaluations are to be conducted by each executive agency of its system of internal accounting and administrative control, in accordance with guidelines established for such evaluations by the Director of the Office of Management and Budget; and an annual statement is to be submitted by the head of each executive agency to the President and the Congress on the status of the agency's system of internal control. The guidelines, entitled "Guidelines for the Evaluation and Improvement of and Reporting on Internal Control Systems in the Federal Government" were issued in December 1982.

   In addition to the requirements of the Act, 31 U.S.C. 1514 requires that agency systems for the control of funds be approved by the Director of OMB. These requirements are prescribed by Circular A-34, "Budget Execution."

4. Policy. Agencies shall maintain effective systems of accounting and administrative control. All levels of management shall involve themselves in assuring the adequacy of controls. New programs shall incorporate effective systems of internal control. All systems shall be evaluated on an ongoing basis, and weaknesses, when detected, shall be promptly corrected. Reports shall be issued, as required, on internal control activities and the results of evaluations.

5. Definitions. For the purpose of this Circular, the following terms are defined:

a. Agency -- any department or independent establishment in the executive branch.

b. Agency Component -- a major organization, program or functional subdivision of an agency having one or more separate systems of internal control.

c. Control Objective -- a desired goal or condition for a specific event cycle that reflects the application of the overall objectives of internal control to that specific cycle. /1

d. Internal Control -- the plan of organization and methods and procedures adopted by management to provide reasonable assurance that obligations and costs are in compliance with applicable law; funds, property, and other assets are safeguarded against waste, loss, unauthorized use, or misappropriation; and revenues and expenditures applicable to agency operations are properly recorded and accounted for to permit the preparation of accounts and reliable financial and statistical reports and to maintain accountability over the assets.

/1 Control objectives are not absolutes. Since the achievement of control objectives can be and is affected by such factors as budget constraints, statutory and regulatory restrictions, staff limitations, and cost-benefit considerations, the lack of achievement of control objectives does not necessarily represent a defect or deficiency in internal control requiring correction. Such limiting factors need to be considered in determining whether there is reasonable assurance the control objectives are being achieved.

e. Internal Control Documentation -- written policies, organization charts, procedural write-ups, manuals, memoranda, flow charts, decision tables, completed questionnaires, software, and related written materials used to describe the internal control methods and measures, to communicate responsibilities and authorities for operating such methods and measures, and to serve as a reference for persons reviewing the internal controls and their functioning.

f. Internal Control Guidelines -- the guidelines issued by OMB in December 1982, entitled "Guidelines for the Evaluation and Improvement of and Reporting on Internal Control Systems in the Federal Government".

g. Internal Control Review -- a detailed examination of a system of internal control to determine whether adequate control measures exist and are implemented to prevent or detect the occurrence of potential risks in a cost effective manner.

h. Internal Control Standards -- the standards issued by the Comptroller General on June 1, 1983, for use in establishing and maintaining systems of internal control. These are applicable to all operations and administrative functions but are not intended to limit or interfere with duly granted authority related to development of legislation, rulemaking, or other discretionary policymaking in an agency.

i. Internal Control System -- the sum of the organization's methods and measures used to achieve the objectives of internal control.

j. Internal Control Technique -- processes and documents that are being relied on to efficiently and effectively accomplish an internal control objective and thus help safeguard an activity from waste, loss, unauthorized use, or misappropriation.

k. Material Weakness -- a situation in which the designed procedures or degree of operational compliance therewith does not provide reasonable assurance that the objectives of internal control specified in the Act are being accomplished.

1. Vulnerability Assessment -- a review of the suscepti-
bility of a program or function to waste, loss, unauthor-
ized use, or misappropriation.

6. Responsibility. The head of each agency is responsible
for ensuring that the design, installation, evaluation,
and improvement of internal controls, and issuance of re-
ports on the agency's internal control systems are in ac-
cordance with the requirements of the Act and the guid-
ance contained in the Internal Control Guidelines. Des-
ignated internal control officials and heads of organiza-
tional units within agencies have responsibilities for
ensuring the performance of necessary internal control
evaluations and providing assurances to the agency head.
These responsibilities are described in paragraphs 6b and
c. The Inspector General, or equivalent in agencies
without an Inspector General, has a limited responsibil-
ity in regard to internal controls, as explained in
paragraph 6d.

a. Agency heads are responsible for establishing and
maintaining the system of internal control within their
agencies. This includes determining that the system is
established in accordance with the standards prescribed
by the Comptroller General and that it provides reason-
able assurance that the objectives of internal control,
as described in paragraph 7, are met. It also includes
determining that the system is functioning as prescribed
and is modified, as appropriate, for changes in condi-
tions.

b. A designated senior official shall be responsible for
coordinating the overall agency-wide effort of evaluat-
ing, improving and reporting on internal control systems
in accordance with the Internal Control Guidelines. This
responsibility includes providing assurance to the agency
head that those processes were conducted in a thorough
and conscientious manner.

c. Heads of organizational units are responsible for the
system of internal control in their units. This respon-
sibility includes providing to the agency head assurance
that he or she is cognizant of the importance of internal
controls; has performed the evaluation process in accord-
ance with the Internal Control Guidelines and in a con-
scientious manner; and believes the objectives of inter-
nal control are being complied with in his or her area of
responsibility within prescribed limits.

d.   The Inspector General (IG), or the senior audit
official where there is no Inspector General, is
encouraged to provide technical assistance in the agency
effort to evaluate and improve internal controls. This
would be in addition to the reviews of internal control
documentation and systems, undertaken at the IG's
initiative or at the request of the agency head, and the
reports issued as a result of these reviews.

e.   In addition, the IG may advise the agency head
whether the agency's internal control evaluation process
has been conducted in accordance with the Internal Con-
trol Guidelines. Performing the limited review required
to provide such advice should not be interpreted to pre-
clude the IG from providing technical assistance in the
agency effort to evaluate and improve internal controls,
or otherwise limit the authority of the IG. The extent
of IG involvement in the agency's internal control evalu-
ation, improvement and reporting process should be
coordinated among the agency head, IG, and the designated
internal control official.

7.   <u>Objectives of Internal Control</u>. The objectives of inter-
nal control, as specified in the Act, are to provide man-
agement with reasonable assurance that:

a.   Obligations and costs comply with applicable law.

b.   Assets are safeguarded against waste, loss, unauthor-
ized use, and misappropriation.

c.   Revenues and expenditures applicable to agency opera-
tions are recorded and accounted for properly so that
accounts and reliable financial and statistical reports
may be prepared and accountability of the assets may be
maintained.

The objectives of internal control apply to all program
and administrative activities.

8.   <u>Internal Control Standards</u>. An agency's or agency compo-
nent's system of internal control shall be established
and maintained in accordance with the standards pre-
scribed by the Comptroller General as presented below.
OMB commentary on selected standards is contained in the
bracketed paragraphs.

a. General Standards

   1. Reasonable Assurance. Internal control systems
   are to provide reasonable assurance that the objec-
   tives of the systems will be accomplished.

   [This standard recognizes that the cost of internal
   control should not exceed the benefits derived there-
   from and that the benefits consist of reductions in
   the risks of failing to achieve the stated control
   objectives.]

   2. Supportive Attitude. Managers and employees are
   to maintain and demonstrate a positive and supportive
   attitude toward internal controls at all times.

   3. Competent Personnel. Managers and employees are
   to have personal and professional integrity and are
   to maintain a level of competence that allows them to
   accomplish their assigned duties, as well as under-
   stand the importance of developing and implementing
   good internal controls.

   4. Control Objectives. Internal control objectives
   are to be identified or developed for each agency
   activity and are to be logical, applicable, and
   reasonably complete.

   5. Control Techniques. Internal control techniques
   are to be effective and efficient in accomplishing
   their internal control objectives.

   [Internal control techniques are to be designed for
   and operated in all agency programs and administra-
   tive activities in order to accomplish the control
   objectives consistently.]

b. Specific Standards

   1. Documentation. Internal control systems and all
   transactions and other significant events are to be
   clearly documented, and the documentation is to be
   readily available for examination.

   2. Recording of Transactions and Events. Transac-
   tions and other significant events are to be promptly
   recorded and properly classified.

3. <u>Execution of Transactions and Events.</u> Transactions and other significant events are to be authorized and executed only by persons acting within the scope of their authority.

[Independent evidence is to be maintained that authorizations are issued by persons acting within the scope of their authority and that the transactions conform with the terms of the authorizations.]

4. <u>Separation of Duties.</u> Key duties and responsibilities in authorizing, processing, recording, and reviewing transactions should be separated among individuals.

[Key duties such as authorizing, approving, and recording transactions, issuing or receiving assets, making payments, and reviewing or auditing are to be assigned to separate individuals to minimize the risk of loss to the government. Internal control depends largely on the reduced opportunities to make and conceal errors or to engage in or conceal irregularities. This, in turn depends on the assignment of work so that no one individual controls all phases of an activity or transaction, thereby creating a situation that permits errors or irregularities to go undetected.]

5. <u>Supervision.</u> Qualified and continuous supervision is to be provided to ensure that internal control objectives are achieved.

[Qualified and continuous supervision also is to ensure that approved procedures are followed. Lines of personal responsibility and accountability are to be clearly established.]

6. <u>Access to and Accountability for Resources.</u> Access to resources and records is to be limited to authorized individuals, and accountability for the custody and use of resources is to be assigned and maintained. Periodic comparison shall be made of the resources with the recorded accountability to determine whether the two agree. The frequency of the comparison shall be a function of the vulnerability of the asset.

c. Audit Resolution Standard

    1. Prompt Resolution of Audit Findings. Managers are to (1) promptly evaluate findings and recommendations reported by auditors, (2) determine proper actions in response to audit findings and recommendations, and (3) complete, within established time frames, all actions that correct or otherwise resolve the matters brought to management's attention.

9. Requirements for Agency Internal Control Directive. Each agency shall update its internal control directive which will, at a minimum:

a. Establish specific responsibilities for seeing that agency internal control systems are developed (where they do not exist), maintained, evaluated, improved as necessary, and reported upon in accordance with the Internal Control Guidelines.

b. Provide for coordination among the designated internal control official, heads of organizational units, program managers, and technical staffs, including the Office of Inspector General or its equivalent in agencies without an Inspector General, in matters concerning internal control.

c. Assign responsibility for internal control to appropriate levels of management in each agency component and establish administrative procedures to enforce the intended functioning of internal controls. These procedures should require performance agreements for each Senior Executive Service and Merit Pay or equivalent employee with significant management responsibility to include fulfillment of assigned internal (i.e., management) control responsibilities; notations in performance appraisals for positive accomplishments related to internal controls; appropriate disciplinary action for violations of internal controls; and timely correction of internal control weaknesses, however identified.

d. Require each internal control system to meet the standards of internal control described in paragraph 8.

e. Provide for an ongoing program of vulnerability as-
sessments covering all agency components and assessable
units. Assessments shall be accomplished as frequen-
tly as circumstances warrant. Agencies shall assure the
evaluation of each assessable unit at least once every
two years.

f. Provide for internal control reviews, audits, in-
creased or improved monitoring procedures or other
processes on an ongoing basis to determine whether the
controls are operating as intended and are effective.
These reviews or other actions should identify internal
controls that need to be strengthened or streamlined.
The timing of the reviews or other actions shall be de-
termined based upon the results of the vulnerability
assessments, management priorities, resource availabil-
ity, and other management initiatives planned or under-
way.

10. Follow-up Actions. The recommendations resulting from
vulnerability assessments and internal control reviews
should be considered by management on a timely basis and
appropriate corrective actions should be taken as prompt-
ly as possible. A formal follow-up system should be
established that records and tracks recommendations and
projected action dates, and monitors whether the changes
are made as scheduled. The existing audit follow-up
system maintained by the designated agency follow-up
official could be used for this purpose.

11. Specific Internal Control Guides. Models and other
guidelines for internal controls for specialized aspects
of agency operations will be developed from time to time
and issued separately to aid agencies in designing
specific internal control systems.

12. Reporting. By December 31, 1983, and by each succeeding
December 31, the head of each executive agency subject to
P.L. 97-255 (31 U.S.C. 3512) shall submit a statement to
the President and to the Congress stating whether the
evaluation of internal controls was conducted in accord-
ance with the Internal Control Guidelines, stating
whether the agency's system of internal accounting and
administrative control complies with the Comptroller
General's standards and provides reasonable assurance

that obligations and costs are in accordance with applicable law; funds, property, and other assets are safeguarded; and revenues and expenditures are properly recorded and permit the preparation of reliable financial and statistical reports; reporting the material weaknesses, if any, in the agency's system of internal control, however identified; and containing a plan for correcting any weaknesses. Procedures to be followed in preparing this report are contained in the Internal Control Guidelines.

Agencies are also required to submit information to OMB on the progress made in evaluating and improving internal controls as part of the Reform '88 Tracking System.

13. Effective Date. This Circular is effective on publication.

14. Inquiries. All questions or inquiries should be addressed to the Finance and Accounting Division, Office of Management and Budget, telephone number 202/395-3122.

15. Sunset Review Date. This Circular shall have an independent policy review to ascertain its effectiveness three years from the date of issuance.
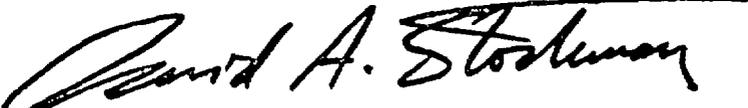
David A. Stockman
Director

APPENDIX II

Federal Managers' Financial Integrity Act of 1982

FEDERAL MANAGERS' FINANCIAL
INTEGRITY ACT OF 1982

Public Law 97-255
97th Congress

An Act

To amend the Accounting and Auditing Act of 1950 to require ongoing evaluations and reports on the adequacy of the systems of internal accounting and administrative control of each executive agency, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

Federal Managers' Financial Integrity Act of 1982
31 USC 65 note.

SECTION 1. This Act may be cited as the "Federal Managers' Financial Integrity Act of 1982".

SEC. 2. Section 113 of the Accounting and Auditing Act of 1950 (31 U.S.C. 66a) is amended by adding at the end thereof the following new subsection:

Internal Accounting and administrative controls. Establishment.

"(d)(1)(A) To ensure compliance with the requirements of subsection (a)(3) of this section, internal accounting and administrative controls of each executive agency shall be established in accordance with standards prescribed by the Comptroller General, and shall provide reasonable assurances that—

"(i) obligations and costs are in compliance with applicable law;

"(ii) funds, property, and other assets are safeguarded against waste, loss, unauthorized use, or misappropriation; and

"(iii) revenues and expenditures applicable to agency operations are properly recorded and accounted for to permit the preparation of accounts and reliable financial and statistical reports and to maintain accountability over the assets.

"(B) The standards prescribed by the Comptroller General under this paragraph shall include standards to ensure the prompt resolution of all audit findings.

Evaluation guidelines.

"(2) By December 31, 1982, the Director of the Office of Management and Budget, in consultation with the Comptroller General, shall establish guidelines for the evaluation by agencies of their systems of internal accounting and administrative control to determine such systems' compliance with the requirements of paragraph

Modification.

(1) of this subsection. The Director, in consultation with the Comptroller General, may modify such guidelines from time to time as deemed necessary.

Compliance, statement.

"(3) By December 31, 1983, and by December 31 of each succeeding year, the head of each executive agency shall, on the basis of an evaluation conducted in accordance with guidelines prescribed under paragraph (2) of this subsection, prepare a statement—

"(A) that the agency's systems of internal accounting and administrative control fully comply with the requirements of paragraph (1); or

"(B) that such systems do not fully comply with such requirements.

Report.

"(4) In the event that the head of an agency prepares a statement described in paragraph (3)(B), the head of such agency shall include with such statement a report in which any material weaknesses in the agency's systems of internal accounting and administrative

control are identified and the plans and schedule for correcting any such weakness are described.

"(5) The statements and reports required by this subsection shall be signed by the head of each executive agency and transmitted to the President and the Congress. Such statements and reports shall also be made available to the public, except that, in the case of any such statement or report containing information which is— *Statements and reports. transmittal to President and Congress; availability to public.*

"(A) specifically prohibited from disclosure by any provision of law; or

"(B) specifically required by Executive order to be kept secret in the interest of national defense or the conduct of foreign affairs,

such information shall be deleted prior to the report or statement being made available to the public.".

SEC. 3. Section 201 of the Budget and Accounting Act, 1921 (31 U.S.C. 11), is amended by adding at the end thereof the following new subsection:

"(k)(1) The President shall include in the supporting detail accompanying each Budget submitted on or after January 1, 1983, a separate statement, with respect to each department and establishment, of the amounts of appropriations requested by the President for the Office of Inspector General, if any, of each such establishment or department. *Appropriations.*

"(2) At the request of a committee of the Congress, additional information concerning the amount of appropriations originally requested by any office of Inspector General, shall be submitted to such committee.".

SEC. 4. Section 113(b) of the Accounting and Auditing Act of 1950 (31 U.S.C. 66a(b)), is amended by adding at the end thereof the following new sentence: "Each annual statement prepared pursuant to subsection (d) of this section shall include a separate report on whether the agency's accounting system conforms to the principles, standards, and related requirements prescribed by the Comptroller General under section 112 of this Act.". *Agency's accounting system. 31 USC 66a.*

Approved September 8, 1982.

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APPENDIX III

Standards For Internal Controls In The Federal Government - U.S. General Accounting Office - 1983

Standards For Internal Controls In The Federal Government

CONTENTS

FOREWORD

In 1950, the Accounting and Auditing Act was passed requiring, among other things, that agency heads establish and maintain effective systems of internal control. Since then, the General Accounting Office (GAO) has issued numerous publications to guide agencies in establishing and maintaining effective internal control systems. While the need for improved internal controls has continued, development of effective systems has been slow.

In the past decade, numerous situations came to light that dramatically demonstrated the need for controls as the Government experienced a rash of illegal, unauthorized, and questionable acts which were characterized as fraud, waste, and abuse. It is generally recog-

nized that good internal controls would have made the commission of such wrongful acts more difficult. Consequently, increased attention is being directed toward strengthening internal controls to help restore confidence in Government and to improve its operations.

The Federal Managers' Financial Integrity Act of 1982 requires renewed focus on the need to strengthen internal controls. The act requires that agency internal control systems be periodically evaluated and that the heads of executive agencies report annually on their systems' status. These evaluations are to be made pursuant to the "Guidelines for the Evaluation and Improvement of and Reporting on Internal Control Systems in the Federal Govern-

ment," issued by the Office of Management and Budget in December 1982, and the reports are to state whether systems meet the objectives of internal control and conform to standards established by GAO.

This document presents the internal control standards to be followed, and covers both the program management as well as the traditional financial management areas. From time to time, as may become necessary, GAO will issue interpretations and revisions to these standards.

We are grateful to the Government officials, professional organizations, public accounting officials, and other members of the academic and financial communities who provided us valuable assistance through their comments on our draft proposals.

Charles A. Bowsher

Comptroller General
of the United States

INTRODUCTION

This document contains the Comptroller General's internal control standards to be followed by executive agencies in establishing and maintaining systems of internal control as required by the Federal Managers' Financial Integrity Act of 1982 (31 U.S.C. 3512(b)). Internal control systems are to reasonably ensure that the following objectives are achieved:

■ Obligations and costs comply with applicable law.

■ All assets are safeguarded against waste, loss, unauthorized use, and misappropriation.

■ Revenues and expenditures applicable to agency operations are recorded and accounted for properly so that accounts and reliable financial and statistical reports may be prepared and accountability of the assets may be maintained.

The act directs the heads of executive agencies to:

■ Make an annual evaluation of their internal controls using guidelines established by the Office of Management and Budget (OMB).

■ Provide annual reports to the President and Congress that state whether agency systems of internal control comply with the objectives of internal controls set forth in the act and with the standards prescribed by the Comptroller General. Where systems do not comply, agency reports must identify the weaknesses involved and describe the plans for corrective action.

The following concept of internal controls is useful in understanding and applying the internal control standards set forth and discussed on succeeding pages.

The plan of organization and methods and procedures adopted by management to ensure that resource use is consistent with laws, regulations, and policies; that resources are safeguarded against waste, loss, and misuse; and that reliable data are obtained, maintained, and fairly disclosed in reports.

The ultimate responsibility for good internal controls rests with management. Internal controls should not be looked upon as separate, specialized systems within an agency. Rather, they should be recognized as an integral part of each system that management uses to regulate and guide its operations. In this sense, internal controls are management controls. Good internal controls are essential to achieving the proper conduct of Government business with full accountability for the resources made available. They also facilitate the achievement of management objectives by serving as checks and balances against undesired actions. In preventing negative consequences from occurring, internal controls help achieve the positive aims of program managers.

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INTERNAL
CONTROL
STANDARDS

The internal control standards define the minimum level of quality acceptable for internal control systems in operation and constitute the criteria against which systems are to be evaluated. These internal control standards apply to all operations and administrative functions but are not intended to limit or interfere with duly granted authority related to development of legislation, rulemaking, or other discretionary policymaking in an agency.

General Standards

1. <u>Reasonable Assurance.</u> Internal control systems are to provide reasonable assurance that the objectives of the systems will be accomplished.

2. <u>Supportive Attitude.</u> Managers and employees are to maintain and demonstrate a positive and supportive attitude toward internal controls at all times.

3. <u>Competent Personnel.</u> Managers and employees are to have personal and professional integrity and are to maintain a level of competence that allows them to accomplish their assigned duties, as well as understand the importance of developing and implementing good internal controls.

4. <u>Control Objectives.</u> Internal control objectives are to be identified or developed for each agency activity and are to be logical, applicable, and reasonably complete.

5. <u>Control Techniques.</u> Internal control techniques are to be effective and efficient in accomplishing their internal control objectives.

Specific Standards

1. Documentation. Internal control systems and all transactions and other significant events are to be clearly documented, and the documentation is to be readily available for examination.

2. Recording of Transactions and Events. Transactions and other significant events are to be promptly recorded and properly classified.

3. Execution of Transactions and Events. Transactions and other significant events are to be authorized and executed only by persons acting within the scope of their authority.

4. Separation of Duties. Key duties and responsibilities in authorizing, processing, recording, and reviewing transactions should be separated among individuals.

5. Supervision. Qualified and continuous supervision is to be provided to ensure that internal control objectives are achieved.

6. Access to and Accountability for Resources. Access to resources and records is to be limited to authorized individuals, and accountability for the custody and use of resources is to be assigned and maintained. Periodic comparison shall be made of the resources with the recorded accountability to determine whether the two agree. The frequency of the comparison shall be a function of the vulnerability of the asset.

Audit Resolution Standard

Prompt Resolution of Audit Findings. Managers are to (1) promptly evaluate findings and recommendations reported by auditors, (2) determine proper actions in response to audit findings and recommendations, and (3) complete, within established time frames, all actions that correct or otherwise resolve the matters brought to management's attention.

EXPLANATION OF GENERAL STANDARDS

General internal control standards apply to all aspects of internal controls.

Reasonable Assurance

Internal control systems are to provide reasonable assurance that the objectives of the systems will be accomplished.

The standard of reasonable assurance recognizes that the cost of internal control should not exceed the benefit derived. Reasonable assurance equates to a satisfactory level of confidence under given considerations of costs, benefits, and risks. The required determinations call for judgment to be exercised.

In exercising that judgment, agencies should:

■ Identify (1) risks inherent in agency operations, (2) criteria for determining low, medium, and high risks, and (3) acceptable levels of risk under varying circumstances.

■ Assess risks both quantitatively and qualitatively.

Cost refers to the financial measure of resources consumed in accomplishing a specified purpose. Cost can also represent a lost opportunity, such as a delay in operations, a decline in service levels or productivity, or low employee morale. A benefit is measured by the degree to which the risk of failing to achieve a stated objective is reduced. Examples include increasing the probability of detecting fraud, waste, abuse, or error; preventing an improper activity; or enhancing regulatory compliance.

Supportive Attitude

Managers and employees are to maintain and demonstrate a positive and supportive attitude toward internal controls at all times.

This standard requires agency managers and employees to be attentive to internal control matters and to take steps to promote the effectiveness of the controls. Attitude affects the quality of performance and, as a result, the quality of internal controls. A positive and supportive attitude is initiated and fostered by management and is ensured when internal controls are a consistently high management priority.

Attitude is not reflected in any one particular aspect of managers' actions but rather is fostered by managers' commitment to achieving strong controls through actions concerning agency organization, personnel practices, communication, protection and use of resources through systematic accountability, monitoring and systems of reporting, and general leadership. However, one important

way for management to demonstrate its support for good internal controls is its emphasis on the value of internal auditing and its responsiveness to information developed through internal audits.

The organization of an agency provides its management with the overall framework for planning, directing, and controlling its operations. Good internal control requires clear lines of authority and responsibility; appropriate reporting relationships; and appropriate separation of authority.

In the final analysis, general leadership is critical to maintaining a positive and supportive attitude toward internal controls. Adequate supervision, training, and motivation of employees in the area of internal controls is important.

Competent Personnel

Managers and employees are to have personal and professional integrity and are to maintain a level of competence that allows them to accomplish their assigned duties, as well as understand the importance of developing and implementing good internal controls.

This standard requires managers and their staffs to maintain and demonstrate (1) personal and professional integrity, (2) a level of skill necessary to help ensure effective performance, and (3) an understanding of internal controls sufficient to effectively discharge their responsibilities.

Many elements influence the integrity of managers and their staffs. For example, personnel should periodically be reminded of their obligations under an operative code of conduct.

In addition, hiring and staffing decisions should include pertinent verification of education and experience and, once on the job, the individual should be given the necessary formal and on-the-job training. Managers who possess a good understanding of internal controls are vital to effective control systems.

Counseling and performance appraisals are also important. Overall performance appraisals should be based on an assessment of many critical factors, one of which should be the implementation and maintenance of effective internal controls.

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Control Objectives

Internal control objectives are to be identified or developed for each agency activity and are to be logical, applicable, and reasonably complete.

This standard requires that objectives be tailored to an agency's operations. All operations of an agency can generally be grouped into one or more categories called cycles. Cycles comprise all specific activities (such as identifying, classifying, recording, and reporting information) required to process a particular transaction or event. Cycles should be compatible with an agency's organization and division of responsibilities.

Cycles can be categorized in various ways. For example:

■ Agency management.

■ Financial.

■ Program (operational).

■ Administrative.

Agency management cycles cover the overall policy and planning, organization, data processing, and audit functions. Financial cycles cover the traditional control areas concerned with the flow of funds (revenues and expenditures), related assets, and financial information. Program (operational) cycles are those agency activities that relate to the mission(s) of the agency and which are peculiar to a specific agency. Administrative cycles are those agency activities providing support to the agency's primary mission, such as library

services, mail processing and delivery, and printing. The four types of cycles obviously interact, and controls over this interaction must be established. For example, a typical grant cycle would be concerned with eligibility and, if awarded, administration of the grant. At the time of award, the grant (program) and disbursement (financial) cycles would interface to control and record the payment authorization.

Complying with this standard calls for identifying the cycles of agency operations and analyzing each in detail to develop the cycle control objectives. These are the internal control goals or targets to be achieved in each cycle. The objectives should be tailored to fit the specific operations in each agency and be consistent with the overall objectives of internal controls as set forth in the Federal Managers' Financial Integrity Act.

In appendix B of its "Guidelines for the Evaluation and Improvement of and Reporting on Internal Control Systems in the Federal Government," OMB has provided a list of suggested agency cycles and cycle control objectives. Agencies should consider this and other sources when identifying their cycles and cycle control objectives.

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Control
Techniques

Internal control techniques are to be effective and efficient in accomplishing their internal control objectives.

Internal control techniques are the mechanisms by which control objectives are achieved. Techniques include, but are not limited to, such things as specific policies, procedures, plans of organization (including separation of duties), and physical arrangements (such as locks and fire alarms). This standard requires that internal control techniques continually provide a high degree of assurance that the internal control objectives are being achieved. To do so they must be effective and efficient.

To be effective, techniques should fulfill their intended purpose in actual application. They should provide the coverage they are supposed to and operate when intended. As for efficiency, techniques should be designed to derive maximum benefit with minimum effort. Techniques tested for effectiveness and efficiency should be those in actual operation and should be evaluated over a period of time.

EXPLANATION
OF SPECIFIC
STANDARDS

A number of techniques are essential to providing the greatest assurance that the internal control objectives will be achieved. These critical techniques are the specific standards discussed below.

Documentation

Internal control systems and all transactions and other significant events are to be clearly documented, and the documentation is to be readily available for examination.

This standard requires written evidence of (1) an agency's internal control objectives and techniques and accountability systems and (2) all pertinent aspects of transactions and other significant events of an agency. Also, the documentation must be available as well as easily accessible for examination.

Documentation of internal control systems should include identification of the cycles and related objectives and techniques, and should appear in management directives, adminis-

trative policy, and accounting manuals. Documentation of transactions or other significant events should be complete and accurate and should facilitate tracing the transaction or event and related information from before it occurs, while it is in process, to after it is completed.

Complying with this standard requires that the documentation of internal control systems and transactions and other significant events be purposeful and useful to managers in controlling their operations, and to auditors or others involved in analyzing operations.

Recording of Transactions and Events

Transactions and other significant events are to be promptly recorded and properly classified.

Transactions must be promptly recorded if pertinent information is to maintain its relevance and value to management in controlling operations and making decisions. This standard applies to (1) the entire process or life cycle of a transaction or event and includes the initiation and authorization, (2) all aspects of the transaction while in process, and (3) its final classification in summary records. Proper classification of transactions and events is the organization and format of information on summary records from which reports and statements are prepared.

Execution of Transactions and Events

Transactions and other significant events are to be authorized and executed only by persons acting within the scope of their authority.

This standard deals with management's decisions to exchange, transfer, use, or commit resources for specified purposes under specific conditions. It is the principal means of assuring that only valid transactions and other events are entered into. Authorization should be clearly communicated to managers and employees and should include the specific conditions and terms under which authorizations are to be made. Conforming to the terms of an authorization means that employees are carrying out their assigned duties in accordance with directives and within the limitations established by management.

Separation of Duties

Key duties and responsibilities in authorizing, processing, recording, and reviewing transactions should be separated among individuals.

To reduce the risk of error, waste, or wrongful acts or to reduce the risk of their going undetected, no one individual should control all key aspects of a transaction or event. Rather, duties and responsibilities should be assigned systematically to a number of individuals to ensure that effective checks and balan-

ces exist. Key duties include authorizing, approving, and recording transactions; issuing and receiving assets; making payments; and reviewing or auditing transactions. Collusion, however, can reduce or destroy the effectiveness of this internal control standard.

Supervision

Qualified and continuous supervision is to be provided to ensure that internal control objectives are achieved.

This standard requires supervisors to continuously review and approve the assigned work of their staffs. It also requires that they provide their staffs with the necessary guidance and training to help ensure that errors, waste, and wrongful acts are minimized and that specific management directives are achieved.

Assignment, review, and approval of a staff's work requires:

■Clearly communicating the duties, responsibilities, and accountabilities assigned each staff member.

■Systematically reviewing each member's work to the extent necessary.

■Approving work at critical points to ensure that work flows as intended.

Assignment, review, and approval of a staff's work should result in the proper processing of transactions and events including (1) following approved procedures and requirements, (2) detecting and eliminating errors, misunderstandings, and improper practices, and (3) discouraging wrongful acts from occurring or from recurring.

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Access to and Accountability for Resources

Access to resources and records is to be limited to authorized individuals, and accountability for the custody and use of resources is to be assigned and maintained. Periodic comparison shall be made of the resources with the recorded accountability to determine whether the two agree. The frequency of the comparison shall be a function of the vulnerability of the asset.

The basic concept behind restricting access to resources is to help reduce the risk of unauthorized use or loss to the Government, and to help achieve the directives of management. However, restricting access to resources depends upon the vulnerability of the resource and the perceived risk of loss, both of which should be periodically assessed. For example, access to and accountability for highly vulnerable documents, such as check stocks, can be achieved by:

■ Keeping them locked in a safe .

■ Assigning or having each document assigned a sequential number .

■ Assigning custodial accountability to responsible individuals.

Other factors affecting access include the cost, portability, exchangeability, and the perceived risk of loss or improper use of the resource. In addition, assigning and maintaining accountability for resources involves directing and communicating responsibility to specific individuals within an agency for the custody and use of resources in achieving the specifically identified management directives.

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EXPLANATION OF THE AUDIT RESOLUTION STANDARD

Prompt Resolution of Audit Findings

Managers are to (1) promptly evaluate findings and recommendations reported by auditors, (2) determine proper actions in response to audit findings and recommendations, and (3) complete, within established time frames, all actions that correct or otherwise resolve the matters brought to management's attention.

The audit resolution standard requires managers to take prompt, responsive action on all findings and recommendations made by auditors. Responsive action is that which corrects identified deficiencies. Where audit findings identify opportunities for improvement rather than cite deficiencies, responsive action is that which produces improvements.

The audit resolution process begins when the results of an audit are reported to management, and is completed only after action has been taken that (1) corrects identified deficiencies, (2) produces improvements, or (3) demonstrates the audit findings and recommendations are either invalid or do not warrant management action.

Auditors are responsible for following up on audit findings and recommendations to ascertain that resolution has been achieved. Auditors' findings and recommendations should be monitored through the resolution and followup processes. Top management should be kept informed through periodic reports so it can assure the quality and timeliness of individual resolution decisions.

APPENDIX IV

Internal Control Guidelines - Office of Management and Budget (OMB) -December 1982

DECEMBER, 1982

GUIDELINES FOR

THE EVALUATION AND IMPROVEMENT OF

AND REPORTING ON INTERNAL CONTROL SYSTEMS

IN THE FEDERAL GOVERNMENT

FOREWORD

The Budget and Accounting Procedures Act of 1950 required that each agency head establish and maintain systems of accounting and internal control. The expectation was that such systems would help to prevent fraud, waste, abuse, and mismanagement in Federal Government operations.

The Act notwithstanding, instances of fraud, waste, and abuse continued to occur at an unacceptable level. Indeed, a GAO report, issued in August, 1980, found widespread, similar, and prevalent control weaknesses in the Federal Government.

The Reagan Administration, as part of Reform 88, is committed to streamlining the management and administration of the Federal Government. This includes reducing fraud, improving management controls, and eliminating errors in the administration of government programs. In October, 1981, the Office of Management and Budget issued Circular A-123 as an early effort to improve controls. Like the 1950 Act, the Circular required the head of each department and agency to develop and maintain adequate systems of internal control. Unlike the Act, however, it defined requirements and responsibilities in order to transform the 1950 Act expectations into reality.

The Congress has likewise expressed its support for good internal management in the Federal Government. In September, 1982, the Congress passed the Federal Managers' Financial Integrity Act (P.L. 97-255). This Act requires that each Executive agency's internal accounting and administrative controls be established in accordance with standards prescribed by the Comptroller General, and provide reasonable assurance that:

*   Obligations and costs are in compliance with applicable law;
*   Funds, property, and other assets are safeguarded; and
*   Revenues and expenditures applicable to agency operations are properly recorded and accounted for.

The Act also requires OMB to establish, in consultation with the Comptroller General, guidelines with which the agencies can evaluate their systems of internal accounting and administrative control. In addition, it requires an annual statement from the head of each Executive agency to the President and the Congress stating whether or not the agency's system of internal accounting and administrative control complies with the requirements of the Act, and identifying the agency's material control weaknesses, if any, and its plans for correcting the weaknesses.

This document contains the guidelines required by the Act to be developed by OMB. It is to be used by each agency's management as guidance in the development of its own specific plans for performing a self-evaluation of, improving, and reporting on the agency's internal control system in the most efficient and effective manner consistent with the agency's unique missions and organizational structures.

The Act also requires the head of each Executive Agency to report on whether the agency's accounting system conforms to principles, standards, and related requirements prescribed by the Comptroller General. Guidelines for meeting this requirement are being issued under separate cover.

DAVID A. STOCKMAN
DIRECTOR

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CHAPTER I

INTRODUCTION

Internal Control, for the purpose of these guidelines, is defined as the steps a Federal agency takes to provide reasonable assurance that:

* Obligations and costs are in compliance with applicable law;

* Funds, property, and other assets are safeguarded against waste, loss, unauthorized use, or misappropriation; and

* Revenues and expenditures applicable to agency operations are properly recorded and accounted for to permit the preparation of accounts and reliable financial and statistical reports and to maintain account- ability over the assets.

An internal control system is the organizational structure and the sum of the methods and measures used to achieve the objectives of internal control.

An internal control system should not be a separate system in an agency. It should be an integral part of the systems used to operate the programs and functions performed by the agency. Thus, internal control would be the responsibility of the same individuals who are responsible for operating the programs and functions. This enables the objectives of internal control to be accomplished in the most efficient and effective manner.

The Budget and Accounting Procedures Act of 1950 required that each agency establish and maintain systems of accounting and internal control. It is widely recognized that these systems are necessary not only for financial and administrative activities, but for program and operational activities involving funds, property, and other assets for which the agency is responsible. Indeed, the 1950 Act, by definition, encompassed not only systems of internal control that provide full disclosure of an agency's financial results, adequate financial information for agency management purposes, reliable accounting results, and suitable integration of agency accounting and Treasury Department accounting. It also encompassed systems of internal control that provide "effective control over the accountablility for all funds, property, and other assets for which the agency is responsible, including appropriate internal audit."

At the same time, it was, and still is, clear that internal control is concerned with only the operational aspects of a program or function. It does not encompass such matters as statutory development or interpretation, determination of program need, resource allocation, rulemaking, or other discretionary policymaking processes in an agency.

An increasing awareness, however, of a need to strengthen internal control systems in the Federal Government led to the issuance of OMB Circular A-123, "Internal Control Systems," in October, 1981. Included in the requirements of Circular A-123 were:

* The assignment of internal control responsibilities to specific officials throughout each agency.

* The completion of vulnerability assessments covering all agency components by December 31, 1982, and not less frequently than biennially thereafter.

* The performance of internal control reviews on an ongoing basis.

* The establishment of administrative procedures to enforce the intended functioning of internal controls, including provisions that performance appraisals reflect execution of internal control responsibilities and procedures to take necessary actions to correct internal control weaknesses on a timely basis.

Finally, in 1982 the Congress enacted the Federal Managers' Financial Integrity Act, requiring each Executive agency not only to have internal accounting and administrative controls for these systems, but also to perform ongoing evaluations and provide an annual statement on the control systems to the President and the Congress. More specifically, the Act requires:

* The establishment of internal accounting and administrative controls (typically characterized as simply "internal controls") in each Executive agency in accordance with standards prescribed by the U.S. Comptroller General.

* The conduct of evaluations by agencies of their systems of internal accounting and administrative control in accordance with guidelines issued by the Director of the Office of Management and Budget.

* Transmittal of an annual statement by the head of each Executive
  agency to the President and Congress indicating whether the agency's
  systems of internal accounting and administrative control comply with
  the Comptroller General's standards and provide reasonable assurance
  that obligations and costs are in accordance with applicable law;
  funds, property, and other assets are safeguarded; and revenues and
  expenditures are properly recorded and permit the preparation of
  reliable financial and statistical reports.

The purpose of this publication is to provide guidance for the evaluation
and improvement of and reporting on internal control systems in Executive
agencies in conformance with the Act. Each Executive agency is expected to
use this guidance to assist in the development of its own specific plans in
order that management can perform a self-evaluation of, improve, and report
on its internal control system in the most efficient and effective manner
consistent with its own unique missions and organizational structure.

THE BASIC APPROACH TO EVALUATING, IMPROVING AND REPORTING ON
INTERNAL CONTROLS

An evaluation of and reporting on internal control can be approached in
several ways. The approach presented in this publication provides an
efficient and effective way, based on techniques used to evaluate and
report on the internal controls associated with financial statements, but
expanded to encompass the controls necessary for administrative and program
activities with systems subject to these guidelines.

The recommended approach for evaluating, improving, and reporting on
internal controls is comprised of seven phases:

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* <u>Organizing the process</u>. This includes a determination as to the information and assurances to be provided to the agency head to enable the annual statement to be made to the President and the Congress; the assignment of responsibilities for planning, directing, and controlling the evaluation process throughout the agency; and the development of an information system that provides a tracking of the status of the evaluations and corrective actions as well as other pertinent information necessary to manage the overall process and facilitate preparation of the annual report.

* <u>Segmenting the agency into organizational components, and then identifying the programs and administrative functions conducted in each component</u>. For example, the Department of Health and Human Services can be segmented into the Social Security Administration, the Health Care Financing Administration, etc. The Social Security Administration, in turn, could be segmented into the Supplemental Security Income program, the Old-Age Survivors Insurance program, etc.; or into administrative functions such as eligibility determination systems, benefit payment systems, quality control, etc.

* <u>Assessing the vulnerability</u> to waste, loss, unauthorized use, or misappropriation of the funds, property or other assets within each component and deciding which are the most vulnerable. This is done by identifying the factors that create an inherent riskiness in the function, considering the operating environment in which the function is performed, and preliminarily evaluating whether safeguards exist to prevent waste, loss, unauthorized use, or misappropriation from occurring.

* Developing plans and schedules for the performance of internal
  control reviews and other actions, based on an evaluation of the
  results of the vulnerability assessments and other considerations
  (management priorities, resource constraints, etc.), and in such a
  manner as to provide that internal controls in those programs and
  administration functions deemed to be the most vulnerable, as well as
  those deemed to be less vulnerable, are evaluated and improved as
  necessary to ensure a strong system of internal control.

* Reviewing the internal controls for the selected programs and admin-
  istrative functions, determining whether adequate control objectives
  have been established and control techniques exist and are function-
  ing as intended, and then developing recommendations to correct
  weaknesses in either the design or functioning of the internal
  control system.

* Determining, scheduling, and taking the necessary corrective actions
  for improving internal controls on a timely basis. Included in the
  determination should be an analysis to assure that the expected
  benefits to be obtained will outweigh the costs of any improvements
  made.

* Preparing the annual statement to the President and the Congress on
  the status of the agency's system of internal control, as required by
  the Act.

This recommended approach is depicted in a flow chart (Exhibit 1) and
explained in detail in Chapters II to VI.

The above process is not an attempt to evaluate discretionary policy decisions. Rather, the evaluation process begins at the point at which a program or function has been authorized by the policy-level official having authority to do so, and focuses on the steps involved in the operation of the program. For example, the review of a welfare assistance program should not include an evaluation of whether the eligibility criteria are consistent with the statute and its legislative history. Instead, the review should evaluate whether the operation of the program is consistent with the criteria and thus there is reasonable assurance that obligations and costs are in compliance with the applicable law; funds, property and other assets are safeguarded; and revenues and expenditures are properly recorded.

EXHIBIT 1

OVERVIEW OF THE INTERNAL CONTROL EVALUATION,

IMPROVEMENT, AND REPORTING PROCESS

ORGANIZE THE
PROCESS

SEGMENT THE
AGENCY

CONDUCT VULNERABILITY
ASSESSMENTS

----

1. Analyze General Control
Environment

2. Analyze Inherent Risk

3. Evaluate Safeguards
(Preliminary Evaluation)

4. Summarize Results

DEVELOP PLANS FOR
SUBSEQUENT ACTIONS

CONDUCT INTERNAL
CONTROL REVIEWS

----

1. Identify Event Cycles

2. Analyze General Control
Environment

3. Document the Event Cycle

4. Evaluate Internal
Controls

5. Test Internal Controls

6. Summarize Results

TAKE CORRECTIVE
ACTIONS

PREPARE REPORT ON
INTERNAL CONTROLS

INTERNAL CONTROL STANDARDS

As stated in the Act, each Executive agency is to establish a system of
internal accounting and administrative controls in accordance with
standards prescribed by the Comptroller General. The following is
consistent with our understanding of those standards, as they are to appear
in the General Accounting Office document: Standards for Internal Control
in the Federal Government.

* Reasonable Assurance -- Internal control systems shall provide
  reasonable, but not absolute, assurance that the objectives of the
  system will be accomplished. This standard recognizes that the cost
  of internal control should not exceed the benefits derived therefrom,
  and that the benefits consist of reductions in the risks of failing to
  achieve the stated objectives.

* Attitude -- Managers and employees are to maintain and demonstrate a
  positive and supportive attitude toward internal control at all times.

* Competent Personnel -- Managers and employees are to have high
  standards of integrity, are to be competent by education, experience,
  and/or training to accomplish their assigned duties, and are to
  possess adequate knowledge of internal control.

* Internal Control Objectives -- Specific internal control objectives
  are to be developed for each agency activity. The control objectives
  must be complete, logical, and applicable to the specific activity and
  are to be consistent with the accomplishment of the overall objectives
  of internal control specified in the Act*.

*The overall internal control objectives specified in the Act are:
  (1) Obligations and costs are in compliance with applicable law.
  (2) Funds, property, and other assets are safeguarded against waste,
     loss, unauthorized use, or misappropriation.
  (3) Revenues and expenditures applicable to agency operations are
     properly recorded and accounted for to permit the preparation of
     accounts and reliable financial and statistical reports and to
     maintain accountability over the assets.

* <u>Internal Control Techniques</u> -- Internal control techniques, i.e.,
   processes and documents that accomplish the internal control
   objectives, are to be designed for and operated in all agency
   activities, in order to comprehensively accomplish the control
   objectives on a consistent basis, and in an efficient and effective
   manner.

* <u>Documentation</u> -- Internal control systems, i.e., control objectives
   and internal control techniques, the accountability for resources, and
   all transactions and other events shall be clearly documented.
   Documentation shall be readily available.

* <u>Recording of Transactions</u> -- Transactions shall be recorded as
   executed, when executed, and be properly classified.

* <u>Execution of Transactions</u> -- Independent evidence shall be maintained
   that authorizations are issued by persons acting within the scope of
   their authority and that transactions conform with the terms of the
   authorizations.

* <u>Separation of Duties</u> -- Key duties such as authorizing, approving, and
   recording transactions, issuing or receiving assets, making payments,
   and reviewing or auditing shall be assigned to separate individuals to
   minimize the risk of loss to the government. Internal control depends
   largely on the elimination of opportunities to conceal errors or
   irregularities. This in turn depends on the assignment of work in
   such a fashion that no one individual controls all phases of an
   activity or transaction, thereby creating a situation that permits
   errors or irregularities to go undetected.

- _Supervision_ -- Qualified and continuous supervision shall be provided to assure that approved procedures are followed. Lines of personal responsibility and accountability shall be clear.

- _Access to Resources_ -- Access to resources shall be limited to authorized personnel. Access includes both direct physical access and indirect access through the preparation or processing of documents that authorize the use or disposition of resources. Periodic comparison shall be made of the resources with the recorded accountability to determine whether the two agree. The frequency of the comparison shall be a function of the vulnerability of the asset.

The Federal Managers Financial Integrity Act also requires a standard concerning audit resolution and follow-up. The Comptroller General is defining that standard as follows:

- Managers should promptly evaluate findings and recommendations reported by auditors; determine proper action in response to audit findings and recommendations; and complete, within established time frames, all actions that correct or otherwise resolve the matters brought to management's attention.

CHAPTER II

ORGANIZING THE EVALUATION

It is critical that an Fxecutive aaency, whether larae or small, carefully oraanize and assign responsibilities in a manner that ensures that the evaluation, improvement, and reportinq on internal controls is conducted in an efficient and effective manner. This includes providing for aualitv control over the entire process. The key oraanizinq considerations include:

* Assianing responsibilities.

* Internal reportina.

* Documentation.

* Personnel and supervision.

* Schedulina the evaluation processes.

ASSIGNING RESPONSIBILITIES

As noted earliar, an internal control system is not a separate system within an aaency, but rather an inteqral part of the systems used by an aaency to operate its proqrams and other activities. The Act recoanizes this relationship and thus requires the head of the aaency to be responsible for submittina a statement to the President and the Conqress on the status of the agency's internal controls.

Because it is unrealistic to expect an agency head to have first-hand
knowledge of the status of the agency's internal control system, the
appropriate responsibilities should be carefully assigned to selected
senior officials throughout the agency in order to ensure that the process
of evaluating, improving, and reporting on internal controls is carried out
in conformance with these guidelines, and in an efficient and effective
manner. These senior agency officials should be expected to provide the
agency head with written assurances that the responsibilities have been
carried out.

The assignment of responsibilities should include the following:

* Direction of the agencywide effort --
  One senior official should be responsible for coordinating the overall
  agencywide effort of evaluating, improving, and reporting on internal
  control in conformance with these guidelines. This official should be
  asked to provide assurance that these processes have been conducted,
  in accordance with the guidelines, in a thorough and conscientious
  manner. (See Appendix C)

* Heads of organizational units --
  Just as the agency head is ultimately responsible for internal control
  in the agency, the head of each organizational unit in an agency is
  responsible for internal control in that unit. Accordingly, the head
  of each organizational unit (and other components identified in the
  segmenting process described in Chapter III) should provide assurance
  that he or she is cognizant of the importance of internal control; has
  performed the evaluative processes in his or her areas of responsi-
  bility in accordance with the OMB guidelines and in a conscientious
  manner; and believes that the objectives of internal control are
  complied with in his or her area of responsibility within the
  described limits. (See Appendix D)

* <u>Inspector General or equivalent</u> -- The Inspector General, or equivalent in agencies without an Inspector General, normally reviews internal control documentation and systems and reports the results of these reviews to appropriate levels of management. These reviews, which the IG undertakes either on his own initiative or at the request of the agency head, are either separate reviews of internal controls or performed in conjunction with internal audits.

In addition, however, the IG may be asked to provide comments as to whether the evaluation process has been conducted in accordance with these guidelines. IG comments in response to such a request may be based on a limited review to determine whether the first six phases described in Chapter I are carried out in a reasonable and prudent manner. (See Appendix E)

Performance of this limited review by the Inspector General should not be interpreted to preclude the Inspector General from providing technical assistance in the agency effort to evaluate internal controls, or as otherwise limiting the authority of the Inspector General. In fact, the Inspector General or equivalent is encouraged to provide technical assistance to further the overall goal of strengthening internal control systems. However, it is imperative that management throughout the agency be heavily involved in the evaluative process, since it is management that has primary responsibility for the maintenance of a strong system of internal control.

However, care should be taken to avoid duplication of work. To the extent that the Inspector General has conducted or is planning to conduct internal control reviews of certain agency activities, a determination should be made as to how these reviews can help accomplish the evaluations required by these guidelines. In those instances where the Inspector General agrees to conduct certain internal control reviews, the senior official designated by the agency head to direct the agencywide effort may rely on the internal control reviews performed by the Inspector General. However, the senior official is still primarily responsible for the overall judgments regarding compliance with the guidelines.

An internal reporting and follow-up system should be established to monitor
the accomplishment of the various tasks that make up the evaluation and
improvement process. This system should be used to ensure that:

* Vulnerability assessments are scheduled and completed on a timely
  basis.

* Scheduled internal control reviews are completed on a timely basis.

* Corrective actions are taken on a timely basis.

The system also should be able to:

* Summarize information regarding the results of the vulnerability
  assessments, internal control reviews, and necessary corrective
  actions in order to support the annual statement to the President and
  the Congress.

* Gather other data necessary to evaluate other actions to improve
  internal control, e.g., status of training, impact on performance
  appraisals, other personnel actions.

Consideration should be given to coordinating or integrating this
information system with the agency's audit follow-up information system.

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DOCUMENTATION

Adequate written documentation should be maintained. In particular,
documentation should be maintained for activities conducted in connection
with vulnerability assessments, internal control reviews, and follow-up
actions to provide a permanent record of the methods used, the personnel
involved and their roles, the key factors considered, and the conclusions
reached. This information will be useful for reviewing the validity of
conclusions reached, evaluating the performance of individuals involved in
the assessments and reviews, and performing subsequent assessments and
reviews.

PERSONNEL AND SUPERVISION

It is essential that a sufficient level of staff resources be committed to
the internal control evaluation process. As such, it is likely that the
vulnerability assessments and internal control reviews will be performed by
persons from various parts of the agency. Examples are the individuals who
operate the systems being reviewed and persons from the central staffs.
These individuals need to have a good understanding of the process in order
that they can make appropriate judgments.

Some specific measures that should be considered in order to provide this
understanding, as well as assure the necessary quality, are as follows:

* Orientation and training -- Orientation and/or training sessions
    should be provided to explain the objectives of and procedures for
    conducting vulnerability assessments and internal control reviews.

*   <u>Assignment of personnel</u> -- Use of the "team" approach should be considered in order that small groups of individuals can perform assessments and/or reviews jointly. This provides some assurance that the limitations of one individual can be offset by the strengths of another. It also stimulates individual team members' thinking.

*   <u>Supervision</u> -- Adequate supervision of personnel involved in the assessment and review processes should be provided for.

*   <u>Performance appraisal</u> -- Administrative procedures should be initiated to evaluate performance in assessment and review activities. Personnel should be advised that this will be a factor in their overall performance evaluation.

*   <u>Technical assistance</u> -- Technical assistance should be developed and provided to employees assigned to the process. A procedures manual to guide the performance of vulnerability assessments and internal control reviews, and containing appropriate standard forms, may be useful. Agency "experts" who can answer questions and provide other assistance in this area should be designated and their names provided to the reviewers. Informal guidance should be circulated periodically and periodic meetings of key personnel involved in the process held as still another means of information sharing.

*   <u>Monitoring</u> -- A monitoring system should be developed to assure that assessments and reviews are performed adequately. One way would be to use an individual or small group to test assessments and reviews as deemed necessary. Another way would be to coordinate with the Inspector General's limited reviews of the process.

SCHEDULING THE EVALUATION PROCESS

Scheduling the vulnerability assessments and internal control reviews should be done carefully with consideration given to resource availability, the performance of risk analysis and similar evaluations in accordance with other statutory or regulatory requirements, the cyclical nature of certain operations, and other relevant factors. It is necessary, however, to ensure that sufficient evaluative work is scheduled and completed in time to provide a basis for the annual statement to the President and the Congress.

Furthermore, as required by Circular A-123, vulnerability assessments should be completed for all agency activities by December 31, 1982, and not less frequently than biennially thereafter. It is suggested, therefore, that a schedule be prepared for each biennial cycle, which specifies the individual(s) responsible for performing each assessment and the date by which each is to be completed. Vulnerability assessments should be conducted as soon as possible for activities that are new or undergoing major changes rather than waiting for the next biennial cycle.

Internal control reviews are to be conducted on a continuous basis throughout the year. The schedule of internal control reviews should be developed based on an evaluation of the results of the vulnerability assessments and other considerations (management priorities, resource constraints, etc.) in order to ensure that agency activities determined to be highly vulnerable, as well as those which are less vulnerable, are evaluated and improved as necessary to provide a strong system of internal control. Preparation of a schedule similar to that discussed for the vulnerability assessments is recommended.

Since no exemption has been provided for classified or secure activities, they must be included in the evaluation process. Care should be taken, however, to assure that persons participating in the evaluations for such activities have the necessary security clearances and that the documentation is appropriately classified and handled.

CHAPTER III

IDENTIFYING PROGRAMS AND ADMINISTRATIVE FUNCTIONS

Federal agencies are large, complex organizations. The most effective way
to systematically perform an evaluation of the systems upon which an agency
head can submit a statement is to segment the agency first into
organizational or other components and then into the programs and
administrative functions within each component. This approach also
facilitates the allocation of resources to the assessment process and the
determination of who should be responsible for providing assurances.

SELECTING THE COMPONENTS, PROGRAMS AND FUNCTIONS

There is no single method to divide an agency into components, programs,
and administrative functions for purposes of evaluating the system of
internal control, particularly since agencies vary so widely in
organizational structure and the nature of activities conducted. The basic
goal of the division is to develop an agency-wide inventory of "assessable
units," each of which can be the subject of a vulnerability assessment.
This inventory should provide complete coverage of all program and
administrative functions, consistent with the discussion in Chapter I. The
individual assessable units should be of an appropriate nature and size to
facilitate the conduct of a meaningful vulnerability assessment.

In developing the inventory of assessable units, reference should be made
to such sources of information as the agency's budget and related
materials, organization charts, agency manuals, and program and financial
management information systems. The following specific factors should be
considered:

* Existing organizational structure.

* Nature and size of the agency's programs and administrative functions.

* Numbers of sub-programs or sub-functions in a program or function

* Number of separate organizations operating the program

* Degree of independence of the program or function

* Differences in operating systems

* Degree of centralization or decentralization

* Budget levels

* Numbers of personnel

The degrees of independence and centralization/decentralization are very significant. A program or administrative function could operate in several locations. Since the program or administrative function and internal control system may vary among locations--in design and/or operation--it may be necessary to perform separate vulnerability assessments and/or internal control reviews for each location. Thus a consideration when classifying programs and functions operating at several locations is whether to identify the locations first and then list the programs and functions operating within each location, or to identify the programs and functions first, and then for each multi-location program and function, identify and list the locations at which it operates. Either approach is acceptable, as long as coverage is complete.

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Also, it should be remembered that the purpose of the review is to evaluate and improve the internal controls for operating programs and administrative functions. Policymaking activities and other activities not subject to the guidelines should not be included in the inventory. Appendix A shows a sample of a partial inventory of components, programs and administrative functions for a Cabinet-level department.

Once the agency inventory of assessable units has been developed, the information should be documented. (One possible format for such documentation is provided in Exhibit 2.) These lists provide the means for organizing and managing the evaluation process.

Agency Component: _____

List of Programs and Administrative Functions

Within the Component

Programs/Administrative Functions	Comments

Prepared by _____   Date _____

Reviewed by _____   Date _____

EXHIBIT 2

CHAPTER IV

VULNERABILITY ASSESSMENTS

A vulnerability assessment is a review of the susceptibility of a program
or function, subject to the guidelines, to the occurrence of waste, loss,
unauthorized use, or misappropriation. More specifically, a vulnerability
assessment is intended to determine the likelihood that situations exist in
which:

(1) obligations and costs are not in compliance with applicable law;

(2) funds, property, and other assets are not adequately safeguarded
against waste, loss, unauthorized use, or misappropriation; and

(3) revenues and expenditures applicable to agency operations are not
properly recorded and accounted for and therefore do not permit
the preparation of accounts and reliable financial and statistical
reports or the maintenance of accountability over assets.

As indicated, however, the internal control evaluation process does not
stop with vulnerability assessments since, by themselves, vulnerability
assessments do not necessarily identify weaknesses or result in
improvements. Rather, vulnerability assessments are the mechanism with
which an agency can determine the relative potential for loss in these
programs and functions, and then, after giving consideration to such
relevant factors as management priorities, resource constraints, etc.,
schedule internal control reviews and related actions.

A vulnerability assessment consists of the following three steps:

1. Analysis of the general control environment.

2. Analysis of inherent risk.

3. Preliminary evaluation of safeguards.

ANALYSIS OF GENERAL CONTROL ENVIRONMENT

The environment in which activities are conducted has a major impact on the effectiveness of internal control within an agency. Several factors determine the general control environment, including the following drawn from the General Accounting Office document, Executive Reporting on Internal Controls in Government and the American Institute of Certified Public Accountants document, Report on the Special Advisory Committee on Internal Accounting Control:

* Management Attitude -- Management recognition of the importance of and commitment to the establishment and maintenance of a strong system of internal control as communicated to employees through actions and words.

* Organizational Structure -- The identification of organizational units to perform the necessary functions and the establishment of appropriate reporting relationships.

* Personnel -- the competence and integrity of the organization's personnel.

* Delegation and Communication of Authority and Responsibility -- Appropriate delegation or limitation of authority in a manner that provides assurance that responsibilities are effectively discharged.

* **Policies and Procedures** -- The definition, documentation and dissemination of information to all employees as to how the organization is intended to perform in various situations.

* **Budgeting and Reporting Practices** -- The specification and communication of organizational goals and the extent of their accomplishment.

* **Organizational Checks and Balances** -- The establishment of an appropriate level of financial and other management controls and internal auditing.

* **ADP Consideration** -- When utilized, an awareness of the strengths and exposures inherent in a system that uses ADP and the existence of appropriate controls.

An evaluation of the general control environment is the first step in the vulnerability assessment process. It should be performed by determining whether the characteristics of a strong general control environment, as described above, exist by (a) reviewing documented policies and procedures; (b) talking with management and other personnel; (c) observing practices; and (d) drawing upon a familiarity with the operation.

This evaluation may be performed for the component as a whole, or individually for each program and administrative function subject to the guidelines that is carried out within the component. The determining factors would be the size, nature, and degree of centralization of the programs and functions conducted within the agency component.

Exhibit 3 presents a form which may be useful in making the analysis.

Agency Component: _____

Analysis of General Control Environment

Program/Administrative Function -- _____

Factor	Evaluation		Comments
	Satisfactory	Other	
Management Attitude			
Organizational Structure			
Personnel			
Delegation and Communication of Authority and Responsibility			
Policies and Procedures			
Budgeting and Reporting			
Organizational Checks and Balances			
ADP Considerations			
Other Factors			

Overall Evaluation:

Prepared by _____   Date _____

Reviewed by _____   Date _____

EXHIBIT 3

ANALYSES OF INHERENT RISK

The second step in the vulnerability assessment process is the performance
of an analysis, for each identified program and administrative function
subject to these guidelines, of the inherent potential for waste, loss,
unauthorized use, or misappropriation due to the nature of the activity
itself. Matters to be considered in the analysis should include, but need
not be limited to, the following:

- Purpose and characteristics
- Budget level
- Impact outside the agency
- Age and life expectancy
- Degree of centralization
- Special concerns
- Prior reviews
- Management responsiveness

Purpose and Characteristics

The purpose and characteristics of these program or administrative
functions should be considered, and any aspects that make the activity
susceptible to waste, loss, unauthorized use, or misappropriation noted.
Knowledge of the purpose and characteristics can be obtained, if not
already available, by reviewing such background material as the relevant
enabling legislation and legislative history, regulations, statements of
missions, goals and objectives, operating procedures and policies, and
budget materials. The following matters should be noted, particularly
since they often tend to contribute to fraud, waste and abuse:

- Broad or vague legislative authority or regulations.
- Cumbersome legislative or regulatory requirements.
- Broad or vague missions, goals or objectives.

* High degree of complexity.
* Existence of third party beneficiaries.
* Activities involving the payment of entitlement monies.
* Activities operating under severe time constraints.
* Activities involving the handling of cash receipts.
* Activities involving approval of applications, granting of authority, certifications, issuance of licenses or permits, inspections, or enforcement.

Budget Level

Programs or activities involving large amounts of money are susceptible to greater amounts of waste, loss, unauthorized use, or misappropriation than programs or activities involving small amounts. Accordingly, the level of funding, including personnel time allocated to the program or function, should be determined by reviewing the agency budget and supporting materials. For certain activities, the budget may not reveal the total money involved so estimates should be made and/or other financial measures considered. For example, for a function such as property management, a separate budget often does not exist. In order to measure the full financial significance of this function, the value of controlled property must be determined.

Impact Outside the Agency

Government programs and functions often have considerable financial and nonfinancial impact on persons and organizations outside the agency. For example, activities such as the issuance of registrations or permits, standard-setting, rate-making, and licensing can affect significantly economic status, health, safety, etc. When a program has such impacts, it may be susceptible to external pressures that might circumvent internal controls. Hence, impact outside the agency should be considered.

Information concerning potential impact can usually be obtained from such sources as budget documents, program descriptions, and media and public interest group reports.

Age and Life Expectancy

Consideration should be given to the age and life expectancy of the program or administrative function. New (in existence less than two years), changing (undergoing substantial modification or reorganization), or phasing out (to be eliminated within 1 or 2 years) programs should be considered more susceptible to waste, loss, unauthorized use, or misappropriation than stable programs (in existence for more than two years and not expected to phase out within two years). The reasons are:

* New or changing programs may lack written policies or procedures, lack adequate resources, have inexperienced managers, lack devices to measure program performance, and in general have considerable confusion associated with them.

* Programs that are phasing out may lack adequate resources or may involve close-out activities for which controls have not been developed and/or large amounts of money or other resources which must be accounted for. Also, personnel often lose interest and motivation when a program is phasing out.

Degree of Centralization

The extent to which the program or administrative function is conducted in a centralized or decentralized mode should be considered. Specifically, a determination should be made as to whether the activity is:

* Federal Centralized -- Managed and controlled on a day-to-day basis in a centralized Federal agency system.

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* Federal Decentralized -- Managed and controlled on a day-to-day basis by Federal agency field installations or staffs.

* Participant Administered -- Managed and controlled on a day-to-day basis by a non-Federal organization. Programs supported by grants, contracts or loans would fall into this category.

* Other -- Managed and controlled on a day-to-day basis by some combination of the above or by other means.

Different degrees of centralization are appropriate for different types of activities. The evaluation should consider whether the degree of centralization is appropriate for the activity being conducted.

Special Concerns

Often, the existence of special concern for an activity may be indicative that for some reason it is highly susceptible to waste, loss, unauthorized use, or misappropriation, and should be treated as such. Consideration, therefore, should be given as to whether the program or administrative function has been the focus of the following types of special attention:

* Special interest exhibited by the President, Congress, OMB, or the Secretary.
* Deadlines set by legislation.
* Media attention.
* Litigation.

If special attention has been focused on the program or function, special problems related to its exposure to waste, loss, unauthorized use, or misappropriation may exist, and an attempt should be made to identify such problems. Also, consideration should be given as to whether the special attention given the program is, in and of itself, a source of pressure that might create a vulnerability.

Prior Reviews

Prior audit reports submitted by the Inspector General, the General Accounting Office, and others; internal evaluations; Congressional reports; and consulting reports should be reviewed for any indications that the program or administrative function has previously been subject to losses due to waste, loss, unauthorized use, or misappropriation. The amounts of estimated losses, if any, and the period covered by the prior review should be considered.

Programs or functions with minimal audit coverage or with significant and repeated findings should be considered more susceptible to waste, loss, unauthorized use, or misappropriation.

Management Responsiveness

Management's responsiveness to recommendations from its OIG, GAO, and other evaluation groups should be considered. This would include actions taken to correct problems brought to management's attention as a result of prior reviews. A lack of responsiveness suggests a higher degree of susceptibility to waste, loss, unauthorized use, or misappropriation.

* * * * *

The list of control objectives contained in Appendices B and B-1 may be useful in identifying certain risks that should be considered for each of the programs and functions being assessed.

PRELIMINARY EVALUATION OF SAFEGUARDS

The third step in the vulnerability asessment process is the making of a preliminary judgment regarding the existence and adequacy of internal control over the specific programs and administrative functions subject to the guidelines. The key consideration should be whether appropriate controls are in place to prevent or at least minimize waste, loss, unauthorized use, or misappropriation.

As stated, an in-depth review of the existing controls is not appropriate at this stage. Rather, the evaluator's judgment should be based largely on his or her knowledge of the existence and functioning of safeguards that protect the activity's resources from waste, loss, unauthorized use, or mismanagement. However, the evaluation must be thoughtful and based on a working knowledge of the program or administrative function. Judgments made without knowledge of the situation are usually not sufficiently reliable.

SUMMARIZING THE RESULTS OF THE VULNERABILITY ASSESSMENTS

The completion of the three steps permits the assessor to make an overall assessment of (1) the adherence of the program or administrative function's internal control system to at least some of the prescribed internal standards, and (2) the vulnerability of the program or administrative function itself. The assessment should be documented (see Exhibits 4 and 5 for suggested forms) and a conclusion reached as to overall vulnerability. Care should be taken to ensure that the ratings, which can be a subjective judgment or a numerical score, are done consistently throughout the entire organization.

Agency Component: _____

Assessment of Compliance with Standards of Internal Control
Based on Completion of a Vulnerability Assessment

Program/Administrative Function -- _____

Standard	Compliance (Yes, No, N/A)	Comments
Reasonable assurance		
Attitude		
Competent personnel		
Internal control objectives*		
Internal control techniques*		
Documentation		
Recording of transactions*		
Execution of transactions*		
Separation of duties		
Supervision		
Access to Resources		

OVERALL COMMENTS: _____
_____
_____

Prepared by _____   Date _____

Reviewed by _____   Date _____

*NOTE: Sufficient analysis will probably not have been done at this point to support an assessment of compliance with those standards marked with an asterisk. If that is true, mark N/A (not applicable) in the second column.

EXHIBIT 4

Agency Component: _____

Overall Vulnerability Assessment

Program/Administrative Function -- _____

OVERALL EVALUATION OF GENERAL CONTROL ENVIRONMENT: _____

ANALYSIS OF INHERENT RISK: _____

Factor	Rating	Comments
Purpose and Characteristics		
Budget Level		
Impact Outside the Agency		
Age and Life Expectancy		
Degree of Centralization		
Special Concerns		
Prior Reviews		
Management Responsiveness		
Other Factors		

OVERALL EVALUATION OF INHERENT RISK: _____

PRELIMINARY EVALUATION OF SAFEGUARDS: _____

OVERALL VULNERABILITY: _____

OTHER COMMENTS (PROBLEMS REQUIRING IMMEDIATE ACTION, DEFICIENCIES NOTED, ETC.) _____

Internal Control Review Scheduled For _____

To be Performed By: _____

Prepared by _____   Date _____

Reviewed by _____   Date _____

EXHIBIT 5

Problems or weaknesses requiring immediate corrective action may be
observed during the performance of the vulnerability assessments. For
instance, a program may be assessed in which the controls are perceived to
be grossly inadequate and there is a strong possibility of loss if
corrective action is not taken immediately. Such situations should be
brought to the attention of the appropriate agency official as soon as
possible in order that appropriate corrective actions can be taken
promptly.

DEVELOP PLAN FOR SUBSEQUENT ACTIONS

The next step in the process is to use the summarized vulnerability
assessments to determine appropriate subsequent actions. It is important
at this point to remember the overall objective of the internal control
evaluation process, namely, to bring about a strengthening of internal
control systems in a cost-effective manner.

One approach may be to classify the vulnerability of each of the programs
and administrative functions subject to these guidelines in such a way as
to facilitate the establishment of a prioritized schedule for internal
control reviews, e.g., highly vulnerable, requiring a detailed review of
internal controls; moderately vulnerable, permitting less intensive and
less frequent internal control reviews; low vulnerability, etc.

Another approach would be to consider a series of options for each of the
program and administrative functions. This could be done by first
evaluating the degree and causes of the vulnerabilities; then considering
management priorities, resource availability, and other management
initiatives underway; and finally determining the appropriate courses of
action. These might consist of:

- Scheduling and conducting an internal control review.

- Requesting an audit.

- Establishing increased or improved monitoring procedures.

- Developing and conducting training programs for the staff.

- Issuing clarifying instructions.

- Modifying procedures or documents.

An approach such as the latter can help to ensure that resources devoted to the internal control evaluation and improvement process are used in an effective and efficient manner.

CHAPTER V

INTERNAL CONTROL REVIEWS

An internal control review is a detailed examination of a system of
internal control to determine whether adequate control measures exist and
are implemented to prevent or detect the occurrence of ootential risks in
a cost effective manner.

Six recommended steps for an internal control review are:

* Identification of the event cycles.

* Analyses of the general control environment.

* Documentation of the event cycle.

* Evaluation of the internal controls within the event cycle.

* Testinq of the internal controls.

* Reportinq the results.

This Chapter describes how to perform these six steps.

IDENTIFICATION OF THE EVENT CYCLES

Event cycles are the processes used to initiate and perform related
activities, create the necessary documentation, and gather and report
related data. In other words, an event cycle is a series of steps taken
to get something done. Each program and administrative function performed
within an agency or agency component contains one or more event cycles.
For example, an entitlement program could contain the following event
cycles: information gathering and verification, eligibility determination,
information processing and record keeping, payment, and monitoring. The
event cycles for an administrative function could include payroll,
procurement of supplies and materials, correspondence handling, etc.
(Appendices B and B-1 present event cycles commonly found in Federal
Government agencies. The General Accounting Office, professional
associations, and private organizations also publish lists of common event
cycles).

Event cycles provide the focal points for the conduct of internal control
reviews. Accordingly, the first step in the internal control review phase
is to identify the event cycles in the program or administrative function
which are subject to the guidelines and which are selected for an internal
control review. The sources of information for developing such a list
would be Appendix B or similar lists, the vulnerability assessment for the
program/function, legislation, regulations, policy statements, procedures
manuals, management interviews, etc. Exhibit 6 provides a form on which
the cycles can be listed.

A determination must then be made as to which event cycles are to be
reviewed. The results of the vulnerability assessment should be helpful
in making this determination, with areas identified as the cause of a
highly vulnerable classification being given the highest priority.
Documentation should be maintained.

Agency Component: _____

List of Event Cycles Within Programs

and Administrative Functions

Program/Administrative Function - _____

Event Cycles	Comments

Prepared by _____   Date _____

Reviewed by _____   Date _____

EXHIBIT 6

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ANALYSIS OF THE GENERAL CONTROL ENVIRONMENT

The environment in which the cycle operates has a major impact on the effectiveness of internal control. Therefore, an important part of an internal control review is an evaluation of the general control environment, i.e., the management attitude, organization structure, personnel, delegation and communication of authority and responsibility, policies and procedures, budgeting and reporting practices, organizational checks and balances, etc. Analysis of the general control environment performed for the vulnerability assessment can be referred to and updated.

DOCUMENTATION OF THE EVENT CYCLE

The next step is to document the event cycle in order to obtain a thorough understanding of how it operates. This is accomplished by interviewing the persons involved in the cycle, reviewing existing documentation, observing the activity, and then preparing either a narrative explanation or a flow chart, accompanied by pertinent narrative information in sufficient detail to permit an in-depth analysis of the existence and adequacy of internal controls. The documentation should identify such things as the procedures, the personnel performing the procedures, and the forms and records developed and maintained.

Regardless of the method used, it is advisable to review the completed documentation with the persons providing the information, and, if necessary, track one or two transactions through the process. Both procedures will assure that the documentation and the understanding of the cycle are accurate.

EVALUATION OF THE INTERNAL CONTROLS WITHIN THE EVENT CYCLES

The fourth step in the process is to evaluate the event cycle by reviewing the documentation and deciding whether the system, at least as defined, is sufficient to provide reasonable assurance that obligations and costs are in compliance with applicable law; the agency's funds, property, and other assets are properly safeguarded; and the revenues and expenditures are properly recorded to permit the preparation of reliable financial and statistical information. The manner in which this is done is to:

* Ascertain the control objectives for the event cycle. Control objectives are desired goals or conditions for a specific event cycle that reflect the application of the overall objectives of internal control to that specific cycle. If control objectives are achieved, the potential for the occurrence of waste, loss, unauthorized use, or misappropriation is significantly decreased.

    The control objectives for an event cycle should be written. This documentation should be reviewed to determine whether the list of objectives for each event cycle is complete, logical, and relevant to the event cycle. If the control objectives are not adequately documented, such documentation should be developed and maintained as part of the overall documentation of internal controls.

- Examine the documentation and ascertain whether appropriate <u>internal</u> <u>control techniques</u> are in place to enable the control objectives to be met in an efficient and effective manner. Internal control techniques are the processes or documents that enable the control objectives to be achieved.

Control techniques should be defined in writing. This documentation should be reviewed to determine whether it provides reasonable assurance that the control objectives can be met in a consistent, efficient, and effective manner. If the control techniques are not adequately documented, such documentation should be developed and maintained as part of the overall documentation of the internal controls.

The relationship between this and the prior task and the inherent risks in an event cycle cannot be overemphasized. Control objectives are established because a risk exists; internal control techniques are implemented to prevent the specific risk from occurring. For example, a payroll system contains the risk of people getting paid for time not worked. An appropriate control objective would be that payments are made only in return for services. An internal control technique could be that time sheets include approval by a supervisor that the payment made is only for services actually performed.

It is important to remember that there are inherent limitations that can constrain an agency's efforts to maintain effective internal control. Examples include budget constraints, statutory or regulatory restrictions, staffing limitations, and other priorities. These constraints should be considered when evaluating the appropriateness of the control objectives and internal control techniques.

- Identify whether there are any internal control techniques that are excessive, thereby creating inefficiencies and unnecessary costs.

A form that may be useful in documenting this information is presented in Exhibit 7. Appendices B and B-1 presents appropriate control objectives for common event cycles. Similar lists can be obtained from the General Accounting Office, professional associations, and private organizations' publications.

The results of this process are an identification of (a) necessary internal control techniques (whose functioning has to be tested, as discussed in the next section); (b) control objectives for which the control techniques are not adequate and system corrections must be made; and/or (c) control techniques that are unnecessary and can be eliminated.

TESTING OF THE INTERNAL CONTROLS

The final step in an internal control review is the testing of the necessary control techniques to determine whether such controls are functioning as intended. This may be done by selecting a sample of transactions and reviewing the documentation for those transactions, as well as making other observations and inquiries, and ascertaining whether the specified techniques are satisfactorily employed. Various sampling procedures may be useful for enhancing the effectiveness of this process. The testing of the ADP systems may often require the use of advanced review procedures.

Sometimes a specified control technique will appear to be inadequate for a given condition or will not be functioning properly. In those instances, the reviewer should evaluate whether personnel are compensating for the shortcoming with other safeguards, or whether compensating controls exist in interrelated systems not subject to review.

The reviewer should complete this testing step by noting any necessary control techniques not functioning as intended or not compensated for. He should also consider how such shortcomings should be addressed, i.e., by instituting new controls, improving existing controls, or accepting the risk associated with the shortcoming. A form for such notations is presented in Exhibit 8.

Agency Component: _____

List of Internal Controls

Program/Administrative Function - _____

Event Cycle _____

Control Objectives	Control Technique	Strength (S) Weakness (W) Excessive (E)	Comments

Prepared by _____ Date: _____

Reviewed by _____ Date: _____

EXHIBIT 7

Agency Component: _____

Tests of Internal Controls

Program/Administrative Function - _____   Event Cycle _____

Necessary Control Techniques	Functioning (Yes or No)	Adequate (Yes or No)	Comments and Recommendations

Prepared by _____   Date _____

Reviewed by _____   Date _____

EXHIBIT 8

REPORTING THE RESULTS OF THE INTERNAL CONTROL REVIEWS

Two types of reports should result from the internal control reviews. The
first are the reports for initiating corrective action, prepared for the
managers of the programs and administrative functions and other line
managers. These reports, which may be written or oral, are discussed in
the remainder of this chapter. The second type of report, discussed in the
next chapter, is necessary to support the agency head's statement to the
President and the Congress.

Reports intended to obtain corrective action should contain an identi-
fication of weaknesses within the system and recommendations as to how the
weaknesses can be corrected. Recommendations for possible improvements in
the economy and efficiency of the internal controls should also be made, if
appropriate.

More specifically, attention should be given to the following:

* In what ways is the general control environment inadequate to
  provide the necessary atmosphere for the appropriate functioning of
  specific controls?

* In what areas are necessary control techniques nonexistent or
  inadequate?

* In what areas are necessary control techniques not functioning as
  intended?

* In what areas are control techniques excessive, thereby fostering a
  lack of economy or creating inefficiencies?

* In what ways are executive, legislative, or other management
  requirements excessive, thereby creating inefficiencies?

These reports should include recommendations for how such situations could
be corrected or improved. In evaluating possible alternatives, considera-
tion should be given to the costs and expected benefits of changes in
order that control objectives can be achieved in a cost-effective manner.
While it is sometimes difficult to determine the exact costs and benefits
of suggested improvements, it is desirable at least to estimate these
amounts so that controls are not instituted that cost more than they
save.

FOLLOW-UP ACTIONS

Vulnerability assessments and internal control reviews and reports should
not be an end in themselves. The recommendations should be considered by
management on a timely basis and the appropriate corrective actions taken
as promptly as possible. A formal follow-up system should be established
that logs and tracks recommendations and target dates, provides assistance
for the development of plans for implementation of the corrections, and
monitors whether the changes are made as scheduled. The existing audit
follow-up system could be used for this purpose.

CHAPTER VI

REPORTING UNDER THE FEDERAL MANAGERS' FINANCIAL INTEGRITY ACT

The Federal Managers' Financial Intearity Act of 1982 reauires a statement
from each agency head to the President and to the Conaress as to whether
the aaency has established a system of internal accountina and
administrative control in accordance with standards prescribed by the
Comptroller General; and whether this system provides reasonable assurance
that:

* Obliaations and costs are in accordance with applicable law;

* Funds, property and other assets are safeauarded aqainst waste, loss,
  unauthorized use, or misappropriation; and

* Revenues and expenditures are properly recorded and permit the
  preparation of reliable financial and statistical reports.

An aaency that follows these guidelines will be able to comply with the
Act.

BASIC STATEMFNT

Specifically, an aaency followina these auidelines will have the followina
in place:

* Responsibility for directing a proaram to comoly with the Act
  assigned to a hiah level official.

* Agency internal control directives, regulations and other
  materials published and disseminated throughout the organization.

* Documentation of the conduct and results of ongoing vulnerability
  assessments and internal control reviews.

* Documentation of corrective actions taken to strengthen the internal
  control systems.

* Inclusion of internal control elements in performance appraisals.

* Written assurances from the designated senior official responsible
  for coordinating the agencywide effort and the heads of the agency's
  various organizational units, and comments from the Inspector General
  or equivalent. (See Appendices C, D, and E for examples)

The existence of these elements, collectively, provides strong evidence
that management, and other personnel, throughout the organization, are
cognizant of the importance of internal control and that the necessary
evaluation and improvement processes are taking place. These are the two
major conditions that support transmittal of the required statement.

MATERIAL WEAKNESSES

The Act also requires an agency to include within the statement to the
President and the Congress a report listing identified material weaknesses
in internal accounting and administrative control and a schedule for their
correction. A material weakness is a situation in which the designed
procedures or the degree of operational compliance therewith does not
provide reasonable assurance that the objectives of internal control
specified in the Act are being accomplished. The size of the agencies and
the complexities of their activities are such that even though the elements
listed in the previous section are present, material weaknesses, as
defined, could exist.

Another step, therefore, in preparing the statement to the President and the Congress is for the senior official responsible for coordinating the agencywide effort to use the internal reporting system described in Chapter II to determine whether any material weaknesses in internal accounting and administrative control of significance to the President and the Congress were uncovered by the evaluation process. If there were, a brief description should be obtained along with the plans and schedule for correcting the weakness. This information would be incorporated into the report.

Finally, the report can and should be used to demonstrate that the planned corrective actions have been taken. This can be done by including in the statement the status of actions taken to correct weaknesses in internal accounting and administrative control identified in prior years' statements.

CLASSIFIED MATTERS

The statement must also be made available to the public. However, relevant information that is (1) specifically prohibited from disclosure by any provision of law; or (2) specifically required by Executive order to be kept secret in the interest of national defense or the conduct of foreign affairs, should not be included in the statement made available to the public.

*   *   *   *   *

A recommended statement format is provided in Appendix F.

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GLOSSARY

Agency -- Any executive department or independent establishment in the Executive branch of the Government but not including any Government corporation or agency subject to the Government Corporation Control Act, nor the United States Postal Service.

Agency Component -- A major organization, program, or functional subdivision of an agency having one or more separate systems of internal control.

Assessable Unit -- A program or administrative function or subdivision thereof which is to be the subject of a vulnerability assessment.

Control Objective -- A desired goal or condition for a specific event cycle that reflects the application of the overall objectives of internal control to that specific cycle.$\underline{1/}$

Event Cycle -- The processes used to initiate and perform related activities, create the necessary documentation, and gather and report related data.

$\underline{1/}$ Control objectives are not absolutes. Since the achievement of control objectives can be and is affected by such factors as budget constraints, statutory and regulatory restrictions, staff limitations, and cost-benefit considerations, the lack of achievement of control objectives does not necessarily represent a defect or deficiency in internal control.

General Control Environment -- Various environmental factors that can
    influence the effectiveness of internal controls over program and
    administrative functions.

Inherent Risk -- The inherent potential for waste, loss, unauthorized use,
    or misappropriation due to the nature of an activity itself.

Internal Control -- The steps that an agency takes to provide reasonable
    assurance that obligations and costs are in compliance with
    applicable law; funds, property, and other assets are safeguarded
    against waste, loss, unauthorized use, or misappropriation; and
    revenues and expenditures applicable to agency operations are
    properly recorded and accounted for to permit the preparation of
    accounts and reliable financial and statistical reports and to
    maintain accountability over the assets.

Internal Control Review -- A detailed examination of a system of internal
    control to determine whether adequate control measures exist and are
    implemented to prevent or detect the occurrence of potential risks in
    a cost effective manner.

Internal Control System -- The sum of the organization's methods and
    measures used to achieve the objectives of internal control.

Internal Control Technique -- A process or document that is being relied
    on to efficiently and effectively accomplish a control objective and
    thus help safeguard an activity from waste, loss, unauthorized use,
    or misappropriation.

Material Weakness -- A situation in which the designed procedures or degree of operational compliance therewith does not provide reasonable assurance that the objectives of internal control specified in the Act are being accomplished.

Vulnerability Assessment -- A review of the susceptibility of a program or function to the occurrence of waste, loss, unauthorized use, or misappropriation.

SAMPLE PARTIAL INVENTORY OF COMPONENTS,

PROGRAMS, AND ADMINISTRATIVE FUNCTIONS

This appendix illustrates an approach that a department/agency might use to inventory its components and programs and administrative functions for purposes of conducting vulnerability assessments. The example is based on operations of the Department of Commerce.

Component (1)	Program and Administrative Function (2)
Patent and Trademark Office	Patent process
	Trademark process
	Information dissemination
	Administration
National Bureau of Standards	Measurement, research, and standards
	Engineering measurements and standards
	Computer sciences and technology
	Central technical support
	Administration
National Technical Information Service	§
Bureau of the Census	§
Office of Administration	Program planning and personnel
	Information and resource management
	Operations/general services
	Controller's office activities
Office of the Inspector General	Audit
	Investigative
	Policy and planning
Office of General Counsel	§
Office of Public Affairs	§
Office of Congressional Relations	§

(1) This is a partial listing. Other bureaus would also be included as individual components.

(2) Programs and administrative functions have only been included for a few components. In actual use programs and administrative functions for the other components would also be listed.

COMMON EVENT CYCLES AND SUGGESTED CONTROL OBJECTIVES

IN FEDERAL AGENCIES

This appendix presents a list of event cycles commonly found in Federal agencies and agency components. Also included are certain types of assets that are highly susceptible to loss and for which controls are vital, e.g., cash, materials and supplies. Finally, the list provides suggested control objectives for each event cycle/type of asset.

The purpose of the list is to help agencies and agency components identify the event cycles and types of assets and control objectives that need to be considered when performing internal control reviews. The list is neither all-inclusive nor mandatory. Agencies will probably operate event cycles not included on the list and certainly will not operate all cycles included in the list. Also, internal control objectives listed may not be appropriate for a particular situation. Accordingly, each agency should use this list as a guide to identify event cycles and develop internal control objectives for its programs and administrative functions that are covered by these guidelines. (Similar lists are available from the General Accounting Office, professional associations, and private organizations.)

Finally, in establishing control objectives and control techniques, as well as in performing internal control reviews, agencies should be mindful of the inherent limitations (budget constraints, statutory and regulatory restrictions, staffing limitations, etc.) which constrain agency action. The lack of achievement of control objectives due to these systemic limitations or cost-effectiveness considerations cannot and should not be considered defects or deficiencies in internal controls.

I.   OPERATIONS CYCLES

The operations cycles are intended to encompass the agency's program activities that are subject to these guidelines. The differences in agency missions make it impossible to develop a representative list of operations cycles and corresponding control objectives. Hence, each agency/agency component should examine its own programs and define the appropriate event cycles and control objectives.

The following are the operations cycles for some typical government programs and the internal control objectives for these cycles.

Production Activities

The primary internal control objectives normally associated with production activities include the following:

(1)   A production plan is authorized defining the products to be manufactured, the timing and quantities of production, and the needed inventory levels.

(2)   Lead time schedules are timely and accurate, and permit realistic due dates.

(3)   Product quality and engineering standards exist and are monitored to ensure that quality products are produced as efficiently as possible.

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(4) Production controls exist to ensure that the plant is operating with the optimum mix of resources including labor, equipment, and materials.

(5) Production controls exist to prevent the manufacture of unauthorized products or quantities of products.

(6) Resources used and products completed are timely and accurately reported.

(7) Production costs are computed accurately and recorded timely.

(8) Recorded balances of inventory, property, and related activity are periodically substantiated and evaluated.

Loans and Loan Guaranties

The primary internal control objectives normally associated with loans and loan guaranties include the following:

(1) Applications for loans and loan guaranties are evaluated for appropriateness of eligibility, collateral, if required, and other qualifying criteria prior to approval.

(2) Security interest in property used as collateral is properly recorded, filed, and documents secured by a responsible custodian.

(3) Accurate receivables agings are prepared systematically and timely.

(4) Loan and loan guaranty repayments are collected, controlled and reported in a manner that is consistent with applicable appropriations, other law, and policy.

(5) Periodic estimates are made of uncollectible loan balances with such estimates timely reported to management.

(6) Proper write-off, conversion, and settlement or forgiveness of delinquent loans is assured.

Grants

The primary internal control objectives normally associated with grants include the following:

(1) Accurate maintenance of the factors used in distribution formulas for entitlement grants.

(2) Grantees' program eligibility requirements are sufficiently detailed to ensure that the program beneficiaries and other interested parties understand the qualifications to receive prescribed benefits.

(3) Grantees maintain sound organizational, budgetary and accounting systems that are periodically reviewed and evaluated.

(4) Grantees' procurement procedures comply with regulations.

(5) Grantees properly maintain, safeguard, and account for government-financed property and equipment.

(6) Grantees maintain current cost allocation plans and overhead rates.

(7) Grantees are paid only for allowable costs and amounts.

(8) Financial and compliance audits of grantee activity performed at least once every two years.

(9) Prompt and appropriate grant close-out actions are taken.

II. INTERNAL MANAGEMENT AND ADMINISTRATION CYCLES

Organization

The primary internal control objective normally associated with organization includes the following:

(1) Responsibility for the performance of all duties is specifically assigned and appropriately separated along with necessary delegations of authority to sufficient numbers of qualified employees.

Personnel Policies and Practices

The primary internal control objectives normally associated with personnel policies and practices include the following:

(1) Personnel ceilings are strictly enforced.

(2) Recruitment, training, evaluation, and termination practices are operating in accordance with applicable laws and reaulations and in a manner that promotes economy and efficiency of operations.

(3) Appropriate standards of conduct are communicated and enforced.

(4) Employment records are promptly, completely and accurately estalished with proper safeguards against unauthorized access or the preparation of ficticious records.

Administrative Support Services

The primary internal control objectives normally associated with administrative services include the following:

(1) Services provided meet the organization's legitimate needs.

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(2)   Services are conducted in a manner that promotes economy and
      efficiency in operations.

(3)   Safeguards exist to prevent unauthorized or wasteful use of such
      services.

(See Appendix B-1)

Advisory and Technical Services

The primary internal control objectives normally associated with
advisory and technical services include the following:

(1)   Services provided meet the organization's legitimate needs.

(2)   Services are conducted in a manner that promote economy and
      efficiency in operations.

(3)   Safeguards exist to prevent unauthorized or wasteful use of such
      services.

Security and Safeguarding of Classified Material

The primary internal control objectives normally associated with
security and safeguarding classified material are the following:

(1)   Documents are appropriately classified.

(2)   Appropriate safeguards exist to prevent unauthorized access to
      classified materials.

Audit Followup

The primary internal control objectives normally associated with audit followup include the following:

(1) Audit resolution and corrective actions pertaining to audit recommendations are made on a timely basis.

(2) Audits resolved and corrective action on audit recommendations are scheduled in accordance with specific criteria.

(3) Accurate records of the status of audit reports and recommendations are maintained through the entire process of resolution and corrective action.

(4) Major disagreements between the audit organization and agency management or contracting officials are resolved on a timely basis.

(5) Resolution actions are consistent with law, regulation, and Administration policy.

(6) Resolution and correction action on recommendations involving more than one program, agency, or level of government are coordinated.

(7) Required reports are reliable, accurate, and submitted on a timely basis.

(8) Claims arising from audit disallowances are promptly recorded as receivables and collected in accordance with the Federal Claims Collection Act.

(9) Interest on audit-related debt is charged promptly, without regard to whether the disallowance is or will be appealed.

III. INFORMATION PROCESSING AND REPORTING CYCLES

Information Collection

The primary internal control objectives normally associated with information collection are the following:

(1)   Information collected is meaningful and useful.

(2)   Information collected is reliable.

(3)   Information is arranged in an orderly fashion.

(4)   Information is maintained on a current basis.

Correspondence Handling

The primary internal control objectives normally associated with correspondence handling are the following:

(1)   Correspondence is channeled to the appropriate parties.

(2)   Replies are made promptly, accurately and responsively.

Records Maintenance

The primary internal control objectives normally associated with records maintenance are the following:

(1)   Records are readily available.

(2)   Records are adequately protected.

(3)   Only necessary records are retained.

Automatic Data Processing

The primary internal control objectives normally associated with automatic data processing are as follows:

(1) Proper authorization of transaction inputs, adequate edit checks, and necessary safeguards of sensitive input forms to insure accurate, proper, complete and timely entry of information.

(2) Data is safeguarded to prevent unauthorized access, improper changes, or loss.

(3) Appropriate controls exist to detect unauthorized use of the system.

(4) Outputs produced accurately, completely and timely.

IV. ASSET AND LIABILITY CYCLES

Cash

The primary internal control objectives normally associated with cash include the following:

(1) Physical security safeguards maintained where cash is stored and processed.

(2) Cash, check signing machines, signature dies, and blank, partially prepared, mutilated, and voided checks are protected from unauthorized use.

(3) Receipts are recorded properly and timely and deposited promptly.

(4) Disbursements are recorded properly and timely.

(5) Effective cash management system is maintained.

Negotiable Instruments and Other Investments

The primary internal control objectives normally associated with negotiable instruments and other investments include the following:

(1) Physical security safeguards are maintained where negotiable instruments and other investments are stored and processed.

(2) Bonds, drafts, and other securities are protected from unauthorized use.

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(3) Timely and accurate accountinq is maintained.

(4) Investments comply with leaal reauirements.

(5) Interest and other investment income is collected promptly when due.

Letters of Credit

The orimary internal control objectives normallv associated with letters of credit include the followinq:

(1) Letters of credit are issued only to larqe dollar recipients who have a continuinq relationshio with the Federal Government and an adeouate cash manaaement system.

(2) Amounts available under letters of credit do not exceed available award authority or immediate cash needs.

(3) Assurance exists that funds are used only for intended purpose.

(4) Cash balances in recipients' hands do not exceed recipients' needs.

Receivables

The primary internal control objectives normally associated with receivables include the followina:

(1) Prompt and accurate recordina of all receivables.

(2) Ability to determine and report sources and aqe of receivables.

(3) Continuous and timely attempts are made to collect receivables due.

(4) Identification of the portion of the receivables that may not be collectible.

(5) Validity of write-offs, conversions, and settlement or foraiveness of receivables.

(6) Repayments collected, controlled and reoorted in a manner consistent with applicable law and requlations.

(7) Title to prooerty used as collateral is properly recorded, filed, and secured.

Capital Assets and Material Inventories

The primary internal control objectives normally associated with capital assets and material inventories include the following:

(1) Only authorized and needed property is procured.

(2) Receipts of property are recorded timely and accurately in source documents and accounting records.

(3) Detailed subsidiary records are maintained for individual capital assets and significant categories of material inventories and are periodically reconciled to control accounts.

(4) Periodic physical verification is made of the existence and condition of property and inventories.

(5) Physical security measures are commensurate with the size, type, and value of property.

(6) Issues, transfers, retirements, and losses are reported and accounted for timely.

(7) Assets are properly requisitioned and used exclusively for government activities.

(8) Records of asset use are accurately maintained.

Payables, Debt, and Other Liabilities

The primary internal control objectives normally associated with payables, debt, and other liabilities include the following:

(1) All payables and other claims against the Government are recorded promptly and accurately.

(2) Prepayment examinations and certifications of performance are made to ensure validity and clerical accuracy of claims prior to payment.

(3) Debt and other long-term liabilities are properly authorized, recorded and serviced in accordance with applicable laws and regulations.

Fiduciary and Trust Funds

The primary internal control objectives normally associated with fiduciary and trust funds include the following:

(1) Liabilities to others are recorded properly.

(2) Detailed subsidiary records are maintained and are periodically reconciled to control accounts.

(3) Funds are handled in accordance with applicable law and regulations.

(4) Effective control is maintained by responsible officials.

(5) Benefits and other disbursements are subject to comparable controls to other payments.

V.   RECEIPTS CYCLES

Taxes and Duties

The primary internal control objectives normally associated with taxes and duties include the following:

(1) Taxing programs are applied to all individuals and organizations subject to taxes.

(2) Tax returns and assessments are reasonably correct.

(3) All receipts are recorded accurately and timely.

(4) Receipts are safeguarded while in the custody of the agency and promptly transferred to the Treasury.

(5) Settlements, allowances, and refunds are properly authorized.

(6) Taxing programs are administered in accordance with applicable laws and regulations.

Services Rendered

The primary internal control objectives normally associated with services rendered include the following:

(1.) Revenues are recorded immediately as services are rendered with accounts receivable promptly set up and billed on a timely basis if not paid in full.

(2) Receipts are recorded accurately and timely.

(3) Receipts are safeguarded while in the custody of the agency and promptly transferred to the Treasury.

(4) Services rendered and related charges are conducted in accordance with applicable laws and regulations.

Other Sales

The primary internal control objectives normally associated with other sales include the following:

(1) Sales are recorded immediately as items are sold with accounts receivable promptly set up and billed on a timely basis for non-cash sales.

(2) Receipts are recorded accurately and timely.

(3) Receipts are safeguarded while in the custody of the agency and are promptly transferred to the Treasury.

(4) Sales of goods, property, equipment, bonds, notes, and other items are conducted in accordance with applicable laws and regulations.

Fines, Penalties, and Judgments

The primary internal control objectives normally associated with fines, penalties, and judgments include the following:

(1) Fines, penalties, and judgments are levied on or sought from individuals and organizations as required by laws or regulations.

(2) Fines and penalties are charged at the proper statutory rate.

(3) All receipts are recorded accurately and timely.

(4) Receipts are safeguarded while in the custody of the agency and
     are promptly transferred to the Treasury.

(5) Rescissions and forgivenesses are properly authorized.

Other Receivable Collections

The primary internal control objectives normally associated with other
receivable collections include the following:

(1) All receipts are recorded accurately and timely.

(2) Receipts are safeguarded while in the custody of the agency and
     are promptly transferred to the Treasury.

(3) Procedures for effecting collection, including offset and
     installment payments, are utilized on a timely basis.

Other Receipts

The primary internal control objectives normally associated with other
receipts include the following:

(1) All receipts are recorded accurately and timely.

(2) Receipts are safeguarded while in the custody of the agency and
     are promptly transferred to the Treasury.

(3) Monies are requested and received in situtions where warranted in
     accordance with applicable law and regulations.

VI. EXPENDITURE CYCLES

Payroll, Pensions and Other Fringe Benefits

The primary internal control objectives normally associated with
payroll, pensions and other fringe benefits include the following:

(1) Appropriate authority exists for the appointment, change, and termination of all personnel.

(2) Compensation and benefit payments are in accord with current statutory or regulatory limitations.

(3) Payments are made only in return for services rendered.

(4) Gross and net payroll amounts and payroll deductions are correct.

(5) Payroll charges, including fringe benefits, are recorded and distributed promptly.

(6) Timely, accurate and complete subsidiary records are maintained of vacation, sick leave and other balances.

Federal Assistance Payments to Other Governmental Units and Individuals

The primary internal control objectives normally associated with Federal assistance payments to other governmental units and individuals include the following:

(1) Disbursements are valid and properly approved.

(2) Disbursements are recorded promptly and accurately to the appropriate accounts.

(3) Payments are within budget limits and in accordance with applicable laws, regulations, and agreements.

(4) Payments are made only to eligible recipients for eligible costs.

(5) Payments are made promptly and in full.

Procurement and Acquisition

The primary internal control objectives normally associated with procurement and acquisition include the following:

(1) All purchases are authorized within budget limits and made in accordance with applicable laws, regulations, and agreements.

(2) Government has paid lowest prices commensurate with quality, service, delivery and reliability.

(3) Purchases and acquisitions are received and examined for acceptability.

(4) Disbursements are valid and properly approved.

(5) Disbursements are made on a timely basis.

(6) Disbursements are recorded promptly and accurately to the appropriate account.

Travel Advances and Reimbursements

The primary internal control objectives normally associated with travel advances and reimbursements include the following:

(1) Travel reimbursements and advances provided only for properly authorized travel .

(?) Amounts paid are in accordance with applicable government travel regulations.

(3) Reimbursements are timely, properly approved, and properly recorded to the appropriate account.

(4) Advances are liquidated within reasonable time periods.

Other Expenditures

The primary internal control objectives normally associated with other expenditures include the following:

(1) Expenditures are valid and properly approved.

(2) Expenditures are recorded promptly and accurately in the appropriate accounts.

(3) Debt service requirements, refunds, valid claims and other appropriate payments are made timely in full accordance with applicable laws, regulations, and agreements.

SUGGESTED CONTROL OBJECTIVES FOR SELECTED ADMINISTRATIVE

SUPPORT SERVICES

Included in Appendix B are suggested control objectives for the generic category administrative support services. The Office of Management and Budget has developed a series of model control systems for specific administrative support services. This Appendix presents suggested control objectives for selected administrative services drawn from those control models.

Periodicals, Pamphlets, and Audiovisual Products

* Periodicals, pamphlets, and audiovisual products are related to agency mission, contribute to solution of an identifiable need, and are appropriate in format and scope for the intended audience.

* Periodicals, pamphlets, and audiovisual products are not duplicative of other materials that convey the same message.

* Periodicals, pamphlets, and audiovisual products are produced or acquired in a cost-effective manner.

* Completed periodicals, pamphlets and audiovisual products are consistent with planned product and distributed in conformance with approved distribution plan.

Consulting and Related Services

- Services are secured for an appropriate purpose, i.e., to obtain specialized opinions or professional or technical advise which does not exist or is not available within the agency or another agency, outside points of view to avoid excessively limited judgments on critical issues, advice regarding developments in industry, university, or foundation research, opinion of noted experts whose national or international prestige can contribute to the success of important projects, or assistance to complete a necessary project within a specified period of time.

- Services are not used to perform work of a policy/decision-making or managerial nature that is the direct responsibility of agency officials; or to bypass or undermine personnel ceilings, pay limitations, or competitive employment procedures; or to aid in influencing or enacting legislation.

- Services are secured through maximum competition, without preference to former government employees.

- Payments for services bear a relation to work completed.

- Services provided meet the organization's specific needs and advice and recommendations are implemented, unless there are valid reasons to the contrary.

Long-Term Training

- Long-term training is provided only when the necessary set of knowledges or skills requires a comprehensive study program which cannot be accomplished by a series of unconnected short-term courses; the time span for the acquisition of the knowledge or skill is such that a concentrated or long-term program is most feasible; and the set of knowledges or skills is so complex, new, or unique that it cannot be readily obtained on a short-term basis or through other means.

*   Nominees continue in agency service for an appropriate period
    following completion of long-term training.

*   Long-term training is relevant to selected employees' current and/or
    projected assignments, required skills and knowledge, individual
    development plan, and career potential; and is appropriate for his or
    her commitment to the organization and Federal service.

Space Acquisition and Utilization

*   Need for and intended use of space is adequately justified.

*   Requesting unit conforms with space allowance standards.

*   Request cannot be met by realignment of existing space assignments or
    use of vacant or under-utilized space.

*   Space is leased on the most favorable basis to the Government, with
    due consideration to maintenance and operational efficiency.

*   Lease charges are consistent with prevailing scales in the community
    for comparable facilities.

*   Legal requirements, e.g., facilities for the handicapped, fire safety
    features, are satisfied.

*   Lease contains provisions necessary to administer the agreement, such
    as duration of lease, including clearly stated renewal rights; base
    for future escalations; liquidated damages provision; stated costs for
    overtime usage; and termination rights.

*   Lease conforms with agency and Administration goals and priorities and
    legal requirements.

SAMPLE LETTER FOR WRITTEN ASSURANCE TO THE

AGENCY HEAD FROM DESIGNATED SENIOR OFFICIAL

Dear (agency head):

In accordance with your delegation of responsibilities to me, I have directed an evaluation of the system of internal accounting and administrative control of (name of agency) in effect during the year ended ___. As required by the Federal Managers Financial Integrity Act, this evaluation has been conducted in accordance with Guidelines for the Evaluation and Improvement of and Reporting on Internal Control Systems in the Federal Government, issued by the Director of the Office of Management and Budget, in consultation with the Comptroller General, and accordingly included an evaluation of whether the system of internal accounting and administrative control of (name of agency) was in compliance with the standards prescribed by the Comptroller General.

The objectives of the system of internal accounting and administrative control of the (name of agency) are to provide reasonable assurance that:

-- Obligations and costs are in compliance with applicable law;

-- Funds, property, and other assets are safequarded against waste, loss, unauthorized use, or misappropriation; and

-- Revenues and expenditures applicable to agency operations are properly recorded and accounted for to permit the preparation of accounts and reliable financial and statistical reports and to maintain accountability over the assets.

The concept of reasonable assurance recognizes that the cost of internal control should not exceed the benefits expected to be derived therefrom, and that the benefits consist of reductions in the risks of failing to achieve the stated objectives. Estimates and judgments are required to assess the expected benefits and related costs of control procedures. Furthermore, errors or irreqularities may occur and not be detected because of inherent limitations in any system of internal accounting and administrative control, including those limitations resulting from resource constraints, Congressional restrictions, and other factors. Finally, projection of any evaluation of the system to future periods is subject to the risk that procedures may be inadequate because of changes in conditions or that the degree of compliance with the procedures may deteriorate. Nonetheless, I have taken the necessary measures to assure that the evaluation, identified in the first paragraph, has been conducted in a thorough and conscientious manner.

The results of the evaluation, assurances given by heads of organizational units, and other information provided indicate that the system of internal accounting and administrative control of (name of agency) in effect during the year ended (date), taken as a whole, complies with the requirement to provide reasonable assurance that the above-mentioned objectives were achieved within the limits described in the preceding paragraph. The evaluation, however, did disclose the following material weaknesses[1]:

(LIST OF MATERIAL WEAKNESSES)[1]

Attachment A to this report contains the recommended plans and schedules for correcting such weaknesses,[1] and the status of actions taken to correct weaknesses identified in prior years' reports.[2]

(SIGNATURE)

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[1] If there are no material weaknesses, this sentence should be deleted, and there would be no list or portion of Attachment A containing plans and schedules for correcting such weaknesses.

[2] If there were no actions taken during the past year to correct weaknesses, or no identified weaknesses for which corrective actions remain to be taken, this phrase would be deleted.

SAMPLE LETTER FOR WRITTEN ASSURANCE TO THE

AGENCY HEAD FROM THE HEAD OF AN ORGANIZATIONAL UNIT

Dear (agency head):

As (title) of the (name of organizational unit) of the (name of agency), I
am cognizant of the importance of internal controls. I have taken the
necessary measures to assure that the evaluation of the system of internal
control of (name of organizational unit) has been conducted in a
conscientious and thorough manner in accordance with Guidelines for the
Evaluation and Improvement of and Reporting on Internal Control Systems in
the Federal Government, issued by the Director of the Office of Management
and Budget, in consultation with the Comptroller General, and accordingly
included an evaluation of whether the system of internal accounting and
administrative control of (name of agency) was in compliance with standards
prescribed by the Comptroller General.

The objectives of the system of internal accounting and administrative
control of the (name of agency) are to provide reasonable assurance that:

-- Obligations and costs are in compliance with applicable law;

-- Funds, property, and other assets are safeguarded against waste,
   loss, unauthorized use, or misappropriation; and

-- Revenues and expenditures applicable to agency operations are properly recorded and accounted for to permit the preparation of accounts and reliable financial and statistical reports and to maintain accountability over the assets.

The concept of reasonable assurance recognizes that the cost of internal control should not exceed the benefits expected to be derived therefrom, and that the benefits consist of reductions in the risks of failing to achieve the stated objectives. Estimates and judgments are required to assess the expected benefits and related costs of control procedures. Furthermore, errors or irregularities may occur and not be detected because of inherent limitations in any system of internal accounting and administrative control, including those limitations resulting from resource constraints, Congressional restrictions, and other factors. Finally, projection of any evaluation of the system to future periods is subject to the risk that procedures may be inadequate because of changes in conditions or that the degree of compliance with the procedures may deteriorate.

The results of the evaluation, performed in accordance with the guidelines identified in the first paragraph, and other information provided indicate that the system of internal accounting and administrative control of (organizational unit) in effect during the year ended (date), taken as a whole, complies with the requirement to provide reasonable assurance that the above-mentioned objectives were achieved within the limits described in

the preceding paragraph. The evaluation, however, did disclose the following material weaknesses[1]:

(LIST OF MATERIAL WEAKNESSES)[1]

Attachment A to this report contains the (name of organizational unit's) plans and schedules for correcting such weaknesses,[1] and the status· of actions taken to correct weaknesses identified in prior years' reports.[2]

1/   If there are no material weaknesses, this sentence should be deleted, and there would be no list or portion of Attachment A containino plans and schedules for correcting such weaknesses.

2/   If there were no actions taken during the past year to correct weaknesses, or no identified weaknesses for which corrective actions remain to be taken, this phrase would be deleted.

SAMPLE LETTER FOR COMMENTS TO THE AGENCY HEAD

FROM THE INSPECTOR GENERAL OR EQUIVALENT

Dear (agency head):

I have conducted a limited review to determine whether the evaluation of the system of internal accounting and administrative control, as described in Guidelines for the Evaluation and Improvement of and Reporting on Internal Control Systems in the Federal Government, issued by the Director of the Office of Management and Budget, in consultation with the Comptroller General, has been carried out in a reasonable and prudent manner in the (agency) for the year ended (date). During this limited review, nothing came to my attention that would indicate that the (agency) did not comply with the above-mentioned guidelines.

(SIGNATURE)

SAMPLE INTERNAL CONTROL STATEMENT
(AND REPORT, IF APPLICABLE)$\underline{1/}$

Dear Mr. President:

An evaluation of the system of internal accounting and administrative control of (name of agency) in effect during the year ended (date) was performed in accordance with Guidelines for the Evaluation and Improvement of and Reporting on Internal Control Systems in the Federal Government, issued by the Director of the Office of Management and Budget, in consultation with the Comptroller General, as required by the Federal Managers' Financial Integrity Act of 1982, and accordingly included an evaluation of whether the system of internal accounting and administrative control (name of agency) was in compliance with the standards prescribed by the Comptroller General.

The objectives of the system of internal accounting and administrative control of the (name of agency) are to provide reasonable assurance that:

-- Obligations and costs are in compliance with applicable law;

-- Funds, property, and other assets are safeguarded against waste, loss, unauthorized use, or misappropriation; and

-- Revenues and expenditures applicable to agency operations are properly recorded and accounted for to permit the preparation of accounts and reliable financial and statistical reports and to maintain accountability over the assets.

The concept of reasonable assurance recognizes that the cost of internal control should not exceed the benefits expected to be derived therefrom, and that the benefits consist of reductions in the risks of failing to achieve the stated objectives. Estimates and judgments are required to assess the expected benefits and related costs of control procedures. Furthermore, errors or irregularities may occur and not be detected because of inherent limitations in any system of internal accounting and administrative control, including those limitations resulting from resource constraints, Congressional restrictions, and other factors. Finally, projection of any evaluation of the system to future periods is subject to the risk that procedures may be inadequate because of changes in conditions or that the degree of compliance with the procedures may deteriorate.

The results of the evaluation described in the first paragraph, assurances given by appropriate (name of agency) officials, and other information provided indicate that the system of internal accounting and administrative control of (name of agency) in effect during the year ended (date), taken as a whole, complies with the requirement to provide reasonable assurance that the above-mentioned objectives were achieved within the limits described in the preceding paragraph. The evaluation, however, did disclose the following material weaknesses[2] :

(LIST OF MATERIAL WEAKNESSES)[1]

Attachment A to this statement contains the (name of agency) plans and schedules for correcting such weaknesses,[2] and the status of actions taken to correct weaknesses identified in prior years' reports.[3]

(SIGNATURE)

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[1] If material weaknesses in systems subject to these guidelines are found, this sample constitutes the statement and report required by the Act. If material weaknesses are not found, this sample, as adjusted, constitutes the statement required by the Act.

[2] If there are no material weaknesses, this sentence should be deleted, and there would be no list or portion of Attachment A containing plans and schedules for correcting such weaknesses.

[3] If there were no actions taken during the past year to correct weaknesses, or no identified weaknesses for which corrective actions remain to be taken, this phrase would be deleted.

APPENDIX V

Quick Reference To Work Steps

QUICK REFERENCE TO WORK STEPS IN THE
CARE-BASED AUDIT METHODOLOGY TO REVIEW AND
EVALUATE THE OPERATIONS OF AGENCY ACCOUNTING
AND FINANCIAL MANAGEMENT SYTEMS

PREFACE

Appendix V sequentially schedules the work steps for each task under the four major audit segments. Each work step is referenced to the page where it is listed in the Audit Methodology portion of the Manual. The schedule identifies, for each work step, the type of audit(s) (i.e., entire agency, a component thereof, or specific system) for which the step is normally applicable. Also, the schedule identifies the main source(s) of the information needed to perform the work step. Finally, the schedule lists the main output (i.e., workpapers or other documenation) developed in carrying out each work step, and references the work step to Appendix VI, which fully describes the documentation and contains sample formats. The illustrative schedule on page V-3 further describes the structure and content of the work step schedules.

This quick reference to the work steps in the CARE-based audit methodology
to review and evaluate the operations of agency accounting and financial
management systems is designed to provide audit staff trained and familiar
with the audit methodology a quick reference to the work steps. This appendix
comsists of the following five segments:

--Guidance on how to use this appendix.

--General Risk Analysis Segment.

--Transaction Flow Review and Analysis Segment.

--Compliance Tests and Analysis Segment.

--Substantive Tests and Analysis Segment.

GUIDANCE ON HOW TO USE THIS APPENDIX

SEGMENT: THIS SECTION IDENTIFIES THE SEGMENT OF THE WORK TASK : This section Identifies The Task To Be Accomplished	PERFORM STEPS			MAIN SOURCE FOR INFORMATION							MAIN OUT-PUT	APPEN-DIX VI REFER-ENCE
	Considering Entire Agency as Entity	Considering Components of Agency	Considering Specific Agency System(s)	Prior FIA Work	Agency Manuals	Budget Requests Appro-pria-tions	Prior Audit Reports Such As GAO and IG	ADP Manuals and Docu-ments	Agency Files and Docu-ments		
Page Reference This sec-tion pro-vides the page ref-erence in the audit methodol-ogy that discusses the task, work ob-jective, and work steps.	OBJECTIVES: This section presents the work objective to be achieved. WORK STEPS: This section sets forth the specific work steps to be done.	This section indicates the work steps to be done based on the work scope selected for a particular review.					This section indicates the major sources of the information needed to accomplish each work step.				This section provides to the items of documentation to be pro-duced that are illustra-ted in Appen-dix VI.	

V-3

GENERAL RISK ANALYSIS
SEGMENT

The General Risk Analysis Segment Includes the following Tasks:

Task I   - Identify and Document Specific Responsibilities, Authorized Resources,
             and Organizational Structure of the Agency or Major Organizational Component
             of the Agency.

Task II   - Identify and Docoument the General Control Environment of the Agency or Major
             Organizational Component of the agency.

Task III   - Identify and Document the Financial Management Structure of the Agency or
             Major Organizational Component of the Agency.

Task IV   - Identify and Document Accounting Standards, Other System Requirements, and
             Internal Control Requirements--Control Objectives--For the Agency's Systems.

Task V   - Complete an Initial Risk Ranking of the Agency's Accounting and Financial
             Management Systems.

SEGMENT: GENERAL RISK ANALYSIS TASK I : Identify and Document Specific Responsibilities, Authorized Resources, and Organizational Structure of the Agency or Major Organizational Component of the Agency	PERFORM STEPS			MAIN SOURCE FOR INFORMATION						MAIN OUT-PUT	APPEN-DIX VI REFER-ENCE
	Considering Entire Agency as Entity	Considering Components of Agency	Considering Specific Agency System(s)	Prior FIA Work	Agency Manuals	Budget Requests Appro-pria-tions	Prior Audit Reports Such As GAO and IG	ADP Manuals and Docu-ments	Agency Files and Docu-ments		
Page Reference OBJECTIVE: Understand and document the overall mission; specific program, administrative, and financial responsibilities; authorized resources; and organizational structure of the agency selected for review.											
WORK STEPS:											
4-3 1. Obtain the organization charts and mission statements for the agency's organizational components.	X	X		X	X				X		
4-3 2. For each organizational component determine all of the program, administrative, and financial functions it performs.	X	X			X				X		
4-3 3. Obtain the current budget authority for the agency and relate the budget authority to each of the agency's organizational components and to each of the agency's	X	X				X			X		

SEGMENT: GENERAL RISK ANALYSIS TASK 1 : Identify and Document Specific Responsibilities, Authorized Resources, and Organizational Structure of the Agency or Major Organizational Component of the Agency		PERFORM STEPS			MAIN SOURCE FOR INFORMATION						MAIN OUT-PUT	APPEN-DIX VI REFER-ENCE
		Considering Entire Agency as Entity	Considering Components of Agency	Considering Specific Agency System(s)	Prior FIA Work	Agency Manuals	Budget Requests Appro-pria-tions	Prior Audit Reports Such AS GAO and IG	ADP Manuals and Docu-ments	Agency Files and Docu-ments		
Page Reference	WORK STEPS: 3. Continued. program, administrative, and financial functions.											
4-3	4. Identify and document the key management officials and their specific responsibilities for each of the agency's specific program, administrative, and financial functions.	X	X		X	X				X		
4-4	5. Prepare a workpaper summary (1) relating the agency's specific program, administrative, and financial functions to the agency's current budget author-ity, (2) listing the agency's organizational components and key management officials respon-ble for each of the agency's program, administrative, and fi-nancial functions, and (3) indi-cating the kind and number of financial management cycles sys-tems the agency should operate and whether they appear reason-able.	X	X								Work-paper Sum-mary	GRA-1

SEGMENT: GENERAL RISK ANALYSIS TASK II: Identify and Document the General Control Environment of the Agency or Major Organizational Component of the Agency		PERFORM STEPS			MAIN SOURCE FOR INFORMATION						MAIN OUT-PUT	APPEN-DIX VI REFER-ENCE
		Considering Entire Agency as Entity	Considering Components of Agency	Considering Specific Agency System(s)	Prior FIA Work	Agency Manuals	Budget Requests Appro-pria-tions	Prior Audit Reports Such As GAO and IG	ADP Manuals and Docu-ments	Agency Files and Docu-ments		
Page Reference	OBJECTIVE: Understand and document the general control environment of the entity selected for review to include general controls over supporting ADP operations.											
4-5	WORK STEPS: 1. Obtain agency statements and reports submitted to satisfy requirements of the Federal Managers' Financial Integrity Act of 1982 and agency actions to satisfy OMB Circular A-123.	X	X		X	X				X		
4-5	2. Determine how the agency identified those areas for which internal control reviews were or will be performed.	X	X		X					X		

SEGMENT: GENERAL RISK ANALYSIS TASK II: Identify and Document the General Control Environment of the Agency or Major Organizational Component of the Agency	PERFORM STEPS			MAIN SOURCE FOR INFORMATION						MAIN OUT-PUT	APPEN-DIX VI REFER-ENCE
	Considering Entire Agency as Entity	Considering Components of Agency	Considering Specific Agency System(s)	Prior FIA Work	Agency Manuals	Budget Requests Appro-pria-tions	Prior Audit Reports Such As GAO and IG	ADP Manuals and Docu-ments	Agency Files and Docu-ments		
Page Reference 4-5 4-6 4-6	**WORK STEPS:** 3. Determine whether internal control reviews will be performed for all high risk critical areas on a timely basis. Also, ascertain if internal control reviews will be performed for other areas. 4. Determine what actions the agency has planned or has taken to assure that the degree of internal control testing and analysis will consider the risks and potential benefits (such as how much will it cost to test a control versus how critical the control is or how much risk are we taking by not testing the control). 5. Determine who will perform the internal control review (managers internal reviews staffs, inspector general, management analysts, or outside contractors) and consider whether their level of knowledge and expertise are adequate.	X X X	X X X		X X X	 X				X X X		

SEGMENT: GENERAL RISK ANALYSIS TASK II: Identify and Document the General Control Environment of the Agency or Major Organizational Component of the Agency		PERFORM STEPS			MAIN SOURCE FOR INFORMATION							MAIN OUT-PUT .	APPEN-DIX VI REFER-ENCE
		Considering Entire Agency as Entity	Considering Components of Agency	Considering Specific Agency System(s)	Prior FIA Work	Agency Manuals	Budget Requests Appro-pria-tions	Prior Audit Reports Such As GAO and IG	ADP Manuals and Docu-ments	Agency Files and Docu-ments		
Page Reference	WORK STEPS:											
	6. Determine to what extent the inspector general or internal audit	X	X		X	X				X		
4-6	staffs will be involved in the internal control review process, and evaluate whether they have provided adequate guidance and assistance.											
4-6	7. Determine if the agency has established adequate formal follow-up systems to (1) log and track corrective actions and target dates, (2) develop plans to implement corrective actions, and (3) monitor whether actions are implemented in an effective and timely manner.	X	X		X	X				X		

SEGMENT: GENERAL RISK ANALYSIS TASK II: Identify and Document the General Control Environment of the Agency or Major Organizational Component of the Agency		PERFORM STEPS			MAIN SOURCE FOR INFORMATION						MAIN OUT-PUT	APPEN-DIX VI REFER-ENCE
		Considering Entire Agency as Entity	Considering Components of Agency	Considering Specific Agency System(s)	Prior FIA Work	Agency Manuals	Budget Requests Appro-pria-tions	Prior Audit Reports Such As GAO and IG	ADP Manuals and Docu-ments	Agency Files and Docu-ments		
Page Reference 4-6	WORK STEPS: 8. Determine how the followup system will be notified of weaknesses and related corrective actions identified by --vulnerability assessments, and --internal control reviews.	X	X		X	X				X		
4-6	9. Determine how the followup system ensures that --vulnerability assessments be scheduled and completed in a timely manner, --internal control reviews are scheduled and completed in a timely manner. --corrective actions resulting from vulnerability assessments and internal control reviews are implemented in an effective and timely manner.	X	X		X	X				X		

SEGMENT: GENERAL RISK ANALYSIS TASK II: Identify and Document the General Control Environment of the Agency or Major Organizational Component of the Agency		PERFORM STEPS			MAIN SOURCE FOR INFORMATION						MAIN OUT-PUT	APPEN-DIX VI REFER-ENCE
		Considering Entire Agency as Entity	Considering Components of Agency	Considering Specific Agency System(s)	Prior FIA Work	Agency Manuals	Budget Requests Appro-pria-tions	Prior Audit Reports Such as GAO and IG	ADP Manuals and Docu-ments	Agency Files and Docu-ments		
Page Reference 4-7	WORK STEPS: 10. Determine Inspector general and/or internal audit involvement in assuring corrective actions are implemented effectively and promptly and what, if any, plans exist for subsequent audits. In addition, determine how the followup system will be used to support the agency's annual reports to the President and the Congress.	X	X		X	X				X		
4-8	11. Determine and document agency internal audit and Inspector general coverage of agency's financial operations. In doing this work, obtain: --internal audit and IG reports that deal with financial and ADP operations for the past 3 years, and	X	X	X	X	X		X		X		

SEGMENT: GENERAL RISK ANALYSIS / TASK 11: Identify and Document the General Control Environment of the Agency or Major Organizational Component of the Agency	PERFORM STEPS			MAIN SOURCE FOR INFORMATION						MAIN OUT-PUT	APPEN-DIX REFER-ENCE
	Considering Entire Agency as Entity	Considering Components of Agency	Considering Specific Agency System	Work Priority FIA Work	Agency Manuals	Budget Requests (Appropriations)	Prior Audit Reports as GAO and IG Reports	ADP Manuals and Documents	Agency Files and Documents		
Page Reference — WORK STEPS: 11. Continued: —Internal audit and IG plans for reviews of financial and ADP operations for the next 2 years.											
4-8 — 12. Prepare summary schedules of internal audit and Inspector general findings related to (1) financial operations and (2) ADP operations for the past 3 years. Indicate actions taken by the agency in response to these findings.	X	X								Work paper sum-mary	GRA-2
4-8 — 13. Obtain the annual inspector general's report to the Congress for the past 3 years.	X	X	X	X	X				X	Work paper sum-mary	GRA-3
4-8 — 14. Obtain any reports issued by external study groups pertaining to a system under review that were issued during the past 3 years.	x	x	x	x					x		

SEGMENT: GENERAL RISK ANALYSIS												

TASK II: Identify and Document the General Control Environment of the Agency or Major Organizational Component of the Agency		PERFORM STEPS			MAIN SOURCE FOR INFORMATION						MAIN OUT-PUT	APPEN-DIX VI REFER-ENCE
		Considering Entire Agency as Entity	Considering Components of Agency	Considering Specific Agency System(s)	Prior FIA Work	Agency Manuals	Budget Requests Appro-pria-tions	Prior Audit Reports Such As GAO and IG	ADP Manuals and Docu-ments	Agency Files and Docu-ments		
Page Reference	WORK STEPS:											
	15. Prepare schedules for the systems under review to summarize	X	X	X							Work paper sum-mary	GRA-6
4-8	findings in special system study group reports.											
4-9	16. Obtain any GAO reports pertaining to a system under review issued during the past 3 years.	X	X	X				X		X		
4-9	17. Prepare schedules for the systems under review to summarize findings in GAO reports.	X	X	X							Work paper sched ule	GRA-7
4-9	18. Obtain any information GAO's Fraud Prevention and Oversight Group has on the agency, its major organizational components, or any of its systems and summarize this information on a schedule.	X	X	X				X			Work paper sched ule	GRA-8
4-9	19. Obtain any written plans for the development and upgrading of financial systems and summarize these plans on summary schedule.	X	X	X	X	X				X	Work paper sum-mary	GRA-4

SEGMENT: GENERAL RISK ANALYSIS		PERFORM STEPS			MAIN SOURCE FOR INFORMATION						MAIN OUT-PUT	APPEN-DIX VI REFER-ENCE
TASK II: Identify and Document the General Control Environment of the Agency or Major Organizational Component of the Agency		Considering Entire Agency as Entity	Considering Components of Agency	Considering Specific Agency System(s)	Prior FIA Work	Agency Manuals	Budget Requests Appro-pria-tions	Prior Audit Reports Auch As GAOG and IG	ADP Manuals and Docu-ments	Agency Files and Docu-ments		
Page Reference	WORK STEPS:											
4-9	20. Obtain any written plans for the development of new ADP capability and the upgrade of existing ADP capability to include the approximate cost of the enhancement and summarize these plans on a summary schedule.	X	X	X	X	X			X	X	Work paper sum-mary	GRA-5
4-9	21. Determine and document, through discussions with key personnel, the existing mechanisms/systems used to ensure that: --appropriations (spending limits) not be breached, --resources be controlled and safeguarded from inadvertent loss, waste, and --program, administrative and other operations be carried out according to management's plans.	X	X	X	X	X				X		

SEGMENT : GENERAL RISK ANALYSIS TASK III: Identify and Document The Financial Management Structure Of The Agency Or Major Organizational Component Of The Agency	PERFORM STEPS			MAIN SOURCE FOR INFORMATION						MAIN OUT-PUT	APPEN-DIX VI REFER-ENCE
	Considering Entire Agency as Entity	Considering Components of Agency	Considering Specific Agency System(s)	Prior FIA Work	Agency Manuals	Budget Requests Appro-pria-tions	Prior Audit Reports Such As GAO and IG	ADP Manuals and Docu-ments	Agency Files and Docu-ments		
Page Reference	**OBJECTIVE:** Identify and document the finan-cial management structure of the entity selected for review to include both accounting and budget development systems.										
4-10	**WORK STEPS:** 1. Obtain, if available, the inven-tory of accounting system(s), including related subsystems, and budget development systems developed by the agency pursuant to the requirements of the Federal Managers' Financial Integrity Act.	X	X		X	X				X	
4-11	2. Obtain or develop an inventory of the automated systems operated and used by the agency. Include a brief description of each system.	X	X		X	X			X	X	

SEGMENT: GENERAL RISK ANALYSIS		PERFORM STEPS			MAIN SOURCE FOR INFORMATION						MAIN OUT- PUT	APPEN- DIX VI REFER- ENCE
TASK III: Identify and Document The Financial Management Structure Of The Agency Or Major Organizational Component Of The Agency		Considering Entire Agency as Entity	Considering Components of Agency	Considering Specific Agency System(s)	Prior FIA Work	Agency Manuals	Budget Requests Appro- pria- tions	Prior Audit Reports Such As GAOG and IG	ADP Manuals and Docu- ments	Agency Files and Docu- ments		
Page Reference	WORK STEPS:											
	3. Based on the system descriptions included in the agency's inven-	X	X		X	X				X		
4-11	tory of automated systems, develop an initial list of the agency's accounting system(s) and budget development systems.											
4-11	4. Compare the inventory obtained in work step 1 with the inventory obtained in work step 3 and reconcile any differences between the two inventories through dis- cussions with appropriate agency officials.	X	X									

SEGMENT: GENERAL RISK ANALYSIS TASK III: Identify and Document The Financial Management Structure Of The Agency Or Major Organizational Component Of The Agency		PERFORM STEPS			MAIN SOURCE FOR INFORMATION						MAIN OUT-PUT	APPEN-DIX VI REFER-ENCE
		Considering Entire Agency as Entity	Considering Components of Agency	Considering Specific Agency System(s)	Prior FIA Work	Agency Manuals	Budget Requests Appro-pria-tions	Prior Audit Reports Such As GAO and IG	ADP Manuals and Docu-ments	Agency Files and Docu-ments		
Page Reference	WORK STEPS:											
	5. Compare the reconciled inventory developed as a result of work	X	X									
4-11	step 4 with the workpaper summary developed in work steps for TASK II in this work segment. Note any organizational compo-nents; specific program, admini-strative, or finacial functions; or specific line items of budget authority not covered by account-ing and budget formulation sys-tems in the inventory.											
4-11	6. Identify and document through discussions with cognizant agen-cy's officials, the accounting and budget development systems that cover the agency's organi-zational components; specific program, administrative, and financial functions; and line items of budget authority dis-closed as a result of completing the comparisons called for in work steps for TASK II of this segment.	X	X				X		X	X		

TASK III: Identify and Document The Financial Management Structure Of The Agency Or Major Organizational Component Of The Agency

Page Reference	WORK STEPS:	PERFORM STEPS			MAIN SOURCE FOR INFORMATION						MAIN OUTPUT	APPENDIX VI REFERENCE
		Considering Entire Agency as Entity	Considering Components of Agency	Considering Specific Agency System(s)	Prior FIA Work	Agency Manuals	Budget Requests Appropriations	Prior Audit Reports Such As GAO and IG	ADP Manuals and Documents	Agency Files and Documents		
4-11	7. Develop a validated inventory of the agency's accounting system(s) and budget formulation systems based on the results of completing work steps 5 and 6. This inventory should include --system Name, --brief description of processing done by system or subsystem, --system analyst responsible for the system, --telephone numer for cognizant system analyst, --agency computer center at which system is run, --annual system operating costs, --organizational component supported by system, --program administrative or financial function supported by system, --amount of budget authority or amount of assets, liabilities, receipts or disbursements accounted for and controlled,	X	X								Work paper summary	GRA-9

SEGMENT: GENERAL RISK ANALYSIS TASK III: Identify and Document The Financial Management Structure Of The Agency Or Major Organizational Component Of The Agency		PERFORM STEPS			MAIN SOURCE FOR INFORMATION						MAIN OUT-PUT	APPEN-DIX VI REFER-ENCE
		Considering Entire Agency as Entity	Considering Components of Agency	Considering Specific Agency System	Work Priority FIA Work	Agency Manuals	Budget Requests (Appro-pria-tions	Prior Audit Reports as GAO GAO and IG	ADP Manuals and Docu-ments	Agency Files and Docu-ments		
Page Reference	7. Continued --main outputs of system, --main users of this system's outputs, --known internal control and accounting system weaknesses,											
4-12	8. At each of the agency's computer centers, identified in work step 7 above, complete checklist 2 in appendix VI and complete the following questionnaires and profiles in appendix VI: --Questionnaire 1 - Executive ADP Management Committee,	X	X	X		X			X	X	Check list	GRA-10
											Ques.	GRA-12
	--Questionnaire 2 - Internal Audit,										Ques.	GRA-13
	--Questionnaire 3 - External Audit and Studies,											

SEGMENT: GENERAL RISK ANALYSIS

TASK III: Identify and Document The Financial Management Structure Of The Agency Or Major Organizational Component Of The Agency

Page Reference	WORK STEPS	PERFORM STEPS			MAIN SOURCE FOR INFORMATION						MAIN OUT-PUT	APPEN-DIX VI REFER-ENCE
		Considering Entire Agency as Entity	Considering Components of Agency	Considering Specific Agency System(s)	Prior FIA Work	Agency Manuals	Budget Requests Appro-pria-tions	Prior Audit Reports Such As GAO and IG	ADP Manuals and Docu-ments	Agency Files and Docu-ments		
4-13	8. Continued.											
	--Profile 1 (Top Management Controls Profile),										Prof.	GRA-14
	--Questionnaire 4 - ADP Orga-nizational Controls,										Ques.	GRA-15
	--Questionnaire 5 - System De-sign, Development, and Modi-fication Controls,										Ques.	GRA-16
	--Questionnaire 6 - Data Center Management Controls,										Ques.	GRA-17
	--Questionnaire 7 - Data Center Protection Controls,										Ques.	GRA-18
	--Questionnaire 8 - System Soft-ware Controls,										Ques.	GRA-19

SEGMENT: GENERAL RISK ANALYSIS TASK III: Identify and Document The Financial Management Structure Of The Agency Or Major Organizational Component Of The Agency		PERFORM STEPS			MAIN SOURCE FOR INFORMATION						MAIN OUT-PUT	APPEN-DIX VI REFER-ENCE
		Considering Entire Agency as Entity	Considering Components of Agency	Considering Specific Agency System(s)	Prior FIA Work	Agency Manuals	Budget Requests Appro-pria-tions	Prior Audit Reports Such As GAO and IG	ADP Manuals and Docu-ments	Agency Files and Docu-ments		
Page Reference	WORK STEPS: 8. Continued.											
	--Questionnaire 9 - Hardware										Ques.	GRA-20
4-13	Controls, and											
	--Profile 2 (General Controls										Prof.	GRA-21
	Profile).											

SEGMENT: GENERAL RISK ANALYSIS

TASK IV: Identify and Document Accounting Standards, Other System Requirements, And Internal Control Requirements--Control Objectives--For the Agency's Systems

Page Reference		PERFORM STEPS			MAIN SOURCE FOR INFORMATION						MAIN OUT-PUT	APPEN-DIX VI REFER-ENCE
		Considering Entire Agency as Entity	Considering Components of Agency	Considering Specific Agency System(s)	Prior FIA Work	Agency Manuals	Budget Requests Appro-pria-tions	Prior Audit Reports Such As GAO and IG	ADP Manuals and Docu-ments	Agency Files and Docu-ments		
	OBJECTIVE: Identify the accounting standards, other system requirements, and internal control require-ments--control objectives--that each system in the entity's fi-nancial management structure must satisfy.											
	WORK STEPS:											
4-14	1. Based on the validated inventory of agency accounting system(s) developed in Task III, identify applicable titles of GAO's Policy and Procedures Manual for Guidance of Federal Agencies and related cycles that apply to the accounting system(s) selected for review.	X	X									
4-15	2. Obtain, if available, control ob-jectives developed by the agency pursuant to its efforts to comply with section 4 of the Federal	X	X	X	X	X				X		

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SEGMENT: GENERAL RISK ANALYSIS		PERFORM STEPS			MAIN SOURCE FOR INFORMATION						MAIN OUT-PUT	APPEN-DIX VI REFER-ENCE
TASK IV: Identify and Document Accounting Standards, Other System Requirements, And Internal Control Requirements--Control Objectives--For the Agency's Systems		Considering Entire Agency as Entity	Considering Components of Agency	Considering Specific Agency System(s)	Prior FIA Work	Agency Manuals	Budget Requests Appro-pria-tions	Prior Audit Reports Such As GAO and IG	ADP Manuals and Docu-ments	Agency Files and Docu-ments		
Page Reference	WORK STEPS: 2. Continued. Managers' Financial Integrity											
4-15	Act and validate the agency developed control objectives against GAO's accounting system requirements identified in work steps 1 above and amend the agency's list as appropriate.											
4-15	3. If the agency has not done so develop control objectives for the accounting system(s) using appendix VII, which provides guidance on control objectives and techniques in GAO's manual.	X	X	X								
4-15	4. Based on the validated inventory of agency accounting system(s) developed after completing TASK III above, identify systems that authorize, account for,	X	X									

SEGMENT: GENERAL RISK ANALYSIS		PERFORM STEPS			MAIN SOURCE FOR INFORMATION						MAIN OUT-PUT	APPEN-DIX VI REFER-ENCE
TASK IV: Identify and Document Accounting Standards, Other System Requirements, And Internal Control Requirements--Control Objectives--For the Agency's Systems		Considering Entire Agency as Entity	Considering Components of Agency	Considering Specific Agency System(s)	Prior FIA Work	Agency Manuals	'Budget Requests Appro-pria-tions	Prior Audit Reports Such As GAO and IG	ADP Manuals and Docu-ments	Agency Files and Docu-ments		
Page Reference	WORK STEPS: 4. Continued. control, summarize, and report transactions that pertain to specific programs.											
4-15	5. Obtain, if available, control objectives for the programs, cycles and related accounting systems identified in work step 4 developed by the agency pursuant to Section 4 of the Federal Managers' Financial Integrity Act. Validate the agency developed control objectives against the provisions of the laws identified in work step 4.	X	X	X	X	X				X		

SEGMENT: GENERAL RISK ANALYSIS		PERFORM STEPS			MAIN SOURCE FOR INFORMATION						MAIN OUT- PUT	APPEN- DIX VI REFER- ENCE
TASK IV: Identify and Document Accounting Standards, Other System Requirements, And Internal Control Requirements--Control Objectives--For the Agency's Systems		Considering Entire Agency as Entity	Considering Components of Agency	Considering Specific Agency System(s)	Prior FIA Work	Agency Manuals	Budget Requests Appro- pria- tions	Prior Audit Reports Such As GAO and IG	ADP Manuals and Docu- ments	Agency Files and Docu- ments		
Page Reference 4-15 4-15	WORK STEPS: 6. If the entity has not already done so, develop control objec- tives for the systems identified in work step 4 based on the authorizing legislation for the agency run programs identified in appendix VIII. 7. Prepare a summary schedule of control objectives for the agency accounting system(s) selected for review. This schedule should include: --accounting system, --brief system description, --source of Control Objectives: GAO's Policy and Procedures Manual for Guidance of Federal Agencies specific legislation (public law) or agency management, and	X X	X X	X X								

SEGMENT: GENERAL RISK ANALYSIS TASK IV: Identify and Document Accounting Standards, Other System Requirements, And Internal Control Requirements--Control Objectives--For the Agency's Systems		PERFORM STEPS			MAIN SOURCE FOR INFORMATION						MAIN OUT-PUT	APPEN-DIX VI REFER-ENCE
		Considering Entire Agency as Entity	Considering Components of Agency	Considering Specific Agency System(s)	Prior FIA Work	Agency Manuals	Budget Requests Appro-pria-tions	Prior Audit Reports Such As GAO and IG	ADP Manuals and Docu-ments	Agency Files and Docu-ments		
Page Reference	WORK STEPS: 7. Continued. --list of control objectives for each system.											
4-16	8. Determine the agency's organizational component responsible for developing and/or compiling the annual budget request submitted to the Office of Management and Budget, the President, and ultimately to the Congress. Document the process used for budget formulation. Obtain, for a selected fiscal year's budget, a sampling of inputs received by the responsible component.	X	X		X	X	X	X		X		
4-16	9. Determine the budget systems used by each major organizational component of the entity. Develop a flowchart on how information flows into and is reported out of the organizational component. The flowcharts should be prepared for:	X	X		X	X	X	X		X		

SEGMENT: GENERAL RISK ANALYSIS TASK IV: Identify and Document Accounting Standards, Other System Requirements, And Internal Control Requirements--Control Objectives--For the Agency's Systems		PERFORM STEPS			MAIN SOURCE FOR INFORMATION						MAIN OUT-PUT	APPEN-DIX VI REFER-ENCE
		Considering Entire Agency as Entity	Considering Components of Agency	Considering Specific Agency System(s)	Prior FIA Work	Agency Manuals	Budget Requests Appro-pria-tions	Prior Audit Reports Such As GAO and IG	ADP Manuals and Docu-ments	Agency Files and Docu-ments		
Page Reference	WORK STEPS: 9. Continued. --each budget system showing the interrelationship among the subsystems which comprise the system, --the budget systems showing the interrelationship among the budget systems and any other financial systems, and --the budget systems showing the interrelationship with the agency's accounting system(s).											
4-16	10. Obtain a sampling of the budget inputs received by the agency headquarters from its organizational components for a selected fiscal year.	X	X				X			X		
4-17	11. Obtain the selected fiscal year's budget submission sent to the President, Office of Management and Budget, and the Congress.	X	X				X			X		

SEGMENT: GENERAL RISK ANALYSIS TASK IV: Identify and Document Accounting Standards, Other System Requirements, And Internal Control Requirements--Control Objectives--For the Agency's Systems	PERFORM STEPS			MAIN SOURCE FOR INFORMATION						MAIN OUT-PUT	APPEN-DIX VI REFER-ENCE
	Considering Entire Agency as Entity	Considering Components of Agency	Considering Specific Agency System(s)	Prior FIA Work	Agency Manuals	Budget Requests Appro-pria-tions	Prior Audit Reports Such As GAO and IGs	ADP Manuals and Docu-ments	Agency Files and Docu-ments		
Page Reference 4-17 WORK STEPS: 12. For each of the agency's major organizational components: --obtain a sampling of the se-lected fiscal year's budget submissions sent to the agen-cy's headquarters; --flowchart the process to de-velop annual budget submis-sions to be sent to the agency's headquarters, inclu-ding all inputs to the budget formulation process, all files maintained, and all outputs produced; and --determine whether or not annual budget submissions are based on the financial results of prior years' program and administrative operations.	X	X				X			X		

SEGMENT: GENERAL RISK ANALYSIS		PERFORM STEPS			MAIN SOURCE FOR INFORMATION						MAIN OUT-PUT	APPEN-DIX VI REFER-ENCE
TASK IV: Identify and Document Accounting Standards, Other System Requirements, And Internal Control Requirements--Control Objectives--For the Agency's Systems		Considering Entire Agency as Entity	Considering Components of Agency	Considering Specific Agency System(s)	Prior FIA Work	Agency Manuals	Budget Requests Appropriations	Prior Audit Reports Such As GAO and IG	ADP Manuals and Documents	Agency Files and Documents		
Page Reference 4-17	WORK STEPS: 13. Determine whether or not the agency's budget submission was based on aggregations of the submissions prepared by the entity's organizational components; and, for the sample submissions, if differences exist, determine their amount and why they occurred.	X	X									

SEGMENT: GENERAL RISK ANALYSIS												
TASK V : Initial Risk Rating and Ranking of Systems		PERFORM STEPS			MAIN SOURCE FOR INFORMATION						MAIN OUT-PUT	APPEN-DIX VI REFER-ENCE
		Considering Entire Agency as Entity	Considering Components of Agency	Considering Specific Agency System(s)	Prior FIA Work	Agency Manuals	Budget Requests Appro-pria-tions	Prior Audit Reports Such As GAO and IG	ADP Manuals and Docu-ments	Agency Files and Docu-ments		
Page Reference	OBJECTIVE: Risk rate and rank the validated inventory of agency financial management systems based on general controls.											
	WORK STEPS:											
4-17	1. Based on the guidance in section 5 of this work program, Risk Ranking of Systems, evaluate the assigned risk rating of low, medium, or high for each of the risk ranking factors for each system reviewed.	X	X									
4-18	2. Compute a composite reliability score for each system based on the risk rating assigned and the weighting system discussed in section 5 of this work program.	X	X									
4-18	3. Prepare a summary workpaper schedule of the risk rankings and composite reliability scores assigned each system.	X	X									

SEGMENT: GENERAL RISK ANALYSIS		PERFORM STEPS			MAIN SOURCE FOR INFORMATION						MAIN OUT-PUT	APPEN-DIX VI REFER-ENCE
TASK V : Initial Risk Rating and Ranking of Systems		Considering Entire Agency as Entity	Considering Components of Agency	Considering Specific Agency System(s)	Prior FIA Work	Agency Manuals	Budget Requests Appro-pria-tions	Prior Audit Reports Such As GAO and IG	ADP Manuals and Docu-ments	Agency Files and Docu-ments		
Page Reference	OBJECTIVE: Risk rate and rank the validated inventory of agency financial management systems based on general controls. WORK STEPS:											
4-18	4. Prepare a schedule of systems according to their assigned composite reliability scores. These systems should be grouped into three categories: overall high, medium, and low risk. See section 5, Risk Ranking of Systems for guidance in preparing this schedule.	X	X									

TRANSACTION FLOW REVIEW AND ANALYSIS
SEGMENT

The Transaction Flow Review and Analysis Segment
Includes the following tasks:

Task I   -   Identify and Document system Information Flows

Task II   -   Identify and Document the Usefulness of System
                Outputs

Task III   -   Identify and Document the Control Techniques In
                Each System

Task IV   -   Evaluate the Effectiveness of Control Techniques
                In meeting Control Objectives

Task V   -   Finalize Risk Rank of the Systems and Select Systems
                For Compliance Tests and Analysis

SEGMENT: TRANSACTION FLOW REVIEW AND ANALYSIS TASK : Identify and Document System Informa- tion Flows		PERFORM STEPS			MAIN SOURCE FOR INFORMATION						MAIN OUT- PUT	APPEN- DIX VI REFER- ENCE
		Considering Entire Agency as Entity	Considering Components of Agency	Considering Specific Agency System(s)	Prior FIA Work	Agency Manuals	Budget Requests Appro- pria- tions	Prior Audit Reports Such As GAO and IG	ADP Manuals and Docu- ments	Agency Files and Docu- ments		
Page Reference	OBJECTIVE: Determine and document how informa- tion flows through each system selected for review from initial input of transaction information through final output of reports.											
6-3	WORK STEPS: 1. Obtain or prepare for each system a detailed written description of what it is supposed to do and how it is designed to operate. This written description should include a detailed discussion of all manual or automated edit and validation checks of input data.	X	X	X		X			X	X		
6-4	2. Obtain data record layouts for all inputs, machine media records, and outputs--both hardcopy reports and machine media files.	X	X	X						X		

SEGMENT: TRANSACTION FLOW REVIEW AND ANALYSIS		PERFORM STEPS			MAIN SOURCE FOR INFORMATION						MAIN OUT-PUT	APPEN-DIX VI REFER-ENCE
TASK : Identify and Document System Information Flows		Considering Entire Agency as Entity	Considering Components of Agency	Considering Specific Agency System(s)	Prior FIA Work	Agency Manuals	Budget Requests Appro-pria-tions	Prior Audit Reports Such As GAO and IG	ADP Manuals and Docu-ments	Agency Files and Docu-ments		
Page Reference	WORK STEPS:											
	--Questionnaire 10 - Data Origination Controls.										Quest.	TFRA-2
6-4	--Questionnaire 11 - Data Input Controls.										Quest.	TFRA-3
	--Questionnaire 12 - Data Processing Controls.										Quest.	TFRA-4
	--Questionnaire 13 - Data Output Controls.										Quest.	TFRA-5
	--Profile 3 - Application Controls Profile.										Pro-file	TFRA-6

SEGMENT: TRANSACTION FLOW REVIEW AND ANALYSIS TASK I : Identify and Document System Information Flows		PERFORM STEPS			MAIN SOURCE FOR INFORMATION						MAIN OUTPUT	APPENDIX VI REFERENCE
		Considering Entire Agency as Entity	Considering Components of Agency	Considering Specific Agency System(s)	Prior FIA Work	Agency Manuals	Budget Requests Appro- pria- tions	Prior Audit Reports Such as GAO and IG	ADP Manuals and Docu- ments	Agency Files and Docu- ments		
Page Refer- ence	OBJECTIVE: WORK STEPS:											
6-5	5. Flowchart how information is processed and reported into and out of the selected systems to include both hardcopy of reports and machine media and files. Three levels of flowcharts are to be prepared: —Top level flowcharts depicing the accounting system(s) used by an agency with its control objectives. —Intermediate level flowcharts depicting information flows between system(s).	X	X	X					X	X	Flowchart Flowchart	TFRA-7 TFRA-8

SEGMENT: TRANSACTION FLOW REVIEW AND ANALYSIS TASK I : Identify and Document System Information Flows		PERFORM STEPS			MAIN SOURCE FOR INFORMATION							MAIN OUTPUT	APPENDIX VI REFERENCE
		Considering Entire Agency as Entity	Considering Components of Agency	Considering Specific Agency System(s)	Prior FIA Work	Agency Manuals	Budget Requests Appro- pria- tions	Prior Audit Reports Such as GAO and IG	ADP Manuals and Docu- ments	Agency Files and Docu- ments			
Page Refer- ence	OBJECTIVE: WORK STEPS:												
	--Detailed flowcharts identifying control techniques and data flows.	X	X	X		X			X	X			TFRA-9
6-5	6. Obtain or prepare a detailed written description of how each system uses the ADP resources--computer terminals magnetic tape drives, magnetic disk packs, card reader/punches, printers, and computer central processing units--in the computer centers.	X	X	X						X			
6-5	7. Prepare a written summary for each system that includes the following sections: --purpose of the system;			X								Work paper summary	TFRA-10

SEGMENT: TRANSACTION FLOW REVIEW AND ANALYSIS

TASK 1 : Identify and Document System Information Flows

	PERFORM STEPS			MAIN SOURCE FOR INFORMATION						MAIN OUTPUT	APPENDIX VI REFERENCE
	Considering Entire Agency as Entity	Considering Components of Agency	Considering Specific Agency System(s)	Prior FIA Work	Agency Manuals	Budget Requests Appropriations	Prior Audit Reports Such as GAO and IG	ADP Manuals and Documents	Agency Files and Documents		
Page Reference											
6-5											

OBJECTIVE:

WORK STEPS

--discussion of how the system uses available computer resources;

--description of system inputs, files, processing steps, outputs, computer equipment used and identification of the agency computer center;

--edits and validation checks of input data;

--system flowchart to include the relationship with other systems; and

--complete list of users of system hardcopy reports.

SEGMENT: TRANSACTION FLOW REVIEW AND ANALYSIS			PERFORM STEPS			MAIN SOURCE FOR INFORMATION							MAIN OUTPUT	APPENDIX VI REFERENCE
TASK II: Identify and Document The Usefulness Of System Outputs			Considering Entire Agency as Entity	Considering Components of Agency	Considering Specific Agency System(s)	Prior FIA Work	Agency Manuals	Budget Requests Appro- pria- tions	Prior Audit Reports Such as GAO and IG	ADP Manuals and Docu- ments	Agency Files and Docu- ments			
Page Refer- ence	OBJECTIVE: Determine whether the outputs produced by each system meet users' information needs and achieve the objectives set for each system during its design.													
	WORK STEPS													
6-6	1. Obtain a completed "User Satisfaction Questionnaire" from users of reports generated by the systems selected for the review. This work step should be coordinated with AFMD Technical Assistance Group.		X	X	X								Question- naire	TFRA-11
6-6	2. For each system selected for review, summarize the responses to the questionnaire and develop an overall conclusion, based on this summarization, as to the reliability and usefulness of the reports and information.		X	X	X								Workpaper Summary	TFRA-12

SEGMENT: TRANSACTION FLOW REVIEW AND ANALYSIS TASK III: Identify And Document Control Techniques In Each System.		PERFORM STEPS			MAIN SOURCE FOR INFORMATION						MAIN OUTPUT	APPENDIX VI REFERENCE
		Considering Entire Agency as Entity	Considering Components of Agency	Considering Specific Agency System(s)	Prior FIA Work	Agency Manuals	Budget Requests Appro- pria- tions	Prior Audit Reports Such as GAO and IG	ADP Manuals and Docu- ments	Agency Files and Docu- ments		
Page Refer- ence	**OBJECTIVE:** Identify and document the control techniques included in each system and subsystem.											
	WORK STEPS											
6-7	1. For each system selected for review, prepare a work paper schedule showing: --control objectives based on the information in work paper summary prepared in accordance with the work completed in the general risk analysis segment, and --control techniques based on the information in each system summary prepared in accordance with work Task I in this segment of the work program.	X	X	X								
6-8	2. Validate the internal control objectives and tech- niques included in the schedules prepared pursuant to work step 1 with available control objectives	X	X	X								

SEGMENT: TRANSACTION FLOW REVIEW AND ANALYSIS										
TASK III: Identify And Document Control Techniques In Each System.	PERFORM STEPS			MAIN SOURCE FOR INFORMATION						MAIN OUTPUT	APPENDIX VI REFERENCE

	Considering Entire Agency as Entity	Considering Components of Agency	Considering Specific Agency System(s)	Prior FIA Work	Agency Manuals	Budget Requests Appro-pria-tions	Prior Audit Reports Such as GAO and IG	ADP Manuals and Docu-ments	Agency Files and Docu-ments	MAIN OUTPUT	APPENDIX VI REFERENCE
Page Refer-ence	**OBJECTIVE:** Identify and document the control techniques included in each system and subsystem.										
	WORK STEPS										
6-8	2. Continued and techniques identified by the agency in the work it did to meet the requirements of the Federal Manager's Financial Integrity Act.										
6-8	3. Anotate the schedule prepared pursuant to work step 1 with any agency developed specialized internal control techniques for each system or subsystem.	X	X	X							

SEGMENT: TRANSACTION FLOW REVIEW AND ANALYSIS TASK IV: Evaluate The Effectiveness Of Control Techniques In Meeting Control Objectives	PERFORM STEPS			MAIN SOURCE FOR INFORMATION						MAIN OUTPUT	APPENDIX VI REFERENCE
	Considering Entire Agency as Entity	Considering Components of Agency	Considering Specific Agency System(s)	Prior FIA Work	Agency Manuals	Budget Requests Appro- pria- tions	Prior Audit Reports Such as GAO and IG	ADP Manuals and Docu- ments	Agency Files and Docu- ments		
Page Refer- ence 6-9	**OBJECTIVE:** Evaluate the control techniques included in each system in terms of the control objectives established for each system during the General Risk Analysis segment and identify material internal control strengths for each system. **WORK STEPS** Annotate the work paper schedule prepared for each system reviewed in Task III with material internal control strengths and weaknesses.	X	X	X							Workpaper Summary	TFRA-13

SEGMENT: TRANSACTION FLOW REVIEW AND ANALYSIS		PERFORM STEPS			MAIN SOURCE FOR INFORMATION						MAIN OUTPUT	APPENDIX VI REFERENCE
TASK V : RANK THE SYSTEMS ACCORDING TO RISK		Considering Entire Agency as Entity	Considering Components of Agency	Considering Specific Agency System(s)	Prior FIA Work	Agency Manuals	Budget Requests Appropria- tions	Prior Audit Reports Such as GAO and IG	ADP Manuals and Docu- ments	Agency Files and Docu- ments		
Page Refer- ence	**OBJECTIVE:** Reevaluate the risk rankings based on internal control strengths and weaknesses and select systems for compliance tests. **WORK STEPS**											
6-10	1. Based on the guidance in section V of this work program, risk ranking of systems, reevaluate the assigned risk rating of low, medium, and high for each of ten risk ranking factors for each selected system reviewed.	X	X									
6-10	2. Compute a revised composite reliability score for each selected system reviewed based on the risk ratings assigned for each system and the weighting system discussed in section V of this work program, risk ranking of systems.	X	X									

SEGMENT: TRANSACTION FLOW REVIEW AND ANALYSIS		PERFORM STEPS			MAIN SOURCE FOR INFORMATION							MAIN OUTPUT	APPENDIX VI REFERENCE
TASK V : RANK THE SYSTEMS ACCORDING TO RISK													
		Considering Entire Agency as Entity	Considering Components of Agency	Considering Specific Agency System(s)	Prior FIA Work	Agency Manuals	Budget Requests Appro- pria- tions	Prior Audit Reports Such as GAO and IG	ADP Manuals and Docu- ments	Agency Files and Docu- ments			
Page Refer- ence	OBJECTIVE: WORK STEPS												
6-10	3. Prepare a summary work paper schedule of the revised risk rankings and composite reliability score assigned each system reviewed.	X	X									Workpaper Summary	TFRA-14
6-10	4. Prepare a schedule of systems selected for review according to their revised composite reliability scores. These systems should be grouped in three categories: overall high, medium, and low risk. See section V, risk ranking of systems, for guidance in preparing this schedule.	X	X									Workpaper Schedule	TFRA-15
6-10	5. Update the financial management profile of the agency or major organizational component of the agency selected for review.	X	X									Financial Manage- ment Profile	· TFRA-16

SEGMENT:	TRANSACTION FLOW REVIEW AND ANALYSIS												
TASK V :	RANK THE SYSTEMS ACCORDING TO RISK												
		PERFORM STEPS				MAIN SOURCE FOR INFORMATION						MAIN OUTPUT	APPENDIX VI REFERENCE
		Considering Entire Agency as Entity	Considering Components of Agency	Considering Specific Agency System(s)	Prior FIA Work	Agency Manuals	Budget Requests Appropriations	Prior Audit Reports Such as GAO and IG	ADP Manuals and Documents	Agency Files and Documents			
Page Reference	OBJECTIVE:												
	WORK STEPS												
6-10	6. Based on the specific audit objectives for a particular review and the risk ranking of the agency system(s) included in the transaction flow review and analysis segment of the work program, the audit staff should select system(s) for the compliance segment.												

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page V-48 is not used

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COMPLIANCE TESTS AND ANALYSIS
SEGMENT

SEGMENT: COMPLIANCE TESTS AND ANALYSIS TASK I : Develop, Apply, And Analyze Compliance Tests Of The Agency Systems Selected For Testing	PERFORM STEPS			MAIN SOURCE FOR INFORMATION						MAIN OUTPUT	APPENDIX VI REFERENCE
	Considering Entire Agency as Entity	Considering Components of Agency	Considering Specific Agency System(s)	Prior FIA Work	Agency Manuals	Budget Requests Appro- pria- tions	Prior Audit Reports Such as GAO and IG	ADP Manuals and Docu- ments	Agency Files and Docu- ments		
Page Reference OBJECTIVE: WORK STEPS											
7-10 1. Based on the analysis of the system procedures and controls made in earlier segments of te review, determine the types of transactions and conditions to be tested.	X	X	X		X		X	X	X		
7-10 2. For any manual aspects of transaction processing, determine compliance with the applicable procedures and control techniques that were previously identified in TFRA Task III, step 1. Walk actual transactions through the manual portions of the system.	X	X	X		X		X	X	X		
7-10 3. Determine the types of master records to be included in the testing based on the data flows for each system identified in work TFRA Task III steps 1 through 7.	X	X	X		X		X	X	X		
7-11 4. Obtain copies of master records and/or prepare ficticious master records for processing with the test transactions.	X	X	X		X		X	X	X		

SEGMENT: COMPLIANCE TEST AND ANALYSIS		PERFORM STEPS			MAIN SOURCE FOR INFORMATION						MAIN OUTPUT	APPENDIX VI REFERENCE
TASK 1 : Develop, Apply, And Analyze Compliance Tests Of The Agency Systems Selected For Testing												
		Considering Entire Agency as Entity	Considering Components of Agency	Considering Specific Agency System(s)	Prior FIA Work	Agency Manuals	Budget Requests Appropriations	Prior Audit Reports Such as GAO and IG	ADP Manuals and Documents	Agency Files and Documents		
Page Reference	OBJECTIVE: WORK STEPS											
7-11	5. Using a printout of the master records, predetermine the end result for each test transaction for comparison with the actual processing results. Appendix VI CTA-1.	X	X	X		X		X	X	X	Workpaper Schedule	CTA-1
7-11	6. In batch processing systems, verify that the programs used for processing the test transactions are the same as those used for normal system processing.	X	X	X		X		X	X	X		
7-11	7. Ascertain that any changes to programs during the review have been documented and that the changes have been tested and approved by the agency.	X	X	X								
7-11	8. Print the after-test contents of all master records and compare with the predetermined results (see step 5) to see whether the programs performed as expected.	X	X	X		X		X	X	X		

SEGMENT: TASK I : Develop, Apply, And Analyze Compliance Tests Of The Agency Systems Selected For Testing	PERFORM STEPS			MAIN SOURCE FOR INFORMATION						MAIN OUTPUT	APPENDIX VI REFERENCE
	Considering Entire Agency as Entity	Considering Components of Agency	Considering Specific Agency System(s)	Prior FIA Work	Agency Manuals	Budget Requests Appropria- tions	Prior Audit Reports Such as GAO and IG	ADP Manuals and Docu- ments	Agency Files and Docu- ments		
Page Refer- ence 7-11 7-11 7-12	OBJECTIVE: WORK STEPS 9. Summarize and evaluate the impact of any instances of noncompliance with prescribed procedures and controls; develop recommendations for needed corrective actions, with due regard to cost benefit considerations. 10. Discuss results of compliance tests with appropriate agency officials and ascertain their willingness to take corrective action. 11. Based on results of step 10, determine the nature of formal reporting and decide whether substantive testing is warranted.	X X X	X X X	X X X		X X X		X X X	X X X	X X X		

SUBSTANTIVE TESTS AND ANALYSIS
SEGMENT

SEGMENT: SUBSTANTIVE TESTS AND ANALYSIS										
TASK I: Conduct Substantive Tests and Analysis	PERFORM STEPS			MAIN SOURCE FOR INFORMATION						MAIN OUTPUT	APPENDIX VI REFERENCE
	Considering Entire Agency as Entity	Considering Components of Agency	Considering Specific Agency System(s)	Prior FIA Work	Agency Manuals	Budget Requests Appropriations	Prior Audit Reports Such as GAO and IG	ADP Manuals and Documents	Agency Files and Documents		
Page Reference	OBJECTIVE: WORK STEPS										
8-3	1. Design and carry out substantive tests to document and measure the extent of adverse impact on agency operations that occurs because of the previously identified weaknesses in system procedures and controls. The selection of transactions for testing should be statistically sound to permit valid estimates of the actual impact.	X	X	X		X		X	X	X		
8-3	2. Summarize and evaluate test results.	X	X	X		X		X	X	X		
8-3	3. Develop findings and recommendations for discussions with agency management and formal reporting.	X	X	X		X		X	X	X		

APPENDIX VI

Survey Documentation To Be Produced

SURVEY DOCUMENTATION TO BE PRODUCED
UNDER THE CARE-BASED METHODOLOGY FOR
EVALUATING AGENCY ACCOUNTING AND
FINANCIAL MANAGEMENT SYSTEMS

This appendix presents the main items of documentation to be produced as a result of applying the CARE-BASED methodology to evaluating the operations of agency accounting and financial management systems. This appendix includes:

--"Guide to Using the Index of Items of Documentation to Be Produced,"

--"Index to Items of Documentation to be Produced," and

--"Examples of Items of Documentation to be Produced."

INDEX TO ITEMS OF DOCUMENTATION
TO BE PRODUCED

APPENDIX WORK PROGRAM REFERENCE			DESCRIPTION OF ITEM OF DOCUMENTATION	DOCUMENTATION REFERENCE	WORK PROGRAM PG. REF.	SOURCE OF INFORMATION FOR DOCUMENTATION ITEM
SEGMENT	TASK	WORK STEP				
GRA	I	5	Workpaper Summary - Agency or Organizational Component, Specific Responsibilities, Authorized Resources, and Organizational Structure.	GRA - 1	4-4	GRA II, work steps 1-4
GRA	II	12	Workpaper Summary on Inspector General or Internal Audit Reports Dealing with Financial Operations.	GRA - 2	4-8	GRA II, work step 11
GRA	II	12	Workpaper Summary on Inspector General or Internal Audit Reports Dealing with ADP Operations.	GRA - 3	4-8	GRA II, work step 11
GRA	II	19	Workpaper Summary on Development and Upgrading Plans for Financial Systems.	GRA - 4	4-9	GRA II, work step 19
GRA	II	20	Workpaper Summary on Development and Upgrading Plans for New and Existing ADP Capabilities.	GRA - 5	4-9	GRA II, work step 20
GRA	II	15	Workpaper Schedule on Special System Study Group Reports that Pertain to Systems Under Review.	GRA - 6	4-8	GRA II, work step 14
GRA	II	17	Schedule of GAO Reports Pertaining to Agency Systems Under Review.	GRA - 7	4-9	GRA II, work step 16
GRA	II	18	Workpaper Schedule of GAO Fraud Prevention and Audit Oversight Group Cases that Pertain to Systems and/or Program and Administrative Functions Under Review.	GRA - 8	4-9	GRA II, work step 18

APPENDIX WORK PROGRAM REFERENCE			DESCRIPTION OF ITEM OF DOCUMENTATION	DOCUMENTATION REFERENCE	WORK PROGRAM PG. REF.	SOURCE OF INFORMATION FOR DOCUMENTATION ITEM
SEGMENT	TASK	WORK STEP				
GRA	III	7	Workpaper Summary on Validated Inventory of Agency's Accounting and Budget Development Systems.	GRA - 9	4-11	GRA III, work steps 1-6 and information on Documentation. Items GRA-1, GRA-2, GRA-3, GRA-4, GRA-5, GRA-6, GRA-7, and GRA-8.
GRA	III	8	GAO's Evaluating Internal Controls in Computer-Based Systems - Audit Guide (appendix X).		4-12	GAO's Evaluating Internal Controls in Computer-Based Systems - Audit Guide (appendix X).
			a. Checklist 2 - Background Information on ADP Department.	GRA - 10		
			b. Questionnaire 1 - Executive ADP Management Committee.	GRA - 11		
			c. Questionnaire 2 - Internal Audit.	GRA - 12		
			d. Questionnaire 3 - External Audit and Studies.	GRA - 13		
			e. Profile 1-Top Management Controls Profile.	GRA - 14		

APPENDIX WORK PROGRAM REFERENCE			DESCRIPTION OF ITEM OF DOCUMENTATION	DOCUMENTATION REFERENCE	WORK PROGRAM PG. REF.	SOURCE OF INFORMATION FOR DOCUMENTATION ITEM
SEGMENT	TASK	WORK STEP				
			f. Questionnaire 4- Organization Controls	GRA - 15		
			g. Questionnaire 5- System Design, Development, and Modification Controls.	GRA - 16		
			h. Questionnaire 6- Data Center Management Controls.	GRA - 17		
			I. Questionnaire 7- Data Center Projection Controls.	GRA - 18		
			J. Questionnaire 8- System Software Controls.	GRA - 19		
			k. Questionnaire 9- Hardware Controls.	GRA - 20		
			l. Profile 2 (General Controls Profile).	GRA - 21		
GRA	IV	7	Schedule of Control Objective for Each Agency System Selected for Review.	GRA - 22	4-15	GRA-IV, work steps 1-6; appendix V and appendix VII.
GRA	V	3	Initial Summary Workpaper Schedule of the 12 Risk Rankings and Composite Reliability Scores for Each System Reviewed.	TFRA-14	4-18	
GRA	V	4	Initial Overall Risk Ranking of the Agency's Systems.	TFRA-15	4-18	

APPENDIX WORK PROGRAM REFERENCE			DESCRIPTION OF ITEM OF DOCUMENTATION	DOCUMENTATION REFERENCE	WORK PROGRAM PG. REF.	SOURCE OF INFORMATION FOR DOCUMENTATION ITEM
SEGMENT	TASK	WORK STEP				
TFRA	I	4	GAO's Evaluating Internal Controls in Computer-Based Systems-Audit Guide" (appendix X),		6-4	"GAO's Evaluating Controls in Computer Based Systems - Audit Guide" (appendix X)
			a. Checklist 3 - Background Information on Computer Application.	TFRA - 1		
			b. Questionnaire 10- Data Origination Controls	TFRA - 2		
			c. Questionnaire 11- Data Input Controls	TFRA - 3		
			d. Questionnaire 12- Data Processing Controls	TFRA - 4		
			e. Questionnaire 13- Data Output Controls	TFRA - 5		
			f. Profile 3 (Applications Control Profile)	TFRA - 6		
TFRA	I	5	Flowchart of Data Flows Through an Agency's Accounting Systems.	TFRA - 7	6-5	TFRA I, work steps 1-4
			Detailed Flowchart of the Relationships Between an Agency's Accounting Systems.	TFRA - 8		TFRA I, work steps 1-4
			Top-Level Flowchart Depicting the Relationships Between Accounting Systems.	TFRA - 9		TFRA I, work steps 1-4
TFRA	I	7	Written Summary for Each Agency System Reviewed.	TFRA - 10	6-5	TFRA I, work steps 1-6
TFRA	II	1	User Satisfaction Questionnaire.	TFRA - 11	6-6	TFRA II, work step 1
TFRA	II	2	Summary of Responses to User Satisfaction Questionnaire.	TFRA - 12	6-6	

APPENDIX WORK PROGRAM REFERENCE			DESCRIPTION OF ITEM OF DOCUMENTATION	DOCUMENTATION REFERENCE	WORK PROGRAM PG. REF.	SOURCE OF INFORMATION FOR DOCUMENTATION ITEM
SEGMENT	TASK	WORK STEP				
TFRA	IV	1	Summary of Control Objectives, Techniques, and Control Strengths and Weaknesses for an Agency's Accounting System.	TFRA - 13	6-9	TFRA III, work steps 1-3 and TFRA 13, GRA-9, GRA-22, TFRA-1, TFRA-2, TFRA-3, TFRA-4, TFRA-5, TFRA-6, TFRA-10, AND TFRA-12.
TFRA	V	3	Reevaluate summary workpaper schedule of the 12 Risk Rankings and Composite Reliability Scores for Each System Reviewed.	TFRA - 14	6-10	TFRA V, Work Steps 1-2, Sect. VI of the work program, and TFRA - 13
TFRA	V	4	Update Overall Risk Ranking of the Agency's System Selected for Review.	TFRA - 15	6-10	TFRA - 14
TFRA	V	5	Update Financial Management Profile of the Agency or Major Organizational Component of the Agency Selected for Review.	TFRA - 16	6-10	GRA-1, GRA-9, GRA-14, GRA-21, TFRA-6, TFRA-9, TFRA-10, TFRA-13, and TFRA-15
CTA	V	5	Schedule of Predetermined Compliance Test Results.	CTA - 1	7-11	

EXAMPLES OF ITEMS OF DOCUMENTATION
TO BE PRODUCED

WORKPAPER SUMMARY
AGENCY OR ORGANIZATIONAL COMPONENT
SPECIFIC RESPONSIBILITIES AUTHORIZED
RESOURCES AND ORGANIZATIONAL STRUCTURE

BUDGET LINE ITEM CODE	DESCRIPTION OF PROGRAM OR ADMINISTRATIVE FUNCTION	AMOUNT OF SPENDING AUTHORITY	AGENCY ORGANIZATIONAL COMPONENT RESPONSIBLE FOR FUNCTION	KEY AGENCY OFFICIAL RESPONSIBLE FOR FUNCTION	KEY FINANCIAL REPORTS THAT SHOULD BR PRODUCED FOR AGENCY USE	REQUIRED EXTERNAL FINANCIAL REPORTS	AGENCY OFFICIAL RESPONSIBLE FOR A-123 AND FINANCIAL INTEGRITY ACT REVIEWS FOR BUDGET LINE ITEM

WORKPAPER SUMMARY ON
INSPECTOR GENERAL OR INTERNAL AUDIT
REPORTS DEALING WITH FINANCIAL OPERATIONS

REPORT NUMBER	REPORT DATE	REPORT TITLE	IG OR INTERNAL AUDIT POINT OF CONTACT	AGENCY PROGRAM OR ADMIN. FUNCTION(S) COVERED	SPENDING AUTHORITY COVERED BY AUDIT	FINANCIAL SYSTEM(S) COVERED BY AUDIT	AGENCY ORGANI- ZATIONAL COMPONENTS COVERED BY AUDIT	DESCRIPTION OF EACH FINDING IN AUDIT REPORT	RECOMMENDATIONS MADE FOR EACH FINDING IN AUDIT REPORT	ACTION TAKEN ON EACH RECOMMENDATION	ADEQUACY OF ACTION TAKEN ON EACH RECOMMEND	UNRESOLVED AUDIT FINDINGS & OPEN AUDIT RECOMMENDATIONS

REPORT NUMBER	REPORT DATE	REPORT TITLE	IG OR INTERNAL AUDIT POINT OF CONTACT	AGENCY PROGRAM OR ADMIN. FUNCTION(S) COVERED WPS-1	SPENDING AUTHORITY COVERED BY AUDIT	ADP SYSTEM(S) COVERED BY AUDIT	AGENCY ORGANI- ZATIONAL COMPONENTS COVERED BY AUDIT	DESCRIPTION OF EACH FINDING IN AUDIT REPORT	RECOMMENDATIONS MADE FOR EACH FINDING IN AUDIT REPORT	ACTION TAKEN ON EACH RECOMMENDATION	ADEQUACY OF ACTION TAKEN ON EACH RECOMMEND	UNRESOLVED AUDIT FINDINGS & OPEN AUDIT RECOMMENDATIONS

INTERNAL POINT OF CONTACT FOR DEVELOPMENT/UP-GRADING PLANS	BUDGET AUTHORITY AFFECTED BY PLANS	AGENCY PROGRAMS OR ADMINISTRATIVE FUNCTIONS AFFECTED BY PLANS	AGENCY ORGANI-ZATIONAL COMPON-ENT(S) ASSOCIATED WITH PLANS	PRIVATE CONTRACT-ORS ASSOCIATED WITH DEVELOPMENT/ UPGRADING EFFORTS	STARTING DATE FOR EFFORTS	FINANCIAL SYSTEMS AFFECTED BY ENHANCE-MENT EFFORTS	DESCRIPTION OF DEVELOP-MENT/UPGRAD-ING PLANS	COMPLETION DATE OF PLANS

WORKPAPER SUMMARY ON DEVELOPMENT
AND UPGRADING PLANS FOR NEW AND
EXISTING ADP CAPABILITIES

INTERNAL POINT OF CONTACT FOR DEVELOPMENT/UP-GRADING PLANS	BUDGET AUTHORITY AFFECTED BY PLANS	AGENCY PROGRAMS OR ADMINISTRATIVE FUNCTIONS AFFECTED BY PLANS	AGENCY ORGAN-IZATIONAL COM-PONENT(S) ASSOC-IATED WITH PLANS	PRIVATE CON-TRACTORS ASSOC-IATED WITH DEV-ELOPMENT/UPGRAD-ING EFFORTS	STARTING DATE FOR EFFORTS	ADP SYSTEMS AFFECTED BY ENHANCEMENTS EFFORTS	DESCRIPTION OF DEVELOP-MENT PLAN FOR NEW ADP CAPABILITY	APPROXIMATE COST FOR DEVELOPING NEW ADP CAPABILITIES	DESCRIPTION OF UPGRADING PLAN FOR EXISTING ADP CAPABILITIES	APPROXI-MATE COST FOR UPGRAD-ING EXIST-ING ADP CAPABILITIES	COMPLETION DATES FOR PLANS

AGENCY PROGRAM OR ADMINISTRATIVE FUNCTION	SYSTEM CODE USED BY AGENCY	SYSTEM NAME	SYSTEM STUDY REPORT DATE	SYSTEM STUDY REPORT NUMBER	TITLE OF SYSTEM STUDY REPORT	POINT OF CONTACT FOR SYSTEM STUDY REPORT	BRIEF DESCRIPTION OF SYSTEM STUDY	SYSTEM STUDY GROUPS FINDINGS	SYSTEM STUDY GROUP'S RECOMMENDATIONS	ADEQUACY OF AGENCY ACTIONS	UNRESOLVED SYSTEM STUDY GROUP RECOMMENDATIONS

SYSTEM CODE USED BY GAO	SYSTEM NAME	BRIEF DESCRIPTION OF SYSTEM OPERATIONS	GAO REPORT DATE	GAO REPORT NUMBER	GAO REPORT TITLE	FINDINGS IN GAO REPORT (SYSTEM PROBLEMS)	RECOMMENDATIONS IN GAO REPORT	AGENCY ACTIONS TAKEN ON GAO REC- OMMENDATIONS	ADEQUACY OF AGENCY ACTIONS	UNRESOLVED GAO FINDINGS AND RECOMMENDATIONS

WORKPAPER SCHEDULE OF GAO FRAUD PREVENTION
AND OVERSIGHT (FPAO) GROUP CASES THAT PERTAIN TO
SYSTEM AND/OR AGENCY PROGRAM AND ADMINISTRATIVE
FUNCTIONS UNDER REVIEW

AGENCY PROGRAM OR ADMINISTRATIVE FUNCTION	SYSTEM CODE USED BY AGENCY	SYSTEM NAME	GAO FPAO GROUP CASE NUMBER	GAO FPAO POINT OF CONTACT	DESCRIPTION OF ALLEGATION IN FPAO CASE	DOLLAR VALUE INVOLVED WITH FPAO CASE	DISPOSITION OF FPAO CASE	ASSESSMENT OF FPAO CASE'S IMPACT ON INTERNAL CONTROLS AND/OR SYSTEMS MEETING CG'S ACCOUNTING PRINCIPLES AND STANDARDS

SYSTEM CODE USED BY AGENCY	SYSTEM NAME	BRIEF DESCRIPTION OF SYSTEM OPERATIONS	RESPONSIBLE SYSTEM ANALYST	SYSTEM ANALYST PHONE NUMBER	AGENCY COMPUTER CENTER AT WHICH SYSTEM IS RUN	ANNUAL SYSTEM OPERATING COSTS	AGENCY ORGANIZATIONAL COMPONENT SUPPORTED BY SYSTEM	PROGRAM OR ADMINISTRATIVE FUNCTION SUPPORTED BY SYSTEM	BUDGET AUTHORITY OR VALUE OF ASSETS OR LIABILITIES ACCOUNTED FOR BY SYSTEM	MAIN INPUTS TO SYSTEM	MAIN OUTPUTS OF SYSTEM	MAIN USERS OF SYSTEM OUTPUTS	KNOWN INTERNAL CONTROL &/OR KNOWN FAILURES TO MEET COMPTROLLER GENERAL'S ACCOUNTING PRINCIPLES & STANDARDS

GRA - 10

BACKGROUND INFORMATION ON ADP DEPARTMENT

Workpaper
index

ITEMS TO BE OBTAINED

Organization and staffing

1. ADP department organization chart.   _____

2. Functional descriptions of ADP
    department organization.   _____

3. List of key officials in the ADP
    department.   _____

Section and supervisor	Location and telephone number	Major responsibilities
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

GRA - 10

Workpaper
index

4. Staffing level of the ADP department by
    division or office.

| | Number | | Names of |
	Authorized	Assigned	supervisors
ADP general management	___	___	_____
Security personnel	___	___	_____
System programmers	___	___	_____
Systems analysts	___	___	_____
Application programmers	___	___	_____
Other technical support	___	___	_____
Computer operators	___	___	_____
Peripheral equipment handlers	___	___	_____
Data entry operators	___	___	_____
Control clerks	___	___	_____
Schedulers	___	___	_____
Librarian(s)	___	___	_____
Data base administrator(s)	___	___	_____
Secretaries and clerks	___	___	_____
Other	___	___	_____
Total	___	___	

Anticipated staffing additions and
deletions during the next 2 years:

_____

_____

_____

_____

_____

5. Major position descriptions.   _____

GRA - 10

System design, development, and modification

6. System documentation standards.   _____

7. System documentation procedures.   _____

8. System development procedures.   _____

9. Computer program change procedures.   _____

Data center management

10. Data center operations procedures
    manual.   _____

11. File library procedures manual.   _____

12. User billing procedures, including
    the billing algorithm.   _____

13. Statistics on system utilization.   _____

	Total system processing	Specific computer-based system being evaluated
Number of scheduled 8-hour shifts per day		
Number of scheduled days per week	_____	_____
Average number of jobs per day	_____	_____
Total hours scheduled for past 3 months	_____	_____
Actual hours used for past 3 months:		
Production	_____	_____
Testing	_____	_____
Rerun	_____	_____
Maintenance	_____	_____
Idle	_____	_____
Other	_____	_____

Explain how the numbers of actual hours used were derived.

_____

_____

Multiprogramming factor (average
number of programs running
concurrently)   _____

Workpaper
index

14. Budgeted, actual, and projected costs
    for current and next fiscal year.   _____

	Budgeted costs	Actual costs	Projected costs
Costs of rented equipment:			
Central processing units	_____	_____	_____
Data communications	_____	_____	_____
All other ·	_____	_____	_____
Costs of purchased equipment:			
Central processing units	_____	_____	_____
Data communications	_____	_____	_____
All other	_____	_____	_____
Hardware maintenance costs	_____	_____	_____
Personnel costs:			
ADP general management	_____	_____	_____
Security personnel	_____	_____	_____
System programmers	_____	_____	_____
Systems analysts	_____	_____	_____
Application programmers	_____	_____	_____
Other technical support	_____	_____	_____
Computer operators	_____	_____	_____
Peripheral equipment handlers	_____	_____	_____
Data entry operators	_____	_____	_____
Control clerks	_____	_____	_____
Schedulers	_____	_____	_____
Librarian(s)	_____	_____	_____
Data base administrator(s)	_____	_____	_____
Secretaries and clerks	_____	_____	_____
Other	_____	_____	_____
Supplies (cards, paper, etc.)	_____	_____	_____
Contracts:			
Data conversion	_____	_____	_____
Other services	_____	_____	_____
Facility costs:			
Space	_____	_____	_____
Utilities	_____	_____	_____
Other costs (specify)	_____	_____	_____
Total costs	_____	_____	_____

Data center protection

15. Data center security procedures.   _____

16. Emergency plan.   _____

17. Backup and recovery procedures.   _____

System software

18. Operating system description.   _____

19. System utilities description.   _____

20. Program library system description.   _____

21. File maintenance system description.   _____

22. Security software description.   _____

23. Data communications system description.   _____

24. Data base management system
    description.   _____

25. System software change procedures.   _____

GRA - 10

Hardware

26. Complete inventory and description of
     the computer system.   _____

     CPU manufacturer   _____
     CPU model number   _____
     Date CPU installed   _____
     CPU physical location   _____
     Internal storage capacity   _____
     Direct access storage capacity   _____
     Console model number   _____

     Peripheral devices   Number of devices

     Magnetic tape drives:
          ____track, ____density
          ____track, ____density   _____
          ____track, ____density
     Magnetic disk drives:
          ____series or model number   _____
          ____series or model number   _____
          ____series or model number   _____
     Magnetic drum units   _____
     Other mass storage units
        (specify type)   _____
     Card readers   _____
     Card punches   _____
     Card reader/punches   _____
     Line printers:
          ____lines per minute   _____
          ____lines per minute   _____
     On-line terminals   _____
     Remote batch terminals   _____
     Communications controllers   _____
     Optical scanners   _____
     MICR readers   _____
     Mark sense readers   _____
     Key-to-tape units   _____
     Key-to-disk units   _____
     Keypunch/verification units   _____
     Card sorters   _____
     Card collators   _____
     Card accounting machines   _____
     Other (specify)   _____

27. Schematic of telecommunications network.   _____

GRA - 11

EXECUTIVE ADP MANAGEMENT COMMITTEE

An executive ADP management committee, normally chaired by a top management representative, is usually responsible for

--establishing agencywide policies for data processing systems,

--approving short- and long-range plans to develop and implement new systems,

--evaluating the need for new computer equipment, and

--insuring that new equipment is acquired in the most economical and expeditious manner.

User departments and internal audit should be represented on this committee.

The auditor should determine whether the agency has an executive ADP management committee, its makeup, and the extent of its responsibilities.

	YES	NO

REPRESENTATION

1. Does the agency have an executive ADP management committee? (Attach a copy of the committee's organization chart.)

2. Does a top management representative chair the committee?

3. Are major users of computer-processed information represented on it?

4. Is the internal audit department represented?

5. Does the committee have prescribed, documented responsibilities? (Attach a copy of the committee's charter.)

RESPONSIBILITIES

6. Does the committee:

--Establish agencywide policies for ADP?

GRA - 14

TOP MANAGEMENT CONTROLS PROFILE

Control characteristic	Is the control in place?	Is the control effective?	In some alternate control in place?	Is the alternate control effective?	Level of potential risk
INTERNAL AUDIT					
ADP involvement					
General controls review capability					
Application controls review capability					
Systems design, development, and modification review capability					
Reporting requirements					
EXTERNAL AUDITS AND STUDIES					
GAO ADP reviews					
GAO system approvals					
Private accounting firms and consultants					

GRA - 12

INTERNAL AUDIT

Generally accepted Government auditing standards concerning computer-based systems state that the auditor shall

--review the general controls in data processing systems, and

--review application controls of installed data processing applications.

An additional objective should be to review the design and development of new data processing systems and significant modifications to them. The internal audit function should be independent and should report to the agency head or deputy head.

The auditor should determine the extent of internal audit coverage of agency ADP activities, and the level of internal audit reporting.

	YES	NO

ADP INVOLVEMENT

1. Is the agency's ADP-related internal audit function documented? (If so, obtain a copy.)

2. Has internal audit periodically reviewed the ADP function?

3. Has internal audit developed an overall audit plan which includes ADP reviews?

4. Does internal audit have an ADP team within its staff?

5. Are members of the ADP audit team qualified in the ADP audit area?

GENERAL CONTROLS REVIEW CAPABILITY

6. Does internal audit review general controls in computer-based. systems to determine whether controls have been designed according to management direction and legal requirements?

7. Does internal audit review general controls in computer-based systems to assure that the controls are operating effectively to provide

GRA - 12

	YES	NO

reliability of, and security over,
the data being processed?

8. As part of its general controls
reviews, does internal audit make
sure that each of the following are
adequate:

--Organizational controls?

--Physical facilities controls?

--Personnel controls?

--Security controls?

--Operating system controls?

--Hardware controls?

APPLICATION CONTROLS REVIEW CAPABILITY

9. Does internal audit review the
application controls in computer-
based systems upon which they are
relying to assess their reliability in
processing data in a timely, accurate,
and complete manner?

10. Do these control reviews
determine whether the computer-
based systems conform to agency
and Federal standards?

11. Do these control reviews deter-
mine whether the systems conform
to the latest approved design
specifications?

12. Are periodic audits designed to
test internal controls and
reliability of data processed?

13. Does internal audit verify the
information on ADP output reports
against related source documents?

14. Does internal audit use test data
to insure the reliability of
computer programs?

15. Are automated data retrieval and
analysis packages or specially
written computer programs used
for evaluating data records?   ___   ___

16. Are audit test data stored under
internal audit control?   ___   ___

17. Does internal audit supervise
the running of test data?   ___   ___

18. Are audit retrieval programs stored
under internal audit control?   ___   ___

19. Does internal audit supervise the
running of audit retrieval programs?   ___   ___

SYSTEMS DESIGN, DEVELOPMENT, AND
MODIFICATION REVIEW CAPABILITY

20. Does internal audit review the
design and development of new data
processing systems or applications?   ___   ___

21. Does internal audit review signif-
icant modifications to systems or
applications?   ___   ___

22. As part of its design, development,
and modification review function,
does internal audit make sure that
all systems:

--Carry out the policies management
has prescribed for the system?   ___   ___

--Provide the controls and audit
trails needed for management,
auditor, and operational review?   ___   ___

--Will be efficient and economical
in operation?   ___   ___

--Conform with applicable legal
requirements?   ___   ___

--Are documented in a manner that
will provide the understanding
of the system required for
appropriate maintenance and
auditing?   ___   ___

GRA - 12   <u>YES</u>   <u>NO</u>

REPORTING REQUIREMENTS

23. Is internal audit located outside
     the staff or line management
     function of units under audit?   ___   ___

24. Does internal audit report to the
     agency head or deputy head?   ___   ___

25. Does internal audit maintain copies
     of memorandums and reports of all
     (both internal and external) ADP
     review efforts?   ___   ___

NOTES: Questions should be self-explanatory. Responses will
         frequently be a simple "yes" or "no." All responses
         should be indexed to appropriate supporting documents
         or records of interviews. Explain any "no" answers and
         identify alternate control procedures.

GRA - 13
EXTERNAL AUDITS AND STUDIES

External reviews and studies conducted by GAO, private accounting firms, or consultants provide a third party appraisal of agency ADP operations.

The auditor should determine the extent of external review coverage for the past 1 to 3 years and whether the agency has implemented recommendations.

	YES	NO

GAO ADP REVIEWS

1. Has the agency been included in a Government-wide ADP review? ___ ___

2. Were agency ADP operations free of deficiencies? ___ ___

3. If not, has the agency taken corrective measures? ___ ___

4. Has the agency's ADP planning process ever been reviewed? ___ ___

5. Were agency ADP planning processes free of deficiencies? ___ ___

6. If not, has the agency taken corrective measures? ___ ___

7. Have the agency's ADP procurement activities ever been reviewed? ___ ___

8. Were agency ADP procurement activities free of deficiencies? ___ ___

9. If not, has the agency taken corrective measures? ___ ___

GAO SYSTEM APPROVALS

10. Has the application system under review ever been subjected to a GAO system approval review? ___ ___

11. Was the agency system free of deficiencies? ___ ___

12. If not, has the agency taken corrective measures? ___ ___

13. Was the system approved? ___ ___

	YES	NO

**PRIVATE ACCOUNTING FIRMS
AND CONSULTANTS**

14. Has the agency contracted with
    private firms to evaluate its
    ADP activities?

15. Were agency ADP activities free
    of deficiencies?

16. If not, has the agency taken
    corrective measures?

17. If a financial computer-based system
    is involved, was the system reviewed
    by a private accounting firm?

18. Were both general and application
    controls reviewed?

19. Was the financial computer-based
    system free of deficiencies?

20. If not, has the agency taken
    corrective measures?

NOTES: Questions should be self-explanatory. Responses will
        frequently be a simple "yes" or "no." All responses
        should be indexed to appropriate supporting documents
        or records of interviews. Explain any "no" answers and
        identify alternate control procedures.

TOP MANAGEMENT CONTROLS PROFILE

On the basis of questionnaire responses and other information
obtained relating to the following control characteristics, how
much risk (low, medium, or high) do you believe is involved in
relying on the agency's top management controls to assure effec-
tive ADP operations? Refer to appendix II for more information on
assessing risk.

Control characteristic	Is the control in place?	Is the control effective?	Is some alternate control in place?	Is the alternate control effective?	Level of potential risk
EXECUTIVE ADP MANAGEMENT COMMITTEE					
Committee representation					
Committee responsi- bilities					
Committee reporting requirements					

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TOP MANAGEMENT CONTROLS PROFILE

Control characteristic	Is the control in place?	Is the control effective?	In some alternate control in place?	Is the alternate control effective?	Level of potential risk
INTERNAL AUDIT					
ADP involvement					
General controls review capability					
Application controls review capability					
Systems design, development, and modification review capability					
Reporting requirements					
EXTERNAL AUDITS AND STUDIES					
GAO ADP reviews					
GAO system approvals					
Private accounting firms and consultants					

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TOP MANAGEMENT CONTROLS MATRIX

If the degree of risk determined on the previous profile warrants additional audit work (i.e., medium to high risk), the following matrix should help the auditor select appropriate audit steps to complete the review.

Executive ADP Management Committee	document the data flow	observe operations	obtain user satisfaction	process test data	perform computer program analysis	perform data retrieval analysis	analyze job accounting data	report deficiencies	suggest additional audit
Committee Representation								●	
Committee Responsibilities								●	
Committee Report Requirements								●	
Internal Audit									
ADP Involvement								●	●
General Control Reviews	●	●	●			●	●	●	●
Application Control Reviews	●	●	●	●	●	●	●	●	
System Design, Development and Modification Reviews			●	●	●			●	
Reporting Requirements								●	
External Audits and Studies									
GAO ADP Reviews								●	●
GAO System Approvals								●	●
Private Accounting Firms and Consultants								●	●

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ORGANIZATIONAL CONTROLS

A key organizational control is an adequate separation of duties, which includes

--separating the data processing functions from other agency functions,

--separating different data processing functions within the data processing department, and

--providing for separation of duties within user departments.

Clear-cut lines of supervision, job rotation, and mandatory vacations can also improve internal control.

The auditor should determine the extent of separation of duties.

	YES	NO

SEPARATION OF DUTIES

1. Is the ADP function independent from other agency operations?

2. Are all ADP employees prohibited from having authority, or duties in any other department?

3. Are the following functions performed by a different individual or group:

    --Systems analysis?

    --Application programming?

    --Acceptance testing?

    --Program change control?

    --Data control?

    --Production control and scheduling?

    --Computer equipment operation?

    --Data base management?

    --System software maintenance?

	YES	NO
GRA - 15		
--Computer files maintenance?	___	___
--Source document origination?	___	___
--Source document conversion to machine-readable format?	___	___

PERSONNEL POLICIES

4. Is there a direct line of responsibility between every subordinate and supervisor?   ___   ___

5. Is a personnel rotation plan in effect within the different functional areas in the ADP department?   ___   ___

6. Are ADP department personnel required to take regularly scheduled vacations?   ___   ___

7. Does the ADP department have a low turnover rate?   ___   ___

8. Does the ADP department have a low absentee rate?   ___   ___

NOTES: Questions should be self-explanatory. Responses will
        frequently be a simple "yes" or "no." All responses
        should be indexed to appropriate supporting documents
        or records of interviews. Explain any "no" answers and
        identify alternate control procedures.

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SYSTEM DESIGN, DEVELOPMENT, AND

MODIFICATION CONTROLS

The adequacy and effectiveness of controls in computer-based systems begin with the methods and procedures used during the system development process. The agency should have a structured design, development, and modification process which provides adequate separation of duties and assures user, management, and internal auditor participation. Additional key elements are adequate documentation, effective computer program testing, effective system acceptance testing, and effective computer program change control procedures.

The auditor should evaluate the total system development process used by the agency, paying strict attention to the key elements outlined above.

	YES	NO

SYSTEM DEVELOPMENT LIFE CYCLE

1. Does the agency have a formal, management controlled approach for system development? ___ ___

2. Does the system development process include the following steps:

   --User needs definition? ___ ___

   --Conceptual system design? ___ ___

   --Feasibility study? ___ ___

   --Cost-benefit analysis? ___ ___

   --Detailed system analysis
   and design? ___ ___

   --Programming? ___ ___

   --Testing? ___ ___

   --Procedure preparation? ___ ___

   --Conversion? ___ ___

   --System acceptance? ___ ___

   --Operations? ___ ___

   --Postimplementation audit? ___ ___

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	YES	NO
3. Are formal requests for new or revised systems prepared by users and submitted with proper authorization signatures?	___	___
4. Are these users' needs used to develop the conceptual system design?	___	___
5. Is this conceptual design used to determine the technical and operational feasibility of the system?	___	___
6. Is a cost-benefit analysis performed to make sure that the conceptual system will produce desired results economically?	___	___
7. Were additional hardware and/or system software needs considered in the cost-benefit analysis?	___	___
8. If so, is the additional hardware and/or system software requirement consistent with the agency's short- and long-range plans?	___	___
9. Was the detailed system design consistent with the conceptual design and was it based on the feasibility study and cost-benefit analysis?	___	___
10. Was the detailed system design used to prepare computer programs?	___	___
11. Upon completion of all programming, is each program, interrelated subsystem, and the entire system thoroughly tested?	___	___
12. Are program and system test results reviewed and signed by the systems analyst?	___	___
13. Were all processing procedures-- both manual and automated--prepared before implementation and reviewed to make sure that the detailed design specifications were followed?	___	___
14. Are there effective procedures to insure that no data is lost or erroneously changed during conversion to the newly designed system?	___	___

15. Was sufficient computer time allocated
    for the conversion process?   ___   ___

16. Was the newly designed system tested
    in parallel with the old system?   ___   ___

17. Was sufficient time allocated for
    parallel processing to allow for
    adequate comparison of results from
    both processes?   ___   ___

18. Was the system "acceptance tested" to
    insure that it performed in accordance
    with functional and detailed performance
    specifications, including desired controls,
    and meets user needs and objectives?   ___   ___

19. Was this system acceptance performed
    by a group independent of the
    programmers and analysts who designed
    the system?   ___   ___

20. Does the system acceptance process
    evaluate both manual and automated
    procedures?   ___   ___

21. Does the system acceptance group
    certify in writing that the computer-
    based system performs in accordance
    with all functional and performance
    specifications?   ___   ___

22. Are all scheduled and emergency computer
    program modifications evaluated by the
    independent system acceptance group?   ___   ___

23. Does the system acceptance group control
    all changes to the computer-based
    system in order to maintain its integrity
    on a continuing basis?   ___   ___

24. When the system is ready for initial
    operation, is its implementation co-
    ordinated with all personnel involved
    and other systems affected?   ___   ___

25. After the system is in operation for
    several months, is a postimplementation
    audit of the entire system--both manual
    and automated--performed by the internal
    audit staff?   ___   ___

26. Are at least the following personnel
    (or their equivalents) involved in the
    system development process:

    --Project manager?

    --Users?

    --Systems analysts?

    --Programmers?

    --Acceptance testers?

    --Internal auditors?

27. Are duties of the different personnel
    assigned to the development project
    clearly separated?

28. Is each person assigned to the develop-
    ment project aware of his/her respon-
    sibility?

29. Have specific tasks and time frames
    for completing tasks been established
    for each member of the development
    project?

30. Is the project manager authorized to
    make decisions on personnel resources,
    scheduling, costs, budgets, and most
    technical project matters?

31. Is the project manager sufficiently
    supported by top management to
    accomplish the system development
    project?

32. Have adequate resources been provided
    to successfully complete the system
    development project?

33. Does top management track system
    development projects to make sure
    that objectives and time schedules
    are being met?

34. Do users actively participate in
    system development projects?

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YES   NO

35. Is the user the final authority on
    whether the system meets its intended
    purpose (i.e., does the user have the
    final "go/no go" decision to place
    the system in operation)?   ___   ___

36. Are all interested parties represented
    on the development team?   ___   ___

37. If not, has a mechanism been established
    so they can provide input to the team?   ___   ___

38. Are documentation and programming
    standards adhered to during the system
    development project?   ___   ___

DOCUMENTATION

39. Do agency standards exist for documenting
    different data processing functions?   ___   ___

40. Has a project request document been
    prepared to provide the means for a
    user to request the development,
    procurement, or modification of soft-
    ware or other ADP-related services?   ___   ___

41. Does the project request document
    include the following:

        --A statement of objectives to be
          accomplished by the proposed
          project?   ___   ___

        --A description of the service to
          be performed?   ___   ___

        --The reason for the request?   ___   ___

        --A description of how the requested
          project relates to other systems?   ___   ___

        --A statement on privacy and security
          considerations?   ___   ___

        --A list of those organizations that
          will be affected by the proposed
          project?   ___   ___

        --A list of pertinent reference
          documents on the project?   ___   ___

GRA - 16   **YES**   **NO**

42. Has the project request document been annotated by the receiving organization with the following:

    --The date the request was received?

    --The individual assigned to investigate the request?

    --The disposition of the request?

    --An estimated cost for completing a feasibility study or other analysis, and the project as a whole?

    --Any additional information such as problems encountered or references to other pertinent information?

43. Has a feasibility study document been prepared to provide the following:

    --An analysis of the objectives, requirements, and system concepts?

    --An evaluation of alternative approaches?

    --An identification of a proposed approach?

44. Does the document include the following:

    --A description of the requirements of the proposed system?

    --A statement of the major performance objectives of the proposed system?

    --An analysis of existing systems which currently address the proposed system's requirements and objectives?

    --A detailed description of the proposed system?

    --A discussion of alternative systems or approaches?

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--The rationale for recommending
the proposed system?   ___   ___

--A proposed schedule for system
development?   ___   ___

45. Has a cost-benefit analysis document
been prepared to give managers, users,
designers, and auditors adequate cost
and benefit information to analyze and
evaluate alternative approaches?   ___   ___

46. Does the document include the following:

--A description of alternative
systems or approaches?   ___   ___

--The cost of development and
operation of each alternative?   ___   ___

--The benefits which could be
attained through the development
of each alternative?   ___   ___

--A comparative cost-benefit
summary?   ___   ___

--A sensitivity analysis assessing
the extent to which costs or
benefits would be affected by
changes in key factors?   ___   ___

47. Has a functional requirements document
been prepared to provide the basic
understanding between users and
designers of the system?   ___   ___

48. Does the document include:

--A statement of objectives to be
met by the new computer-based
system?   ___   ___

--A description of existing methods
and procedures?   ___   ___

--A description of proposed methods
and procedures?   ___   ___

--A summary of expected improvements?   ___   ___

--A summary of impacts?   ___   ___

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<div align="right">YES   NO</div>

--Cost considerations of the proposed
  computer-based system?   ___ ___

--A description of alternative
  proposals?   ___ ___

--The performance requirements
  of the new system?   ___ ___

--A description of inputs and
  outputs?   ___ ___

--A description of data elements,
  dictionaries, tables, and
  reference files?   ___ ___

--A description of contingency
  steps to be taken in the event
  of hardware/software failures?   ___ ___

--A description of the equipment
  needed to process the system?   ___ ___

--A description of system software
  needed to support the system?   ___ ___

--A description of interfaces with
  other systems?   ___ ___

--The security and privacy require-
  ments of the system?   ___ ___

--A description of controls over
  and within the system?   ___ ___

--A plan for developing and imple-
  menting the proposed system?   ___ ___

49. Has a data requirements document been
    prepared to provide a data description
    and technical information about data
    collection requirements?   ___ ___

50. Does it describe:

    --All required data?   ___ ___

    --Data collection requirements,
      responsibilities, procedures and
      impacts?   ___ ___

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51. Have detailed system/subsystem
    specifications been developed for the
    computer-based system?   ___   ___

52. Do they include:

      --An overall narrative description
      of the system?   ___   ___

      --Its performance requirements?   ___   ___

      --The equipment configuration
      needed to process the system?   ___   ___

      --The system software needed to
      support the system?   ___   ___

      --The interfaces with other systems?   ___   ___

      --The security and privacy require-
      ments of the system?   ___   ___

      --The operational controls over
      the system?   ___   ___

      --The design characteristics of the
      system, including a system flowchart?   ___   ___

53. Have detailed program specifications
    been developed for all programs of the
    system?   ___   ___

54. Do these specifications include the following:

      --A general narrative description
      of the program and its functions?   ___   ___

      --The program's performance
      requirements?   ___   ___

      --The equipment required to
      operate the program?   ___   ___

      --The system software needed
      to support the program?   ___   ___

      --A description of all interactions
      by computer operators?   ___   ___

      --The storage requirements of the
      program, including the amount of

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<div align="right">YES   NO</div>

      internal storage, and the amount
and type of off-line storage?   ___   ___

--The security and privacy
requirements of the program?   ___   ___

--The controls over and within the
program?   ___   ___

--Lists of constants, codes, and
tables used?   ___   ___

--The operating procedures of
the program?   ___   ___

--The input record formats and
descriptions?   ___   ___

--A description of the program's
logic, including flowcharts and
decision tables, supplemented
by narrative explanations?   ___   ___

--The output record formats and
descriptions?   ___   ___

--The logical and physical
characteristics of all data bases
used by the program including
file layouts and data element
definitions?   ___   ___

--Source program listing?   ___   ___

--Object program listing?   ___   ___

55. Have detailed specifications been
developed for data bases used by the
computer-based system?   ___   ___

56. Do these specifications include the following:

      --The data base identifications?   ___   ___

      --The system(s) using the data base?   ___   ___

      --The labeling and tagging conven-
tions used when accessing the
data base?   ___   ___

      --Any special instructions for using
it?   ___   ___

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YES   NO

--The system software needed to
support it?   ___   ___

--Its logical characteristics?   ___   ___

--Its physical characteristics?   ___   ___

57.   Has a users manual been developed
which documents the functions of the
computer-based system?   ___   ___

58.   Does this manual include:

--A narrative description of the
computer-based system?   ___   ___

--A description or diagram of the
computer-based operation?   ___   ___

--A description of the equipment
needed to process the system?   ___   ___

--The structure and role of each
system component?   ___   ___

--The performance capabilities of
the system?   ___   ___

--A description of all data files
used by the system?   ___   ___

--A description of the inputs, the
flow of data through the processing
cycle, and the outputs?   ___   ___

--The step-by-step procedures
required to initiate processing?   ___   ___

--The requirements for preparing and
entering input data?   ___   ___

--The requirements relevant to each out-
put, such as format, frequency, etc.?   ___   ___

--A list of error codes or conditions
generated by the system and the cor-
rective actions to be taken by the
user?   ___   ___

--The detailed instructions necessary
to intiate, prepare, process, and
receive a query applicable to the
data base?   ___   ___

GRA - 16   <u>YES</u>   <u>NO</u>

59. Has an operations manual been developed
    which describes the computer-based system
    and its operational environment for computer
    operations personnel?   ____   ____

60. Does this manual include:

        --A diagram showing the inputs,
          outputs, data files, and sequence
          of operations of the computer-
          based system?   ____   ____

        --An inventory of all programs
          included in the system?   ____   ____

        --An inventory of each permanent
          file that is referenced, created,
          or updated by the system?   ____   ____

        --A list of the various runs
          possible and a summary of each
          run's purpose?   ____   ____

        --A description of the manner in
          which progressive advances from
          one run to another is made to
          complete the entire run cycle?   ____   ____

        --The job control statements
          needed for each run?   ____   ____

        --Operator instructions for
          each run?   ____   ____

        --The input and output files
          for each run?   ____   ____

        --The output reports produced
          for each run?   ____   ____

        --The output reports that need to be
          reproduced by other means?   ____   ____

        --The restart/recovery procedures
          for each run?   ____   ____

        --Any emergency procedures?   ____   ____

        --A description of procedures for
          running the computer-based
          system through remote devices?   ____   ____

61. Does the operations manual exclude:

    --Program logic charts or decision
      tables?   ___   ___

    --Copies of program listings?   ___   ___

62. Are program listings inaccessible to
    computer operations personnel?   ___   ___

63. Are computer operations personnel
    denied access to other program and
    system documentation?   ___   ___

64. Has a program maintenance manual been
    developed which gives the maintenance
    programmer sufficient information
    to understand the programs, their
    operating environment, and their main-
    tenance procedures?   ___   ___

65. Does this manual include:

    --A detailed description of each
      program in the computer-based
      system?   ___   ___

    --The equipment needed to process it?   ___   ___

    --The system software needed to
      support the application
      programs?   ___   ___

    --A description of the data base
      being used by the application
      programs?   ___   ___

    --A description of the programming
      conventions used to develop the
      application programs?   ___   ___

    --A description of all error
      conditions, their sources, and
      procedures for their correction?   ___   ___

    --Program listings and flowcharts
      of decision tables?   ___   ___

66. Has a plan been documented to test the
    computer-based system?   ___   ___

67. If so, does it include the detailed
specifications, descriptions, and
procedures for all tests?

68. Does it include test data reduction
and evaluation criteria?

69. Has a test analysis report been
developed which documents the test
analysis results and findings?

70. If so, does it present the demonstrated
capabilities and deficiencies of the
computer-based system?

71. Is the report used to prepare a state-
ment of the system's readiness for
implementation?

72. Is all documentation periodically
reviewed to insure that it is current
and complete and adheres to established
standards?

73. Are copies of all documentation stored
off the premises?

74. If so, is the stored documentation
periodically compared and updated
with that being used?

75. Is there written evidence of who
performed the systems and programming
work?

76. Do documented procedures exist for
controlling all system documentation?

PROGRAM TESTING AND SYSTEM ACCEPTANCE

77. Are all computer programs desk
checked by the programmer and his/her
supervisor before program assembly
or compilation?

78. Are all computer programs reviewed
after assembly or compilation to
insure that errors disclosed by these
translator routines are corrected?

GRA - 16   <u>YES</u>   <u>NO</u>

79. Is test data, as opposed to live data,
     used to test computer programs?   ___   ___

80. Is each program, subsystem, and then the
     entire system, tested?   ___   ___

81. Is test data treated just like live data,
     as opposed to having special codes entered
     in the test data to indicate it is not
     normal production data?   ___   ___

82. Are sufficient volumes of test
     transactions entered which have a wide
     range of valid and invalid conditions?   ___   ___

83. Is sufficient time allocated for
     thorough testing?   ___   ___

84. Have sufficient staff members been
     allocated for testing purposes?   ___   ___

85. Are there test cases which evaluate the
     following:

          --Mainline and end-of-job logic?   ___   ___

          --Each routine?   ___   ___

          --Each exception?   ___   ___

          --Abnormal end-of-job conditions?   ___   ___

          --Combinations of parameter cards
            and switch settings?   ___   ___

          --Unusual mixtures and sequences of data?   ___   ___

86. Does the test data include cases which test
     for the following types of valid conditions:

          --Codes?   ___   ___

          --Characters?   ___   ___

          --Fields?   ___   ___

          --Combinations of fields?   ___   ___

          --Transactions?   ___   ___

          --Calculations?   ___   ___

GRA - 16   <u>YES</u>   <u>NO</u>

--Missing data? ___ ___

--Extraneous data? ___ ___

--Amounts? ___ ___

--Units? ___ ___

--Composition? ___ ___

--Logic decisions? ___ ___

--Limit or reasonable checks? ___ ___

--Sign? ___ ___

--Record matches? ___ ___

--Record mismatches? ___ ___

--Sequence? ___ ___

--Check digit? ___ ___

--Crossfooting of quantitative
  data? ___ ___

--Control totals? ___ ___

87. Are programming aid software packages
    used to improve computer programs'
    efficiency and effectiveness? ___ ___

88. Are new programs run parallel to old
    ones to help assure their accuracy? ___ ___

89. Are all computer-based systems subjected
    to a system acceptance process? ___ ___

90. Does this system acceptance evaluate
    whether the entire system, both manual
    and automated processes, is performing
    in accordance with system specifications
    and processing standards? ___ ___

91. Is system acceptance performed by
    individuals independent of the analysis,
    design, and development of the system? ___ ___

92. Once system acceptance has been completed,
    is a written certification that the

GRA - 16   <u>YES</u>   <u>NO</u>

entire system performs in accordance with
all functional and performance specifi-
cations required before the system can
be placed in operation?   ___   ___

93. Is system acceptance performed using test
     data similar to, but independent of, program
     testing data?   ___   ·   ___

94. Are system acceptance transactions
     tested just like live transactions, as
     opposed to having special codes entered
     in the transaction to indicate that it
     is not normal production data?   ___   ___

95. Are sufficient volumes of system
     acceptance transactions entered and
     processed which have a wide range of
     valid and invalid conditions?   ___   ___

96. Is sufficient time allowed for
     system acceptance purposes?   ___   ___

97. Have sufficient staff members been al-
     located for system acceptance purposes?   ___   ___

98. Are there system acceptance test trans-
     actions which evaluate the following:

         --Mainline and end-of-job logic?   ___   ___

         --Each routine?   ___   ___

         --Each exception?   ___   ___

         --Abnormal end-of-job conditions?   ___   ___

         --Combinations of parameter cards
           and switch settings?   ___   ___

         --Unusual mixtures and sequences of data? ___   ___

99. Does system acceptance data include cases
     which test for the following types of
     valid conditions:

         --Codes?   ___   ___

         --Characters?   ___   ___

         --Fields?   ___   ___

GRA - 16   <u>YES</u>   <u>NO</u>

--Combinations of fields?   ____   ____

--Transactions?   ____   ____

--Calculations?   ____   ____

--Missing data?   ____   ____

--Extraneous data?   ____   ____

--Amounts?   ____   ____

--Units?   ____   ____

--Composition?   ____   ____

--Logic decisions?   ____   ____

--Limit or reasonableness checks?   ____   ____

--Sign?   ____   ____

--Record matches?   ____   ____

--Record mismatches?   ____   ____

--Sequence?   ____   ____

--Check digit?   ____   ____

--Crossfooting of quantitative data?   ____   ____

--Control totals?   ____   ____

<u>PROGRAM CHANGES</u>

100. Are computer programs revised only after
     written request by users and approval by
     user department management?   ____   ____

101. Do these written requests describe
     the proposed changes and reasons for them? ____   ____

102. Do these requests include security/
     privacy specifications?   ____   ____

103. Is a change request form or other means
     of documentation used to originate
     program modifications?   ____   ____

104. If so, are all change request forms
     sequentially numbered and accounted for? ____   ____

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GRA - 16   <u>YES</u>   <u>NO</u>

105. Are program modifications thoroughly
     tested to make sure that the modification
     functions properly?   ___   ___

106. Are program modifications subjected
     to system acceptance before being placed
     in operation?   ___   ___

107. Is there a limit on the number of
     times programs can be changed?   ___   ___

108. Are departments that initiate changes
     in master files or program instructions
     furnished with a notice or other documen-
     tation showing changes actually made?   ___   ___

109. Do users make the final decision on
     whether the modification meets their
     needs?   ___   ___

110. Is program documentation changed to
     reflect program modifications?   ___   ___

111. Is system documentation changed to
     reflect program modifications?   ___   ___

112. Is operations documentation changed
     to reflect program modifications?   ___   ___

113. Is user documentation changed to
     reflect program modifications?   ___   ___

114. Are procedures in place to determine
     if any other system is affected by
     the program modifications?   ___   ___

115. Does the volume of regularly scheduled
     program modifications indicate a
     problem with programs, procedures, or
     the computer-based system?   ___   ___

116. Do computer operations personnel have
     a list of individuals to notify if a
     computer-based system requires an
     emergency or immediate modification?   ___   ___

117. Are individuals on the above list
     the only application programmers allowed
     in the computer room?   ___   ___

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118. Is access to other data files and
      programs denied to the programmer
      making an emergency modification?   ___   ___

119. Is the programmer making the emergency
      modification denied access to the data
      files that the program was using when
      the problem occurred?   ___   ___

120. Do computer operations personnel document
      the problems and give that documentation
      to the ADP department manager?   ___   ___

121. Is the responsible user always notified
      that an emergency modification has
      been made?   ___   ___

122. Is the system's project manager always
      notified that an emergency modification
      has been made?   ___   ___

123. Are all emergency modifications made
      to both the source module and the
      executable load module?   ___   ___

124. Does the programmer making the emergency
      modification complete a statement and
      leave it with the computer operator as
      to the problem encountered, and the fix
      made?   ___   ___

125. Is the individual making the emergency
      modification required to perform suf-
      ficient testing to assure that the
      emergency modification will function
      properly?   ___   ___

126. Are procedures established to insure
      that the emergency modification is
      immediately subjected to a system
      acceptance test?   ___   ___

127. Are procedures established so that
      the system-accepted emergency modifi-
      cation will be incorporated into the
      next production version of the system?   ___   ___

128. Does the volume of emergency modifi-
      cations indicate a problem with programs,
      procedures, or the computer-based system?   ___   ___

GRA - 16   YES   NO

129. Are outdated source programs deleted
      from the production source program library?   ___   ___

130. Are outdated load modules deleted
      from the executable load module
      library?   ___   ___

131. Are job control statements relating to
      outdated programs discarded?   ___   ___

132. Is documentation relating to outdated
      programs discarded?   ___   ___

133. Is there a procedure to prevent
      suspended programs from being used
      by mistake?   ___   ___

134. Is a special library used for source
      programs or executable load modules
      during the testing and system
      acceptance phases?   ___   ___

135. Is an executable load module library
      used for production processing?   ___   ___

136. Does the executable load module
      library keep track of the day, date,
      sequence, who made the change, and
      the change, etc.?   ___   ___

137. Are computer programs protected from
      unauthorized access?   ___   ___

138. Does the agency use automated methods
      (such as a program library system
      software package) to restrict access
      to computer programs?   ___   ___

NOTES: Questions should be self-explanatory. Responses will
         frequently be a simple "yes" or "no." All responses
         should be indexed to appropriate supporting documents
         or records of interviews. Explain any "no" answers and
         identify alternate control procedures.

GRA - 17
DATA CENTER MANAGEMENT CONTROLS

The accuracy and completeness of information processed by an agency's data processing function depends, in part, on the controls over the operations of the data center. The main areas of control include

--input/output control and scheduling,

--malfunction reporting and preventive maintenance, and

--user billing/chargeout procedures.

The auditor should determine the adequacy of the controls over the center and the level of management exercised.

	YES	NO

INPUT/OUTPUT CONTROL AND SCHEDULING

1. Has a formal control group been established within the data center?

2. Have formal input/output control procedures been established? (If so, attach a copy.)

3. Is the control group responsible for recording and controlling all production data processed by the data processing department?

4. Does the control group keep logs of all computer-based systems?

5. Do these logs include the following:

   --Name of application?

   --Record counts and predetermined control totals of input transactions?

   --Run-to-run totals?

   --Record counts and predetermined control totals of error trans- actions?

   --Record counts and predetermined control totals of updated master files?

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		YES	NO
	--Record counts and predetermined control totals of output transactions?		
6.	Are all totals balanced during and after the application processing?	___	___
7.	Are all errors disclosed during processing controlled by the control group to insure that they are corrected promptly?	___	___
8.	Does a supervisor initial each log to indicate that a review has been performed?	___	___
9.	Does the control group require an authorization document or a transmittal sheet to accompany all input transactions?	___	___
10.	Does the group visually scan all output reports for general accuracy and completeness?	___	___
11.	Does the group distribute output reports according to a formal schedule?	___	___
12.	Is the group responsible for scheduling production runs and other workloads?	___	___
13.	Is it responsible for rescheduling of aborted or erroneous processing?	___	___
14.	Have formal scheduling procedures been established? (If so, attach a copy.)	___	___
15.	Is a priority scheme used for scheduling work?	___	___
16.	Is there a schedule of all computer-based systems which includes:		
	--A brief description of the function of each?	___	___
	--The date of approval?	___	___
	--The identification number?	___	___
17.	Is the mix of jobs aimed at getting the proper performance out of the data center's resources?	___	___
18.	If an RJE is used, has a control group been established to govern its operation?	___	___

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19. Does the computer system schedule the
    work submitted through the RJE?

20. Is the group responsible for all
    negotiable instruments?   ___   ___

21. Have formal procedures been established
    governing the requisition and accounting
    for all blank stock of negotiable instru-
    ments? (If so, attach a copy.)   ___   ___

22. Is the receipt of negotiable instruments
    inventoried by two people at the time of
    delivery?   ___   ___

23. Are negotiable instruments, damaged or
    voided during processing, destroyed in
    the presence of two or more people?   ___   ___

24. When negotiable instruments are being
    processed by the computer, are two or
    more people present?   ___   ___

25. Are all negotiable instruments
    periodically inventoried by the control
    group?   ___   ___

MALFUNCTION REPORTING AND PREVENTIVE MAINTENANCE

26. Has a formal malfunction reporting
    procedure been established for the
    data processing department? (If so,
    attach a copy.)   ___   ___

27. Are computer operators required to
    keep logs of all computer processing
    actions?   ___   ___

28. Do these logs record:

        --Startup?   ___   ___

        --Errors?   ___   ___

        --Reruns?   ___   ___

        --Recoveries?   ___   ___

        --Shutdowns?   ___   ___

        --Shift changes?   ___   ___

                                                    YES   NO

      --Maintenance?   ____   ____

      --Other?   ____   ____

29. Are all processes and operator
    decisions recorded on the operations
    log?   ____   ____

30. Does a supervisor initial each log
    to indicate that a review has been
    performed?   ____   ____

31. Does the computer system automatically
    produce a log of all system operations?   ____   ____

32. Does the console log list:

      --Date?   ____   ____

      --Job name and/or number?   ____   ____

      --Program name and/or number?   ____   ____

      --Start/stop times?   ____   ____

      --Files used?   ____   ____

      --Record counts?   ____   ____

      --Halts (programmed and
        unscheduled)?   ____   ____

33. If the system does not have a console
    typewriter, does some other method
    afford adequate control and record the
    activities performed by both the
    computer and operator?   ____   ____

34. Is all computer time accounted for
    from the time the computer is turned on,
    until it is shut down?   ____   ____

35. Are disposition notes entered on
    the console log showing corrective
    actions taken when unscheduled
    program halts occur?   ____   ____

36. Are job reruns recorded on the
    console log?   ____   ____

37. Is the reason for each rerun recorded?   ____   ____

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38. Are log pages sequentially numbered?   ___   ___

39. Is the log reviewed and signed at the
    end of each shift by a supervisor and
    filed as a permanent record?   ___   ___

40. Are logs independently examined to detect
    operator problems and unauthorized
    intervention?   ___   ___

41. Have formal preventive maintenance
    procedures been established for the data
    processing department? (If so, attach a
    copy.)   ___   ___

42. Is there documented evidence of the
    type and time of maintenance performed?   ___   ___

43. Is a schedule for machine maintenance
    published and followed?   ___   ___

44. Is sensitive data removed from all on-
    line storage devices before equipment is
    turned over to maintenance personnel?   ___   ___

USER BILLING/CHARGEOUT PROCEDURES

45. Are there documented procedures for
    user billing/chargeout?   ___   ___

46. Are there user/data processing
    department billing/chargeout agree-
    ments? (If so, attach copies.)   ___   ___

47. Are the user billing/chargeout
    procedures effectively tied into a
    job accounting system for the data
    processing department's resources?   ___   ___

48. Are the user billing/chargeout
    procedures based on the number of
    transactions processed?   ___   ___

49. Are they based on an artificial
    "computer accounting unit"?   ___   ___

50. Are there adequate procedures for
    determining the share of overhead
    costs for billing users?   ___   ___

51. Are additions to the equipment, software,
    etc., justified on the basis of resource
    utilization and user needs?   ___   ___

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YES   NO

52. Are there adequate procedures for
    determining why costs are not charged
    to users?   ___   ___

53. Is there an equitable procedure for
    charging reruns of production jobs so
    that user errors are charged to users
    and data processing department errors
    are not charged to users?   ___   ___

54. Are present data processing department
    costs in line with budgeted costs?   ___   ___

55. Is the method of charging the data
    processing department's costs equitable?   ___   ___

56. Is the method of charging the data
    processing department's costs in the
    interest of minimizing the use of
    agency resources?   ___   ___

NOTES: Questions should be self-explanatory. Responses will
         frequently be a simple "yes" or "no." All responses
         should be indexed to appropriate supporting documents
         or records of interviews. Explain any "no" answers and
         identify alternate control procedures.

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DATA CENTER PROTECTION CONTROLS

Computer resources and data should be protected against unauthorized access to reduce erroneous or fraudulent activities. Formal documented procedures should be established describing actions to be taken in the event of fire or other natural disasters.

The auditor should evaluate protection controls over the data center and the adequacy of emergency procedures and backup arrangements.

	YES	NO

SECURITY AND ACCESS

1. Has overall agencywide responsibility for conducting periodic risk analyses been formally assigned? (If so, to whom?)   ___   ___

2. Does the risk analysis measure vulnerability related to the potential for the following:

   --Fraud or theft?   ___   ___

   --Inadvertent error or improper disclosure of information?   ___   ___

   --Financial loss?   ___   ___

   --Harm to individuals or infringement on privacy rights?   ___   ___

   --Loss of proprietary data and harm to agency activities?   ___   ___

3. Has a specific timetable for conducting risk analyses been established?   ___   ___

4. Is the interval between risk analyses commensurate with the sensitivity of the information processed?   ___   ___

5. Is the interval between risk analyses at most every 5 years?   ___   ___

6. Do agency procedures require that a risk analysis be performed before the approval of design specifications for computer installations?   ___   ___

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                                                          YES   NO

7. Do agency procedures require that a
    risk analysis be performed whenever there
    is a "significant change" to the physical
    facility, hardware, or operating system
    software?   ____   ____

8. Has the agency defined "significant
    change"?   ____   ____

9. Is the definition of "significant
    change" commensurate with the sensitivity
    of the information processed by the
    installation?   ____   ____

10. Are requirements established for
    conducting risk analyses for Government-
    owned contractor-operated facilities
    as well as Government operated facilities?   ____   ____

11. Do agency plans provide for assessing
    risks related to computer services pro-
    vided by other agencies and those provided
    through commercial services?   ____   ____

12 Has overall agencywide responsibility
    for computer security been formally
    assigned? (If so, to whom?)   ____   ____

13. Has the agency assigned responsibility
    for computer security at each head-
    quarters and field organization?   ____   ____

14. Do the individuals assigned responsibility
    for computer security have both computer
    and security experience?   ____   ____

15. Are all employees required to sign an
    agreement regarding their role and
    responsibility in the department and
    the ownership and use of data processing
    equipment and information within the
    data center?   ____   ____

16. Have personnel security policies for
    screening employees been established
    and implemented?   ____   ____

17. Do these policies provide for levels
    of screening commensurate with the
    sensitivity of the position or function?   ____   ____

                                                        <u>YES</u>   <u>NO</u>

18. Have screening requirements for contractor/
    service personnel been established and
    implemented?   ___   ___

19. Are the personnel policies consistent with
    FPM letter 732-7?   ___   ___

20. When an employee is terminated, are the
    following precautions taken immediately:

        --The employee is denied access to
          the data processing department?   ___   ___

        --The employee is denied access
          to any data, program listings,
          etc.?   ___   ___

        --All other employees are informed
          of the employee's termination?   ___   ___

21. Is there a procedure to be followed if
    an employee becomes a suspected security
    risk?   ___   ___

22. Is access to the computer area limited
    to only authorized personnel?   ___   ___

23. Do combination locks, security badges,
    or other means restrict access to the
    computer room?   ___   ___

24. Are combinations on locks or similar
    devices periodically changed?   ___   ___

25. Are account codes, authorization codes,
    passwords, etc. controlled to prevent
    unauthorized use?   ___   ___

26. Are restricted entrances and emergency
    exits equipped with tamperproof
    automatic alarm systems that signal
    when doors are opened?   ___   ___

27. Are exterior walls, tape library walls,
    storage room walls, etc., of solid
    construction from floor to ceiling?   ___   ___

28. Are data processing personnel trained
    to challenge improperly identified
    visitors?   ___   ___

29. Are data processing personnel counseled
to report all cases of security intrusions
(either intentional or inadvertent) of which
they become aware?   ___   ___

30. Is access to the computer area by
custodial, electrical, and other in-house
maintenance personnel controlled?   ___   ___

31. Must vendor and support personnel provide
positive identification before they can
be admitted to the computer area?   ___   ___

32. Must data processing personnel be
present when service personnel are in
the area?   ___   ___

33. Are at least two individuals always
present in the computer room at all times?   ___   ___

34. Is there a method or procedure to re-
strict access to source documents and
blank input forms to authorized employees
only?   ___   ___

35. Are all critical forms (i.e., negotiable
instruments, identification cards, etc.)
stored in a secure location and are
they accounted for periodically?   ___   ___

36. Are source documents, blank input forms,
and other critical forms prenumbered
for accountability?   ___   ___

37. Are procedures in place to limit access to
critical forms during their intermediate
storage and transportation such as dual
custody and mail and message carrier
controls?   ___   ___

38. Is there a procedure for joint
authorization releases from the storage
area?   ___   ___

39. Is the receipt of critical forms
inventoried by two people at the time
of delivery?   ___   ___

40. Have controls been established over the
issuance of critical forms for jobs
being scheduled for processing?   ___   ___

41. When critical forms are processed by
    the computer, are two or more people
    always present?

42. Are copies of critical outputs that need
    to be destroyed kept in a secure location
    until they can be destroyed?

43. When critical outputs are destroyed, are
    at least two people present?

FILES

44. Is the responsibility for issuing and
    storing magnetic tapes, disk packs,
    or other data storage media assigned
    to a librarian?

45. Is this duty the librarian's chief
    responsibility?

46. Are library procedures documented?

47. Is access to the library always
    limited to the responsible librarian(s)?

48. Is there a librarian on duty at all
    times when the data center is being used?

49. Does the agency use automated methods
    (such as a file management system software
    package) to restrict access to computerized
    files?

50. Are sensitive files (such as security
    classification or privacy act restrictions)
    properly identified as such, and appro-
    priately secured?

51. Are all data files logged in and out to
    prevent release to unauthorized personnel?

52. Are all files expeditiously returned to
    the library after use?

53. Are tape and disk inventory records
    kept?

54. Are tape and disk status records kept?

55. Have external labeling procedures
    been documented?

	YES	NO
56. Are external labels affixed to active tapes and/or disks?	___	___
57. Do labels tie in with inventory records?	___	___
58. Are work or scratch tapes or disk packs kept in a separate area of the library?	___	___

DISASTER RECOVERY

	YES	NO
59. Have emergency procedures been documented?	___	___
60. Do they include steps to take in the event of a natural disaster by fire, water damage, etc., and intentional damage by sabotage, mob action, bomb threats, etc.?	___	___
61. Are employees familar with the emergency procedures?	___	___
62. Is the computer center separated from adjacent areas by fire resistant partitions, walls, etc.?	___	___
63. Have noncombustible flooring, ceilings, and/or draperies been used in the data center?	___	___
64. Are any activities conducted adjacent to the center that might endanger it by flood, fire, or explosion?	___	___
65. Is smoking prohibited in the center?	___	___
66. Are center personnel trained periodically in fire-fighting techniques and assigned individual responsibilities in case of a fire?	___	___
67. Are emergency procedures for handling minor and major fires prominently posted throughout the data center?	___	___
68. Are heat and smoke detectors installed in the following areas:		
--In the ceiling?	___	___
--Under raised floors?	___	___
--In the air return ducts?	___	___

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69. Do these devices alert the local fire department as well as internal personnel? ___ ___

70. Are portable fire extinguishers located in strategic and accessible areas? ___ ___

71. Are they vividly marked? ___ ___

72. Are they periodically tested? ___ ___

73. Are emergency exits and evacuation routes clearly labeled? ___ ___

74. Are battery-powered emergency lights placed in strategic locations to assist in evacuation should power be interrupted? ___ ___

75. Is the computer center protected by an automatic fire suppressing system? ___ ___

76. Are emergency switches for cutting off power easily accessible at the exits of the center? ___ ___

77. Does emergency power shutdown include the air-conditioning system? ___ ___

78. Is the center equipped with temperature and humidity gauges which automatically activate signals if either goes outside the normal range? ___ ___

79. Is the center air-conditioned by a separate system? ___ ___

80. Is the air-conditioning system sufficiently protected from unauthorized access? ___ ___

81. Is the air-conditioning system (duct linings, filters, etc.) made from noncombustible materials? ___ ___

82. Are air intakes protected against introduction of noxious substances? ___ ___

83. Is backup air-conditioning available? ___ ___

84. Is the source of electric power sufficiently reliable to assure continued operations? ___ ___

YES   NO

85. Is the source of electric power suffi-
    ciently protected from unauthorized access?   ___   ___

86. Is an alternate power source available?   ___   ___

87. Is the computer center backed up by an
    uninterruptible power source system?   ___   ___

88. Are there provisions for retaining
    and/or copying master files and a
    practical means of reconstructing a
    damaged or destroyed file?   ___   ___

89. Are sufficient generations of files
    maintained to facilitate reconstruction
    of records (grandfather-father-son
    routine)?   ___   ___

90. Is at least one file generation kept at
    a location other than the file storage
    area?   ___   ___

91. Are copies of critical files stored at
    a remote location and restricted from
    unauthorized access?   ___   ___

92. Are duplicate application programs kept
    at a remote location and restricted
    from unauthorized access?   ___   ___

93. Are duplicate system software programs
    kept at a remote location and restricted
    from unauthorized access?   ___   ___

94. Are duplicate copies of critical docu-
    mentation kept at a remote location
    and restricted from unauthorized access?   ___   ___

95. Is there backup computer capacity
    within the computer center?   ___   ___

96. Is this backup capacity in the same
    building but in a different computer
    center?   ___   ___

97. Is there backup capacity at an offsite
    location?   ___   ___

98. Have critical locations been provided
    with the following backup devices:

        --Terminals?   ___   ___

     --Modems?   ___   ___

     --Communication lines?   ___   ___

99. Have these backup arrangements been documented? ___ ___

100. Have they been formally agreed to by all parties concerned? ___ ___

101. Has a priority scheme been established in the event that backup arrangements must be used? ___ ___

102. Are backup procedures periodically tested at the backup data center? ___ ___

NOTES: Questions should be self-explanatory. Responses will frequently be a simple "yes" or "no." All responses should be indexed to appropriate supporting documents or records of interviews. Explain any "no" answers and identify alternate control procedures.

SYSTEM SOFTWARE CONTROLS

Many control operations previously performed manually have been automated in "system software," which is defined as any program or system that helps interconnect and/or control the elements of input, output, processing, data, and application programs. System software normally falls into one of the following categories: (1) operating systems, (2) system utilities, (3) program library systems, (4) file maintenance systems, (5) security software, (6) data communications systems, and (7) data base management systems.

The auditor should determine

--types and uses of system software,

--reliance on system software to perform critical control or critical processes,

--who has access to interworkings of system software, and

--how well the changes to system software are being controlled.

	YES	NO

OPERATING SYSTEMS

1. Is an operating system used to control the inner workings of the computer hardware? (If "no," skip to question 17.)

2. Has the vendor or developer provided a complete, documented description of the operating system's design and operation?

3. Does the operating system prohibit one application program from accessing memory or data of another application program that is processing simultaneously?

4. Is the operating system "read protected"? (This prohibits an application program from accessing operating system instructions, password tables, and/or other authorization algorithms.)

5. Does the operating system prohibit operators from entering data or changing memory values at the computer console?

<u>YES</u>   <u>NO</u>

6.   Is the use of privileged instruction of
     the operating system strictly controlled?   ___   ___

7.   Does the operating system control all
     input/output functions of data files?   ___   ___

8.   Are operating system instructions,
     password tables, and/or other authorization
     algorithms protected from unauthorized
     access when the computer system fails?   ___   ___

9.   Has the integrity of the operating system
     been tested after initial installation?   ___   ___

10. Does the operating system prohibit appli-
     cation programs from overriding or bypassing
     errors which are detected during processing?   ___   ___

11. Must all application programs or other
     system software be run only when the
     operating system is operational?   ___   ___

12. Is an audit trail of all operating system
     actions maintained either on the automatic
     console log or the computer system's job
     accounting data?   ___   ___

13. Is each use of the computer system's
     "load" button recorded?   ___   ___

14. Is the button physically protected?   ___   ___

15. Is the computer system's internal clock
     adequately protected from unauthorized
     access?   ___   ___

16. Does the operating system adequately
     and accurately schedule all jobs run on
     the computer system?   ___   ___

<u>SYSTEM UTILITIES</u>

17. Are utility programs used to perform
     frequently repeated functions?
     (If "no," skip to question 25.)   ___   ___

18. Has the vendor or developer of the
     system utilities provided a complete,
     documented description of their design
     and operation?   ___   ___

YES   NO

19. Must the operating system be operational
    when·utility programs are used?

20. Is there a complete directory of all
    available utilities?

21. Is access to system utility documentation
    denied to computer operators?

22. Is a supervisory authorization required
    before installation and use of new
    versions of utility programs?

23. Can controls that detect processing errors
    in system utilities be overridden or
    bypassed?

24. Can system utilities be used to override
    or bypass controls within other system
    software or application programs?

PROGRAM LIBRARY SYSTEMS

25. Is a program library system used to control
    application programs?
    (If no, skip to question 35.)

26. Has the vendor or developer of the program
    library system provided a complete, docu-
    mented description of the system's design
    and operation?

27. Does the program library system:

    --Restrict access to application
      programs?

    --Control movement of programs
      from test to production modes?

    --Control movement of programs
      from source code to object code?

    --Control changes to application
      programs?

28. Are program library system functions adequately
    supported by proper manual procedures?

29. Are control functions performed by the
    program library system protected so they
    cannot be bypassed?

30. Does the program library system provide an
    audit trail of all changes made to appli-
    cation programs?   ____   ____

31. Does the program library system prevent the
    existence of more than one version of a
    source code program?   ____   ____

32. Does the program library system prevent the
    existence of more than one version of an
    object code program?   ____   ____

33. Are obsolete programs removed regularly
    from the:

        --Source code library?   ____   ____

        --Object code library?   ____   ____

34. Are computer operators denied access to
    all libraries maintained by the program
    library system?   .   ____   ____

FILE MAINTENANCE SYSTEMS

35. Is a file maintenance system used to
    control all tape and disk data sets?
    (If no, skip to question 43.)   ____   ____

36. Has the vendor or developer of the file
    maintenance system provided a complete
    documented description of its design
    and operation?   ____   ____

37. Does the file maintenance system:

        --Restrict access to automated
          data files?   ____   ____

        --Control the establishment, use
          and retention of automated data
          files?   ____   ____

38. Are file maintenance system functions
    adequately supported by proper manual
    procedures?   ____   ____

39. Are control functions performed by the
    file maintenance system protected so that
    they cannot be overridden or bypassed?   ____   ____

40. Does the file maintenance system provide
     an audit trail of all uses and accesses
     of all automated data files?   ___   ___

41. Does the file maintenance system prohibit
     more than one data file from having the
     same volume serial number?   ___   ___

42. Have external labels been removed from
     all tape data files since the file
     maintenance system became operational?   ___   ___

SECURITY SOFTWARE

43. Is separate security software used to
     provide additional control over the
     agency's computer resources?
     (If no, skip to question 53.)   ___   ___

44. Has the vendor or developer of the
     security software provided a complete
     documented, description of its design
     and operation?   ___   ___

45. Is the security software used to control
     access to:

          --Terminals?   ___   ___

          --Remote job entry stations?   ___   ___

          --Individual automated data files?   ___   ___

          --Individual application programs?   ___   ___

          --Other system software?   ___   ___

46. Are security software functions
     adequately supported by proper manual
     procedures?   ___   ___

47. Can the control functions performed by
     security software be overridden or
     bypassed?   ___   ___

48. Does the security software provide an
     audit trail of:

          --All authorized uses of computer
            resources under control?   ___   ___

          --All unauthorized attempted access?   ___   ___

	YES	NO

49. Does security software control access to data separately from access to other computer resources? ___ ___

50. Is security software transparent to the following:

      --All application programs? ___ ___

      --All other system software? ___ ___

51. Is there a list of all individuals detailing what computer resources they have access to? ___ ___

52. Do supervisors review it periodically? ___ ___

DATA COMMUNICATIONS SYSTEMS

53. Is a data communications system used to provide the interface between terminals and the computer-based system? (If no, skip to question 78.) ___ ___

54. Has the vendor or developer of the data communications system provided a complete, documented description of its design and operation? ___ ___

55. Does the data communications system:

      --Control access to and use of terminals? ___ ___

      --Poll and receive messages from computer terminals or other computers? ___ ___

      --Address and send messages back to computer terminals or other computers? ___ ___

      --Edit and format input and output messages? ___ ___

      --Handle error situations? ___ ___

      --Reroute traffic when terminals or lines are inoperative? ___ ___

      --Perform on-line formatting on visual display terminals? ___ ___

56. Are data communications system functions adequately supported by proper manual procedures? ___ ___

57. Are functions of the data communications system protected so that they cannot be overridden or bypassed? ___ ___

58. Is a built-in hardware identification code checked by the data communications system to insure that no unauthorized terminals are being used? ___ ___

59. Does the data communications system use a table of authorized terminal addresses to allow polling with the communications network? ___ ___

60. Are user authorization codes or passwords required by the data communications system to:

    --Access the computer system? ___ ___

    --Access application programs? ___ ___

    --Access other system software? ___ ___

    --Enter transactions? ___ ___

61. Are different authorization codes required to enter different transactions? ___ ___

62. Does the authorization code identify the individual using the terminal? ___ ___

63. Are user authorization codes controlled to restrict unauthorized use? ___ ___

64. Are user authorization codes periodically changed? ___ ___

65. Is a nonprinting/nondisplaying or obliteration facility used when keying in and acknowledging user authorization codes? ___ ___

66. Is a terminal identification check performed by the data communications system so that various transaction types can be limited to authorized data entry stations? ___ ___

YES   NO

67. If a security matrix or table is used
to control access to the application
system, is it properly protected to
prevent unauthorized access?   ___   ___

68. Is a message header used by the data
communications system to identify:

--Source of the message, including
proper terminal and user authori-
zation code?   ___   ___

--Message sequence number, including
the total number of message segments?   ___   ___

--Transaction type code?   ___   ___

--Transaction authorization code?   ___   ___

69. Is this message header validated by the data
communications system for:

--Proper sequence number from the
identified terminal?   ___   ___

--Proper transaction code and/or
user authorization code for the
terminal or user?   ___   ___

--Number of message segments received
equal to the count indicated in the
message header?   ___   ___

--Proper acknowledgment from the
terminal at the end of a transmission?   ___   ___

--Balancing of debit/credit totals
derived from adding all message
segments and comparing with cor-
responding totals in the message
header?   ___   ___

70. Does the data communications system use
an end-of-transmission trailer which
includes:

--Message and segment counts?   ___   ___

--Value totals, including debits
and credits?   ___   ___

--An ending symbol?   ___   ___

71. Are trailer counts and totals reconciled with header counts and totals by the data communications system?   ___   ___

72. Does the data communications system:

    --Send acknowledgments to the terminal indicating receipt of messages?   ___   ___

    --Periodically test line and terminal operating status with standardized test messages and responses? ·   ___   ___

73. Does the data communications system use buffering to queue messages when a device, such as a terminal, is busy?   ___   ___

74. Is a transaction log of sequence-numbered and/or time-of-day-noted transactions maintained by the data communications system?   ___   ___

75. Does the transaction log record the:

    --Orginating terminal?   ___   ___

    --User authorization code?   ___   ___

    --Message identification?   ___   ___

    --Transaction type code?   ___   ___

    --Time of day that the transaction was logged?   ___   ___

    --Transaction data?   ___   ___

76. Is the transaction log used to:

    --Provide part of the audit trail?   ___   ___

    --Account for all error messages?   ___   ___

    --Record, with control totals, all retrievals made by a particular terminal?   ___   ___

77. Are all messages awaiting transmission logged by the data communications system before being put into the transmission queue, and then purged after transmission?   ___   ___

DATA BASE MANAGEMENT SYSTEMS

78. Is a data base management system used
     to control and maintain the agency's
     data base? (If "no," skip to question 93.)   ___   ___

79. Has the vendor or developer of the data
     base management system provided a
     complete documented description of its
     design and operation?   ___   ___

80. Does the data base management system:

          --Provide security over data base
            accesses?   ___   ___

          --Control the addition, modification,
            and deletion of data?   ___   ___

          --Provide the interface between
            individual application programs
            and specific data items in the
            data base?   ___   ___

81. Are data base management system functions
     adequately supported by proper manual
     procedures?   ___   ___

82. Are functions of the data base management
     system protected so that they cannot be
     overridden or bypassed?   ___   ___

83. Is the use of restricted instructions
     logged and checked periodically?   ___   ___

84. Does the data base management system
     use authorization codes or passwords
     to control access to data items?   ___   ___

85. Does the data base management system
     record unsuccessful attempts to access
     the data base?   ___   ___

86. Does the data base management system
     record which application programs have
     accessed each data item within the
     data base?   ___   ___

87. Does this log indicate whether the
     application program:

          --Read a data item?   ___   ___

--Updated a data item?   ___   ___

--Created a new data item?   ___   ___

--Deleted a data item?   ___   ___

88. Are all errors discovered by the data
base management system logged for followup?   ___   ___

89. Are failures in the data base management
system documented for supervisory review?   ___   ___

90. Can the data base management system fairly
and reliably identify and charge individual
users of the data base for their actual
usage?   ___   ___

91. Has a data dictionary been developed and
maintained documenting the following:

  --Attributes of each data item?   ___   ___

  --Security over each data item?   ___   ___

92. Does the data dictionary document the
following for each data item:

  --Its name?   ___   ___

  --Any synonyms?   ___   ___

  --Its source?   ___   ___

  --Frequency of change?   ___   ___

  --Person responsible for its accuracy?   ___   ___

  --Person responsible for updating it?   ___   ___

  --Person responsible for deleting it?   ___   ___

  --People eligible to read it?   ___   ___

  --Any special authorizations required
   to update, read, or delete it?   ___   ___

  --Its relationship with all other
   data items?   ___   ___

  --Tests for correctness to be
   applied?   ___   ___

	YES	NO

--Application programs which can update, read, or delete it?   ___ ___

--Which output reports it appears on and the application programs that produce those reports?   ___ ___

--Its data format?   ___ ___

--Its position in the logical data structure(s)?   ___ ___

SYSTEM PROGRAMMERS

93. Has the responsibility for controlling and maintaining system software (system programming) been separated from application programming?   ___ ___

94. Do system programmer responsibilities include:

    --Maintaining all system software?   ___ ___

    --Advising on selection of new system software?   ___ ___

    --Writing internal or specialized system software?   ___ ___

    --Modifying vendor-supplied system software?   ___ ___

95. Do system programmers possess high level technical skills needed to adequately perform their functions?   ___ ___

96. Are application programmers prohibited from performing system programmer functions?   ___ ___

97. Are system programmers adequately supervised?   ___ ___

98. Do supervisors have sufficient technical skills to adequately monitor system programmer actions?   ___ ___

99. Are periodic security background investigations performed on system programmers?   ___ ___

	YES	NO

100. Are system programmers prohibited from operating the computer system?   ___   ___

DATA BASE ADMINISTRATOR

101. With the advent of the data base management system, has a data base administrator position been established?   ___   ___

102. Do data base administrator responsibilities include:

     --Designing a logical structure for the data base and deciding on a physical data storage strategy?   ___   ___

     --Advising on selection of the data base management system?   ___   ___

     --Developing the data dictionary?   ___   ___

     --Selecting data search strategies?   ___   ___

     --Directing conversion of application system data files to the data base?   ___   ___

     --Establishing security, privacy, and accuracy controls?   ___   ___

     --Organizing archival data storage?   ___   ___

     --Resolving errors of data base management system failures?   ___   ___

     --Evaluating performance of the data base management system?   ___   ___

     --Reorganizing the data base when necessary?   ___   ___

103. Does the data base administrator possess high-level technical skills needed to adequately perform the function?   ___   ___

104. Is the administrator authorized to resolve conflicting requirements from different user departments?   ___   ___

105. Does the administrator insure that user requirements are met?   ___   ___

<u>YES</u>   <u>NO</u>

106.   Does the administrator insure that
       agency requirements are met?

107.   Does the administrator advise agency
       officials on organizational structure
       changes that are necessary because of
       the data base?

108.   Does the administrator make sure that
       adequate testing is performed before
       changes to the data base management
       system are implemented?

109.   Are controls established to determine
       when it is necessary to reorganize
       either the physical or logical structure
       within the data base in order to maintain
       an acceptable level of performance?

110.   After the data base is reorganized, does
       the data base administrator ascertain that
       control totals for the reorganized
       data base are reconciled with control
       totals existing before the reorganization?

111.   Does the administrator make sure that
       it is technically impossible to access the
       data base without using the data base
       management system?

112.   Is separation of duties clearly defined
       between the data base administrator and
       the following:

            --System programmers?

            --Application programmers?

            --System analysts?

            --Others?

113.   Is the data base administrator
       function properly documented?

SYSTEM SOFTWARE CHANGES

114.   Have formal documented system software
       change procedures been established?

115. Are change request forms or other
documentation used to originate system
software modifications?   ___   ___

116. If so, are all change request forms
sequentially numbered and accounted for?   ___   ___

117. Are system software modifications
thoroughly tested to make sure that
modifications function properly?   ___   ___

118. Are system software modifications
subjected to a system acceptance
before being placed in operation?   ___   ___

119. Is all relevant documentation changed
to reflect system software modifications?   ___   ___

120. Does the volume of regularly scheduled
system software modifications indicate
a problem with the software, procedures,
or application?   ___   ___

121. Do computer operations personnel have
a list of system programmers to notify
if system software requires an emergency
or immediate modification?   ___   ___

122. Are individuals on the above list the
only system programmers allowed in the
computer room?   ___   ___

123. Is access to data files and application
programs denied to the system program-
mer making a system software modification?   ___   ___

124. Is the system programmer, when making
an emergency modification, denied
access to data files and application
programs that were operating when the
problem occurred?   ___   ___

125. Does the system programmer making an
emergency system software modification
complete a statement and leave it with
the computer operator as to the problem
encountered and fix made?   ___   ___

126. Are procedures established to ensure that
emergency system software modifications
are immediately subjected to a system
acceptance?   ___   ___

GRA - 19

<u>YES</u>   <u>NO</u>

127. Are procedures established so that the
     accepted emergency modification will
     be incorporated into the next operational
     version of system software?

     _____   _____

NOTES: Questions should be self-explanatory. Responses will
        frequently be a simple "yes" or "no." All responses
        should be indexed to appropriate supporting documents
        or records of interviews. Explain any "no" answers and
        identify alternate control procedures.

HARDWARE CONTROLS

Even though most computer equipment has a high degree of reliability, malfunctions can still occur which affect the accuracy and reliability of computer data. Therefore, controls need to be established within the hardware which can detect equipment errors. This is important because improved performance and faster speed of new computers have recently been achieved by eliminating some previously used hardware controls.

The auditor should determine that proper hardware controls exist and if not, determine if alternate controls have been established.

	YES	NO

CENTRAL PROCESSING UNIT

1. Are built-in parity bits used by the CPU to insure that all data elements transmitted through the internal circuitry are transmitted correctly?

2. Is redundant character checking used by the CPU to insure the correctness of data processing?

3. Are validity checks used by the CPU to insure that only valid operation codes are used?

4. Does the CPU perform validity checks on the numbers used to access memory to insure that only valid numbers are used?

5. Does the CPU have automatic interlock controls to prevent the equipment from performing certain operations at the wrong time?

CARD READER

6. Are dual read controls (reading and comparing at two separate read stations) used to detect errors in reading cards?

7. Are hole count controls (counting punched holes and comparing counts at two separate read stations) used to detect errors in reading cards?

8. Are validity checks used to compare card punches read against valid combinations?

GRA - 20   <u>YES</u>   <u>NO</u>

CARD PUNCH

9. Are read compare controls used to
    compare card contents with data
    which was to be punched?   ___   ___

10. Are hole count controls used to
    compare hole counts of the card
    which was punched with the hole
    count which was to be punched?   ___   ___

11. Are echo check controls used to
    verify that punch dies were activated
    to punch the required holes?   ___   ___

PRINTER

12. Are echo check controls used just before
    printing to verify that the proper
    print position will be activated?   ___   ___

13. Are validity check controls used
    to verify the signals transmitted to
    the printer against the set of valid
    signals?   ___   ___

14. Are print synchronization controls used
    to check timing of the printer to
    determine that print hammers of impact
    printers are activated at the moment when
    appropriate characters are in the
    correct position?   ___   ___

MAGNETIC TAPE DRIVE

15. Are parity checks (both individual and
    blocks of characters) made to insure
    that all data elements on magnetic tape
    are transmitted correctly?   ___   ___

16. Does the magnetic tape drive perform
    read after write comparisons to insure
    that data was recorded correctly?   ___   ___

17. Are tape trailer label totals used by
    the computer to verify the number of
    characters, records, and/or blocks read
    with totals maintained on the label?   ___   ___

18. Are read errors handled by backspacing
    the tape one record or block and
    repeating the operation?   ___   ___

GRA - 20   <u>YES</u>   <u>NO</u>

19. If backspacing does not successfully
     read the record or block after repeated
     attempts, does the computer discontinue
     processing?   ___   ___

20. Are programmers prevented from bypassing
     unprocessable records or blocks?   ___   ___

21. If processing is allowed to continue,
     have alternate manual controls been
     established to control bypassed records
     or blocks?   ___   ___

<u>DIRECT ACCESS STORAGE DEVICE</u>

22. Are parity checks (both individual and
     blocks of characters) made to insure that
     all data elements on the direct access
     storage device are transmitted correctly?   ___   ___

23. Are read-after-write checks performed
     to insure that the record just written
     was correctly recorded?   ___   ___

24. Are validity check controls used to
     verify the address locations against
     the set of valid addresses?   ___   ___

25. Are address comparisons made to verify
     the address of the location at which data
     is to be written with the address called
     for by the instructions?   ___   ___

<u>DATA COMMUNICATIONS</u>

26. Is a unique hardwired identification
     code, requiring <u>no</u> human intervention
     for its use, incorporated into each
     terminal device?   ___   ___

27. Is this identification code checked
     and validated by the computer to insure
     that no unauthorized terminals are
     being used?   ___   ___

28. Does the communications system avoid
     using the public switchboard (PBX)
     as a means of reducing the error rate
     and the chance of wiretapping data
     transmissions?   ___   ___

GRA – 20   <u>YES</u>   <u>NO</u>

29. Are voice grade lines used to reduce
    data transmission errors and maintain
    integrity of data transmitted?   ___   ___

30. Are data communications lines
    conditioned for improved accuracy
    and physical security?   ___   ___

31. Are scrambling or encryption
    techniques used in transmitting
    sensitive data?   ___   ___

32. Is an automatic store and forward
    capability used to maintain control
    over messages queued for an inoperative
    or a busy communications device?   ___   ___

33. If leased lines are used, is an
    automatic backup capability used to
    ensure that when the lines fail, an
    automatic switchover is accomplished for
    the length of the outage?   ___   ___

34. Is a message intercept function used
    to receive messages directed to
    inoperable or unauthorized terminals?   ___   ___

35. Are parity checks used to detect errors
    in transmission of data?   ___   ___

36. Are validity checks used to compare
    character signals transmitted with
    the set of valid characters?   ___   ___

37. Is echo checking used to verify each
    character so that erroneous data is
    detected?   ___   ___

38. Are forward error correcting techniques
    used for the detection and reporting
    of data communications errors using
    sophisticated redundancy codes?   ___   ___

39. Are techniques available for
    detecting erroneous retransmissions
    of data?   ___   ___

40. Are modems equipped with loop-back
    switches for fault isolation?   ___   ___

YES   NO

GRA - 20

41. Are modems which handle both voice
    and data communications used to
    enable computer operators and terminal
    operators to communicate in case of
    problems?   ___   ___

NOTES: Questions should be self-explanatory. Responses will
        frequently be a simple "yes" or "no." All responses
        should be indexed to appropriate supporting documents
        or records of interviews. Explain any "no" answers,
        and identify alternate control procedures.

GRA - 21
GENERAL CONTROLS PROFILE

Based on questionnaire responses and other information
obtained relating to the following control characteristics,
how much risk (low, medium or high) do you believe is involved
in relying on the agency's general controls to assure effective
ADP operation and accurate, reliable data processing? Refer
to appendix II for more information on assessing risk.

Control characteristic	Is the control in place?	Is the control effective?	Is some alternate control in place?	Is the alternate control effective?	Level of potential risk?
ORGANIZATIONAL CONTROLS					
Separation of duties					
Personnel policies					
SYSTEM DESIGN, DEVELOPMENT, AND MODIFICATION CONTROLS					
System development life cycle					
Documentation					
Program testing and system acceptance					
Program changes					
DATA CENTER MANAGEMENT CONTROLS					
Input/output control and scheduling					

GRA - 21

GENERAL CONTROLS PROFILE

Control characteristic	Is the control in place?	Is the control effective?	Is some alternate control in place?	Is the alternate control effective?	Level of potential risk?
Malfunction reporting and preventive maintenance					
User billing/ chargeout procedures					
DATA CENTER PROTECTION CONTROLS					
Security and access					
Files					
Disaster recovery					
SYSTEM SOFTWARE CONTROLS					
Operating systems					
System utilities					
Program library systems					
File maintenance systems					
Security software					
Data communications systems					
Data base management systems					

GRA − 21

GENERAL CONTROLS PROFILE

Control characteristic	Is the control in place?	Is the control effective?	Is some alternate control in place?	Is the alternate control effective?	Level of potential risk?
System programmers					
Data base administrator					
System software changes					
HARDWARE CONTROLS					
Central processing unit					
Card reader					
Card punch					
Printer					
Magnetic tape drive					
Direct access storage device					
Data communications					

GRA - 21
GENERAL CONTROLS MATRIX

If the degree of risk determined on the previous profile warrants additional audit work (medium to high risk), the following matrix should help the auditor select appropriate audit steps to complete the review.

	document the data flow	observe operations	obtain user satisfaction	process test data	perform computer program analysis	perform data retrieval analysis	analyze job accounting data	report deficiencies	suggest additional audit
Organizational Controls									
Separation of Duties	●	●						●	
Personnel Policies		●						●	●
System Design, Development, and Modification Controls									
System Development Life Cycle		●	●					●	
Documentation	●	●		●	●			●	
Program Testing and System Acceptance		●		●	●			●	
Program Change Controls		●		●	●		●	●	
Data Center Management Controls									
Input/Output Scheduling and Control	●	●						●	●
Malfunction Reporting and Preventive Maintenance		●	●				●	●	●
User Billing/Charges Out Procedures		●	●				●	●	●
Data Center Protection Controls									
Security and Access Controls		●					●	●	
File Controls	●	●					●	●	
Disaster Recovery Controls		●						●	

12. Have you participated in any of the following activities? (CHECK ALL THAT APPLY.)

(43-48)

1. [ ] Helped identify the type of information that would be included in the report

2. [ ] Helped design the format of the report

3. [ ] Offered suggestions for changes to the report

4. [ ] Have been contacted about future changes to the report

5. [ ] Have not participated in any of these activities

6. [ ] Other (SPECIFY)

_____

II. Opinions About This Report

13. When your office receives this report, how up-to-date do you consider the information? (CHECK ONE BOX.)

(49)

1. [ ] All or almost all of the information is up-to-date

2. [ ] Most of the information is up-to-date

3. [ ] About half of the information is up-to-date

4. [ ] Most of the information is out-of-date

5. [ ] All or almost all of the information is out-of-date

6. [ ] Don't know

7. [ ] Other (SPECIFY)

_____

14. How complete do you consider the information in this report that your office uses? (That is, is any additional information needed?) (CHECK ONE BOX.)

(50)

1. [ ] Never or almost never complete

2. [ ] Generally not complete

3. [ ] As much complete as not complete

4. [ ] Generally complete

5. [ ] Always or almost always complete

6. [ ] Don't know

7. [ ] Other (SPECIFY)

_____

15. How much do you like or dislike the format used to display the information in this report? (CHECK ONE BOX.)

(51)

1. [ ] Greatly like the format

2. [ ] Like the format

3. [ ] Neither like nor dislike the format

4. [ ] Dislike the format

5. [ ] Greatly dislike the format

SYSTEM CODE USED BY AGENCY	SYSTEM NAME	BRIEF DESCRIPTION OF SYSTEM	SOURCE OF CONTROL OBJECTIVES *	CONTROL OBJECTIVES FOR SYSTEM
			*GAO's policy and procedures manual for Guidance of Federal Agencies -- Title 2 Through 8. Specific Legislation Supporting Specific Programs and Administrative Functions.	

TFRA - 1
BACKGROUND INFORMATION ON COMPUTER APPLICATION

ITEMS TO BE OBTAINED   Workpaper
                                                  index

1. Project request document.   _____

2. Feasibility study document.   _____

3. Cost/benefit analysis document.   _____

4. Functional requirements document.   _____

5. Data requirements document.   _____

6. System/subsystem specifications.   _____

7. Program specifications.   _____

8. Data base specifications.   _____

9. Users manuals.   _____

10. Operations manuals.   _____

11. Program maintenance manuals.   _____

12. Test plan.   _____

13. Test analysis report.   _____

14. Overview of computerized application
    system.   _____

    System name and agency
    identification number   _____

    Date of initial implementation   _____

    Date of latest modification   _____

    Number of modifications in
    the last 2 years   _____

    Type of system (administrative,
    scientific, other (specify))   _____

    Type of processing (batch or
    on-line)   _____

    Overview system flowchart and
    narrative description   _____

    Number of computer programs   _____

TFRA - 1

Size of largest computer
program (bytes of storage)   _____

Programming language(s) used   _____

Processing frequency   _____

Total monthly processing hours   _____

Design of system (vendor
supplied or agency programmed)   _____

Testing methodology
(test data, live data, or not
at all)
    a.   Initial system   _____
    b.   Latest modification   _____

Availability of test results
    a.   Initial system   _____
    b.   Latest modification   _____

Date of last audit or evaluation
(obtain copy)   _____

Output product distribution list   _____

TFRA - 2

DATA ORIGINATION CONTROLS

Data origination controls are used to insure the accuracy, completeness, and timeliness of data before it is converted into machine-readable format and entered into the computer application. Controls over the data must be established as close to the point of origination as possible. Additionally, controls must be maintained throughout this manual process to make sure that the data reaches the computer application without loss, unauthorized addition or modification, or other error. The main areas of control are

--source document origination,

--source document authorization,

--source document data collection and input preparation,

--source document error handling, and

--source document retention.

The auditor should determine the adequacy of controls over the manual preparation, collection, and processing of source documents to make sure that no data is added, lost, or altered before it is entered into the computer system.

	YES	NO

SOURCE DOCUMENT ORIGINATION

1. Do documented procedures exist that explain the methods for proper source document origination, authorization, data collection, input preparation, error handling, and retention?

2. Are duties separated to make sure that no one individual performs more than one of the following operations:

   --Originating data?

   --Inputting data?

   --Processing data?

   --Distributing output?

TFRA - 2   <u>YES</u>   <u>NO</u>

3. Are source documents designed to
    minimize errors and omissions such that:

    --Special purpose forms are used to guide
      the initial recording of data in a
      uniform format?   ___   ___

    --Preprinted sequential numbers are used
      to establish controls?   ___   ___

    --Each type of transaction has a unique
      identifier?   ___   ___

    --Each transaction has a cross-reference
      number which can be used to trace infor-
      mation to and from the source document?   ___   ___

4. Is access to source documents and blank
    input forms restricted to authorized
    personnel only?   ___   ___

5. Are source documents and blank input
    forms stored in a secure location?   ___   ___

6. Is authorization from two or more
    accountable individuals required before
    the release of source documents and blank
    input forms from storage?   ___   ___

<u>SOURCE DOCUMENT AUTHORIZATION</u>

7. Are authorizing signatures used for all
    types of transactions?   ___   ___

8. Is evidence of approval required for
    specific types of critical transactions
    (control bypassing, system overrides,
    manual adjustments)?   ___   ___

9. Are duties separated within the user
    department to make sure that one individual
    does not prepare more than one type of
    transaction (establishing new master
    records plus changing or updating
    master records)?   ___   ___

10. Are duties separated within the user
    department to make sure that no one
    individual performs more than
    one of the following phases of data
    preparation:

    --Originating the source document?   ___   ___

TFRA - 2

	YES	NO
--Authorizing the source document?	___	___
--Controlling the source document?	___	___

SOURCE DOCUMENT DATA COLLECTION AND INPUT PREPARATION

11. Does the user department have a
control group responsible for collecting
and completing source documents?   ___   ___

12. Does this control group verify the
following for source documents:

   --They are accounted for?   ___   ___

   --They are complete and accurate?   ___   ___

   --They have been appropriately authorized?   ___   ___

   --They are transmitted in a timely manner?   ___   ___

13. Does this control group independently
control data submitted for transmittal
to the data processing department for
conversion or entry by using:

   --Turnaround transmittal documents?   ___   ___

   --Batching techniques?   ___   ___

   --Record counts?   ___   ___

   --Predetermined control totals?   ___   ___

   --Logging techniques?   ___   ___

   --Other? (Describe.)   ___   ___

14. When the user department is responsible
for its own data entry, is there a
separate group which performs this
input function?   ___   ___

15. Are source documents, transmitted for
conversion, transported in accordance
with their security classifications?   ___   ___

SOURCE DOCUMENT ERROR HANDLING

16. Do documented procedures exist that
explain the methods for source document
error detection, correction, and reentry?   ___   ___

TFRA - 2

17. Do they include:

    --Types of error conditions that can occur?   ___   ___

    --Correction procedures to be followed?   ___   ___

    --Methods to be used for the reentry of
      source documents which have been corrected?   ___   ___

18. Does the control group identify errors
    to facilitate the correction of erroneous
    information?   ___   ___

19. Does the control group follow the same
    verification and control procedures
    described in questions 12 and 13 when
    receiving corrected source documents?   ___   ___

20. Are error logs used to insure timely
    followup and correction of unresolved
    errors?   ___   ___

21. Are source document originators immediately
    notified by the control group of all errors?   ___   ___

SOURCE DOCUMENT RETENTION

22. Are source documents retained so that data
    lost or destroyed during subsequent proc-
    essing can be recreated?   ___   ___

23. Does each type of source document have a
    specific retention period which is
    preprinted on the document?   ___   ___

24. Are source documents stored in a logical
    manner to facilitate retrieval?   ___   ___

25. Is a copy of the source document kept
    in the originating department whenever
    the document leaves the department?   ___   ___

26. Is access to records kept in the
    originating department restricted
    to authorized personnel only?   ___   ___

TFRA - 2   <u>YES</u>   <u>NO</u>

27. Are source documents, on reaching their
     expiration dates, removed from storage
     and destroyed in accordance with security
     classifications?   ___   ___

NOTES: Questions should be self-explanatory. Responses will
        frequently be a simple "yes" or "no." All responses
        should be indexed to appropriate supporting documents
        or records of interviews. Explain any "no" answers and
        identify alternate control procedures.

TFRA - 3

DATA INPUT CONTROLS

Data input controls insure the accuracy, completeness, and timeliness of data during its conversion into machine-readable format and entry into the application. Data input can be accomplished in two different ways: batch and on-line. The main areas of control include

--data conversion and entry,

--data validation and editing, and

--data input error handling.

Also of particular importance is the critical interface between the user department and the data processing department.

The auditor should determine the adequacy of both manual and automated controls over data input to make sure that data is input accurately with optimum use of computerized validation and editing, and that error handling procedures facilitate the timely and accurate resubmission of all corrected data.

	YES	NO

BATCH--DATA CONVERSION AND ENTRY

1. Do documented procedures exist that explain the methods for data conversion and entry?

2. Are duties separated to make sure that no one individual performs more than one of the following operations:

--Originating data?

--Inputting data?

--Processing data?

--Distributing output?

3. Does the data processing department have a control group responsible for data conversion and entry of all source documents received from user departments?

4. Does the data processing control group return all turnaround transmittal documents to the user department to make sure that no documents were added or lost?

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5. Does the data processing control group account
   for all batches of source documents received
   from the user department to make sure that no
   batches were added or lost?

6. Does the data processing control group
   independently develop record counts which are
   balanced with those of the control group in the
   user department, and are all discrepancies
   reconciled?

7. Does the data processing control group
   independently develop predetermined control
   totals which are balanced with those of the
   control group in the user department, and
   are all discrepancies reconciled?

8. Does the data processing control group keep
   a log or record showing the receipt of user
   department source documents, and their actual
   disposition, and are there provisions to make
   sure that all documents are accounted for?

9. Does the data processing control group
   independently control data submitted for
   conversion by using:

   --Turnaround transmittal documents?

   --Batching techniques?

   --Record counts?

   --Predetermined control totals?

   --Logging techniques?

   --Other? (Describe)

10. Are conversion operations established
    as close to the origination of the
    source documents as possible?

11. Do conversion operations record
    document information directly onto
    machine-readable media (keypunch
    cards, key to tape, key to disk, or
    key to terminal) as opposed to inter-
    mediate media, such as coding documents?

TFRA - 3   **YES**   **NO**

12. Does the data processing department have
    a schedule by application that shows when
    data requiring conversion will be
    received and needs to be completed?   ___   ___

13. Are turnaround transmittal documents
    returned to the data processing control group
    accounted for to make sure that no documents
    were added or lost during conversion?   ___   ___

14. Are all batches of documents returned
    to the data processing control group accounted
    for to make sure that no batches were added or
    lost during conversion?   ___   ___

15. Are all record counts, developed during
    conversion, balanced with those of the data
    processing control group, and are all
    discrepancies reconciled?   ___   ___

16. Are all predetermined control totals developed
    during conversion, balanced with those of the
    data processing control group and are all
    discrepancies reconciled?   ___   ___

17. Are all converted documents returned to the
    data processing control group logged in and
    accounted for?   ___   ___

18. Does the data processing control group
    independently control data submitted for data
    entry by using:

    --Turnaround transmittal documents?   ___   ___

    --Batching techniques?   ___   ___

    --Record counts?   ___   ___

    --Predetermined control totals?   ___   ___

    --Logging techniques?   ___   ___

    --Other? (Describe)   ___   ___

19. Are data entry operations established
    as close to the origination of the source
    data as possible?   ___   ___

20. Does the data processing department have
    a schedule by application that shows

TFRA – 3   <u>YES</u>   <u>NO</u>

when data requiring entry will be
received and needs to be completed?   ___   ___

21. Must all documents entered into the
    application be signed or marked in
    some way to indicate that they were
    entered into the system thereby pre-
    venting accidental duplication or
    reuse of the data?   ___   ___

22. Are turnaround transmittal documents returned
    to the data processing control group accounted
    for to make sure that no documents were added
    or lost during data entry?   ___   ___

23. Are all batches of documents returned to the
    data processing control group accounted for to
    make sure that no batches were added or lost
    during data entry?   ___   ___

24. Are all record counts, developed during data
    entry, balanced with those of the data process-
    ing control group, and are all discrepancies
    reconciled?   ___   ___

25. Are all predetermined control totals, developed
    during data entry, balanced with those of the
    data processing control group, and are all
    discrepancies reconciled?   ___   ___

26. Are all input documents returned to the data
    processing control group logged in and
    accounted for?   ___   ___

27. Are all input documents retained in a manner
    which enables tracing them to related
    originating documents and output records?   ___   ___

<u>BATCH--DATA VALIDATION AND EDITING</u>

28. Is key verification used to check the
    accuracy of all keying operations?   ___   ___

29. Are keying and verifying functions performed
    on a document done by different individuals? ___   ___

30. Are preprogrammed keying formats used to
    insure that data is recorded in the proper
    field, format, etc.?   ___   ___

31. Is data validation and editing performed
    as early as possible in the data flow to

TFRA - 3   YES   NO

insure that the application rejects any
incorrect transaction before its entry
into the system?   ___   ___

32. Is data validation and editing performed for
all input data fields even though an error
may be detected in an earlier field of the
same transaction?   ___   ___

33. Are the following checked for validity on all
input transactions:

--Individual and supervisor authorization
   or approval codes?   ___   ___

--Check digits on all identification
  keys?   ___   ___

--Check digits at the end of a string
  of numeric data that is not subjected
  to balancing?   ___   ___

--Codes?   ___   ___

--Characters?   ___   ___

--Fields?   ___   ___

--Combinations of fields?   ___   ___

--Transactions?   ___   ___

--Calculations?   ___   ___

--Missing data?   ___   ___

--Extraneous data?   ___   ___

--Amounts?   ___   ___

--Units?   ___   ___

--Composition?   ___   ___

--Logic decisions?   ___   ___

--Limit or reasonableness checks?   ___   ___

--Signs?   ___   ___

--Record matches?   ___   ___

TFRA - 3   <u>YES</u>   <u>NO</u>

--Record mismatches?   ____   ____

--Sequence?   ____   ____

--Balancing of quantitative data?   ____   ____

--Crossfooting of quantitative data?   ____   ____

34. Are special routines used which
    automatically validate and edit input
    transaction dates against a table of
    cutoff dates?   ____   ____

35. Are all persons prevented from overriding
    or bypassing data validation and editing
    problems?   ____   ____

36. If not, are the following true:

    --This override capability is restricted
      to supervisors in only a limited number
      of acceptable circumstances?   ____   ____

    --Every system override is automatically
      logged by the application so that these
      actions can be analyzed for appropriate-
      ness and correctness?   ____   ____

37. Are batch control totals submitted by the data
    processing control group used by the compu-
    ter-based system to validate the complete-
    ness of batches received as input into the
    application?   ____   ____

38. Are record counts submitted by the data
    processing control group used by the compu-
    ter-based system to validate the complete-
    ness of data input into the application?   ____   ____

39. Are predetemined control totals submitted
    by the data processing control group used
    by the computer-based system to validate the
    completeness of data input into the
    application?   ____   ____

BATCH--DATA INPUT ERROR HANDLING

40. Do documented procedures exist that explain
    the process of identifying, correcting,
    and reprocessing data rejected by the
    application?   ____   ____

TFRA - 3   YES   NO

41. Are error messages displayed with clearly
    understood corrective actions for each type
    of error?   ___   ___

42. Are error messages produced for each trans-
    action which contains data that does not
    meet edit requirements?   ___   ___

43. Are error messages produced for each data
    field which does not meet edit require-
    ments?   ___   ___

44. Is all data that does not meet edit re-
    quirements rejected from further processing
    by the application?   ___   ___

45. Is all data rejected by the application
    automatically written on an automated
    suspense file?   ___   ___

46. Does the automated suspense file also include:

    --Codes indicating error type?   ___   ___

    --Date and time the transaction was entered?   ___   ___

    --Identity of the user who originated the
      transaction?   ___   ___

47. Are record counts automatically created
    by suspense file processing to control
    these rejected transactions?   ___   ___

48. Are predetermined control totals automati-
    cally created by suspense file processing to
    control these rejected transactions?   ___   ___

49. Are rejected transactions caused by data
    conversion or entry errors corrected by the
    data processing department control group?   ___   ___

50. Does the data processing department control
    group independently control data rejected by
    the application by using:

    --Turnaround transmittal documents?   ___   ___

    --Batching techniques?   ___   ___

    --Record counts?   ___   ___

    --Predetermined control totals?   ___   ___

    --Logging techniques?   ___   ___

TFRA - 3   YES   NO

--Other? (Describe)   ____   ____

51. Are rejected transactions not caused by
     data conversion or entry errors corrected
     by the user originating the transaction?   ____   ____

52. Does the user department's control group
     independently control data rejected by
     the application by using:

     --Turnaround transmittal documents?   ____   ____

     --Batching techniques?   ____   ____

     --Record counts?   ____   ____

     --Predetermined control totals?   ____   ____

     --Logging techniques?   ____   ____

     --Other? (Describe)   ____   ____

53. Is the automated suspense file used to control
     followup, correction, and reentry of trans-
     actions rejected by the application?   ____   ____

54. Is the automated suspense file used to
     produce, for management review, analysis of:

     --Level of transaction errors?   ____   ____

     --Status of uncorrected transactions?   ____   ____

55. Are these analyses used by management to
     make sure that corrective action is taken
     when error levels become too high?   ____   ____

56. Are these analyses used by management to
     make sure that corrective action is taken
     when uncorrected transactions remain on
     the suspense file too long?   ____   ____

57. Are progressively higher levels of manage-
     ment reported to as these conditions worsen? ____   ____

58. Are debit- and credit-type entries (as
     opposed to delete- or erase-type commands)
     used to correct rejected transactions
     on the automated suspense file?   ____   ____

59. Is the application designed so that it
     cannot accept a delete- or an erase-type
     command?   ____   ____

60. Do valid correction transactions purge the
    automated suspense file of corresponding
    rejected transactions?   ___   ___

61. Are invalid correction transactions added
    to the automated suspense file, along with
    the corresponding rejected transactions?   ___   ___

62. Are record counts appropriately adjusted
    by correction transactions?   ___   ___

63. Are predetermined control totals appropriately
    adjusted by correction transactions?   ___   ___

64. Are all corrections reviewed and approved
    by supervisors before reentry?   ___   ___

65. Are procedures for processing corrected
    transactions the same as those for processing
    original transactions with the addition of
    supervisory review and approval before
    reentry?   ___   ___

66. Does ultimate responsibility for the
    completeness and accuracy of all application
    processing remain with the user?   ___   ___

ON-LINE--DATA CONVERSION AND ENTRY

67. Do documented procedures exist that explain
    the methods for data conversion and entry?   ___   ___

68. Are duties separated to make sure that no
    one individual performs more than one
    of the following operations:

    --Originating data?   ___   ___

    --Inputting data?   ___   ___

    --Processing data?   ___   ___

    --Distributing data?   ___   ___

69. Is a separate group within the user depart-
    ment responsible for performing data entry
    operations?   ___   ___

70. Does the user department's control group
    independently control data to be entered into
    the application by using:

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--Turnaround transmittal documents?   ___   ___

--Batching techniques?   ___   ___

--Record counts?   ___   ___

--Predetermined control totals?   ___   ___

--Logging techniques?   ___   ___

--Other? (Describe)   ___   ___

71. If the user department's control group
     does not control data entry, is at least
     simultaneous entry and recording of source
     data performed at the point of origination?   ___   ___

72. Must all documents entered into the
     computer application be signed or marked
     in some way to indicate that they were
     in fact entered into the system to protect
     against accidental duplication or reuse
     of the data?   ___   ___

73. Are data entry terminal devices locked
     in a physically secure room, allowing
     only query terminal devices to be located
     outside the secure room?   ___   ___

74. Must supervisors sign on each terminal
     device to initialize terminals before
     any operators can sign on to begin work?   ___   ___

75. Is the work that may be entered on a
     terminal restricted by the authority level
     assigned to each terminal device (data
     entry vs. query)?   ___   ___

76. Is password control in existence to prevent
     unauthorized use of the terminal devices?   ___   ___

77. Are nonprinting, nondisplaying, or obliteration
     facilities used when keying and acknowledging
     passwords and authorization codes?   ___   ___

78. Is an immediate report produced of unauthorized
     attempts to access the system via terminal
     devices?   ___   ___

79. Does this report include:

     --Location of the terminal device?   ___   ___

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--Date and time of the violation?   ___   ___

--Numer of attempts?   ___   ___

'--Identification of the operator at the
    time of the violation?   ___   ___

80. Is a terminal lockup used to prevent
    unauthorized access to the terminal
    device after a certain predetermined
    number of incorrect attempts to access
    the system?   ___   ___

81. Does the system automatically shut down
    the terminal in question and allow
    intervention only by specially assigned
    data processing department supervisors?   ___   ___

82. Is a data access matrix used to restrict
    use or access levels by checking user
    identifications (passwords)?   ___   ___

83. Is each individual user of the on-line
    system limited to certain types of
    application transactions?   ___   ___

84. Are master commands that control the
    operation of the application restricted
    to a limited number of supervisory
    data processing personnel and master
    command terminals only?   ___   ___

85. Does top management periodically review
    the propriety of the terminal authority
    levels?   ___   ___

86. Is top management required to review the
    propriety of terminal authority levels in the
    event of a purported or real security
    violation?   ___   ___

87. Are individual's passwords changed
    periodically?   ___   ___

88. Are individual's passwords changed
    in the event of a purported or real
    security violation?   ___   ___

89. Are passwords deleted once an individual
    changes his job function, separates, no
    longer needs the same level of access, or
    no longer needs access at all?   ___   ___

TFRA - 3   <u>YES</u>   <u>NO</u>

90. Is a usage log, or the data access matrix,
    showing purpose of user accesses reviewed
    by top management to identify unauthorized
    usage?   ___   ___

91. Has the security officer initiated an
    aggressive review program to determine
    that controls are fully operational?   ___   ___

92. Do terminal hardware features include
    the following:

    --Built-in terminal identifications which
      automatically validate proper terminal
      authorization?   ___   ___

    --Terminal logs which record all trans-
      actions processed?   ___   ___

    --Messages which are automatically date and
      time stamped for logging purposes?   ___   ___

    --Record counts which are automatically
      accumulated for logging purposes?   ___   ___

93. Does each message contain an identifying
    message header that includes:

    --Message number?   ___   ___

    --Terminal and user identification?   ___   ___

    --Date and time?   ___   ___

    --Transaction code?   ___   ___

94. Does each message contain indicators for:

    --End of message?   ___   ___

    --End of transmission?   ___   ___

95. Is parity checking used to check each
    character?   ___   ___

96. Is parity checking used to check each
    message or message block?   ___   ___

97. Is the message content checked for valid
    characters?   ___   ___

TFRA - 3   <u>YES</u>   <u>NO</u>

ON-LINE--DATA VALIDATION AND EDITING

98.   Are preprogrammed keying formats used
      to make sure that data is recorded in the
      proper field, format, etc.?   ____   ____

99.   Is interactive display used to allow
      the terminal operator to interact with
      the system during data entry?   ____   ____

100. Are computer-aided instructions, such as
      prompting, used with on-line dialog
      to reduce the number of operator errors?   ____   ____

101. Are intelligent terminals used to allow
      front-end validation, editing, and
      control?   ____   ____

102. Is data validation and editing performed
      as early as possible in the data flow to
      insure that the application rejects any
      incorrect transaction before its entry
      into the system?   ____   ____

103. Is data validation and editing performed
      for all input data fields even though an
      error may be detected in an earlier field of
      the same transaction?   ____   ____

104. Are the following checked for validity on
      all input transactions:

      --Individual and supervisor authorization
        or approval codes?   ____   ____

      --Check digits on all identification keys?   ____   ____

      --Check digits at the end of a string of
        numeric data that is not subjected to
        balancing?   ____   ____

      --Codes?   ____   ____

      --Characters?   ____   ____

      --Fields?   ____   ____

      --Combinations of fields?   ____   ____

      --Transactions?   ____   ____

      --Calculations?   ____   ____

TFRA - 3   <u>YES</u>   <u>NO</u>

--Missing data?   ___   ___

--Extraneous data?   ___   ___

--Amounts?   ___   ___

--Units?   ___   ___

--Composition?   ___   ___

--Logic decisions?   ___   ___

--Limit or reasonableness checks?   ___   ___

--Signs?   ___   ___

--Record matches?   ___   ___

--Record mismatches?   ___   ___

--Sequence?   ___   ___

--Balancing of quantitative data?   ___   ___

--Crossfooting of quantitative data?   ___   ___

105. Are special routines used which automatically
      validate and edit input transaction dates
      against a table of cutoff dates?   ___   ___

106. Are all persons prevented from overriding
      or bypassing data validation and editing
      errors?   ___   ___

107. If not, are the following true:-

      --This overrride capability is restricted to
        supervisors in a limited number of
        acceptable circumstances?   ___   ___

      --All system overrides are automatically
        logged by the application so that
        these actions can be analyzed for
        appropriateness and correctness?   ___   ___

108. Are batch control totals generated by
      the terminal, concentrator, or application
      used by the user department control group
      to validate the completeness of batches
      received as input data?   ___   ___

TFRA - 3   YES   NO

109. Are record counts generated by the terminal, concentrator, or application used by the user department control group to validate the completeness of data input?   ___   ___

110. Are predetermined control totals generated by the terminal, concentrator, or application used by the user department's control group to validate the completeness of data input?   ___   ___

ON-LINE--DATA INPUT ERROR HANDLING

111. Do documented procedures exist that explain the process of identifying, correcting, and reprocessing data rejected by the application? ___   ___

112. Are errors displayed or printed immediately upon detection for immediate terminal operator correction?   ___   ___

113. Are error messages displayed with clearly understood cross-referenced corrective actions for each type of error?   ___   ___

114. Are error messages produced for each transaction which contains data that does not meet edit requirements?   ___   ___

115. Are error messages produced for each input data field which does not meet edit requirements?   ___   ___

116. Is all data rejected by the application automatically written on an automated suspense file?   ___   ___

117. Does the automated suspense file include:

     --Codes indicating error type?   ___   ___

     --Date and time the transaction was entered?   ___   ___

     --Identity of the user who originated the transaction?   ___   ___

118. Are record counts automatically created by suspense file processing to control these rejected transactions?   ___   ___

119. Are predetermined control totals automatically created by suspense file processing to control these rejected transactions?   ___   ___

120. Are rejected transactions caused by data
entry errors corrected by the terminal
operator?   ___   ___

121. Are rejected transactions not caused by
data entry errors corrected by the user
originating the transaction?   ___   ___

122. Does the user department control group
independently control data rejected by
the application by using:

--Turnaround transmittal documents?   ___   ___

--Batching techniques?   ___   ___

--Record counts?   ___   ___

--Predetemined control totals?   ___   ___

--Logging techniques?   ___   ___

--Other? (Describe)   ___   ___

123. Is the automated suspense file used to control
followup, correction, and reentry of trans-
actions rejected by the application?   ___   ___

124. Is the automated suspense file used to
produce, for management review, analysis
of the following:

--Level of transaction errors?   ___   ___

--Status of uncorrected transactions?   ___   ___

125. Are these analyses used by management to
make sure that corrective action is taken
when error levels become too high?   ___   ___

126. Are these analyses used by management
to make sure that corrective action is
taken when uncorrected transactions
remain on the suspense file too long?   ___   ___

127. Are progressively higher levels of management
reported to as these conditions worsen?   ___   ___

128. Are debit- and credit-type entries (as
opposed to delete- or erase-type commands)
used to correct rejected transactions on
the suspense file?   ___   ___

129. Is the application designed so that it
      cannot accept a delete- or an erase-type
      command?   ___   ___

130. Do valid correction transactions purge
      the automated suspense file of corre-
      sponding rejected transactions?   ___   ___

131. Are invalid correction transactions
      added to the automated suspense file
      along with the corresponding rejected
      transactions?   ___   ___

132. Are record counts appropriately
      adjusted by correction transactions?   ___   ___

133. Are predetermined control totals
      appropriately adjusted by correction
      transactions?   ___   ___

134. Are all corrections reviewed and approved
      by supervisors before reentry?   ___   ___

135. Are the procedures for processing cor-
      rected transactions the same as those
      for processing original transactions,
      with the addition of supervisory review
      and approval before reentry?   ___   ___

136. Does ultimate responsibility for the
      completeness and accuracy of all application
      processing remain with the user?   ___   ___

NOTES: Questions should be self-explanatory. Responses will
        frequently be a simple "yes" or "no." All responses
        should be indexed to appropriate supporting documents
        or records of interviews. Explain any "no" answers and
        identify alternate control procedures.

TFRA - 4

DATA PROCESSING CONTROLS

Data processing controls are used to insure the accuracy, completeness, and timeliness of data during processing by the computer. These controls apply to application programs and computer operations related to the application. Data processing is usually accomplished in batch or real time. The main areas of control include

--data processing integrity,

--data processing validation and editing, and

--data processing error handling.

Of particular importance are those controls over files and other systems which interface with the application being reviewed.

The auditor should determine the adequacy of controls over data processing, to make sure that data is accurately processed through the application and that no data is added, lost, or altered during processing.

BATCH--DATA PROCESSING INTEGRITY

		YES	NO
1.	Do documented procedures exist to explain the methods for proper data processing of each application program?	___	___
2.	Are duties separated to make sure that no one individual performs more than one of the following operations:		
	--Originating data?	___	___
	--Inputting data?	___	___
	--Processing data?	___	___
	--Distributing output?	___	___
3.	Do operator instructions include:		
	--System startup procedures?	___	___
	--Backup assignments?	___	___
	--Emergency procedures?	___	___
	--System shutdown procedures?	___	___

TFRA – 4   <u>YES</u>   <u>NO</u>

--Error message debugging instructions?   ___   ___

--System and job status reporting
   instructions?   ___   ___

4. Do computer program run books include:

    --Definitions of input sources, input
       data, and data formats?   ___   ___

    --Descriptions of setup procedures?   ___   ___

    --Descriptions of all halt conditions?   ___   ___

    --Descriptions of restart procedures
       and checkpoints?   ___   ___

    --Descriptions of data storage requirements? ___   ___

    --Printer carriage control tapes?   ___   ___

    --Descriptions of expected output data
       and formats?   ___   ___

    --Descriptions of output and file
       dispositions upon completion?   ___   ___

    --Copies of normal console run sheets?   ___   ___

    --Types of console message instructions?   ___   ___

    --System flowcharts?   ___   ___

5. Do computer program run books exclude:

    --Program logic charts or block diagrams?   ___   ___

    --Copies of program listings?   ___   ___

6. Are application programs prevented from
    accepting data from computer consoles?   ___   ___

7. Does the system have a history log which
    is printed on both a line printer and the
    console?   ___   ___

8. Does this log include:

    --Hardware failure messages?   ___   ___

    --Software failure messages?   ___   ___

    --Processing halts?   ___   ___

TFRA - 4   <u>YES</u>   <u>NO</u>

--Abnormal terminations of jobs?   ____   ____

--Operator interventions?   ____   ____

--Error messages?   ____   ____

--Unusual occurrences?   ____   ____

9. Is the log routinely reviewed by supervisors
    to determine the causes of problems and
    the correctness of actions taken?   ____   ____

10. Does the data processing department have
    a schedule, by application, that shows when
    each application program is to be run and
    needs to be completed?   ____   ____

11. Does the data processing department have
    a control group responsible for controlling
    all data processing operations?   ____   ____

12. Does the data processing control group limit
    access to and use of job control cards so that
    unauthorized programs will not be executed?   ____   ____

13. Does the data processing control group
    independently control data processing by:

    --Assuring that application schedules are
      met?   ____   ____

    --Balancing batch counts of data
      submitted for processing?   ____   ____

    --Balancing record counts of data
      submitted for processing?   ____   ____

    --Balancing predetermined control totals of
      data submitted for processing?   ____   ____

    --Maintaining accurate logs of input/work/
      output files used in computer processing?   ____   ____

    --Assuring that input/work/output files
      used in computer processing are correct?   ____   ____

    --Assuring that restarts are performed
      properly?   ____   ____

    --Other? (Describe)   ____   ____

14. Is there some means of verifying master file
    contents (samples being periodically drawn from
    data files and reviewed for accuracy)?   ____   ____

TFRA - 4   <u>YES</u>   <u>NO</u>

15. Does each input transaction have a
    unique identifier (transaction code) which
    directs the transaction to the proper
    application program for processing?   ___   ___

16. Do programs positively identify input data
    as to type (transaction code)?   ___   ___

17. Are standardized default options built into
    computer program logic?   ___   ___

18. Are computer-generated control totals
    (run-to-run totals) automatically reconciled
    between jobs to check for completeness of
    processing?   ___   ___

19. Where computerized data is entered into
    the computer application are there
    controls to verify that proper data
    is used?   ___   ___

20. Where computer files are entered into the
    computer application, are there controls
    to verify that the proper version (cycle)
    of the file is used?   ___   ___

21. Do all programs include routines for checking
    internal file header labels before processing?   ___   ___

22. Are controls in place to prevent operators
    from circumventing file checking routines?   ___   ___

23. Are internal trailer labels containing
    control totals (record counts, predetermined
    control totals, etc.) generated for all com-
    puter files and tested by the application
    programs to determine that all records have
    been processed?   ___   ___

24. Are file completion checks performed to
    make sure that application files have been
    completely processed, including both trans-
    action and master files?   ___   ___

25. Do data processing controls make sure that:

    --Output counts from the system equal input
      counts to the system?   ___   ___

    --Program interfaces require that the
      sending program output counts equal the
      receiving program input counts?   ___   ___

TFRA - 4

YES   **NO**

--System interfaces require that:

   --The sending system's output counts
   equal the receiving system's input
   counts?   ____   ____

   --Shared files meet the control
   requirements of both the sending
   and receiving systems?   ____   ____

BATCH--DATA PROCESSING VALIDATION AND EDITING

26. Is data validation and editing performed
as early as possible in the data flow to
insure that the application rejects any
incorrect transaction before master
file updating?   ____   ____

27. Is data validation and editing performed
for all data fields even through an error
may be detected in an earlier field of the
transaction?   ____   ____

28. Are the following checked for validity
on all input transactions:

   --Individual and supervisor authorization
   or approval codes?   ____   ____

   --Check digits on all identification
   keys?   ____   ____

   --Check digits at the end of a string
   of numeric data that is not subjected
   to balancing?   ____   ____

   --Codes?   ____   ____

   --Characters?   ____   ____

   --Fields?   ____   ____

   --Combinations of fields?   ____   ____

   --Transactions?   ____   ____

   --Calculations?   ____   ____

   --Missing data?   ____   ____

   --Extraneous data?   ____   ____

   --Amounts?   ____   ____

TFRA – 4   <u>YES</u>   <u>NO</u>

--Units?   ___   ___

--Composition?   ___   ___

--Logic decisions?   ___   ___

--Limit or reasonableness checks?   ___   ___

--Signs?   ___   ___

--Record matches?   ___   ___

--Record mismatches?   ___   ___

--Sequence?   ___   ___

--Balancing of quantitative data?   ___   ___

--Crossfooting of quantitative data?   ___   ___

29. Is relationship editing performed between
     input transactions and master files to check
     for appropriateness and correctness before
     updating?   ___   ___

30. Are special routines used which automatically
     validate and edit input transaction dates
     against a table of cutoff dates?   ___   ___

31. Is full data validation and editing (questions
     28-30) performed on all files interfacing with
     the application?   ___   ___

32. Do the programs that include a table of
     values have an associated control mechanism
     to assure accuracy of the table values?   ___   ___

33. Are all persons prevented from overriding
     or bypassing data validation and editing
     problems?   ___   ___

34. If not are the following true:

     --This override capability is restricted
       to supervisory personnel in a limited
       number of acceptable circumstances?   ___   ___

     --All system overrides are automatically logged
       by the application so that these actions
       can be analyzed for appropriateness
       and correctness?   ___   ___

TFRA - 4   <u>YES</u>   <u>NO</u>

35. Are record counts generated by the application
    used by the data processing control group to
    validate the completeness of data processed
    by the system?   ___   ___

36. Are predetermined control totals generated
    by the application used by the data proces-
    sing control group to validate the complete-
    ness of data processed by the system?   ___   ___

37. Does a direct update to files cause:

    --A record to be created and added to a
      backup file, containing a before and after
      picture of the record being altered?   ___   ___

    --The transaction to be recorded on the
      transaction history file together with
      date and time of entry and the originator's
      identification?   ___   ___

BATCH--DATA PROCESSING ERROR HANDLING

38. Do documented procedures exist that explain
    the process of identifying, correcting,
    and reprocessing data rejected by the
    application?   ___   ___

39. Are error messages displayed with clearly
    understood corrective actions for each
    type of error?   ___   ___

40. Are error messages produced for each
    transaction which contain data that does
    not meet edit requirements?   ___   ___

41. Are error messages produced for each data
    field which does not meet edit require-
    ments?   ___   ___

42. Is all data that does not meet edit re-
    quirements rejected from further processing
    by the application?   ___   ___

43. Is all data rejected by the application
    automatically written on an automated
    suspense file?   ___   ___

44. Does the automated suspense file include:

    --Codes indicating error type?   ___   ___

TFRA - 4   YES   NO

--Date and time transaction was entered?   ___   ___

--Identity of the user who originated the
  transaction?   ___   ___

45. Are record counts automatically created
     by suspense file processing to control
     these rejected transactions?   ___   ___

46. Are predetermined control totals automati-
     cally created by suspense file processing
     to control these rejected transactions?   ___   ___

47. Are rejected transactions transmitted to
     the users originating them so that
     corrective action can be taken?   ___   ___

48. Does the user department control group
     independently control data rejected by the
     application system using:

     --Turnaround transmittal documents?   ___   ___

     --Batching techniques?   ___   ___

     --Record counts?   ___   ___

     --Predetermined control totals?   ___   ___

     --Logging techniques?   ___   ___

     --Other? (Describe)   ___   ___

49. Is the automated suspense file used to control
     followup, correction, and reentry of trans-
     actions rejected by the application?   ___   ___

50. Is the automated suspense file used to
     produce, for management review, analysis of:

     --Level of transaction errors?   ___   ___

     --Status of uncorrected transactions?   ___   ___

51. Are these analyses used by management to
     make sure that corrective action is taken
     when error levels become too high?   ___   ___

52. Are these analyses used by management to make
     sure that corrective action is taken when un-
     corrected transactions remain on the suspense
     file too long?   ___   ___

                          TFRA – 4   YES   NO

53. Are progressively higher levels of management
    reported to as these conditions worsen?   ___   ___

54. Are debit- and credit-type entries (as
    opposed to delete- or erase-type commands)
    used to correct rejected transactions on
    the automated suspense file?   ___   ___

55. Is the application designed so that it cannot
    accept a delete- or erase-type command?   ___   ___

56. Do valid correction transactions purge the
    automated suspense file of corresponding
    rejected transactions?   ___   ___

57. Are invalid correction transactions added
    to the automated suspense file, along with
    the corresponding rejected transaction?   ___   ___

58. Are record counts appropriately adjusted
    by correction transations?   ___   ___

59. Are predetermined control totals appro-
    priately adjusted by correction trans-
    actions?   ___   ___

60. Are all corrections subject to supervisory
    review and approval before reentry?   ___   ___

61. Are the procedures for processing corrected
    transactions the same as for processing
    original transactions, with the addition
    of supervisory review and approval before
    reentry?   ___   ___

62. Does the ultimate responsibility for
    completeness and accuracy of all application
    processing remain with the user?   ___   ___

REAL-TIME--DATA PROCESSING INTEGRITY

63. Do documented procedures exist that explain
    the methods for proper data processing of
    every application program?   ___   ___

64. Are duties separated to make sure that no
    one individual performs more than one of
    the following operations:

    --Originating data?   ___   ___

    --Inputting data?   ___   ___

TFRA - 4   YES   NO

--Processing data?   ___   ___

--Distributing output?   ___   ___

65. Is there a logging type facility (audit trail)
     in the application to assist in reconstruct-
     ing data files?   ___   ___

66. Can messages and data be traced back to
     the user or point of origin?   ___   ___

67. Does the application protect against con-
     current file updates (i.e., does initial
     access of a record lock out that record so
     that additional access attempts cannot be
     made until the initial processing has been
     completed)?   ___   ___

68. Are transactions date and time stamped
     for logging purposes?   ___   ___

69. Are application programs prevented from
     accepting data from computer consoles?   ___   ___

70. Does the system have a history log which
     is printed on both a line printer and the
     console?   ___   ___

71. Does this log include:

     --Hardware failure messages?   ___   ___

     --Software failure messages?   ___   ___

     --Processing halts?   ___   ___

     --Abnormal terminations of jobs?   ___   ___

     --Operator interventions?   ___   ___

     --Error messages?   ___   ___

     --Unusual occurrences?   ___   ___

     --Terminal failure messages?   ___   ___

     --Terminal startup?   ___   ___

     --Terminal shutdown?   ___   ___

     --All input communications messages?   ___   ___

     --All output communications messages?   ___   ___

TFRA - 4   <u>YES</u>   <u>NO</u>

72. Is the log routinely reviewed by supervisors
    to determine the causes of problems and the
    correctness of actions taken?   ___   ___

73. Does the data processing department have a
    control group which is responsible for
    controlling all data processing operations?   ___   ___

74. Does the data processing control group
    independently control data processing by:

    --Monitoring terminal activity?   ___   ___

    --Investigating and correcting any terminal
      problems that cannot be resolved at the
      sources?   ___   ___

    --Investigating and correcting any terminal
      imbalances or failures?   ___   ___

    --Investigating any operator intervention
      actions?   ___   ___

    --Investigating any operator deviations
      from the rules?   ___   ___

    --Assuring that restarts are performed
      properly?   ___   ___

    --Balancing batch counts of data processed
      (as developed during off-line operations)?   ___   ___

    --Balancing record counts of data processed
      (as developed during off-line operations)?   ___   ___

    --Balancing predetermined control totals of
      data processed (as developed during off-
      line operations)?   ___   ___

    --Other? (Describe)   ___   ___

75. Are periodic balances taken at fairly short
    intervals to make sure that data is being
    processed accurately?   ___   ___

76. Is off-line file balancing performed on:

    --Batch counts?   ___   ___

    --Record counts?   ___   ___

    --Predetermined control totals?   ___   ___

TFRA - 4   <u>YES</u>   <u>NO</u>

--Other? (Describe)   ____   ____

77. Is there some means of verifying master
     file contents (e.g., samples being periodically
     drawn from data files and reviewed for
     accuracy)?   ____   ____

78. Does each input transaction have a unique
     identifier (transaction code) which directs
     the transaction to the proper application
     program for processing?   ____   ____

79. Do programs positively identify input data
     as to type (transaction code)?   ____   ____

80. Are standardized default options built into
     computer program logic?   ____   ____

81. Are computer-generated control totals
     (run-to-run totals) automatically reconciled
     between jobs to check for completeness
     of processing?   ____   ____

82. Where computerized data is entered into the
     computer application, are there controls
     to verify that proper data is used?   ____   ____

83. Where computerized files are entered into the
     computer application, are there controls to
     verify that the proper version (cycle) of
     the file is used?   ____   ____

84. Do all programs include routines for
     checking internal file header labels
     before processing?   ____   ____

85. Are controls in place to prevent operators
     from circumventing file checking routines? ____   ____

86. Are internal trailer labels containing control
     totals (record counts, predetermined control
     totals, etc.) generated for all computer files
     and tested by the application programs to
     determine that all records have been processed? ____   ____

87. Are file completion checks performed to make
     sure that application files have been com-
     pletely processed, including both transaction
     and master files?   ____   ____

	YES	NO

TFRA - 4

88. Do data processing controls make sure that:

--Output counts from the system equal
  input counts to the system?

--Program interfaces require that the
  sending program output counts equal the
  receiving program input counts?

--System interfaces require that:

    --The sending system's output counts
      equal the receiving system's input
      counts?

    --Shared files meet the control
      requirements of both the sending
      and receiving systems?

REAL-TIME--DATA PROCESSING VALIDATION AND EDITING

89. Is data validation and editing performed
    as early as possible in the data flow to
    insure that the application rejects any
    incorrect transaction before master
    file updating?

90. Is data validation and editing performed
    for all data fields even through an error
    may be detected in an earlier field of the
    transaction?

91. Are the following checked for validity on
    all input transactions:

    --Individual and supervisor authorization
      or approval codes?

    --Check digits on all identification keys?

    --Check digits at the end of a string of
      numeric data that is not subjected to
      balancing?

    --Codes?

    --Characters?

    --Fields?

    --Combinations of fields?

    --Transactions?

TFRA - 4

--Calculations? ___ ___

--Missing data? ___ ___

--Extraneous data? ___ ___

--Amounts? ___ ___

--Units? ___ ___

--Composition? ___ ___

--Logic decisions? ___ ___

--Limit or reasonableness checks? ___ ___

--Signs? ___ ___

--Record matches? ___ ___

--Record mismatches? ___ ___

--Sequence? ___ ___

--Balancing of quantitative data? ___ ___

--Crossfooting of quantitative data? ___ ___

92. Is relationship editing performed between
    input transactions and master files to
    check for appropriateness and correctness
    prior to updating? ___ ___

93. Are special routines used which automatically
    validate and edit input transaction dates
    against a table of cutoff dates? ___ ___

94. Is full data validation and editing (questions
    91-93) performed on all files interfacing with
    the application? ___ ___

95. Do the programs that include a table of
    values have a control mechanism to
    assure accuracy of the table values? ___ ___

96. Are all persons prevented from overriding
    or bypassing data validation and editing
    problems? ___ ___

97. If not, are the following true:

TFRA - 4

--This override capability is restricted
  to supervisory personnel in a limited
  number of acceptable circumstances?   ___   ___

--All system overrides are automatically
  logged by the application so that
  these actions can be analyzed for
  appropriateness and correctness?   ___   ___

98. Are record counts generated by the application
     used by the data processing control group
     to validate the completeness of data
     processed by the system?   ___   ___

99. Are predetermined control totals generated
     by the application used by the data processing
     control group to validate the complete-
     ness of data processed by the system?   ___   ___

100. Does a direct update to files cause:

--A record to be created and added to a
  backup file, containing a before and after
  picture of the record being altered?   ___   ___

--The transaction to be recorded on the
  transaction history file together with
  the date and time of entry and the
  originator's identification?   ___   ___

REAL-TIME--DATA PROCESSING ERROR HANDLING

101. Do documented procedures exist that explain
     the process of identifying, correcting,
     and reprocessing data rejected by the
     application?   ___   ___

102. Are error messages displayed with clearly
     understood corrective actions for each
     type of error?   ___   ___

103. Are error messages produced for each
     transaction which contains data that does
     not meet edit requirements?   ___   ___

104. Are error messages produced for each data
     field which does not meet edit require-
     ments?   ___   ___

105. Is all data that does not meet edit
     requirements rejected from further
     processing by the application?   ___   ___

<u>YES</u>   <u>NO</u>

TFRA - 4

106. Is all data rejected by the application
      automatically written on an automated
      suspense file?   ___   ___

107. Does the automated suspense file include:

      --Codes indicating error type?   ___   ___

      --Date and time transaction was entered?   ___   ___

      --Identity of the user who originated the
        transaction?   ___   ___

108. Are record counts automatically created by
      suspense file processing to control these
      rejected transactions?   ___   ___

109. Are predetermined control totals
      automatically created by suspense file
      processing to control these rejected
      transactions?   ___   ___

110. Are rejected transactions transmitted to
      the users originating them so that
      corrective action can be taken?   ___   ___

111. Does the user department control group
      independently control data rejected by the
      application system using:

      --Turnaround transmittal documents?   ___   ___

      --Batching techniques?   ___   ___

      --Record counts?   ___   ___

      --Predetermined control totals?   ___   ___

      --Logging techniques?   ___   ___

      --Other?   (Describe)   ___   ___

112. Is the automated suspense file used to
      control followup, correction, and reentry
      of transactions rejected by the application?   ___   ___

113. Is the automated suspense file used to
      produce, for management review, analysis of:

      --Level of transaction errors?   ___   ___

      --Status of uncorrected transactions?   ___   ___

114. Are these analyses used by management to make sure that corrective action is taken when error levels become too high? ___ ___

115. Are these analyses used by management to make sure that corrective action is taken when uncorrected transactions remain on the suspense file too long? ___ ___

116. Are progressively higher levels of management reported to as these conditions worsen? ___ ___

117. Are debit- and credit-type entries (as opposed to delete- or erase-type commands) used to correct rejected transactions on the automated suspense file? ___ ___

118. Is the application designed so that it cannot accept a delete- or an erase-type command? ___ ___

119. Do valid correction transactions purge the automated suspense file of corresponding rejected transactions? ___ ___

120. Are invalid correction transactions added to the automated suspense file along with the corresponding rejected transactions? ___ ___

121. Are record counts appropriately adjusted by correction transactions? ___ ___

122. Are predetermined control totals appropriately adjusted by correction transactions? ___ ___

123. Are all corrections subject to supervisory review and approval before reentry? ___ ___

124. Are the procedures for processing corrected transactions the same as for processing original transactions, with the addition of supervisory review and approval before reentry? ___ ___

125. Does the ultimate responsibility for completeness and accuracy of all application processing remain with the user? ___ ___

NOTES: Questions should be self-explanatory. Responses will frequently be a simple "yes" or "no." All responses should be indexed to appropriate supporting documents or records of interviews. Explain any "no" answers and identify alternate control procedures.

TFRA - 5

DATA OUTPUT CONTROLS

Data output controls are used to insure the integrity of output and the correct and timely distribution of outputs produced. Not only must outputs be accurate, but they must also be received by users in a timely and consistent manner. Outputs can be produced in two different ways: batch and on-line. The main areas of control include

--output balancing and reconciliation,

--output distribution,

--output error handling, and

--handling and retention of output records and accountable documents.

Of critical importance is the interface between the data processing department and the user department.

The auditor should evaluate the adequacy of controls over outputs to make sure that data processing results are reliable, output control totals are accurate, and reports are distributed in a timely manner to users.

	YES	NO

BATCH--OUTPUT BALANCING AND RECONCILIATION

1. Do documented procedures exist that explain the methods for proper balancing and reconciliation of output products?

2. Does the data processing department have a control group which is responsible for reviewing all outputs produced by the application?

3. Does the data processing control group monitor the processing flow to make sure that application programs are being processed according to schedule?

4. Does the data processing department control group review output products for general acceptability and completeness?

5. Does the data processing department control group reconcile each output batch total with

TFRA - 5   <u>YES</u>   <u>NO</u>

input batch totals, before the release
of any reports, to ensure that no data was
added or lost during data processing?   ___   ___

6. Does the data processing department control
    group reconcile each output record count with
    input record counts, before the release of
    any reports, to insure that no data was added
    or lost during data processing?   ___   ___

7. Does the data processing department control
    group reconcile each output predetermined
    control total with input predetermined
    control totals, before the release of any
    reports, to insure that no data was added or
    lost during data processing?   ___   ___

8. Does the data processing department control
    group keep a log which summarizes the:

    --Number of application reports generated?

    --Number of pages per report?   ___   ___

    --Number of lines per report?   ___   ___

    --Number of copies of each report?   ___   ___

    --Recipient(s) of each report?   ___   ___

9. Are system output logs kept to provide an
    audit trail for the outputs?   ___   ___

10. Are output logs reviewed by supervisors
    to determine the correctness of output
    production?   ___   ___

11. Is a transaction log kept by the
    application to provide an audit trail
    for the transactions being processed?   ___   ___

12. Is a transaction log kept at each output
    device to provide an audit trail for the
    transactions being processed?   ___   ___

13. Is the transaction log kept by the
    application compared regularly with the
    transaction log kept at each output device
    to make sure that all transactions have
    been properly processed to the final output
    steps?   ___   ___

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14. Can transactions be traced forward to the
final outputs?   ___   ___

15. Can transactions be traced backward to the
original source documents?   ___   ___

16. On each output product, does the application
identify the:

--Title or name of product?   ___   ___

--Processing program name or number?   ___   ___

--Date and time prepared?   ___   ___

--Processing period covered?   ___   ___

--User name and location?   ___   ___

--Counts developed during processing?   ___   ___

--End-of-job/file/report indication?   ___   ___

--Security classification, if any?   ___   ___

17. Does the user department have a control
group which is responsible for reviewing
all output received from the data
processing department?   ___   ___

18. Is the user department control group given
lists of all changes to the application
master file data or programmed data?   ___   ___

19. Is the user department control group given
lists of all internally generated trans-
actions produced by the application?   ___   ___

20. Is the user department control group given
lists of all interface transactions proc-
essed by the application?   ___   ___

21. Is the user department control group given
a list of all transactions entered into
the application?   ___   ___

22. Are all listings (questions 18-21) reviewed
by the user department control group to in-
sure completeness of data processed by the
application?   ___   ___

TFRA - 5

23. Is the user department control group
    furnished reports produced by the application
    which shows the:

    --Batch totals?   ____   ____

    --Record counts?   ____   ____

    --Predetermined control totals?   ____   ____

24. Does the user department control group
    verify all computer-generated batch totals
    with its manually developed batch totals?   ____   ____

25. Does the user department control group
    verify all computer generated record counts
    to their manually developed record
    counts?   ____   ____

26. Does the user department control group
    verify all computer-generated predetermined
    control totals with its manually developed
    predetermined control totals?   ____   ____

27. Does the user department control group
    verify the accuracy and completeness of
    all outputs?   ____   ____

28. Does the user department retain ultimate
    responsibility for the accuracy of all
    outputs?   ____   ____

BATCH--OUTPUT DISTRIBUTION

29. Do documented procedures exist that explain
    the methods for proper handling and
    distribution of output products?   ____   ____

30. Are duties separated to make sure that no
    one individual performs more than one of
    the following operations:

    --Originating data?   ____   ____

    --Inputting data?   ____   ____

    --Processing data?   ____   ____

    --Distributing output?   ____   ____

31. Are users questioned periodically to deter-
    mine their continued need for the product and
    the number of copies received?   ____   ____

TFRA - 5

32. Does the cover sheet of every report
    clearly identify the recipient's name and
    location?   ___   ___

33. Does the data processing department have a
    control group which is responsible for dis-
    tributing all output produced by the
    computer application?   ___   ___

34. Does the data processing department control
    group have a schedule, by application, that
    shows when output processing will be completed
    and when output products need to be distrib-
    uted?   ___   ___

35. Has a priority system been established
    so that critical outputs can be produced on
    time?   ___   ___

36. Does the data processing department
    control group keep a log, by application,
    of all output products produced by the
    system?   ___   ___

37. Does this log identify the following for
    each output product:

    --Job name?   ___   ___

    --Time and date of production?   ___   ___

    --Product name?   ___   ___

    --Time and date of distribution?   ___   ___

    --Name(s) of recipient(s)?   ___   ___

    --Quantity distributed to each recipient?   ___   ___

    --Security status, if any?   ___   ___

38. Is each entry in the data processing
    department control group's log signed
    by supervisors to indicate that the
    reports were in fact produced and trans-
    mitted to recipients?   ___   ___

39. Does this log include notes on problems
    that arose with processing (reruns,
    data checks, etc.)?   ___   ___

40. Does the data processing department control
    group maintain a formalized output dis-
    tribution checklist to show the disposition
    of each output product?   ____   ____

41. Are turnaround transmittal documents used by
    the data processing department control group
    to verify that the output product has been
    received by the authorized recipient?   ____   ____

42. Is the output distribution checklist used
    to verify the acknowledgment of all turn-
    around transmittal documents from recipients
    of output?   ____   ____

43. Does the data processing department control
    group verify that only authorized numbers
    of copies of outputs are produced?   ____   ____

BATCH--OUTPUT ERROR HANDLING

44. Do documented procedures exist that explain
    data processing department methods for
    reporting, correcting, and reprocessing
    output products with errors?   ____   ____

45. Is the user department control group
    notified immediately by the data processing
    control group of problems in output products?   ____   ____

46. Does the data processing department control
    group keep a control log of output product
    errors?   ____   ____

47. Is this log used to:

    --Identify the problem?   ____   ____

    --Note corrective action taken?   ____   ____

    --Record date and time of resubmission?   ____   ____

    --Record date and time of transmission
      to users?   ____   ____

48. Do supervisors use this log to make
    sure that timely resubmissions of jobs
    are accomplished and corrected reports are
    expeditiously transmitted to the users?   ____   ____

49. Does the data processing department control
    group develop an independent history file of
    output products with errors?   ____   ____

TFRA – 5   <u>YES</u>   <u>NO</u>

50. Is this file reviewed periodically by
    supervisors to identify causes of
    and trends in output product errors?   ___   ___

51. Are users kept apprised of progress being
    made to correct problems that cause output
    product errors?   ___   ___

52. Are the outputs from rerun jobs subjected
    to the same quality review as the original
    output products that were found to be
    in error?   ___   ___

53. Do documented procedures exist that explain
    the methods for user department reporting
    and control of output product errors?   ___   ___

54. Is the user notified immediately by the
    user department control group of problems
    in output products?   ___   ___

55. Does the user department control group
    keep a control log of output product
    errors?   ___   ___

56. Is this log used to:

    --Identify the problem?   ___   ___

    --Identify data processing department
      personnel contacted?   ___   ___

    --Record date and time of data processing
      department contact?   ___   ___

    --Record data processing department
      corrective action taken?   ___   ___

    --Record date and time of receipt of
      corrected output product?   ___   ___

    --Identify causes and trends of output
      product errors?   ___   ___

    --Make sure that output product errors are
      corrected in a timely manner?   ___   ___

TFRA - 5

BATCH--HANDLING AND RETENTION OF OUTPUT RECORDS AND ACCOUNTABLE DOCUMENTS

57. Have record and document retention periods been established? ___ ___

58. Are the periods reasonable for backup and audit purposes? ___ ___

59. Are appropriate methods (i.e., degaussing, shredding, etc.) used to dispose of un-needed records and documents? ___ ___

60. Is access to records and documents restricted to authorized individuals? ___ ___

61. Are periodic reviews made to determine if output products are still needed by the user? ___ ___

62. Is the dual custody technique used to control accountable documents (check stock, bond stock, identification card stock, etc.) during the following:

    --In storage? ___ ___

    --In transit? ___ ___

    --Waiting to be used by the application? ___ ___

    --Being used by the application? ___ ___

    --Waiting for distribution? ___ ___

    --Waiting for destruction? ___ ___

    --Waiting for transit back to storage? ___ ___

63. Is access to accountable documents restricted to authorized personnel? ___ ___

ON-LINE--OUTPUT BALANCING AND RECONCILIATION

64. Do documented procedures exist that explain the methods for proper balancing and recon-ciliation of output products? ___ ___

65. Does the data processing department have a control group responsible for making sure that output products are accurately processed by data processing and correctly transmitted to user terminal devices? ___ ___

66. Does the data processing department control
     group have a schedule by application that
     shows when pre-output processing ends and
     when output processing begins?   ___   ___

67. Does the data processing department control
     group monitor the processing flow to make
     sure that application programs are being
     processed according to schedule?   ___   ___

68. Does the data processing department control
     group reconcile each output batch total
     with input batch totals, before the trans-
     mission of outputs, to insure that no data
     was added or lost during data processing?   ___   ___

69. Does the data processing department control
     group reconcile each output record count
     with input record counts, before the trans-
     mission of outputs, to insure that no data
     was added or lost during data processing?   ___   ___

70. Does the data processing department control
     group reconcile output predetermined control
     totals with input predetermined control
     totals, before the transmission of outputs,
     to insure that no data was added or lost
     during data processing?   ___   ___

71. Is a log kept by the application to
     provide an audit trail for transactions
     being processed?   ___   ___

72. Is a log kept at each output trans-
     mission device to provide an audit
     trail for outputs being transmitted
     to user terminal devices?   ___   ___

73. Is the transaction log kept by the
     application compared regularly with the
     transmission log kept at each output
     transmission device to make sure that
     all outputs have been properly trans-
     mitted to the final users?   ___   ___

74. On each output product, does the application
     system identify:

     --Title or name of product?   ___   ___

     --Processing program name or number?   ___   ___

TFRA - 5

	YES	NO
--Date and time prepared?	___	___
--Processing period covered?	___	___
--User name and location?	___	___
--Counts developed during processing?	___	___
--End-of-job/file/report indication?	___	___
--Security classification, if any?	___	___

75. Do terminal devices automatically disconnect from the computer-based system if they are unused for a certain amount of time? ___ ___

76. Do terminal devices need to be logged off at the end of the day so that they will be disconnected from the computer-based system? ___ ___

77. Even though teminals are disconnected from the system, can output reports still be transmitted to terminal output devices? ___ ___

78. Are output devices located in secure facilities at all times to protect against unauthorized access? ___ ___

79. Has a priority system been established so that critical outputs can be transmitted on time? ___ ___

80. Are all outputs waiting for transmission placed on a backup log before being put into the transmission queue? ___ ___

81. As outputs are transmitted and received, does the terminal output device send a reply that they have been correctly received? ___ ___

82. Is the backup log purged when the terminal output device reply has been received? ___ ___

83. Does the computer-based system automatically check an output message before displaying, writing, or printing it to make sure that it has not reached the wrong terminal output device? ___ ___

84. Is message content validated before displaying, writing, or printing on the terminal output device? ___ ___

TFRA - 5   <u>YES</u>   <u>NO</u>

85. Can transactions be traced forward to the
    final output products?   ___   ___

86. Can transactions be traced backward to the
    original source documents?   ___   ___

87. Are all the day's activities summarized and
    printed for each terminal device?   ___   ___

88. Are these activity reports used to provide
    an audit trail for the output products?   ___   ___

89. Are these reports reviewed by supervisors
    to determine the correctness of output
    production?   ___   ___

90. Does the user department have a control
    group responsible for reviewing all
    outputs produced by the computer
    application?   ___   ___

91. Does the user department control group
    reconcile each output batch total with input
    batch totals, before the release of any
    reports, to insure that no data was added
    or lost during data processing?   ___   ___

92. Does the user department control group
    reconcile each output record count with
    input record counts, before release of any
    reports, to insure that no data was added or
    lost during data processing?   ___   ___

93. Does the user department control group
    reconcile output predetermined control
    totals with input predetermined control
    totals, before release of any reports, to
    insure that no data was added or lost
    during data processing?   ___   ___

94. Is the user department control group given
    lists of all changes to application system
    master file data or programmed data?   ___   ___

95. Is the user department control group given
    lists of all internally generated trans-
    actions produced by the application?   ___   ___

96. Is the user department control group
    given lists of all interface trans-
    actions processed by the application?   ___   ___

TFRA - 5   YES   NO

97. Is this user department control group
    given a list of all transactions entered
    into the system?   ____   ____

98. Are all listings (questions 94-97) reviewed
    by the user department control group to in-
    sure completeness of data processed by
    the system?   ____   ____

99. Does the user department control group
    verify the accuracy and completeness of all
    outputs?   ____   ____

100. Is the user department ultimately
     responsibile for the accuracy of all
     outputs?   ____   ____

ON-LINE--OUTPUT DISTRIBUTION

101. Do documented procedures exist that explain
     the methods for proper handling and distri-
     bution of output products?   ____   ____

102. Are duties separated to make sure that no
     one individual performs more than one of
     the following operations:

     --Originating data?   ____   ____

     --Inputting data?   ____   ____

     --Processing data?   ____   ____

     --Distributing output?   ____   ____

103. Are users questioned periodically to
     determine their continued need for the
     products and the number of copies received?   ____   ____

104. Does the user department have a control
     group responsible for distributing all
     output products produced by the application?   ____   ____

105. Does the user department control group have
     a schedule, by application, that shows when
     output processing will be completed and when
     output products need to be distributed?   ____   ____

106. Does the user department control group monitor
     system outputs to make sure that application
     programs are being processed according to
     schedule?   ____   ____

TFRA - 5　　　　　　　　　　　　　　YES　　NO

107. Does the user department control group maintain a formalized output distribution checklist to show the disposition of each output product?　　　　　　　　　　　　　　　　──　　──

108. Are turnaround transmittal documents used by the data processing department control group to verify that the output product has been received by the authorized recipient?　　　　　　　　　　　　　　　　──　　──

109. Is the checklist used to verify the acknowledgment of all turnaround transmittal documents from recipients of outputs?　　　　　　　　　　　　　　　　──　　──

ON-LINE--OUTPUT ERROR HANDLING

110. Do documented procedures exist that explain the methods for user department reporting and control of output errors?　　　　　　　　　　──　　──

111. Is the user notified immediately by the user department control group of problems in outputs?　　　　　　　　　　　　　　──　　──

112. Does the user department control group keep a control log of output product errors?　　　　　　　　　　　　　　　　──　　──

113. Is this log used to:

　　--Identify the problem?　　　　　　　　　　　──　　──

　　--Identify data processing department personnel contacted?　　　　　　　　　　　　──　　──

　　--Record date and time of data processing department contact?　　　　　　　　──　　──

　　--Record data processing department corrective action taken?　　　　　　　　　──　　──

　　--Record date and time of receipt of corrected output product?　　　　　　　　──　　──

　　--Identify causes and trends of output product errors?　　　　　　　　　　　　　──　　──

　　--Make sure that output product errors are corrected in a timely manner?　　　　　　　　　　　　　　　　──　　──

TFRA - 5

114. Are the outputs from rerun jobs subject
     to the same quality review as the original
     output products that were found to be in
     error?   ___   ___

ON-LINE--HANDLING AND RETENTION OF OUTPUT
RECORDS AND ACCOUNTABLE DOCUMENTS

115. Have record and document retention periods
     been established?   ___   ___

116. Are the periods reasonable for backup
     and audit purposes?   ___   ___

117. Are appropriate methods (i.e., degaussing,
     shredding, etc.) used to dispose of un-
     needed records and documents?   ___   ___

118. Is access to records and documents restricted
     to authorized individuals?   ___   ___

119. Are periodic reviews made to determine
     if output products are still needed by
     the user?   ___   ___

120. Is the dual custody technique used to con-
     trol accountable documents (check stock,
     bond stock, identification card stock, etc.)
     during the following:

     --In storage?   ___   ___

     --In transit?   ___   ___

     --Waiting to be used by the application?   ___   ___

     --Being used by the application?   ___   ___

     --Waiting for distribution?   ___   ___

     --Waiting for destruction?   ___   ___

     --Waiting for transit back to storage?   ___   ___

121. Is access to accountable documents
     restricted to authorized personnel only?   ___   ___

NOTES: Questions should be self-explanatory.   Responses will
        frequently be a simple "yes" or "no."   All responses
        should be indexed to appropriate supporting documents
        or records of interviews.   Explain any "no" answers and
        identify alternate control procedures.

TFRA - 6

APPLICATION CONTROLS PROFILE

On the basis of questionnaire responses and other informa-
tion obtained relating to the following control characteristics,
how much risk (low, medium or high) do you believe is involved
in relying on the agency's application controls to assure
accurate and reliable data processing? Refer to appendix II
for more information on assessing risk.

Control characteristics	Is the control in place?	Is the control effective?	Is some alternate control in place?	Is the alternate control effective?	Level of potential risk?
DATA ORIGINATION CONTROLS					
Source document origination					
Source document authorization					
Source document data collection and input preparation					
Source document error handling					
Source document retention					
DATA INPUT CONTROLS					
Batch--data conversion and entry					
Batch--data validation and editing					
Batch--data input error handling					
On-line--data conversion and entry					

TFRA - 6
APPLICATION CONTROLS PROFILE

Control characteristics	Is the control in place?	Is the control effective?	Is some alternate control in place?	Is the alternate control effective?	Level of potential risk?
On-line--data validation and editing					
On-line--data input error handling					
DATA PROCESSING CONTROLS					
Batch--data processing integrity					
Batch--data processing validation and editing					
Batch--data processing error handling					
Real-time--data processing integrity					
Real-time--data processing validation and editing					
Real-time--data processing error handling					
DATA OUTPUT CONTROLS					
Batch--output balancing and reconciliation					

TFRA - 6
APPLICATION CONTROLS PROFILE

Control characteristics	Is the control in place?	Is the control effective?	Is some alternate control in place?	Is the alternate control effective?	Level of potential risk?
Batch--output distribution					
Batch--output error handling					
Batch--handling and retention of output records and accountable documents					
On-line--output balancing and reconciliation					
On-line--output distribution					
On-line--output error handling					
On-line--handling and retention of output records and accountable documents					

TFRA - 6

APPLICATION CONTROLS MATRIX

If the degree of risk determined on the previous profile
warrants additional audit work (medium or high risk), the
following matrix should help the auidtor select appropriate
audit steps to complete the review.

Data Origination Controls	document the data flow	observe operations	obtain user satisfaction	process test data	perform computer program analysis	perform data retrieval analysis	analyze job accounting data	report deficiencies	suggest additional audit
Source Document Organization	●	●						●	
Source Document Authorization	●	●						●	
Source Document Collection and Input Preparation	●	●						●	
Source Document Error Handling	●	●						●	
Source Document Handling and Retention	●	●						●	
Data Input Controls									
Batch--Data Conversion and Entry	●	●		●	●	●	●	●	
Batch--Data Validation and Editing	●	●		●	●	●		●	
Batch--Data Input Error Handling	●	●	●	●	●	●		●	
On-Line--Data Conversion and Entry	●	●		●	●	●	●	●	
On-Line--Data Validation and Editing	●	●		●	●	●		●	
On-Line--Data Input Error Handling	●	●	●	●	●	●		●	

TFRA - 6

APPLICATION CONTROLS MATRIX

Data Processing Controls	document the data flow	observe operations	obtain user satisfaction	process test data	perform computer program analysis	perform data retrieval analysis	analyze job accounting data	report deficiencies	suggest additional audit
Batch--Data Processing Integrity	●	●		●	●	●		●	
Batch--Data Processing Validation and Editing	●	●		●	●	●		●	
Batch--Data Processing Error Handling	●	●	●	●	●	●		●	
Real Time--Data Processing Integrity	●	●		●	●	●	●	●	
Real Time--Data Processing Validation and Editing	●	●		●	●	●		●	
Real Time--Data Processing Error Handling	●	●	●	●	●	●		●	
Data Output Controls									
Batch--Output Balancing and Reconciliation	●	●		●				●	
Batch--Output Distribution	●	●		●			●	●	
Batch--Output Error Handling	●	●	●	●				●	
Batch--Handling and Retention of Output Records and Accountable Documents	●	●		●				●	
On-Line--Output Balancing and Reconciliation	●	●		●				●	
On-Line--Output Distribution	●	●		●			●	●	
On-Line--Output Error Handling	●	●	●	●				●	
On-Line--Handling and Retention of Output Records and Accountable Documents	●	●		●				●	

VI-163 was not used

VI-164 was not used

Department Personnel/Payroll System

TFRA-7

VI-166

① 16 Billing Systems are
  — Shops stores billing system
  — Supply operations branch billing system
  — Postal services billing system
  — Biomedical engineering and instrumentation branch billing system
  — Division of computer research and technology (DCRT) project accounting system

  — Personal property billing system
  — Design billing system
  — Glassware billing system
  — Graphics billing system
  — Large research animals billing system
  — Photography billing system
  — Printing and reproduction billing system
  — Scientific equipment rental billing system

  — Small animal billing system
  — Tissue culture and bacteriological media billing system
  — Procurement branch billing system

② NIH's field office in Research Triangle Park, North Carolina transmits transaction information via computer terminal to NIH's Bethesda Maryland computer center.

③ Documents containing these transactions are received in the NIH Division of Financial Management for review and input into the system.

VI-167 was not used

UNITED STATES GENERAL ACCOUNTING OFFICE
WASHINGTON, D.C. 20548

Dear Report Recipient:

The U.S. General Accounting Office is reviewing the effectiveness and need for various accounting and administrative reports used by your agency in carrying out it's work. Since you are a recipient of one or more of the reports, we are requesting you complete and return a questionnaire for each report you receive. Your frank and honest answers on the usefulness, accuracy and timeliness of each report you receive will aid us greatly in our evaluation.

Attached to each questionnaire is a label which indicates the specific report we are examining. The label also displays a GAO identification number and the name of the person on the distribution list who receives the report. If you are the recipient of more than one report, you will find a questionnaire for each report.

If you or your office receives only one copy of the report and it is used by several different people in your office, it should be completed by the person who is the primary user of the report or the person who is the most familiar with the report. Only one questionnaire should be filled out for each report used.

Although each questionnaire should only take about 10 minutes to complete, your answers are vital to this study. So please bear with us and cooperate in our follow-up efforts if we do not receive your completed questionnaire(s).

Please return the completed questionnaire(s) in the self-addressed envelope within 5 days after receipt, if possible. If you have any questions, please call

Thank you for your cooperation.

Sincerely yours,

Enclosure

U.S. GENERAL ACCOUNTING OFFICE

Survey of Users of Accounting Reports

The purpose of this questionnaire is to obtain your opinions on the usefulness, accuracy and timeliness of this report. Your responses will help us to evaluate the effectiveness and need for this report.

The following label has a GAO identification number, the name of the person on the distribution list who receives a copy of the report, and the name of the report. Please complete this questionnaire for the report designated on this label.

Each questionnaire can be completed in about 10 minutes. Most of the questions can be completed either by checking boxes or filling in blanks.

If your office receives only one copy of the report and it is used by several different people in your office, it should be completed by the person who is the primary user of the report or the person who is the most familiar with the report. Only one questionnaire should be filled out for each report used.

Please return the completed questionnaire in the self-addressed envelope within 5 days after receipt, if possible. If you have any questions, please call Darby Smith at (202) 275-1581. Thank you for your cooperation.

If the self-addressed envelope is misplaced, please mail the completed questionnaire to:

Mr. Sam Oliver
U.S. General Accounting Office
441 G Street, N.W., Room 6007
Washington, D.C. 20548

I. **Use of the Report**

1. Does anyone in your office use this report? (CHECK ONE BOX.)

   (9)

   1. [ ] Yes...SKIP TO Q. 3

   2. [ ] No....CONTINUE TO Q. 2

2. Which of the following reasons best describes why no one in your office uses this report? (CHECK ALL THAT APPLY.)

   (10-16)

   1. [ ] Information is out-of-date

   2. [ ] Information is received too late

   3. [ ] Information is inaccurate

   4. [ ] Information is incomplete

   5. [ ] Information available from a manual system

   6. [ ] Information available from an automated system

   7. [ ] Other (SPECIFY)

```
| STOP HERE!  PLEASE RETURN THE     |
| QUESTIONNAIRE IN THE ENCLOSED     |
| SELF-ADDRESSED STAMPED ENVELOPE.  |
```

3. How frequently does your office receive this report? (CHECK ONE BOX.)

(17)

1. [___] Daily

2. [___] Weekly

3. [___] Monthly

4. [___] Once every six months

5. [___] Annually

6. [___] Don't know

7. [___] Other (SPECIFY)_____

4. How is the information in this report generally used in your office? (CHECK ALL THAT APPLY.)

(18-26)

1. [___] Begin actions such as issuing orders for plans, purchases, or projects

2. [___] Modify existing information in the system

3. [___] Enter new or retrieve existing information from the system

4. [___] Maintain security of information in the system

5. [___] Analyze information from the system to make program decisions or evaluations

6. [___] Report is for referencing purposes

7. [___] Report is for making accuracy checks

8. [___] Don't know

9. [___] Other uses (SPECIFY)_____

5. Regardless of its form (that is, printed copies, microfiche copies, etc.), how long does your office keep this report? (CHECK ONE BOX.)

(27)

1. [___] At least one day

2. [___] At least one week

3. [___] At least one month

4. [___] At least one year

5. [___] Don't know

6. [___] Other (SPECIFY)_____

6. What type of distribution (if any) does your office make of this report? (CHECK ALL THAT APPLY.)

(28-32)

1. [___] Report is only used in our office

2. [___] Report sent to other offices upon request

3. [___] Report sent to other offices on a regular basis

4. [___] Don't know

5. [___] Other distribution

    (SPECIFY)_____

7. Including yourself, about how many people in your office use this report?

(33-34)

_____Number of people

3. How frequently does your office receive this report? (CHECK ONE BOX.)

(17)

1. [__] Daily

2. [__] Weekly

3. [__] Monthly

4. [__] Once every six months

5. [__] Annually

6. [__] Don't know

7. [__] Other (SPECIFY)_____

4. How is the information in this report generally used in your office? (CHECK ALL THAT APPLY.)

(18-26)

1. [__] Begin actions such as issuing orders for plans, purchases, or projects

2. [__] Modify existing information in the system

3. [__] Enter new or retrieve existing information from the system

4. [__] Maintain security of information in the system

5. [__] Analyze information from the system to make program decisions or evaluations

6. [__] Report is for referencing purposes

7. [__] Report is for making accuracy checks

8. [__] Don't know

9. [__] Other uses (SPECIFY)_____

5. Regardless of its form (that is, printed copies, microfiche copies, etc.), how long does your office keep this report? (CHECK ONE BOX.)

(27)

1. [__] At least one day

2. [__] At least one week

3. [__] At least one month

4. [__] At least one year

5. [__] Don't know

6. [__] Other (SPECIFY)_____

6. What type of distribution (if any) does your office make of this report? (CHECK ALL THAT APPLY.)

(28-32)

1. [__] Report is only used in our office

2. [__] Report sent to other offices upon request

3. [__] Report sent to other offices on a regular basis

4. [__] Don't know

5. [__] Other distribution

(SPECIFY)_____

7. Including yourself, about how many people in your office use this report?

(33-34)

_____Number of people

8. To what extent, if at all, could the work conducted in your office be completed successfully (as quickly and accurately) if this report was not available? (CHECK ONE BOX.)

(35)

1. [ ] All or almost all of the work could be completed successfully

2. [ ] Most of the work could be completed successfully

3. [ ] Some of the work could be completed successfully, some of the work could not be completed successfully

4. [ ] Most of the work could not be completed successfully

5. [ ] All or almost all of the work could not be completed successfully

6. [ ] Don't know

9. How easy or difficult would it be to derive the information in this report from manual records maintained in your office? (CHECK ONE BOX.)

(36)

1. [ ] No manual records are kept

2. [ ] Very difficult

3. [ ] Difficult

4. [ ] Neither difficult nor easy

5. [ ] Easy

6. [ ] Very easy

7. [ ] Don't know

10. How easy or difficult is it to obtain the information in this report from other reports your office receives? (CHECK ONE BOX.)

(37)

1. [ ] Very difficult

2. [ ] Difficult

3. [ ] Neither easy nor difficult

4. [ ] Easy

5. [ ] Very easy

6. [ ] Don't know

11. Which of the following methods (if any) does your office use to check the accuracy of at least some of the information contained in this report? (CHECK ALL THAT APPLY.)

(38-42)

1. [ ] No accuracy checks are regularly made

2. [ ] Check information against automated systems

3. [ ] Check information against manual systems

4. [ ] Don't know

5. [ ] Other (SPECIFY)

_____

12. Have you participated in any of the following activities? (CHECK ALL THAT APPLY.)

(43-48)

1. [ ] Helped identify the type of information that would be included in the report

2. [ ] Helped design the format of the report

3. [ ] Offered suggestions for changes to the report

4. [ ] Have been contacted about future changes to the report

5. [ ] Have not participated in any of these activities

6. [ ] Other (SPECIFY)

II. Opinions About This Report

13. When your office receives this report, how up-to-date do you consider the information? (CHECK ONE BOX.)

(49)

1. [ ] All or almost all of the information is up-to-date

2. [ ] Most of the information is up-to-date

3. [ ] About half of the information is up-to-date

4. [ ] Most of the information is out-of-date

5. [ ] All or almost all of the information is out-of-date

6. [ ] Don't know

7. [ ] Other (SPECIFY)

14. How complete do you consider the information in this report that your office uses? (That is, is any additional information needed?) (CHECK ONE BOX.)

(50)

1. [ ] Never or almost never complete

2. [ ] Generally not complete

3. [ ] As much complete as not complete

4. [ ] Generally complete

5. [ ] Always or almost always complete

6. [ ] Don't know

7. [ ] Other (SPECIFY)

15. How much do you like or dislike the format used to display the information in this report? (CHECK ONE BOX.)

(51)

1. [ ] Greatly like the format

2. [ ] Like the format

3. [ ] Neither like nor dislike the format

4. [ ] Dislike the format

5. [ ] Greatly dislike the format

12. Have you participated in any of the following activities? (CHECK ALL THAT APPLY.)

(43-48)

1. [＿] Helped identify the type of information that would be included in the report

2. [＿] Helped design the format of the report

3. [＿] Offered suggestions for changes to the report

4. [＿] Have been contacted about future changes to the report

5. [＿] Have not participated in any of these activities

6. [＿] Other (SPECIFY)

_____

II. Opinions About This Report

13. When your office receives this report, how up-to-date do you consider the information? (CHECK ONE BOX.)

(49)

1. [＿] All or almost all of the information is up-to-date

2. [＿] Most of the information is up-to-date

3. [＿] About half of the information is up-to-date

4. [＿] Most of the information is out-of-date

5. [＿] All or almost all of the information is out-of-date

6. [＿] Don't know

7. [＿] Other (SPECIFY)

_____

14. How complete do you consider the information in this report that your office uses? (That is, is any additional information needed?) (CHECK ONE BOX.)

(50)

1. [＿] Never or almost never complete

2. [＿] Generally not complete

3. [＿] As much complete as not complete

4. [＿] Generally complete

5. [＿] Always or almost always complete

6. [＿] Don't know

7. [＿] Other (SPECIFY)

_____

15. How much do you like or dislike the format used to display the information in this report? (CHECK ONE BOX.)

(51)

1. [＿] Greatly like the format

2. [＿] Like the format

3. [＿] Neither like nor dislike the format

4. [＿] Dislike the format

5. [＿] Greatly dislike the format

16. Overall, how easy or difficult is it to understand the information contained in this report? (CHECK ONE BOX.)

(52)

1. [ ] Very easy to understand

2. [ ] Generally easy to understand, only a few difficult parts

3. [ ] Neither easy nor difficult to understand

4. [ ] Generally difficult to understand, only a few easy parts

5. [ ] Very difficult to understand

17. How timely is the information contained in this report? (That is, is the report available when it is needed?) (CHECK ONE BOX.)

(53)

1. [ ] Always or almost always on time

2. [ ] Generally on time

3. [ ] Sometimes on time and sometimes late

4. [ ] Generally late

5. [ ] Always or almost always late

6. [ ] Don't know

18. In your opinion, how frequently should this report be issued? (CHECK ONE BOX.)

(54)

1. [ ] Daily

2. [ ] Weekly

3. [ ] Monthly

4. [ ] Once every six months

5. [ ] Annually

6. [ ] Don't know

19. In the last year, has your office considered <u>not</u> receiving this report (that is, removing your name from the distribution list)? (CHECK ONE BOX.)

(55)

1. [ ] Yes

2. [ ] No

3. [ ] Don't know

Thank you for your cooperation.

IN THE EVENT THAT WE NEED TO CLARIFY ANY OF YOUR RESPONSES, WE WOULD APPRECIATE IT IF YOU WOULD PROVIDE THE FOLLOWING INFORMATION.

NAME OF PERSON COMPLETING THIS QUESTIONNAIRE

_____

TITLE OF PERSON COMPLETING THIS QUESTIONNAIRE

_____

TELEPHONE NUMBER _____

If you have any comments or suggestions regarding this report, please write your response on the back of this page.

SUMMARY OF CONTROL OBJECTIVES,
TECHNIQUES, AND CONTROL STRENGTHS AND
WEAKNESSES IN AN AGENCY'S ACCOUNTING
SYSTEM

NATIONAL INSTITUTES OF HEALTH--ASSET AND LIABILITY MANAGEMENT CYCLE
INTERNAL CONTROL STRENGTHS AND WEAKNESSES

TFRA-13

Cycle Control Objectives	Controls in Place	Control Weaknesses
Authorization	**Supplies (Including drugs)**	
1. Sources of assets and liabilities should be authorized in accordance with laws, regulations, and management policy.	Obligated transactions are created during the initial entry of purchase orders. The accounting section is responsible for certifying the availability of funds for obligation transactions.	
	Property	
	When purchase orders are received from the Procurement office, the Property Accountability Unit screens each purchase order to determine which contains nonexpendable property.	
	Advances	
	Grant applications are reviewed by an advisory council and initial review group for relevancy before they are approved.	
2. The amounts, timing, and conditions of transactions, should be authorized in accordance with laws, regulations, and management policy.	See cycle control objective 1.	
3. The amounts, timing, and conditions of expenditures of funds should be authorized in accordance with laws, regulations, and management policy.	**Supplies**	National Institutes of Health (NIH) does not have one system to control cash advances to contractors and grantees. The NIH Information Management For Planning and Coordination (IMPAC) system authorizes grant awards and office of Secretary's Departmental Federal Assistance Financing System (DFAFS) make award payments. NIH has no asurance that all expenditures are reported.
	When received and entered into the data base, an accounts payable is generated. A clerk in the Accounts Payable Section matches the purchase order data in the system with the invoice. If payable, a payment transaction is generated as input into the accounting system.	
	Property	
	When property is received, an accountability section employee stationed in the supply operations branch receiving area affixes a numerical decal and cites other identifying information on the purchase order. These documents are forwarded to Property Accountability Section where they are entered into the system creating a property record. Each month copies of all property transactions affecting the general ledger are forwarded to the Division of Financial Management.	

Cycle Control Objectives	Controls In Place	Control Weaknesses
4. Adjustments to asset and lia-bility accounts and account distributions should be authorized in accordance with management policy.	See cycle control objective 3.	
5. Asset and liaibility management procedures should be establish-ed and maintained in accordance with management policy.	See cycle control objectives 1, 2, and 3.	
Economy, Efficiency, and Effectiveness		
6. Cycle results should be in accordance with laws, regula-tions, and mangement policy and plans.	The NIH Material Management System, Property System, and IMPAC system all automatically generate a series of hardcopy reports for management use. Also, a standard chart of accounts is maintained for the Central Accounting System.	The Perpetual Drug Inventory System at NIH accounts for about 1800 items amounting to $3 million annually. This is a manual system; however, automation plans are underway. Also, 2 of the 15 NIH billing systems are manual.
7. Cycle results should be achiev-ed in an economical and effi-cient manner.	See control objectives 1, 2, 3, and 6.	
8. Processing procedures used to create, recognize, and report events and related transactions should be economical and effi-cient.	See objectives 1, 2, 3, and 6. An administrative data base is used to process transactions relating to the acquisition of goods and services (including drugs).	
9. Only those requests to buy or sell assets that meet laws, regulations and management policy should be approved.	The buying, selling, transferring, and disposal of assets are documented in the Unexpendable Personal Property System documentation and the Materials Management User's Guide.	See cycle control objective 3.
10. Assets and liabilities acquired should be accurately and promptly reported.	See control objectives 1, 3, and 6. Periodic physical inventories are taken of personal property and drugs.	
11. Retirements or dispositions of assets to outsiders should be accurately and promptly reported.	See control objective 9. Periodic physical inventories are taken of personal property.	

Cycle Control Objectives	Controls in Place	Control Weaknesses
12. Amounts due from or to purchasers and creditors, and the accounting distribution of those amounts, should be computed accurately and promptly recognized as assets or liabilities.	See control objectives 3 and 6. Administrative data base system is used to process transactions.	
13. Changes in values, where required by generally accepted governmental accounting principles, should be computed accurately and recognized promptly.	See control objectives 3 and 6.	
Classification		
14. Amounts due to creditors, and related adjustments, should be accuratley and promptly classified, summarized, and reported.	See control objectives 3 and 6.	
15. Purchases and sales of assets, changes in liabilities, and related adjustments should be accurately applied to the proper subsidiary accounts.	See control objectives 1, 3, and 6.	
16. Journal entries for assets and liabilities acquired and retired, and related adjustments, should be prepared and posted each accounting period.	See control objectives 3 and 6.	
17. Journal entires should summarize and classify economic activities in accordance with management's plan.	See control objectives 3 and 6.	

Cycle Control Objectives	Controls In Place	Control Weaknesses
Substantiation and Evaluation	Property	
18. Recorded balances of asset and liability accounts, and related transaction activity, should be periodically substantiated and evaluated.	Property records are periodically reconciled with accounting records.	
	Advances	
	Weekly, all calculations of indirect costs to new awards or adjustments of indirect costs to prior awards within the CAS are mechanically transferred to IMPAC and recorded on a grant-by-grant basis. This weekly transfer process permits the reconciliation of current fiscal-year obligations in each system.	
Physical Safeguards		
19. Physical safeguards should by maintained where assets are stored and transactions are processed.	Not surveyed.	

Cycle Control Objectives	Controls In Place	Control Weaknesses

Authorization

1. Vendors should be authorized in accordance with laws, regulations and management policy.

The Reports and Accounts Control Branch maintains an on-line characteristics (vendor) file with the name and address of all vendors and persons that NIH does business with. Each day the Accounts Payable section receives an alphabetical listing of this file. It is the duty of this Section to record the correct number to each payment by the branch.

2. The types, estimated quantities, and prices and terms of goods and in accordance with laws, regulations, and management policy.

The requestor for goods and services prepares a requisition which is submitted to the purchasing agent. The procurement clerk enters this data into the data base, and a purchase order is generated.

3. Adjustments should be authorized in accordance with laws, regulations, and management policy.

Adjustments are supported by documents. Unexplained losses are fully documented and reported to the Board of Survey for consideration and disposition.

4. Procurement cycle processing procedures should be established and maintained in accordance with laws, regulations, and management policy.

The Materials Management Users Guide documents the procurement cycle processing procedures.Data base management system used to process transaction.

Economy, Efficiency, and Effectiveness

5. Procurement cycle operations should be in accordance with laws, regulations, and management policy and plans.

Data base management system used to process transaction.

Cycle Control Objectives   Controls In Place   Control Weaknesses

6. Procurements should be achieved in
    an economical and efficient manner.

7. Procurement procedures used should   Data base management system used to process transactions.
    be economical and efficient.

Transaction Processing

8. Only those requests of vendors for   See objective 1.
    goods or services that meet
    management's criteria should be
    approved.

9. Only requested goods and services   When goods are received, the receiving clerk in the receiving
    should be accepted.   location will reconcile the Purchase order with the receiving
                                             report. The delegated receiving officer keys receipt of goods into
                                             the data base.

10. Goods and services accepted should   When goods and services are received, the receipt is keyed into the
    be accurately and promptly reported.   data base at the receiving location.

11. Amounts due to vendors for goods and   When goods are purchased, the procurement clerk types data into the
    services accepted, and the   data base which generates an obligation and a purchase order. When
    accounting distributions of such   received and entered into the data base, an accounts payable is
    amounts, should be computed and   generated.
    recognized as liabilities promptly.

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Cycle Control Objectives	Controls in Place	Control Weaknesses
12. Amounts due to vendors should be accurately and promptly classified, summarized, and reported.	The Operations Accounting Branch provides the Procurement Section with a definition or description of each object class. Procurement determines which object class an order should have before ordering items. The Accounting Classification Section validates the object class and has authority to change if necessary. This section receives a listing of each obligation in the data base.	
13. Purchasing adjustments should be accurately and promptly classified, summarized, and reported		
14. Liabilities incurred, and related adjustments, should be accurately applied to the proper vendors' accounts.	See Objective 12	
15. Journal entries for amounts due to vendors and related adjustments should be prepared each accounting period.	See Objective 1	
16. Purchasing journal entries should summarize and classify economic activities in accordance with management's plan.	Written chart of accounts containing a description of each account.	

Substantiation and Evaluation

17. Recorded balances of accounts payable, and related transaction activity, should be periodically substantiated and evaluated.

NATIONAL INSTITUTES OF HEALTH--PROCUREMENT CYCLE
INTERNAL CONTROL STRENGTHS AND WEAKNESSES

Cycle Control Objectives

Controls In Place

Control Weaknesses

Physical Safeguards

18. Access to purchasing, receiving, and
disbursement records, critical
forms, processing areas, and
processing procedures should be
permitted only in accordance with
management's criteria.

Restricted of access to terminals which generate disbursement
transactions.

Cycle Control Objectives

Controls In Place

Control Weaknesses

Authorization

1. Grant eligibility requirements
   should be authorized in accordance
   with laws, regulations, and
   management policy.

2. Information and method used to
   publicize the program should be
   authorized in accordance with laws,
   regulations, and management policy.

3. Grant application processing
   procedures should be established and
   maintained in accordance with laws,
   regulations, and management policy.

4. Grantee procedures for control, use,
   and reporting of grant funded
   operations should be authorized in
   accordance with laws, regulations,
   and management policy.

Economy, Efficiency and Effectiveness

5. Grant program results should be in
   accordance with laws, regulations,
   and management   policy and plans.

NATIONAL INSTITUTES OF HEALTH-GRANT CYCLE
INTERNAL CONTROL STRENGTHS AND WEAKNESSES

Cycle Control Objectives

6. Program results should be achieved in an economical and efficient manner.

7. Procedures used to review, process and report grants and related transactions should be economical and efficient.

Transaction Processing

8. Only those grant requests that meet the eligibility requirements should be approved.

9. Resources (personnel, supplies and overhead costs) incurred for grant processing should be accurately and promptly reported.

10. Grants issued should be accurately and promptly reported.

11. Resources used, program results and related adjustments should be accurately applied to the proper records.

Classification

12. Grants and costs of processing should be summarized each period and classified in accordance with management's policy.

Controls In Place

All grant applications are reviewed by initial review groups and an advisory council to determine if they are relevant and should be approved.

Control Weaknesses

NIH does not have control over cash advances to contractors and grantees. The NIH IMPAC system authorizes grant awards while the DS DFAFS makes award payments. These two functions should somehow be merged into one NIH system.

NATIONAL INSTITUTES OF HEALTH--GRANT CYCLE
INTERNAL CONTROL STRENGTHS AND WEAKNESSES

Cycle Control Objectives	Controls In Place	Control Weaknesses
13. Reports should be prepared accurately, promptly and on a consistent basis that adequately presents the information they purport to display.	The IMPAC system automatically generates a series of hardcopy reports.	
Substantiation and Evaluation		
14. Recorded data should be periodically substantiated and evaluated.		
15. The distribution of costs to accounts should be periodically reviewed and evaluated.		
16. Grantee records should be periodically substantiated and evaluated.		
Physical Safeguards		
17. Access to grant and cost accounting records, critical forms, processing areas, and processing procedures should be permitted only in accordance with management policy.	Not surveyed.	

NATIONAL INSTITUTES OF HEALTH-OTHER DISBURSEMENT CYCLE
INTERNAL CONTROL STRENGTHS AND WEAKNESSES

Controls In Place

Cycle Control Objectives

Authorization

1. Disbursements should be authorized
   in accordance with laws,
   regulations, and management policy.

The Reports and Accounts Control Branch maintains a vendor file for
all vendors including proper identification numers, and addresses.

2. Adjustments to disbursement and
   account distributions should be
   authorized in accordance with laws,
   regulations, and management policy.

Authorized personnel make a manual check of invoices for adjustments
(manual). The only adjustments on an invoice should be for freight
charges. These charges should be documented on the invoices and
stamped. Because disbursements are a part of the data base, the
system will not allow payment above what is on the authorized order.

3. Disbursement processing procedures
   should be established and maintained
   in accordance with laws,
   regulations,and management policy.

Disbursement processing procedures are documented in the Materials
Management User's Guide for the clerks' use.

Economy, Efficiency, and Effectiveness

4. Disbursement cycle results should be
   in accordance with laws, regula-
   tions,and management policy and
   plans.

5. Disbursements should be made in an
   economical and efficient manner.

Turn-around time analysis of payments are made. Also, there are
inhouse analysis of the cost to process transactions. Workload
reports are produced.

6. Disbursement processing procedures
   used to create, recognize, and
   report events and related trans-
   actions should be economical and
   efficient.

See objective 5.
Data base management system used to process transactions.

NATIONAL INSTITUTES OF HEALTH-OTHER DISBURSEMENT CYCLE
INTERNAL CONTROL STRENGTHS AND WEAKNESSES

Cycle Control Objectives	Controls In Place	Control Weaknesses
Transaction Processing		
7. Only those requests for disbursements that meet management policy should be approved.	The Reports and Accounts Control Branch, maintains an on-line characteristics (vendor) file with the name and address of all vendors and persons that NIH does business with. Each day the Acts Payable Section receives an alphabetical listing of this file. It is the duty of this section to record the correct number to each payment by the branch. See objective 1.	
8. Disbursements should be accurately and promptly reported.	The Central Accounting System produces a number of reports on the results of processing transactions which are sent to all levels of management. One such report is the "12" report. This is a report of every transaction processed for the week.	
9. Amounts due to vendors for goods and services accepted, and the accounting distributions of such amounts, should promptly be computed and recognized as liabilities.	When purchasing goods, the procurement clerk types data into data base which generates an obligation and a purchase order. When goods are received, the receiving section keys in the receipt to the data base generating an accounts payable.	
10. Each disbursement of cash should be based upon a recognized liability, be accurately prepared, and be appropriately authorized.	Once goods are received, the procurement officer matches the receiving report with his copy of the Purchase order (P/O). At the delegated receiving office, the delegated officer will enter into the terminal what was received and the date of receipt. The invoices are mailed directly to the Acts Payable Section. A clerk in this section will enter into the terminal, an invoice number, P/O number from the copy of the P/O, invoice date, and invoice total. The computer will indicate only those lines on the P/O that are payable. The clerk will actually check the screen against the hardcopy invoice. If payable, a disbursement transaction is generated into the Central Accounting System.	
11. Disbursements should be accurately and promptly classified, summarized, and reported.	See objective 9.	
The CAS generates a number of reports on the results of processing transactions which are sent to all levels of management.		

NATIONAL INSTITUTES OF HEALTH--OTHER DISBURSEMENT CYCLE
INTERNAL CONTROL STRENGTHS AND WEAKNESSES

Controls In Place

Cycle Control Objectives

Classification

12. Cash disbursements and related adjustments should be accurately and promptly classified, summarized, and reported.

See objective 11.

13. Liabilities incurred, cash disbursements, and related adjustments should be accurately applied to the proper vendors' accounts.

See objective 7.

14. Transactions for amounts due to vendors, cash disbursements, and related adjustments should be prepared each period.

Chart of accounts.

15. Disbursements should be summarized and classified in accordance with management's plan.

See Objective 11.
CAS generates a sub object class report which shows how much has been disbursed for each object class.

Substantiation and Evaluation

16. Recorded balances of disbursements, and related transaction activity, should be periodically substantiated and evaluated.

Disbursements are reconciled monthly with both the 101 disbursing funds general ledger account series and the Agency Statement of Transactions, SF-224. Each transaction processed is printed out on a weekly detail transaction report ("12" report). This report is distributed to Division of Financial Management (DFM) accounting branches and NIH Institutes and offices.

INTERNAL INSTITUTES OF HEALTH--OTHER DISBURSEMENT CYCLE
INTERNAL CONTROL STRENGTHS AND WEAKNESSES

Controls In Place

Cycle Control Objectives

Physical Safeguards

17. Access to disbursement records,
critical forms, processing areas,
and processing procedures should be
permitted only in accordance with
management policy.

18. Access to purchasing, receiving, and
disbursement records, critical
forms, processing areas, and
processing procedures should be
permitted only in accordance with
management's criteria.

Because disbursements are part of the data base, there are no
hardcopy records of disbursements. The only terminals for
generating disbursements are in the Accounts Payable Section, which
is the only section with the ability to use key words and IDs to
generate a disbursement transaction. There is only one terminal for
deleting a payment. It is located in the Disbursing Services
Section. Everyone can query the system, but not everyone can
generate specific data.

There is a restriction of access to terminals which generates
disbursement transactions.

NATIONAL INSTITUTES OF HEALTH-REPORTING CYCLE
INTERNAL CONTROL STRENGTHS AND WEAKNESSES

Cycle Control Objectives	Controls in Place	Control Weaknesses
Authorization		
1. Data entered to reporting systems should be authorized in accordance with laws, regulations, and management policy.	The NIH Central Accounting System is an automated system which utilizes a standard chart of accounts.	
2. Reporting system processing procedures should be established and maintained in accordance with laws, regulations, and management policy.	The Central Accounting System generates various reports monthly and annually on the status of funds and the general ledger account balances.	
Economy, Efficiency, and Effectiveness		
3. Reporting should be in accordance with laws, regulations, and management policy and plans.	see cycle control objective 2.	
4. Reporting should be achieved in an economical and efficient manner.		

NATIONAL INSTITUTES OF HEALTH-REPORTING CYCLE
INTERNAL CONTROL STRENGTHS AND WEAKNESSES

Cycle Control Objectives	Controls In Place	Control Weaknesses
5. Reporting procedures used should be economical and efficient.		
Transaction Processing		
6. Only those reports that meet management policy should be approved.	As a result of the user satisfaction questionaire, we found that 156 of the 209 users of management reports generated by the NIH Central Accounting System actually use the reports.	
7. Reports should be prepared accurately and promptly.	Of the 156 users of NIH management reports, 152, or 97 percent reported all or most of information in the reports is accurate.	
8. Relevant disclosure data should be gathered accurately and promptly.	See objectives 2 & 7.	
9. Relevant disclosure data should be accurately summarized and reported.	See cycle control objectives 2 and 7. Also, the Central Accounting System (CAS) utilizes theCommon Account Number (CAN) and the standard chart of accounts to summarize and report data accurately. Internal edit checks such as the common accounting number file are used to edit transactions for valid CAN. If the CAN is invalid, the transaction is rejected by the system and is printed out on a rotating error file.	
10. File and account balances should be accurately and promptly reported.	The data base management system used to process transactions.	
11. Consolidation of reports should be accomplished accurately and promptly.	See objectives 1, 2 & 7.	
Classification		
12. Reporting entries should classify activities in accordance with management's plan.	See objectives 1 and 2.	

Cycle Control Objectives

Controls in Place

Control Weaknesses

13. Reports should be prepared
accurately and promptly, be prepared
on consistent bases and fairly
present the information they purport
to display.

See cycle control objectives 1, 2 and 7.

Substantiation and Evaluation

14. Recorded balances in the records
should be periodically substantiated
and evaluated.

Physical Safeguards

15. Access to records, critical forms,
processing areas, and processing
procedures should be permitted only
in accordance with management
policy.

Not surveyed

Comprehensive audit of the Central
Accounting System has not been
performed by internal or external
staff.

TYPICAL PAYROLL TRANSACTIONS
TO BE INCLUDED IN A TEST DECK

How a system with effective controls will handle the transactions

Nature of test transactions	Purpose or explanation of test transaction	Reject	Print error message	Reject in certain circumstances	Cut back to allowable maximum	Process without cut back	Automatically compute correct amount	Automatically adjust leave records
1. Leave a mandatory field blank on a new employee's master record.	To determine whether the system will accept a master record with essential data missing. If missing data will cause an incorrect payment, the master record should be rejected with appropriate warning; if missing data is for administrative purposes only, the condition should be flagged by an error message.		X	X				

TYPICAL PAYROLL TRANSACTIONS TO BE INCLUDED IN A TEST DECK

How a system with effective controls will handle the transactions

Nature of test transactions	Purpose or explanation of test transaction	Reject	Print error message	Reject in certain circumstances	Cut back to allowable maximum	Process without cut back	Automatically compute correct amount	Automatically adjust leave records
2. Enter erroneous codes, such as charity, life insurance, union dues, marital status, etc. (Note--one erroneous code per master record.)	To determine whether the system will accept invalid data into employees' master records. The program should print error messages to identify invalid data and reject further processing of such transactions.		X	X				
3. Enter an invalid annual leave category.	To determine whether the system will accept an invalid annual leave category. Federal regulations have established annual leave categories as 4, 6, or 8 depending on the amount of creditable service.	X	X					

TYPICAL PAYROLL TRANSACTIONS
TO BE INCLUDED IN A TEST DECK

How a system with effective controls will handle the transactions

Nature of test transactions	Purpose or explanation of test transaction	Reject	Print error message	Reject in certain circumstances	Cut back to allowable maximum	Process without cut back	Automatically compute correct amount	Automatically adjust leave records
4. Change a field in an inactive master record.	To determine whether it is possible to change fields in inactive master records and whether adequate controls exist over such changes. Processing of inactive records should be separated from the normal processing of active records to eliminate the possibility of unearned salary payments or the manipulation of records for persons who are not in a pay status.	X	X					

TYPICAL PAYROLL TRANSACTIONS
TO BE INCLUDED IN A TEST DECK

How a system with effective controls will handle the transactions

Nature of test transactions	Purpose or explanation of test transaction	Reject	Print error message	Reject in certain circumstances	Cut back to allowable maximum	Process without cut back	Automatically compute correct amount	Automatically adjust leave records
5. Change an employee's annual leave category before it is due to be changed.	To determine whether the system will reject invalid updates. The annual leave category is based on the amount of creditable service an employee has, computed from the employee's service computation data. Employees with less than 3 years of service are in category 4; employees with 3 to 15 years of service are in category 6; employees with more than 15 years of service are in category 8. The program should reject any attempt to change a leave category before it is due to be changed.	X	X					

TYPICAL PAYROLL TRANSACTIONS
TO BE INCLUDED IN A TEST DECK

Nature of test transactions	Purpose or explanation of test transaction	How a system with effective controls will handle the transactions						
		Reject	Print error message	Reject in certain circumstances	Cut back to allowable maximum	Process without cut back	Automatically compute correct amount	Automatically adjust leave records
6. Promote a general schedule (GS) employee above grade 5 before 1 year in grade has passed.	To determine whether the system rejects an invalid transaction. Federal regulations state that GS employees above grade 5 must be in grade at least 1 year before they can be promoted.	X	X					
7. Give a GS employee a within-grade salary increase before 1 year in grade has passed.	To determine how the system handles this transaction. Federal regulations state that a GS employee must be in grade before being eligible for a within-grade salary increase. The system should "flag" the transaction as being a quality step increase (which has the same effect as a within-grade increase but can occur without the employee's having been in grade for 1 year).		X					

TYPICAL PAYROLL TRANSACTIONS
TO BE INCLUDED IN A TEST DECK

How a system with effective controls will handle the transactions

Nature of test transactions	Purpose or explanation of test transaction	Reject	Print error message	Reject in certain circum-stances	Cut back to allowable maximum	Process without cut back	Automat-ically compute correct amount	Automat-ically adjust leave records
8. Change an employee's grade or annual salary so that the grade/step and annual salary rate are incompatible.	To determine whether the system accepts incompatible data. The program should have salary and grade controls which will reject transactions of this type from further processing (except for payments under the Civil Service "retained rate" provision, which allows certain downgraded employees to retain their old salaries for a time).	X	X					
9. Change an employee's service computation date to indicate that leave category is due to change.	To determine whether the annual leave category is correctly changed, with a message printed to indicate the change. If the leave category is not automatically changed, a message should be printed.		X					

TYPICAL PAYROLL TRANSACTIONS
TO BE INCLUDED IN A TEST DECK

How a system with effective controls will handle the transactions

Nature of test transactions	Purpose or explanation of test transaction	Reject	Print error message	Reject in certain circum- stances	Cut back to allowable maximum	Process without cut back	Automat- ically compute correct amount	Automat- ically adjust leave records
10. Pay an inactive employee.	To determine whether the system will compute pay for an inactive employee (an employee who has been seperated but whose record is maintained in the same master file used for active employees).	X	X					
11. Pay a non- existent employee.	To determine whether the system will compute pay for an employee with no record in the master file.	X	X					
12. Input two time and attendance cards for the same employee.	To determine whether the system will compute pay twice for the same employee.	X	X					

TYPICAL PAYROLL TRANSACTIONS
TO BE INCLUDED IN A TEST DECK

CTA-1

| | | How a system with effective controls will handle the transactions | | | | | | |
Nature of test transactions	Purpose or explanation of test transaction	Reject	Print error message	Reject in certain circumstances	Cut back to allowable maximum	Process without cut back	Automatically compute correct amount	Automatically adjust leave records
13. Pay a GS employee for 80 hours work on a second-shift entitlement for a wage board (WB) employee.	To determine whether the system rejects WB entitlements for GS employees.	X	X					
14. Pay a GS employee for 80 hours work on a third-shift entitlement for a WB employee.	Same as above.	X	X					
15. Pay a WB employee for 80 hours work on a night differential entitlement for a GS employee.	To determine whether the system rejects a GS entitlements for WB employees.	X	X					

TYPICAL PAYROLL TRANSACTIONS
TO BE INCLUDED IN A TEST DECK

How a system with effective controls will handle the transactions

Nature of test transactions	Purpose or explanation of test transaction	Reject	print error message	Reject in certain circum-stances	Cut back to allowable maximum	process without cut back	Automatically compute correct amount	Automatically adjust leave records
16. Pay a WB employee for 20 hours of overtime.	To verify the accuracy of premium (overtime) pay computation. Overtime pay is 1-1/2 times regular pay.						X	
17. Pay a GS employee for 20 hours of night-differential pay.	Same as above. Premium = 10 percent.						X	
18. Pay a WB employee for 80 hours on second shift.	Same as above. Premium = 7 1/2 percent.						X	
19. Pay a WB employee for 80 hours on third shift.	Same as above. Premium = 10 percent.						X	

TYPICAL PAYROLL TRANSACTIONS TO BE INCLUDED IN A TEST DECK

How a system with effective controls will handle the transactions

Nature of test transactions	Purpose or explanation of test transaction	Reject	Print error message	Reject in certain circumstances	Cut back to allowable maximum	Process without cut back	Automatically compute correct amount	Automatically adjust leave records
20. Pay a GS employee for 8 hours of holiday pay.	Same as above. Holiday Pay is double regular pay.						X	
21. Pay a WB employee for 8 hours of holiday pay.	Same as above.						X	
22. Pay a GS employee for 8 hours of Sunday pay (for Sunday work that is not overtime work).	Same as above. Sunday premium is 25 percent of regular pay if Sunday is a regularly scheduled workday.						X	
23. Pay a WB employee for 8 hours of Sunday pay.	Same as above.						X	

TYPICAL PAYROLL TRANSACTIONS
TO BE INCLUDED IN A TEST DECK

How a system with effective controls will handle the transactions

Nature of test transactions	Purpose or explanation of test transaction	Reject	Print error message	Reject in certain circum- stances	Cut back to allowable maximum	Process without cut back	Automat- ically compute correct amount	Automat- ically adjust leave records
24. Pay GS employees for 10 hours of environmental pay at the following premium: a. 4% b. 8% c. 25% d. 50%	Same as above.						X	
25. Pay WB employees for 10 hours of environmental pay at the following premiums: a. 4% b. 8% c. 25% d. 50%	Same as above.						X	

TYPICAL PAYROLL TRANSACTIONS
TO BE INCLUDED IN A TEST DECK

CTA-1

Nature of test transactions	Purpose or explanation of test transaction	How a system with effective controls will handle the transactions						
		Reject	Print error message	Reject in certain circumstances	Cut back to allowable maximum	Process without cut back	Automatically compute correct amount	Automatically adjust leave records
26. Pay a GS-1, 2, 3, 4, 5, 6, or 7 employee for 10 hours of overtime.	To verify accuracy of premium pay computation. For GS employees whose basic pay rate does not exceed the salary of a GS-10/1, the overtime rate is 1-1/2 times the basic pay rate. (FPM 550-5)						X	
27. Pay a GS-10, 11, 12, or 13 employee for 10 hours of overtime.	Same as above. For a GS employee whose basic pay rate is equal to or exceeds the rate of a GS-10/1, the overtime rate is 1-1/2 time the hourly rate for a GS-10/1. (FPM 550-5)						X	

TYPICAL PAYROLL TRANSACTIONS TO BE INCLUDED IN A TEST DECK

How a system with effective controls will handle the transactions

Nature of test transactions	Purpose or explanation of test transaction	Reject	Print error message	Reject in certain circumstances	Cut back to allowable maximum	Process without cut back	Automatically compute correct amount	Automatically adjust leave records
28. Pay a GS-14 employee enough overtime pay to exceed the maximum salary limitation.	To test maximum salary limitation. Additional pay such as overtime, night-differential, holiday, and Sunday pay, may be paid to the extent that it does not cause the aggregate pay for a bi-weekly period to exceed the rate of a GS-15/10. (FPM, 550. 105) The program should cut back pay to this maximum.		X		X			
29. Pay a GS-14 employee enough environmental pay to exceed the maximum salary limitation.	Same as above. Program should not cut back environmental pay because it is not subject to the maximum salary limitation.					X		

TYPICAL PAYROLL TRANSACTIONS
TO BE INCLUDED IN A TEST DECK

How a system with effective controls will handle the transactions

Nature of test transactions	Purpose or explanation of test transaction	Reject	Print error message	Reject in certain circum- stances	Cut back to allowable maximum	Process without cut back	Automat- ically compute correct amount	Automat- ically adjust leave records
30. Pay a WB employee enough premium pay to exceed the maximum salary limitation.	Same as above. Program should not cut back pay because WB employees have no maximum salary limitation.					X		
31. Pay a GS employee for 1 hour of holiday Pay.	To determine whether the system will pay less than the 2-hour minimum of holiday pay. (FPM 990-1)		X				X	
32. Pay a WB employee for 1 hour of holiday pay.	Same as above.		X				X	
33. Pay a GS employee for 40 hours of Sunday pay.	To determine whether the system limits Sunday pay to 32 hours maximum allowed. (FPM 990-2)		X		X			

How a system with effective controls will handle the transactions

Nature of test transactions	Purpose or explanation of test transaction	Reject	Print error message	Reject in certain circum- stances	Cut back to allowable maximum	Process without cut back	Automat- ically compute correct amount	Automat- ically adjust leave records
34. Pay a WB employee for 80 hours on second shift and 10 hours for overtime into the third shift.	To verify the accuracy of premium pay. Federal regulations state that overtime pay for an employee regularly working the second or third shift will be computed at 1-1/2 times the second or third shift rate, repectively. (FPM 532-1)						X	
35. Pay a WB employee for 80 hours on third shift and 10 hours for overtime into the first shift.	Same as above.						X	

TYPICAL PAYROLL TRANSACTIONS
TO BE INCLUDED IN A TEST DECK

CTA-1

How a system with effective controls will handle the transactions

Nature of test transactions	Purpose or explanation of test transaction	Reject	Print error message	Reject in certain circum-stances	Cut back to allowable maximum	Process without cut back	Automat-ically compute correct amount	Automat-ically adjust leave records
36. Charge a full-time employee for 80 hours of leave without pay (LWOP).	To determine whether sick and annual leave will accrue when a full-time employee charges 80 hours LWOP. The sick leave credit should be reduced by 4 hours and the annual leave credit should be reduced by 4, 6, or 8 hours, depending on the annual leave category.							X
37. Charge a full-time employee for more annual leave than the employee has.	To determine whether excess annual leave is charged to LWOP. (The system should automatically reduce employee's pay for LWOP.)		X				X	X

How a system with effective controls will handle the transactions

Nature of test transactions	Purpose or explanation of test transaction	Reject	Print error message	Reject in certain circumstances	Cut back to allowable maximum	Process without cut back	Automatically compute correct amount	Automatically adjust leave records
38. Charge a full-time employee for more sick leave than the employee has.	To determine whether excess sick leave is charged to annual leave or LWOP. (The system should automatically adjust leave records and reduce pay for LWOP, if required.)		X				X	X
39. Charge a full-time employee for 99 hours of annual leave (19 hours more than a regular biweekly period).	To determine whether the system will cut back to the maximum of 80 hours for regular pay in a pay period.		X		X			
40. Charge a full-time employee for 99 hours of sick leave.	Same as above.		X		X			

TYPICAL PAYROLL TRANSACTIONS
TO BE INCLUDED IN A TEST DECK

How a system with effective controls will handle the transactions

Nature of test transactions	Purpose or explanation of test transaction	Reject	Print error message	Reject in certain circumstances	Cut back to allowable maximum	Process without cut back	Automatically compute correct amount	Automatically adjust leave records
41. Charge a full-time employee for 80 hours of regular pay and 80 hours of annual leave in the same pay period.	Same as above. Total hours of work and leave cannot exceed 80 in a pay period.	X	X					
42. Charge a full-time employee for enough hours of military leave to exceed 120 hours total.	To determine whether the system flags military leave in excess of 120 hours. Federal regulations state that an employee cannot charge more than 120 hours to military leave in a pay year. Because there are certain exceptions (such as duty in the District of Columbia National Guard) which permit military leave to exceed 120 hours the		X					

TYPICAL PAYROLL TRANSACTIONS
TO BE INCLUDED IN A TEST DECK

How a system with effective controls will handle the transactions

Nature of test transactions	Purpose or explanation of test transaction	Reject	Print error message	Reject in certain circum- stances	Cut back to allowable maximum	Process without cut back	Automat- ically compute correct amount	Automat- ically adjust leave records
42. cont'd	system should alert payroll clerks to the excess but should not reject or cut back the transaction.							
43. Make a lump-sum annual leave payment to a separated employee in excess of annual leave balance.	To determine whether the system appropriately excludes excess annual leave in a lump-sum leave payment.		X	X				

TYPICAL PAYROLL TRANSACTIONS
TO BE INCLUDED IN A TEST DECK

How a system with effective controls wil handle the transactions

Nature of test transactions	Purpose or explanation of test transaction	Reject	Print error message	Reject in certain circum-stances	Cut back to allowable maximum	Process without cut back	Automat-ically compute correct amount	Automat-ically adjust leave records
44. Pay a GS part-time employee for 32 hours of regular pay.	To determine whether the system correctly accrues annual and sick leave for part-time employees. For each 20 hours worked, a part time employee receives 1 hour of sick leave. If in leave category 4, an employee needs 20 hours of work to earn 1 hour of annual leave; if in leave category 6, the employee needs 15 hours worked to earn 1 hour of annual leave; and if in leave category 8, the employee needs 10 hours worked to earn 1 hour of annual leave.							x

How a system with effective controls will handle the transactions

Nature of test transactions	Purpose or explanation of test transaction	Reject	Print error message	Reject in certain circum-stances	Cut back to allowable maximum	Process without cut back	Automat-ically compute correct amount	Automat-ically adjust leave records
45. Make a lump-sum annual leave payment to an active employee.	To determine whether the system will make a lump-sum annual leave payment to an active employee. These payments should be made only to separated employees.	x	x					

APPENDIX VII

Control Objectives

CONTROL OBJECTIVES FOR
ACCOUNTING, FINANCIAL CONTROL, AND OTHER
SYSTEM REQUIREMENTS FOR FEDERAL AGENCIES

GAO's Policy and Procedures Manual For Guidance of Federal Agencies (titles 2 through 8) includes specific requirements--control objectives--for federal agencies' accounting and internal control systems and other systems requirements. Specifically:

ACCOUNTING AND FINANCIAL CONTROL SYSTEM CONTROL OBJECTIVES

--Title 2   presents the control objectives for maintaining general ledger accounts and for reporting the financial results of program and administrative operations and the financial status of appropriated funds and other resources.

--Title 4   presents the control objectives for processing, accounting for, and reporting transactions relating to claims for and against the federal government.

--Title 5   presents the control objectives for processing, accounting for, and reporting all transactions relating to travel of persons and transportation of things.

--Title 6   presents the control objectives for processing, accounting for, and reporting all transactions relating to pay, leave and allowances.

--Title 7   presents the control objectives for processing, accounting for, and reporting all transactions relating to appropriated funds, collections, and disbursements.

OTHER SYSTEM REQUIREMENTS

--Title 2   presents other system requirements for agency accounting systems which cover such matters as (1) usefulness of accounting data, (2) consistency of planning, programming, budgeting, and accounting classifications, (3) simplicity, and (4) duplication of records.

--Title 8   presents the requirements for safeguarding, retaining, and disposing of accounting records.

ACCOUNTING AND FINANCIAL
CONTROL SYSTEM CONTROL OBJECTIVES
AND CONTROL TECHNIQUES

TITLE 2 CONTROL OBJECTIVES AND TECHNIQUES
FOR MAINTAINING GENERAL LEDGER ACCOUNTS
AND FOR REPORTING THE FINANCIAL RESULTS OF
PROGRAM AND ADMINISTRATIVE OPERATIONS AND THE
FINANCIAL STATUS OF APPROPRIATED FUNDS AND
OTHER RESOURCES

Title 2 Control objectives and techniques for maintaining
general ledger accounts and for reporting the financial results
of operations and the status of funds and other resources cover

--assets and liabilities,

--revenues and reimbursements,

--disbursements, and

--financial reporting

Title 2 Accounting requirements for maintaining general ledger
accounts and for reporting the financial results of operations
and the status of funds and other resources cover

--statutory requirements and relationships to other systems,

--financial reporting,

--account structure, and

--accouting processes.

TITLE 2   CONTROL OBJECTIVES AND TECHNIQUES
FOR FINANCIAL CONTROL

ASSETS AND LIABILITIES

ASSET AND LIABILITY CONTROL OBJECTIVES AND TECHNIQUES
FOR FINANCIAL CONTROLS

CONTROL OBJECTIVES

1. Agency transactions should be authorized pursuant
   to laws, regulations, and management policy.

CONTROL TECHNIQUES

a. Laws, regulations, and management policy are
   readily available to agency officials and
   staff, GAO, and Inspector General auditors for
   review.

b. Procedures for initiating, reviewing,
   approving, and preparing transactions are
   documented and approved by management.

c. Periodic inspection of critical forms for
   proper completion and authorized signature
   occurs.

d. Executive management approves each of certain
   types of transactions (such as the purchase of
   unusually large amounts, or capital
   expenditures).

e. Use of standard prenumbered critical forms and
   accountability for such forms are appropriate.

CONTROL OBJECTIVES

2. Adjustments should be authorized in accordance with management's criteria.

CONTROL TECHNIQUES

a. Use prenumbered and controlled standard forms requiring specific approvals.

b. Separate personnel to investigate the need for and to initiate adjustments.

c. Clear statements of criteria and policies for adjustments including types allowed and authorization required.

d. Documented procedures for processing adjustments.

e. Supervisory review of adjustments.

f. Regular reporting and periodic analyses of trends in amounts and types of adjustments.

g. Independent review to determine that adjustments contain proper approval.

h. Routine preparation of standardized adjustment registers combined with exception reporting of adjustments over a stated amount.

i. Written approval of all account distribution adjustments by a specified person.

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CONTROL OBJECTIVES

2. Continued.

j. Approval of all adjustments to correct errors.

k. Proposed adjustments to accounts submitted in writing with appropriate documentation for review and approval before being formalized.

3. Transactions should be recorded in the accounts during the period in which they are incurred.

a. Written agency policy identifying the events or circumstances for recognizing transactions, conforming to the principles and standards prescribed by the Comptroller General.

b. Prenumbered and controlled and/or standard critical forms used to document transactions.

c. Documented processing, cutoff, and period-end closing schedules and procedures.

d. Forms designed to facilitate processing.

CONTROL OBJECTIVES

CONTROL TECHNIQUES

3. Continued.

   e. Forms designated to facilitate processing.

   f. Preparation of a receiving document at the dock for each shipment received.

   g. Maintenance of a receiving log sequentially listing each receiving document.

4. Responsibility should be specifically assigned and appropriately separated to assure transactions are processed in accordance with management's requirements.

   a. The accounting system documentation reflects the assignments of responsibility for each organization involved in the transaction. Responsibility within an organization is further delineated by functions which provide for a separation of duties.

   b. Transaction documents are independently checked periodically against accounting records and the reasons for any unrecorded transactions are determined.

CONTROL OJECTIVES

4. Continued.

5. Transactions are recorded in the proper amount.

CONTROL TECHNIQUES

c. Closely supervised central receiving locations that are separate from shipping, purchasing, and storage functions.

d. Detailed comparison of goods received to a copy of the purchase order.

e. Independent checks on the accuracy of accounting records through periodic physical count, weight, or other measurement.

a. Reference to prior or related transactions for conformity.

b. Validation tests to verify postings to detail accounts.

c. Periodic reconciling of subsidiaries, external statements (such as from banks or creditors) and control accounts.

d. Each reconciliation reviewed and approved by a responsible official.

CONTROL OBJECTIVES

5. Continued.

6. All transactions must be recorded in the accounts promptly and accurately.

CONTROL TECHNIQUES

e. Confirmation of balances with third parties (such as debtors, creditors, custodians of investments).

f. Periodic reviews of methods and formulas used for accruals, write-offs, amorizations, etc.

a. Documented processing, cutoff, and periodic closing procedures.

b. Standard journal entry register to provide assurance that all required journal entries were prepared.

c. Prenumbered journal entry forms and related accountability for all forms each period.

d. Supervisory review of processing documents with source documents and reported results.

e. Periodic refootings of registers and journals.

f. Programmed edits to assure accuracy of data.

g. Batch totaling and logging of input documents and reconciling batch totals to output.

6. Continued.

CONTROL TECHNIQUES

h. Review and follow-up of suspense files of rejected data.

i. Reconciling manually determined control totals to recorded results.

j. Prenumbered transmittal slips.

k. Transmittal logs.

l. Recipient verification that data transmitted agrees with transmittal slip.

m. Recipient acknowledges to the originator that transmittals were received.

n. Program or processing controls to prevent or detect duplicate posting of a transaction.

o. Written coding instructions.

p. Periodic review of "open" items, (such as commitments undelivered orders, advances, payables,) to determine those outstanding for unreasonable periods of time and reasons thereof.

CONTROL OBJECTIVES

7. Assets, records, and prenumbered (or otherwise controlled) blank forms and documents should be safeguarded against waste and misuse.

CONTROL TECHNIQUES

a. Only authorized personnel have access to records, assets, controlled blank forms and documents, and processing areas.

b. Records of physical quantities and locations are kept.

c. Periodic physical inventories of assets and controlled forms, and reconciliation to controls.

d. Use of security devices, safes, locked cabinets, etc.

e. Authorization procedures to remove assets, records, controlled forms, etc., from premises.

f. Examination of waste and salvage material prior to disposal.

REVENUES AND REIMBURSEMENTS

RECEIPTS AND REIMBURSEMENTS CONTROL OBJECTIVES AND
TECHNIQUES FOR FINANCIAL CONTROLS

CONTROL OBJECTIVES

1. Agency transactions should be authorized pursuant to laws, regulations, and management policy.

CONTROL TECHNIQUES

a. Laws, regulations, and management policy are readily available to agency officials and staff, GAO, and inspector general auditors for review.

b. Documented management-approved procedures for initiating, reviewing, approving, and preparing transactions.

c. Periodic inspection of used critical forms for proper completion and authorized signature.

d. Executive management approval for each of certain types of transactions (such as reimbursements of unusually large amounts or, capital expenditures).

e. Use of standard prenumbered critical forms and accountability for such forms.

f. Periodic internal audit of required authorizations.

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CONTROL OBJECTIVES

2. Adjustments should be authorized in accordance with management's criteria.

CONTROL TECHNIQUES

a. Prenumbered and controlled standard forms requiring specific approval.

b. Separate personnel to investigate the need for and to intiate adjustments.

c. Clear statements of criteria and policies for adjustments including types allowed, and authorization required.

d. Procedures for processing adjustments are documented and followed.

e. Supervisory review of adjustments.

f. Regular reporting and periodic analyses of trends in amounts and types of adjustment.

g. Independent review (including internal audit) to determine that adjustments contain proper approval.

h. Authorization of adjustment forms by a specified manager in absence of, or in contradiction of, established written policies.

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2. Continued.

3. Transactions should be recorded in the accounts during the period in which they are incurred.

i. Routine preparation of standardized adjustment registers combined with exception reporting of adjustments over a stated amount.

j. Written approval of all account distribution adjustments by a specified executive or supervisor.

k. Management has issued policy guidance providing that,

   --returns must be approved before acceptance,

   --credit memos be based on incoming inspection reports and receiving reports, and

   --that certain amounts be approved by designated officials.

a. The agency has written policy identifying the events or circumstances for recognizing transactions. The policy conforms to the principles and standards prescribed by the Comptroller General.

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CONTROL OBJECTIVES

3. Continued.

4. Responsibility should be specifically assigned and appropriately separated to assure transactions are processed in accordance with management's requirements.

CONTROL TECHNIQUES

b. Prenumbered, and controlled and/or standard critical forms are used to document transactions.

c. Documented processing, cutoff, and period-endclosing schedules and procedures.

d. Maintenance of logs at input document receiving locations.

e. Forms designated to facilitate processing.

f. Established procedures for recording, safeguarding, and promptly depositing cash receipts.

g. All cash sales are recorded in cash register at time of sale.

h. All cash sales are reported daily.

a. Central mail room that lists incoming cash items for subsequent reconciliation to deposits by an employee who is independent of the cash receipts and account/loans receivable functions.

4. Continued.

    b. The mail opening and listing of collections are checked or supervised by a responsible official.

    c. Segregation of duties between those who handle and list cash receipts and those responsible for posting customer remittances to individual customer accounts, and posting cash receipts to general ledger accounts.

    d. Prices on sales invoices are checked to approved price lists or other management determinations of prices by persons other than those who prepare the invoices or are involved in the sales functions.

5. Transactions are recorded in the proper amount.

    a. Reference to prior or related transactions for conformity.

    b. Validation tests to verify postings to detail accounts.

    c. Periodic reconciling of subsidiaries, external statements (such as from banks or creditors) and control accounts.

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CONTROL OBJECTIVES

5. Continued.

CONTROL TECHNIQUES

d. Each reconciliation is reviewed and approved
   by a responsible official.

e. Confirmation of balances with third parties
   (such as debtors, creditors, or custodians of
   investments).

f. Periodic reviews of methods and formulas used
   for accruals, write-offs, amortizations, etc.

g. Management has established specific written
   criteria in the pricing of goods and services
   to be furnished.

h. Periodic review of pricing guidance is made,
   and changes are authorized by management.

i. Prices and items not covered by policy
   guidance must be approved by management.

j. Integrated cost accounting system for
   collecting and distributing cost related to
   the furnishing of goods and services.

k. Shipping logs are maintained listing each
   shipment sequentially by order number. At the
   end of each accounting period, the orders

CONTROL OBJECTIVES

5. Continued.

6. All transactions must be recorded in the accounts promptly and accurately.

CONTROL TECHNIQUES

received and orders shipped are reconciled with the orders in backlog.

1. Reconciliation of sales ledger balances to accounts receivable and cash sales journals on a regularly scheduled basis.

    a. Prenumbered standard forms and accountability for such forms.

    b. Documented processing, cutoff, and period closing procedures.

    c. Standard journal entry register to assure that all required journal entries were prepared.

    d. Prenumbered journal entry forms and related accountability for all numbers each period.

    e. Supervisory review of processing documents with source documents and reported results.

    f. Periodic refootings of registers and journals.

    g. Programmed edits to assure accuracy of data.

    h. Batch totaling and logging of input documents, and reconciling batch totals to output.

i.   Review and follow-up of suspense files of rejected data.

j.   Reconciling manually determined control totals to recorded results.

k.   Prenumbered transmittal slips.

l.   Transmittal logs.

m.   Recipient verification that data transmitted agrees with transmittal slip.

n.   Recipient acknowledges to the originator that transmittals were received.

o.   Program or processing controls to prevent or detect duplicate posting of a transaction.

p.   Written coding instructions.

q.   Periodic review of "open" items, (such as commitments, undelivered orders, advances, or payables,) to determine those outstanding for unreasonable periods of time and reasons thereof.

CONTROL OBJECTIVES

6. Continued.

CONTROL OBJECTIVES

7. Assets, records, and prenumbered (or otherwise controlled) blank forms and documents should be safeguarded against waste and misuse.

CONTROL TECHNIQUES

a. Only authorized personnel have access to records, assets, controlled blank forms and documents, and processing areas.

b. Records of physical quantities and locations are kept.

c. Periodic physical inventories of assets and controlled forms, and reconciliation to controls.

DISBURSEMENTS

DISBURSEMENT CONTROL OBJECTIVES AND TECHNIQUES FOR FINANCIAL CONTROLS

CONTROL OBJECTIVES

1. Agency transactions should be authorized pursuant to laws, regulations, and management policy.

1a. Subdivisions of fund authorizations for budgetary control purposes should be established at the highest practical level, be consistent with assignments of responsibility, and be limited in the number of those necessary for effective control.

CONTROL TECHNIQUES

a. Procedures exist to assure compliance with Prompt Payment Act.

b. Procedures exist to take available discounts if economically advantageous to the government.

c. Some type of internal document is used to record an overpayment at the time the overpayment is discovered.

d. Laws and policy are documented and communicated throughout the agency.

a. Written agency administrative control of funds regulation approved by OMB.

b. Listing by title or position of individuals charged with responsibility for administrative control of funds, to include the specific responsibilities of each.

c. Allotment and suballotment procedures documented.

PAYROLL CYCLE

CONTROL OBJECTIVE	CONTROL TECHNIQUE
	f. Reasonable cutoff dates are established for payroll processing and payment of the payroll. (6 GAO 16.5, 17.2, 19)
	g. Procedures exist for payment of employees during emergency evacuation. (6 GAO 24)
	h. A listing or outline of the subsidiary records that provide information needed to comply with prescribed requirements of other agencies and for management purposes is available. (6 GAO 18.3, 20.1)
	i. Procedures exist for accrual of personal services costs between the end of the pay period and month-end for accounting and reporting purposes.
5. Only transactions that meet management criteria should be approved.	a. Feedback is provided to personnel of common data elements which are compared between the two systems and conflicts are resolved. (6 GAO 17.0)

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3. Continued.

4. Responsibility should be specifically assigned and appropriately separated to assure transactions are processed in accordance with management's requirements.

b. Prenumbered and controlled and/or standard critical forms are used to document transactions.

c. Documented processing, cutoff, and period-end closing schedules and procedures.

d. Maintenance of logs at input document receiving locations.

e. Forms designated to facilitate processing.

a. The accounting system documentation reflects the responsibility assignments for each organization involved in the transaction. Responsibility within an organization is further delineated by functions which provide for a separation of duties.

b. Transaction documents are independently checked periodically against accounting records and the reasons for any unrecorded transactions are determined.

VII-29

CONTROL OBJECTIVES

5. Transactions are recorded in the proper amount.

CONTROL TECHNIQUES

a. Reference to obligation records to assure that the liability conforms to the established obligation.

b. References to receiving report(s) to assure that the goods or services were received and were accepted.

c. Validation tests to verify posting to detail accounts.

d. Periodic reconciling of subsidiaries, external statements (such as from banks or creditors) and control accounts.

e. Each reconciliation reviewed and approved by responsible official.

f. Confirmation of balances with third parties (such as debtors, creditors, or custodians of investments).

g. Periodic reviews of methods and formulas used for accruals, write-offs, amortizations, etc.

VII-30

CONTROL OBJECTIVES

6. Amounts disbursed are for the proper amounts.

CONTROL TECHNIQUES

a. Procedures to take available discounts if economically advantageous to the government.

b. Reference to accounts payable or obligation records to assure that the disbursement conforms to the established liability or obligation.

c. Verification of invoiced or vouchered quantities, prices, and terms by reference to the purchase or travel order, receiving report and related documents prior to disbursement (or within prescribed time limits after disbursement in the case of fast pay), and documentation of the verification.

d. Verification of extensions and footings of invoices and vouchers, and documentation thereof.

e. Vouchers approved by a designated certifying officer.

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7. All transactions must be recorded in the accounts promptly and accurately.

CONTROL TECHNIQUES

a. Documented processing, cutoff, and period closing procedures.

b. Standard journal entry register to provide assurance that all required journal entries were prepared.

c. Prenumbered journal entry forms related accountability for all numbers each period.

d. Supervisory review of processing documents with source documents and reported results.

e. Periodic refootings of registers and journals.

f. Programmed edits to assure accuracy of data.

g. Batch totaling and logging of input documents, and reconciling batch totals to output.

h. Review and follow-up of suspense files of rejected data.

i. Reconciling manually determined control totals to recorded results.

j. Prenumbered transmittal slips.

k. Transmittal logs.

CONTROL OBJECTIVES

CONTROL TECHNIQUES

7. Continued.

l. Recipient verification that data transmitted agrees with the transmittal slip.

m. Recipient acknowledges to the originator that transmittals were received.

n. Written coding instructions.

o. Periodic review of "open" items (such as commitments, undelivered orders, advances, or payables) to determine those outstanding for unreasonable periods of time and reasons thereof.

7a. All violations of the Anti-Deficiency Act (RS 3679) or nonstatutory limitations imposed by the agency, regardless of amount, should be reported immediately upon discovery.

a. Procedures should specify the who, what, and where of reporting.

b. The responsibilities of each position with regard to investigations, reporting, and following up on violations are documented.

c. Provide for immediate reporting of violations through the Director of the Office of Management and Budget to the President and the Congress.

CONTROL OBJECTIVES

8. Assets, records, and prenumbered (or otherwise controlled) blank forms and documents should be safeguarded against waste and misuse.

8a. Unliquidated obligations should be reviewed periodically.

CONTROL TECHNIQUES

a. Only authorized personnel have access to records, assets, controlled blank forms and documents, and processing areas.

b. Records of physical quantities and locations are kept.

c. Periodic physical inventories of assets and controlled forms, and reconciliation to records.

d. Security devices, such as safes.

a. Periodic inventory of obligations performed and document files reconciled to related listings and reports.

b. All unliquidated obligations are supported by source documents.

c. Responsibilities for annual section 1311 certification of unliquidated obligations is documented.

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FINANCIAL REPORTING

FINANCIAL REPORTING CONTROL OBJECTIVES AND TECHNIQUES
FOR FINANCIAL CONTROL

CONTROL OBJECTIVES

1. Reports, including cathode ray tube (CRT) displays, should be designed and produced to meet the needs of all parties served by the system.

CONTROL TECHNIQUES

a. A listing of all users of financial information is maintained.

b. The information required by each user has been identified.

c. Report formats are maintained showing how each user's need is to be met or is being met. The user's concurrence with the report format is obtained and on file.

d. Responsibility is assigned for keeping current on changing requirements from external sources.

e. Written instructions contain the policies and procedures for initiating and approving request for financial information.

f. Periodic reviews to ensure the reports' continued usefulness.

2. Relevant disclosure data should be gathered and reflected in the financial reports.

   a. Early identification of each supplemental disclosure made by reference to prior reports, review of the new Comptroller General decisions, established requirements, and discussions with legal counsel, auditors, agency management, and others.

   b. Assignment of responsibility for gathering required data to specific individuals.

   c. Sample reports reflecting illustrative data elements for headings, captions, dates, etc.

   d. Written commentary on significant variations from prior period and deviations from management's plans and budgets.

   e. Review of disclosure data by knowledgeable personnel.

3. Reports should be prepared accurately and promptly, prepared on a consistent basis, and fairly present the information reported.

   a. Documented policies and procedures for the preparation of all financial reports.

3. Continued.

b. Detailed procedures and standard journal entries for updating the accounts and records prior to preparing the reports.

c. Preparation of reports by designated individuals knowledgeable of the reporting requirements.

d. Listing of reports maintained by recipient and due date.

e. Established procedures for checking reported information to source documentation and verifying clerical accuracy by an individual who did not actively participate in gathering or summarizing the underlying data.

f. Approved cutoff dates established and communicated throughout the agency.

g. Reports produced from information maintained in the accounting system.

4. Reports should be delivered timely in accordance with external requirements or dates agreed to by report users.

   a. Reporting schedule and due date maintained.

   b. Responsibility assigned to individual for report distribution.

   c. Control listing of reports maintained and checkoff of reports as issued.

5. Access to reports and other financial information should be permitted only in accordance with management policies.

   a. Classified and nonclassified material maintained in accordance with written policies and procedures approved by management.

   b. Designated personnel assigned to assure compliance with management instructions.

   c. Control areas are established and restricted to authorized personnel.

   d. Reports, files, and other records secured in appropriate safekeeping devices and off-site backup storage maintained of critical materials.

6. The account structure and classification coding should enable the accumulation and recording of all transactions in all categories required by both internal and external managers.

    a. A written chart of accounts with a description of each account is maintained. This includes a listing and description of all subsidiary accounts.

    b. Classification codes published in agency manuals.

    c. Description of books of original entry is kept.

    d. Written procedures exist for requesting and approving changes to the accounts and coding structure.

VII-40

TITLE 2   ACCOUNTING REQUIREMENTS

STATUTORY REQUIREMENTS AND RELATIONSHIP
TO OTHER SYSTEMS

Statutory requirements

An agency must comply with the provisions of all applicable laws relating to agency accounting and to the administration of the funds and appropriations for which it is responsible. (sec. 8.1)

Relationship to other financial management functions

The accounting system of each agency shall be designed to meet all internal needs for cost and other financial data for planning, programming, budgeting, control, and reporting of agency operations. (sec. 8.2)

To the extent possible, planning, programming, budgeting, and accounting classifications shall be consistent with each other and should be synchronized with the agency's organizational structure. Such consistency is necessary so that data produced by an accounting system will be of maximum use in support of internal operating budgets and budgets that are presented to the Congress. (sec. 8.6)

FINANCIAL REPORTING

The financial data produced by the accounting system must be useful to the officials requiring it. (sec. 8.4)

Agencies financed from appropriations or similar authorizations should prepare periodic reports on the status of such authorization as prescribed by the Office of Management and Budget (OMB). (sec. 17.2(d))

Special financial reports required by the Congress, its committees, and the central agencies should be prepared in accordance with prescribed instructions. (sec. 17.2(f))

Financial reports to be prepared and the data to be included on each of the following:

--Statements of assets and liabilities should disclose the bases on which major categories of assets are accounted for and reported, the nature of any significant restrictions on use of assets, the amount and nature of significant contingent liabilities, and such explanatory information on the assets and liabilities as is necessary to fully and clearly disclose the financial position of the entity. (sec. 17.2(a))

--Agencies carrying on business-type activities should prepare statemewnts of operations disclosing revenues and costs. Applicable costs incurred to produce revenues from sales of materials or services should be compared or matched with the amount of such revenues in preparing financial reports on revenue-producing operations. (sec. 17.2(b))

--Agencies other than those carrying on business-type activities should prepare statements showing revenues classified by source and applied costs, by budget activities, or by some other meaningful basis which is useful for management purposes. (sec. 17.2(b))

Statements of financial position and results of operations should be accompanied by statements of sources and application of funds. For federal activities, these statements are to be presented on the gross basis. (sec. 17.2(c))

Financial performance in relation to statutory or other limitations prescribed by higher authority shall be specifically reported. (sec. 17.3(a)(7))

Separate statements should be prepared for each fund. Combined or consolidated statements for two or more funds should be prepared if such statements will better present the financial operation or condition of the agency. (sec. 17.2(e))

Adequacy of financial statements

Financial reports should be prepared to clearly disclose significant financial facts about agency operations and activities. (sec. 17.1)

The amount of detailed information shown, including explanatory notes as to unusual items, graphic presentations where appropriate, and accompanying interpretative comment shall be sufficient to provide a clear and complete report. However, unnecessary detail shall be avoided particularly where the effect of its inclusion would be to obscure significant financial data. (sec. 17.3(a)(6))

The effect of all transactions occurring during an accounting period shall be included in the financial reports for that period. (sec. 8.10(b))

Adequacy of cost reports

An accounting system must provide a basis for reporting costs of performance in accordance with:

1. major organizational segments,

2. budget activities, and

3. program structure. (sec. 8.2)

Agency accounting systems must produce appropriate data on the cost of carrying out operations. (sec. 16.3)

Cost reports by area of responsibility should be consistent with the assignment of responsibility. (sec. 16.4(3))

REPORT QUALITIES

Internal reporting pattern

The basic pattern followed in the preparation and submission of internal financial reports should be in conformity with assignments of responsibility to organizational units. (sec. 17.3(d))

Timeliness

Financial data must be promptly presented. (sec. 8.4)

Financial reports should be prepared and issued as often as necessary to be of maximum use to management officials and to meet prescribed external requirements. (sec. 17.1)

Generally, reports should be prepared to cover--or be issued at the end of--accounting periods of 4 weeks or a calendar month. (sec. 17.1)

All needed reports must be produced promptly to be of maximum usefulness. The issuance of reports should not be delayed, and cost and effort should not be incurred to produce relatively minor refinements of data. (Sec. 17.3(c))

Financial reports prepared by federal agencies must comply with the specific requirements of applicable laws and regulations as to frequency. (sec. 17.3(b))

Requirements for all reports

All essential financial facts relating to the scope and purposes of each report and the period of time involved shall be included and clearly displayed. (sec. 17.3(a)(1))

The financial data reported shall be derived from accounts that are maintained on a consistent basis from period to period; material changes in accounting policies or methods and their effect shall be clearly explained. (sec. 17.3(a)(8))

All appropriate steps should be taken to avoid bias, obscurement of significant facts, and presentation of misleading information. (Sec. 17.3(a)(2))

Where financial data or reports based on sources other than the accounting system are presented, their basis should be clearly explained. (sec. 17.3(a)(3))

Financial reports prepared by Federal agencies must comply with the specific requirements of applicable laws and regulations as to nature and content. (sec. 17.3(b))

Financial reports prepared by federal agencies must comply with all applicable restrictions pertaining to information that is classified for national security purposes. (Sec. 17.3(b))

Requirements for financial reports

Interagency and interfund transactions should be separately identified in agency records and statements so that they may be properly treated in preparing consolidated financial statements. (sec. 8.7)

Estimates of the portion of accounts receivable that may not be collectible shall be disclosed separately in financial reports. (sec. 12.4(6))

Significant classifications of property should be established for reporting purposes to clearly disclose the nature of the property. (sec. 12.5(c))

Loans authorized but not disbursed should be disclosed in explanatory notes to financial reports. (sec. 12.4(4))

The financial statements or notes thereto should contain a general description of the method(s) used in computing depreciation of major classes of depreciable assets. (sec. 12.5(h))

Extraordinary items of revenue and cost shall be shown separately from the results of ordinary items in the statements of operations. (sec. 14.6)

Contingent liabilities of material amounts shall be disclosed and explained in the financial reports. (sec. 13.3)

Financial reports on Federal insurance, pension, and similar programs which are measured on an actuarial basis shall disclose the full current costs of these programs as they accrue and the estimated liability at any given time to make future payments. (sec. 13.4)

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The major elements of the federal investment shall be separately disclosed in financial reports. Major changes for each fiscal period should be summarized in separate financial schedules. (sec. 14.1)

Agencies shall disclose in financial reports the cost and related liability for accrued annual leave as of the close of each fiscal year as a minimum. (sec. 16.8(a))

Cost incurred and paid by other agencies should be separately identified in agency financial reports. (sec. 16.8(d))

All realized gains or losses on exchange transactions shall be disclosed in financial reports. (sec. 16.8(f))

Unusual costs or losses of a nonrecurring nature which are substantial in amount should be classified separately in operating statements. (sec. 16.8(g))

If significant amounts of costs applicable to an activity for which a statement of operations is being presented are excluded by reason of their being financed by other agencies or funds, such exclusions shall be clearly explained in accompanying notes along with estimates of the amounts involved. (sec. 17.3(a)(4))

Net increases or decreases in the liability for annual leave should be classified as an operating cost for the year, at least at the apropriation level, in agency financial reports. (sec. 16.8(a))

Requirements for internal reports

Financial data must be clearly reported and its significance readily understandable. (sec. 8.4)

The form, content, and arrangement of each report shall be as simple as possible and designed to communicate significant financial information clearly to the users of the report. (sec. 17.3(a)(5))

The preparation and distribution of reports that are unnecessary, not useful, or excessively detailed should be avoided as causing an unnecessary expenditure of public funds. (sec. 17.3(d))

Requirements for cost reports

Cost reports should disclose the nature and estimated amount of any significant elements of cost omitted from the accounting system and the reasons for the omission. (sec. 16.4(1))

Costs assigned to a given organization or purpose should include estimates of costs paid or financed through other funds or agencies. (sec. 16.4(4))

Unless specifically required by law, forms of leave other than annual leave need not be recorded unless complete cost information is required. (sec. 16.8(a))

Depreciation must be included in cost reports in specific circumstances. (sec. 16.8(b))

Losses which have been actually incurred or which may be reasonably expected to occur during the accounting period shall be disclosed in financial reports. (sec. 16.8(f))

FUND CONTROL REPORTS

Obligation information must be reported promptly and accurately in accordance with the criteria of

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section 1311 of the supplemental Appropriation
Act, 1955 (31 U.S.C. 1501). (sec. 10.4)

ACCOUNT STRUCTURE

Structure of accounting system

The structure of the accounting system should be
designed so that major assignments of responsi-
bility or areas of activity can be readily re-
ported on. (sec. 8.5)

Transactions recorded in agency accounts should
not be recopied even in summary form in the ac-
counts of agencies at higher organizational
levels. Instead, financial reports submitted by
subordinate levels should be utilized in prepar-
ing summary reports. Adequate provisions should
be made for technical supervision and interlock-
ing accounting relationships among offices to
assure the validity of consolidated agency
reports. (sec. 8.7)

Basic accounts

Each accounting system shall provide complete
and reliable records of the resources and
operations of the entity to which it relates.
Such records shall embrace all funds, property,
and other assets, as well as liabilities and
obligations, receipts and revenues, expenditures
and costs. (sec. 8.7)

Interagency and interfund transactions should be
separately identified in agency records. (sec.
8.7)

Accounts should be provided for assets, liabili-
ties, investments of the U.S. Government, the
investments of others, if applicable, and for
revenues and costs. (sec. 11.4)

The accounting system should provide classifications according to kinds of costs incurred. (sec. 16.5)

Adequacy of accounts

The system must be capable of producing the financial information needed to:

1. meet the reporting requirements of other federal agencies, particularly the OMB and the Treasury Department,

2. keep the Congress fully informed on the agency's operations and financial status, and

3. provide such financial data as are required by law or by congressional committees. (sec. 8.2)

Agency accounts should be kept in such detail as is necessary to meet all management needs, including the furnishing of information needed by other agencies in the executive branch and by the Congress. (sec. 8.7)

Accounting records should be maintained primarily in monetary terms, but quantitative data should be maintained as necessary or appropriate for producing useful information for management. (sec. 8.7)

Each agency accounting system shall be designed to enable the prompt preparation of all needed financial reports. (sec. 17.1)

Financial reports shall be based on official records maintained under an adequate accounting system that produces information objectively disclosing the financial aspects of all events or transactions taking place. (sec. 17.3(a)(3))

ACCOUNT QUALITIES

Cost requirements

The cost accounting system should provide for the accumulation of information on all significant elements of cost and permit identification of the costs financed by the agency's appropriations and funds, as distinguished from other costs. Administrative policies relating to budgeting, accounting, and financial reporting do not constitute valid bases for excluding items of cost otherwise applicable. (sec. 16.4(1))

Accounting systems must provide for the systematic accumulation of cost information by:

1. major organizational segments,

2. budget activities, and

3. program structure.

The extent to which more detailed cost information by operational cost centers, projects, or units of work or end products should be accumulated must be determined by each agency, considering its operations and the uses to be made of the data in controlling and in evaluating the cost of performance by responsible officials. (sec. 16.4)

Accounting systems should classify costs according to (1) acquisition of assets, and (2) current expenses. (sec. 16.5)

Depreciation must be accounted for in specific circumstances. (sec. 16.8(b))

Other requirements

Separate accounts for major categories of cash resources are to be established, with further subdivision to disclose important restrictions on availability for use. (sec. 12.2(1)(D))

Separate accounts for major categories of receivables should be maintained. (sec. 12.4(3))

Records shall be maintained of all transactions affecting the receivables. (sec. 12.4(5))

Property retired from service but not immediately diposed of should be classified separately to disclose its status. (sec. 12.5(e))

Separate accounts for major categories of liabilities should be maintained. (sec. 13.2(4))

The system shall provide for separate identification of funded and unfunded liabilities. (sec. 13.2(4))

Accounts on federal insurance, pension, and similar programs which are measured on an actuarial basis shall disclose the full current costs of these programs as they accrue and the estimated liability at any given time to make future payments. (sec. 13.4)

All realized gains or losses on exchange transactions shall be disclosed in agency accounts. (sec. 16.8(f))

Separate accounts shall be maintained for unusual costs of losses of a nonrecurring nature which are substantial in amount. (sec. 16.8(g))

Accrual accounting

The maintenance of accounts on the accrual basis is required. (sec. 9.1)

If the agency periodically converts accounting data recorded on the cash and obligation basis to the accrual basis, such conversions should be made not less frequently than monthly. (sec. 9.1)

Accuracy and reliability

The system shall provide adequate documentary support for financial transactions. (sec. 8.7)

Transactions should be recorded in a manner to provide a clear trail from source documents to summary records and to financial reports. (sec. 8.7)

The highest standards of truthfulness and honesty must apply. Financial transactions shall not be recorded in the accounts in a manner that will produce inaccurate, false, or misleading information. (sec. 8.9)

All transactions must be accounted for as realistically as possible and in accordance with the time and manner in which the events occurred. (sec. 8.9)

All financial data shall be accurate, reliable, and truthful. (sec. 17.3(a)(2))

Financial reports prepared by federal agencies must comply with the specific requirements of applicable laws and regulations as to accounting basis. (sec. 17.3(b))

ACCOUNTING FOR ASSETS
OTHER THAN PROPERTY

Accounting for cash

Recording of disbursements should be on the basis of paid vouchers. However, if disbursing is performed by another agency, the disbursements may be recorded on an approved voucher basis, provided that the manner in which they are recorded facilitates reconciliation with the central accounting records of the Treasury Department. (sec. 12.2(1)(B))

Agency accounting records for cash transactions shall be closed as of the end of periods for which reports are to be prepared and shall include all transactions consummated during those periods. (sec. 12.2(1)(C))

There shall be compliance with all applicable requirements imposed externally for the handling of cash resources. (sec. 12.2(2)).

Accounting for receivables

Receivables shall be recorded accurately and promptly on completion of the acts which entitle an agency to collect amounts owed to it. (sec. 12.4(1))

Loans shall be accounted for as receivables only after the funds have been disbursed. (sec. 12.4(1))

Accounting for uncollectible debts

Estimates shall be made of the portion of accounts receivable that may not be collectible. (sec. 12.4(6))

The handling of receivables determined uncollectible must conform to Comptroller General procedures (title 4). (sec. 12.4(6))

Accounting for advances

Advances and prepayments are to be recorded as assets by the agency making them. The accrued expenditure shall be recorded when performance occurs and the asset account reduced accordingly. (sec. 12.6)

Advance payments to contractors not related to performance shall be accounted for as advances for materials and services to be received. (sec. 13.6)

When materials or services are sold to other agencies and financed through the use of working fund advances, the advancing agency shall account for the amounts advanced as advances until the materials or services ordered are received. (sec. 13.7)

Payments to grantees in advance of work performed shall be accounted for as advances of the grantor agency until evidence of performance has been received from the grantees. (sec. 16.8(c))

ACCOUNTING FOR PROPERTY

Accounting for property - general requirements

Each agency should establish, as an integral part of its accounting system, an adequate and reliable system of records and related procedures to provide a proper accounting for the government's investment in the property for which the agency has management responsibility. (sec. 12.5(c))

Adequate records shall be maintained for seized property or other property held in the custody of an agency but not owned. (sec. 12.5(f))

Each agency's accounting system must include adequate monetary property accounting records. (sec. 12.5(b))

The records used to account for property owned by others may be integrated with the financial accounting system in conformity with the principles prescribed for owned property. This procedure is not mandatory if effective control can be achieved by other means. (sec. 12.5(f))

Accounting records shall be brought into agreement with the results of physical inventories. (sec. 12.5(g))

Accounting for acquisition of property .

The basic cost of property shall include the amounts paid to acquire it, including transportation, installation, and related cost of obtaining the property in the form and place to be used or managed. (sec. 12.5(d))

Fixed assets shall be capitalized in accordance with capitalization criteria established as part of the agency's accounting policies. (sec. 12.5(d))

Capitalization criteria should be defined in terms of identifiable units or groupings of property. In establishing identifiable units or groupings, due consideration should be given to materiality. It is appropriate to establish reasonable dollar minimums as a basis for excluding certain property units from capitalization. No minimums in excess of $1000 should be established. (sec. 12.5(d))

If the following criteria are met, items which cost less than the minimum should be grouped and amortized over a reasonable period of time:

1. the group of items is acquired for the initial outfitting of a tangible capital asset or an operational unit, or a new addition to either;

2. the items in the aggregate represent a material investment; and

3. the group as a complement is expected to be held for continued service beyond the current period.

(An example would be where a substantial amount of office furniture is purchased with a large portion involving items which individually cost less than the minimum.) The separate account established for the items which cost less than the minimum need not be supported by individual property records. (sec. 12.5(d))

Interest costs incurred during construction should be capitalized. (sec. 12.5(d))

Property acquired under installment contracts should be capitalized at the time of receipt or acceptance rather than periodically as payments are made or when title passes to the government. (sec. 12.5(d))

The amount capitalized for property acquired under installment contracts should include the purchase price plus related costs. (Related costs would include costs incurred for site preparation, installation, and similar costs related to making the equipment ready for use, which are incurred separately from the installment purchase contract or separately identified for payment in the contract.) These related costs should be capitalized when incurred. (sec. 12.5(d))

Property acquired under lease-purchase contracts should be capitalized at the time the option to purchase equipment is exercised and should include the purchase price under the contract less any accumulative allowances. Property acquired under lease purchases which are in fact installment purchases (the decision to purchase having already been made) will be treated for capitalization purposes as installment purchases. (sec. 12.5(d))

Property transferred on a nonreimbursable basis shall be accounted for by the receiving agency at an estimated amount taking into consideration its usefulness to the agency, condition and market value. The receiving agency shall be advised by the transferring agency of the date and amount of accumulated depreciation. When the receiving agency's estimated amount differs from the depreciated cost reported by the transferring agency, the basis for establishing the value of the acquired property shall be clearly documented in the records. (sec. 12.5(d))

Property transferred on a reimbursable basis shall be accounted for by the receiving agency at the transfer price but at not less than its estimated useful value. (sec. 12.5(d))

Transportation, installation, and related costs incurred by the receiving agency shall be added to the accounting basis for property transferred. (sec. 12.5(d))

Property acquired by trade-ins shall be recorded at the lesser of (1) the cash paid or payable, plus the amount allowed by the seller on the traded-in property, or (2) what the purchase price would have been had there been no trade-in. (Sec. 12.5(d))

The cost of property acquired by foreclosure shall be capitalized at the lesser of (1) the appraised value or (2) the amount owed by the borrower plus any other costs incurred by the agency. (sec. 12.5(d))

Property acquired by donation, devise, forfeiture, or confiscation shall be recorded at an estimated amount representing what the government would have been willing to pay for it, giving consideration to estimated market value. (sec. 12.5(d))

In determining the cost of purchased property, discounts shall be deducted from the prices billed. Purchase discounts are not income and shall not be accounted for as such. In determining the cost of purchased property, the amount to be recorded will be net of discount, whether or not the discount is taken. (sec. 12.5(d))

Cost of handling and storage may be prorated as a part of the cost of materials and supplies before use or accounted for separately as operating costs. (sec. 12.5(d))

The agency should determine whether to include handling and storage costs in the cost of property on the basis of (1) possible benefits to be gained in the form of improved management control and (2) the administrative costs. (sec. 12.5(d))

Late payment penalties are a cost of operations, and the amount of such loss shall be established in a separate account. (sec. 12.5(d))

The cost of improvements which have an estimated useful life longer than 1 year and are made to leased properties, or to occupied properties owned by another government agency, should be capitalized. (Such leasehold improvements

would include carpeting, space partitions, soundproofing of ceilings and walls, and alterations. (sec. 12.5(e))

Where the useful life of property has been extended or capacity to render service increased because of addition, replacements, betterments, alterations, or rehabilitation, the cost of features superseded or destroyed shall be removed from the property accounts. (sec. 12.5(e))

Materials and supplies issued for use shall be charged to using activities on the basis of cost, determined by the simplest method that produces reasonable and useful measures of cost. Acceptable methods include (1) specific identification of cost of items issued, (2) cost determined on first-in first-out assumption, (3) computed average cost, and (4) standard cost adjusted from time to time to reflect changes in actual cost. (sec. 12.5(d))

Accounting for property disposal

The cost or other basis for accounting for property retired from service shall be removed from the accounts along with any accumulated depreciation. (sec. 12.5(e))

Removal costs and amounts realized from sale, reimbursable transfer, or other salvage should be considered in determining the loss or gain on the retirement. (sec. 12.5(e))

Accounting for depreciation

Procedures shall be adopted by each agency to account for depreciation (or amortization of cost) of capital assets when:

1. The financial results of operations, in terms of costs of performance in relation to revenues earned, if any, are to be fully disclosed in financial reports.

2. Amounts to be collected in reimbursement for services performed are to be determined on the basis of the full cost of performance pursuant to legal requirements of administrative policy.

3. Investment in fixed-property assets used is substantial and there is a need to assemble total costs to assist management and other officials in making cost comparisons, evaluating performance, and devising future plans.

4. Total cost of property constructed by an agency is needed to determine the amount to be capitalized.

Where depreciation is to be accounted for, agency accounting policies shall provide for writing off the costs of all capitalized assets acquired and used in performing services over the estimated period of their usefulness. (sec. 12.5(h))

The amount to be written off shall be reduced by reasonable estimates of realizable salvage values at the end of the projected period of usefulness. (sec. 12.5(h))

Leasehold improvements should be depreciated over the estimated period of occupancy or the life of the improvements, whichever is less. (sec. 12.5(e))

PROCESSES
ACCOUNTING FOR LIABILTIES

Liabilities shall be measured and recorded in the period in which incurred. (sec. 13.2(1))

Liabilities shall be removed from the accounts in the period that they are liquidated. (sec. 13.2(1))

Amounts to be recorded as liabilities shall represent the amounts actually owed under contractual or other arrangements. (sec. 13.5(2))

The purchase price included in installment or lease-purchase contracts, which are in substance installment purchases, shall be recorded as a liability when the property is received or accepted from the contractor. For lease-purchase contracts, the purchase price shall be recorded as a liability when the option to purchase is exercised. (sec. 13.5)

Under contracts involving constructive delivery, the liability to pay for work is incurred as it is performed by the contractors. The liability shall be recognized and recorded on the basis of reported performance of work. (sec. 13.6)

When materials or services are sold to other agencies and financed through the use of working fund advances, the performing agency shall account for the amounts advanced as a liability until it has completed its performance. (sec. 13.7)

Amounts received in advance of performance should be accounted for as liabilities. (sec. 15.8)

Appropriate records of contingent liabilities shall be maintained as part of the accounting system. (sec. 13.3)

Incurred liabilities shall be accounted for and reported irrespective of whether funds are available or authorized for their payment. (sec. 13.2(3))

PROCESSES ACCOUNTING FOR THE INVESTMENT OF THE U.S. GOVERNMENT

Major elements of the federal investment shall be separately accounted for. (sec. 14.1)

Property and services received from other agencies without reimbursement shall be accounted for as an increase in the federal investment in the assets of the agency. (sec. 14.4)

Transfers of property to other agencies without reimbursement shall be accounted for as a reduction of the federal investment. (sec. 14.4)

Net income shall reflect all costs of operations and revenues earned during the reporting period with the exception of prior period adjustments. (sec. 14.6)

Direct charges to accumulated net income shall be restricted to such transactions as distributions of income to the U.S. Treasury and prior period adjustments. (sec. 14.6)

ACCOUNTING FOR REVENUES

Agency accounting systems shall provide for recording revenue transactions in accounting records when earned. (sec. 15.3)

Agency accounting policy should establish the point when revenues become realizable, with reasonable practicable certainty, in terms of valid claims against the persons or organizations receiving the goods or services. (sec. 15.3)

Agencies carrying on business-type activities should prepare statements of operations disclosing revenues and costs. (sec. 17.2(b))

Applicable costs incurred to produce revenues from sales of materials or services should be compared or matched with the amount of such revenues in preparing financial reports on revenue-producing operations. (sec. 17.2(b))

The accounting system should provide classifications according to the types of revenues earned. (sec. 15.3)

ACCOUNTING FOR COSTS

Accounting for costs—general

Accounting for costs is essential for implementing cost-based budgets. (sec. 16.4)

Accounting for costs is required where reimbursement for services performed is to be at cost or where sales prices are primarily based on cost. (sec. 16.4)

Accounting for costs is also required where full recovery of cost from customers or users of services is a statutory requirement. (sec. 16.4)

Agency accounting systems shall incorporate appropriate cost accounting techniques so that needed cost information will be produced for management and reporting purposes. (sec. 16.4)

Cost accounting techniques should include, whenever appropriate and feasible, the production of quantity data relating to performance. (sec. 16.4)

In specific circumstances (see sec. 12.5(h)), depreciation should be accounted for. (sec. 16.8(b))

Cost data must be reasonably reliable, but unnecessary recision and refinement should be avoided. (sec. 16.4(2))

Accounting practices for allocating indirect costs must be devised with care so as to avoid producing cost data that obscures the total costs for which responsible managers should be held accountable. (sec. 16.4(3))

Agencies should accrue in their accounts the cost and related liability for accrued annual leave as of the close of each fiscal year, as a minimum. (sec. 16.8(a))

Repair and maintenance costs incurred to keep property in satisfactory condition shall be accounted for as current operating costs. (sec. 12.5(e))

Accounting for grants

Payments to grantees in advance of work performed shall be accounted for as advances of the grantor agencies until evidence of performance has been received from the grantees. (sec. 16.8(c))

Payments to grantees as reimbursement for work performed or costs incurred shall be accounted for as reductions of liabilities to pay for such work or costs. (Sec. 16.8(c))

Payment under grants where no performance or reporting by grantees is required or where the payments are scheduled to correspond with performance shall be accounted for as liquidations of the obligations and as costs incurred. (Sec. 16.8(c))

Reports from grantees shall be required at reasonably frequent periods under advance or reimbursable grants to serve as the basis for accounting entries. (Estimates may be used for monthly reporting purposes, if necessary.) (sec. 16.8(c))

Upon termination of a grant, unused and improperly applied funds shall be collected or adjusted pursuant to the terms of the grant. (sec. 16.8(c))

Upon grant termination, the agency shall arrange for the disposition of government-owned property. (Sec. 16.8(c))

Accounting for interest cost

For agency programs or activities financed by advances or borrowings from the Treasury on which interest is required by law to be paid, the interest costs incurred and paid shall be accounted for in the same manner as any other costs which are paid by the agency. (sec. 16.8(e))

If the interest required to be paid by an agency is significantly less than the interest cost to the Treasury, the difference should be accounted for as an additional interest cost in accordance with the same principles as those applicable to agency programs to which significant interest costs apply but are not required by law to be paid. (sec. 16.8(e))

Where there is no requirement to pay the interest costs on the government's investment and an agency is engaged in the performance of services or sale of property outside the government for

revenues, a determination should be made as to the significance of such costs. If these costs are significant in relation to the financial results of operation otherwise determined, and when an interest factor is included in revenues obtained from sales made or services rendered, the interest costs should be included in the accounts or reflected in footnotes to the financial statements. The basis for determining interest costs is:

1. The interest cost for each year should be determined on the net federal investment in the program or activity at the beginning of the year and on the net additions to such investment during the year. Accumulated net income or deficit should not be included in the interest base.

2. The rate of interest to be used should be one which the Secretary of the Treasury annually determines to be representative of the cost to the Treasury for borrowing for such investments. If the United States has outstanding marketable obligations with maturities reasonably comparable to the estimated period for which the federal funds are invested, the Secretary should consider the average yields on such obligations in determining the interest rates.

It is not necessary that agencies performing services or producing products mainly for use within the government include interest in their accounts or disclose it as a cost in their financial statements. (sec. 16.8(e))

Cost data for such activities used in making comparisons for purposes of management decisions should include an interest factor whether or not recorded in the accounts. (sec. 16.8(e))

Use of cost-finding techniques

Cost data by program classification may be obtained by apropriate cost-analysis techniques where maintenance of detailed account classifications for this purpose would not be justified. (sec. 16.4)

Cost-finding techniques may be used in lieu of detailed cost accounting procedures to obtain data needed for special purposes where it is more economical and satisfactory results are obtained. (sec. 16.6)

ACCOUNTING FOR
PAYROLL

Principles, standards, and related requirements pertaining specifically to civilian and military pay systems are presented in title 6 of the General Accounting Office Policy and Procedures Manual for Guidance of Federal Agencies. (sec. 16.7)

Payroll systems must provide for:

1. prompt payments in the proper amounts to all persons entitled to be paid in compliance with laws and regulations, with consideration given to all authorized deductions from gross pay, and

2. Proper accounting and disposing of all authorized deductions from pay.

There must be appropriate integration of payroll with the general accounting system.

FUND CONTROL

The system shall be designed to assure that the resources of each separate fund and appropriation

are applied only to legally authorized purposes. (sec. 8.1)

The system shall incorporate appropriate techniques to assist in achieving fund control. (sec. 10.2)

Obligations will be identified with the applicable appropriation or fund at the time they are incurred. (sec. 10.3)

Only those amounts meeting the criteria of section 1311 of the Supplemental Appropriation Act, 1955 (31 U.S.C. 1501) will be recorded as obligations. (sec. 10.4)

Statements of obligations furnished to Congress or to any of its committees shall include only amounts representing valid obligations as defined by section 1311 of the Supplemental Appropriations Act, 1955. (sec. 10.4)

The system must provide for compliance with dollar limitations imposed by law. (sec. 10.7)

Appropriate accounts shall be maintained on the accrual basis to provide a clear showing of the status of all appropriations in terms of apportionments, allotments, obligations, accrued expenditures, revenues and reimbursements. (sec. 14.2)

Agency accounting procedures shall provide for appropriate recognition of apportionments and subdivisions of fund authorizations. (sec. 10.6)

Agencies must also control funds in accordance with the Impoundment and Control Act of 1974 which prescribes guidelines and procedures for the establishment of reserves and other deferral of budget authority. (sec. 10.1)

TITLE 4 CONTROL OBJECTIVES AND TECHNIQUES

FOR PROCESSING, ACCOUNTING FOR, AND REPORTING

TRANSACTIONS RELATING TO CLAIMS FOR AND AGAINST

THE FEDERAL GOVERNMENT

TITLE 4 CONTROL OBJECTIVES AND TECHNIQUES

TO BE PUBLISHED AT A LATER DATE

TITLE 5 CONTROL OBJECTIVES AND TECHNIQUES

FOR PROCESSING, ACCOUNTING FOR, AND REPORTING

ALL TRANSACTIONS RELATING TO TRAVEL OF PERSONS

AND TRANSPORTATION OF THINGS

TITLE 5 CONTROL OBJECTIVES AND TECHNIQUES

TO BE PUBLISHED AT A LATER DATE

TITLE 6 CONTROL OBJECTIVES AND TECHNIQUES

FOR PROCESSING, ACCOUNTING FOR, AND REPORTING

ALL TRANSACTIONS RELATING TO PAY, LEAVE, AND

ALLOWANCES

CONTROL OBJECTIVE	CONTROL TECHNIQUE
1. Additions, deletions, and other changes in employment status are valid and conform with personnel ceilings and other applicable criteria.	a. Identification of the organizational structure or functions to be served by the system.
	b. Identification of the location and organizational levels where source documents will originate and be maintained.
	c. Documentation describing how the agency acquires employees.
2. Compensation rates, leave accrual, and payroll deductions should be authorized by management, law, regulation, or the employee, as appropriate.	a. Written documentation as to how payroll deductions are authorized, changed, or canceled is available and current. (6 GAO 18.0, 18.1)
	b. Agency pay scales and leave procedures are published.
	c. Documentation of how step or merit raises are awarded is available and current.
	d. Leave accrual rates are properly determined and applied. (6 GAO 20.6)

PAYROLL CYCLE

CONTROL OBJECTIVE

CONTROL TECHNIQUE

e. All non-statutory deductions and allotments or assignments of pay are authorized in writing by the employee. (6 GAO 18.0)

f. Statutory deductions for income taxes are supported by a certification by each employee of the number of exemptions claimed. (6 GAO 18.1)

g. The authorization form for each type of deduction or allotment contains sufficient information to establish the deduction and enable proper payment of amounts deducted. (6 GAO 18.0, 18.1)

h. All changes or cancellation of an authorization are made in writing by the employee (except for employee separations. (6 GAO 18.1)

i. All authorization documents are maintained in current files to support each deduction. (6 GAO 18.1)

j. Regulations have been established for the collection of erroneous payments and are readily available in some form. (6 GAO 18.1)

VII-77

CONTROL OBJECTIVE

CONTROL TECHNIQUE

k. Controls are in place for the following types of transactions.

1. The granting and paying of differentials and allowances to employees stationed at foreign posts. (6 GAO 7, 21.1)

2. Quarters and other services provided civilian employees. (6 GAO 21.2)

3. Entitlement to leave rations (6 GAO 20.6)

l. The appropriate provisions of the Fair Labor Standards Act are implemented. (6 GAO 13)

Corrections of data in official records are approved by an appropriate individual. (6 GAO 20.10)

3. Adjustments to payroll disbursements, employee acounts, leave accounts, and account distribution should be authorized in accordance with management criteria, law, and regulation.

CONTROL OBJECTIVE

4. Payroll and leave processing procedures should be established and maintained in accordance with management criteria.

CONTROL TECHNIQUE

a. Confirmation of the uniformity of procedures in (6 GAO 7 and 15)

1. processing pay, leave, and allowances,

2. reporting time and attendence,

3. computing pay and allowance,

4. maintaining records, and

5. other payroll related operations

b. Process flow charts and narratives describe flow of information through the system.

c. Planned methods for testing the logic and reliability of the system are described.

d. Procedures exist for correcting errors in a timely manner. (6 GAO 20.10)

e. Procedures exist for review of leave records of employees terminating employment, and for adjustment of pay for unearned advanced leave, accumulated leave, and leave ration credited in the pay records. (6 GAO 20.6)

VII-79

PAYROLL CYCLE

CONTROL OBJECTIVE	CONTROL TECHNIQUE
	f. Reasonable cutoff dates are established for payroll processing and payment of the payroll. (6 GAO 16.5, 17.2, 19)
	g. Procedures exist for payment of employees during emergency evacuation. (6 GAO 24)
	h. A listing or outline of the subsidiary records that provide information needed to comply with prescribed requirements of other agencies and for management purposes is available. (6 GAO 18.3, 20.1)
	i. Procedures exist for accrual of personal services costs between the end of the pay period and month-end for accounting and reporting purposes.
5. Only transactions that meet management criteria should be approved.	a. Feedback is provided to personnel of common data elements which are compared between the two systems and conflicts are resolved. (6 GAO 17.0)

CONTROL OBJECTIVE

6. Each payroll related disbursement of cash should be based upon proper computation, be accurately prepared, be appropriately authorized, and be certified.

CONTROL TECHNIQUE

b. Authorizing documents must be signed by designated officials. (6 GAO 16.3, 17.0, 17.2, 20.4)

c. Supervisors approve leave taken and certify the time and attendance (T&As) reports. (6 GAO 17.2, 20.3, 20.4)

d. Transactions recorded in the pay, leave, and allowance records are adequately supported by properly authorized documents. (6 GAO 17.0)

a. Employees are not permitted to approve or certify their own T&As or their own leave (unless specifically authorized in writing by the head of the agency or his designee). (6 GAO 17.2)

b. Designated employees, who have no part in preparing the payroll, maintain T&As. (6 GAO 17.2)

PAYROLL CYCLE

CONTROL OBJECTIVE

CONTROL TECHNIQUE

c. Officials who sign authorizing or certifying documents are not permitted to participate in the preparation of the payroll. (6 GAO 9, 16.3)

7. Access to personnel, payroll, and disbursement records; critical forms; processing areas; and processing procedures should be permitted only in accordance with management's criteria.

a. Files are maintained to accumulate the authorizing pay, leave, and allowance documents for each individual. (6 GAO 20)

b. Document retention schedules are in accordance with GAO approved fiscal records program and GSA retention schedule. (6 GAO 17.2, 23)

c. Controls are provided to prevent unauthorized use of blank military pay records and documents. (6 GAO 20.2)

d. Responsibility for carrying out the various functions pertaining to pay, leave, and allowances have been clearly assigned to specific organizational segments. (6 GAO 8)

CONTROL OBJECTIVE

CONTROL TECHNIQUE

PAYROLL CYCLE

e. The functions of cash payment and receipt of
checks and bonds from the disbursing office and
their delivery or mailing to payee are performed
by designated persons who do not have other
payroll responsibilities. (6 GAO 16.4, 16.6)

f. Responsibility for assigned duties and functions
have been appropriately segregated. (6 GAO 9)

g. Employees engaged in preparation and maintenance
of documents authorizing or evidencing payments
do not service their own individual pay
account. (6 GAO 16.1)

h. Provision is made for compliance with the
Privacy Act of 1974. (6 GAO 25)

8. Leave and labor should be accurately and
properly reported.

a. The T&A record shows (6 GAO 17.2)

1. duty hours and number of hours, of duty, and

2. the nature and length of absences (exact
times if less than one day).

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PAYROLL CYCLE

CONTROL OBJECTIVE

CONTROL TECHNIQUE

b. A leave record is maintained for each employee.
    (6 GAO 20.6)

c. Leave records show amounts earned and used, and
    the balance available by type of leave.   (6 GAO
    20.6)

d. For civilian employees, absences and leave taken
    are supported by a signed or initialed
    application. (6 GAO 17.2)

e. Overtime reported is approved in writing prior
    to its occurrence. (6 GAO 17.2)

PAYROLL CYCLE

CONTROL OBJECTIVE

CONTROL TECHNIQUE

9. Amounts due to, or on behalf of employees should be accurately and promptly classified, summarized, and reported.

a. Subsidiary payroll accounts or records are maintained to provide detailed data on payroll deductions.

b. Retirement records are maintained in conformance with Office of Personnel Management requirements. (6 GAO 18.3)

c. U.S. savings bonds record includes the amount deducted, purchases, refunds, and unapplied balances for each employee. (6 GAO 18.3)

d. Health benefit records show the number of employees and the deduction and agency contribution by each enrollment code. (6 GAO 18.3)

10. Payroll disbursements and payroll-related adjustments should be accurately and promptly classified, summarized, and reported.

a. Amounts deducted or contributed by the agency are paid to the applicable payee. (6 GAO 18.3)

VII-85

CONTROL OBJECTIVE

CONTROL TECHNIQUE

b. The system provides for the prompt recording and collection of indebtedness due to erroneous payments. (6 GAO 18.1)

c. The system contains provision for ensuring the order of precedence for deductions is followed in accordance with 6 GAO 18.4.

d. Adjustments to payroll accounts are approved by supervisors and contain a justification for the adjustment.

11. Compensation for labor services, payroll disbursements, and related adjustments should be accurately applied to the proper employees' accounts and related subsidiary ledger accounts.

a. A record is maintained for every individual, showing the pay, leave, allowances, deductions, and allotments to which the individual is entitled and payments that have been made. (6 GAO 20)

b. The above record provides for information necessary to:

1. properly pay each individual,

2. meet budgeting and reporting requirements,

CONTROL OBJECTIVE

CONTROL TECHNIQUE

3. establish a permanent record of the actions taken,

4. compute the amount and distribution of the dollar pool for merit pay employees.

c. Amounts due military members from prior periods are checked against prior-period records before payment. (6 GAO 20.2)

12. Leave and amounts due to, or on behalf of, employees and the accounting distribution of such amounts should be computed accurately.

a. Controls are provided over the entitlements to special pay (military). (6 GAO 20.2)

b. Piecework, attendance, and leave data which affect the computation of pay are properly considered in the pay process to prevent inappropriate payments. (6 GAO 17.2)

c. Payments for reserve military training sessions are made on the basis of documents authorizing the sessions and properly certified attendance records. (6 GAO 20.4)

CONTROL OBJECTIVE

CONTROL TECHNIQUE

d. Accumulated leave balances of employees trans ferring between organizations are supported by signed reports from the transferring agency.

(6 GAO 20.6)

e. Leave advances are properly supported and within amounts legally permissible.

(6 GAO 20.6)

f. Each leave record is reviewed at the beginning of the leave year, and all amounts in excess of statutory limits are reduced.

(6 GAO 20.6, 20.8)

g. Controls are in place to assure receipt and accuracy of documents to be used in payroll computations, processing, recording, and reporting.

CONTROL OBJECTIVE	CONTROL TECHNIQUE
13. Journal entries for amounts due to employees, payroll disbursements, and related adjustments should be prepared each accounting period. The obligation of these amounts should also be promptly liquidated.	a. A description of the controls (both during the fiscal year and at fiscal year-end) to ensure thatemployee's salary, benefits and allowances, and employer's contributions are charged to the applicable appropriation or fund. (6 GAO 21.22) b. Standard forms with preprinted account titles are used for recurring entries. c. An automated payroll system which automatically produces and distributes direct labor cost is installed. d. Payroll amounts are classified as expended appropriations at the same time as cost is distributed.
14. Payroll journal entries should summarize and classify economic activities in accordance with management's plan.	a. A clear explanation describes how payroll data is summarized for recording in the general ledger accounts.

CONTROL OBJECTIVE

CONTROL TECHNIQUE

b. Preprinted forms for recurring journal entries are used.

c. A checklist is maintained of entries to be made on a recurring basis.

d. Documentation which describes accounts and their contents is current and available.

15. Payroll data, including tax information, employe holdings, and related retirement information, should be accurately and promptly reported.

a. A listing exists by title and form number of recurring payroll reports which includes the frequency, purpose, and period covered by each report.

b. Samples exist of each payroll report, showing illustrative data elements and pro-forma data. (6 GAO 18.3 and 20:)

c. Employees receive written notice of all changes in pay except those which are governmentwide in scope. (6 GAO 17.1)

CONTROL OBJECTIVE

16. Recorded balances of leave, payroll, and related accounts should be periodically substantiated an evaluated.

CONTROL TECHNIQUE

d. Employees are furnished annual tax withholding statements which agree with the total with-holdings as shown by agency records.
(6 GAO 18.3, 20.1)

a. A particular element in the files can be traced backward to the source and forward to the report

b. Audit trails enable tracing recorded data to:

1. authorizing documents,

2. documents supporting attendance and leave data,

3. deduction, allotment, and assignment documents, and

4. the source documents, records, accounts, and reports

c. Each individual retirement account balance is periodically reconciled with the total shown on the earnings record. The total of all balances must agree with the control account.

PAYROLL CYCLE

CONTROL OBJECTIVE

CONTROL TECHNIQUE

d. Savings bond records of unapplied balances are periodically reconciled to the control account.

e. Amounts recorded on individual pay records are reconciled quarterly to the control account.

(6 GAO 20.1)

f. The planned methods for testing the logic and reliability of the system are described.

g. If the system has already been tested,

1. the results have been evaluated, and

2. identified problems have been corrected.

TITLE 7 CONTROL OBJECTIVES AND TECHNIQUES

FOR PROCESSING, ACCOUNTING FOR, AND REPORTING

ALL TRANSACTIONS RELATING TO APPROPRIATE AND FUNDS,

COLLECTIONS, AND DISBURSEMENTS

TITLE 7 CONTROL OBJECTIVES AND TECHNIQUES

TO BE PUBLISHED AT A LATER DATE

TITLE 8 SYSTEM REQUIREMENTS FOR

SAFEGUARDING, RETAINING, AND DISPOSING

OF ACCOUNTING RECORDS

TITLE 8 SYSTEM REQUIREMENTS TO BE

PUBLISHED AT A LATER DATE

OTHER SYSTEM REQUIREMENTS

TITLE 2 SYSTEM REQUIREMENTS FOR AGENCY

ACCOUNTING SYSTEMS WHICH COVER SUCH

MATTERS AS (1) USEFULNESS OF ACCOUNTING

DATA, (2) CONSISTENCY OF PLANNING, PROGRAMMING,

BUDGETING AND ACCOUNTING CLASSIFICATIONS, (3)

SIMPLICITY, AND (4) DUPLICATION OF RECORDS

TITLE 2 OTHER SYSTEM REQUIREMENTS TO BE PUBLISHED AT A LATER

DATE.

APPENDIX VIII

Examples of Control Objectives, and Control Techniques

CONTROL OBJECTIVES

adequately presents the information the reports purport to display.

2. Recorded balances of compensation and pension benefits payable, as well as adjustments, should be periodically substantiated and evaluated.

PHYSICAL SAFEGUARDS

1. Access to compensation and pension claim files, records, and critical forms should be adequately controlled and permitted only in accordance with management policy. Also, access to processing areas and processing procedures should be permitted only in accordance with management's criteria to preclude the unauthorized establishment of, or

CONTROL TECHNIQUES

d. Automated program reporting system.

2.
a. Policy should provide the procedures and the organizational structure, and/or other instructions that describe how the substantiations and evaluations should be performed.

b. Comparison of recorded amounts with subsequent transactions and predicted amounts.

c. Quality control reviews.

1.
a. Clear statements of criteria and policies.

b. Segregation of responsibilities.

c. Restriction of access to the data base such as limiting on-line access to computer files through the

RISKS RESULTING FROM FAILURE TO ACHIEVE CONTROL OBJECTIVES

c. Budgetary controls may be weakened.

2. Errors or omissions may go undetected or uncorrected.

1.
a. Records may be destroyed or lost.

b. Unauthorized personnel may misuse or alter records to the detriment of the VA.

CONTROL TECHNIQUES

33. Amounts due for compensation, DIC, and pension benefits should be accurately and promptly reported.

33.

   a. Limited access to data files.

   b. Review of benefit payment calculations.

   c. Supervisory review of processing and reporting results.

   d. Defined reporting procedures.

   e. Trained personnel.

   f. Management review of program results.

   g. Quality control of program results.

33. Same as above.

CLASSIFICATION

1. Claim transactions and adjustments should be summarized each period and classified for reporting in accordance with payment policies.

Reports should be prepared accurately and promptly, and on a consistent basis that

1.

   a. Defined processing procedures.

   b. Processing schedule timetable.

   c. Supervisory and management reviews of reports.

1.

   a. Unreported benefit payments.

   b. Program reports may be misstated due to incorrectly coded transactions, improper processing cutoff dates, and omitted or duplicate claim transactions.

   e. Annual eligibility questionnaire.

CONTROL OBJECTIVES	CONTROL TECHNIQUES	RISKS RESULTING FROM FAILURE TO ACHIEVE CONTROL OBJECTIVES
who has neither dependent spouse, child, nor parent, and who is hospitalized by the VA at government expense should be reduced or discontinued in accordance with VA regulations.	veterans rated incompetent by the VA. b. Supervisory review of benefit calculations and processing results.	
31. Pension, compensation, or DIC benefits should not be authorized after a child has elected to receive VA educational assistance (38 USC 35) or if the child is totally supported in an educational program at federal government expense.	31. a. Documented policies and procedures for precluding the payment of benefits to dependent children who are received VA educational assistance. b. Supervisory review of benefit calculations and processing results. c. Annual eligibility questionnaire.	31. Same as above.
32. The effective dates of compensation, DIC, and pension awards, changes in awards, and discontinuances of awards should be established in accordance with prescribed regulations and policies.	32. a. Documented policies and procedures for reviewing and approving benefit applications. b. Documentary evidence to support effective entitlement areas. c. Supervisory review of processing results. d. Quality control reviews.	32. Same as above.

27. Death pension benefits payable to survivors should be established in accordance with the maximum rates set forth in prescribed rate tables and reduced by the countable income of the surviving spouse and/or dependent children, as applicable.

27. See item 14, P. VIII-13.

27. Same as above.

28. Current awards of death pension benefits payable to survivors should be increased, reduced, or discontinued based upon changes in income or dependency status.

28. a. See item 14, P. VIII-13 except for rating board decisions on reevaluations.

    b. Annual income questionnaire.

28. Same as above.

29. Pension benefits should be discontinued, or apportioned to dependents, for any beneficiary imprisoned in a federal, state, or local penal institution as a result of a conviction of a felony or misdemeanor beginning 61 days after imprisonment begins and ending when imprisonment ends.

29. a. Documented policies and procedures for discontinuing or apportioning and subsequently resuming benefits payable to incarcerated veterans or survivors.

    b. Supervisory review of benefit applications and processing results.

    c. Annual eligibility questionnaire.

29. Same as above.

Compensation, DIC, and pension benefit amounts payable

30. Compensation or pension benefits payable to a veteran who is rated incompetent by the VA due to mental illness,

30. a. Documented policies and procedures for reducing, discontinuing, and resuming benefits payable to

30. Same as above.

amounts set forth in the prescribed rate tables and reduced by the countable income of the veteran, spouse, and dependent children, where applicable.

25. Pension benefits payable, including the household rate, to veterans having neither spouse nor child should be reduced to a specific amount effective the first of either (1) the third month after admission to a VA domiciliary, (2) the fourth month after admission to a VA medical facility or nursing home, or (3) the seventh month after admission to a VA hospital.

26. Current awards of pension benefits payable to veterans should be increased, reduced, or discontinued based upon changes in income and marital or dependency status.

Pension benefits payable to veterans at the aid and attendance rate will be reduced to the household rate at the end of the month following admission to a VA institution.

25. See item 17, P. VIII-14.

26. a. See item 17, P. VIII-14 except for review board decisions on reevaluations.

    b. Annual eligibility questionnaire.

25. Same as above.

26. Same as above.

CONTROL OBJECTIVES	CONTROL TECHNIQUES	RISKS RESULTING FROM FAILURE TO ACHIEVE CONTROL OBJECTIVES
21. Survivor's DIC benefits otherwise payable to a surviving spouse or children as a result of the veteran's nonservice-connected death should be offset or reduced by the amount of money received and the fair market value of any property received from a judicial or administrative proceeding, settlement, or compromise.	21. a. Documented policies and procedures for reducing or suspending and subsequently resuming benefits payabe to surviving spouse or children due to the veteran's nonservice-connected death. b. Supervisory review of benefit calculations and processing results.	21. Same as above.
22. Compensation and DIC benefits payable should be reduced to the prescribed rate, or apportioned to dependents, for any beneficiary imprisoned in a federal, state, or local penal institution as a result of conviction of a felony beginning 61 days after imprisonment begins and ending when imprisonment ends.	22. a. Documented policies and procedures for reducing and subsequently resuming benefits payable to veterans or survivors who are imprisoned due to a felony conviction. b. Supervisory review of benefit calculations and processing results. c. Annual eligibility questionnaire.	22. Same as above.
23. An approved request should be required before benefits are provided.	23. See item 12, P. VIII-12.	23. See item 12, P. VIII-12.
Pension benefit amounts payable		
24. Pension benefits payable to veterans should be established in accordance with the maximum	24. See item 17, P. VIII-14.	24. Incorrect benefits may be disbursed.

20. Survivor's death compensation
benefits otherwise payable
should be increased by an
additional allowance if either

--a surviving spouse or de-
pendent parent(s) is/are in
a nursing home or requires
regular aid and attendance,
or

--dependent children are
residing with a surviving
spouse.

Survivor's DIC amounts
otherwise due should be
increased by an additional
allowance if

--a surviving spouse is either
housebound, in a nursing
home, or requires regular
aid and attendance;

--a surviving spouse has one
or more dependent children
or helpless children of the
deceased veteran; or

--a dependent parent is either
in a nursing home or
requires regular aid and
attendance.

20. Same as 19 above.

20. Same as 19 above.

CONTROL OBJECTIVES	CONTROL TECHNIQUES	RISKS RESULTING FROM FAILURE TO ACHIEVE CONTROL OBJECTIVES
18. Monthly survivors death compensation benefits for an eligible surviving spouse, child (children), or dependent parent(s) should be established in accordance with prescribed rate tables. Monthly survivors DIC benefits for a surviving spouse should be established at prescribed rates based upon the deceased veteran's pay grade. Monthly survivors DIC benefits for dependent children should be established in accordance with prescribed rate tables if there is no surviving spouse entitled. Monthly survivors DIC benefits for dependent parents should be established in accordance with approved rate schedules which are subject to annual income limitations.	18. a. Same as 17 above. b. Annual eligibility questionnaire. b. Comparisons of awarded rates to tables of amounts of reduced rates.	18. Same as above.
19. Running awards of survivor's death compensation or DIC benefits should be increased, reduced, or discontinued based on changes in income and/or marital or dependency status.	19. a. Same as item 14 above, except for rating board decisions.	19. Same as above.

CONTROL OBJECTIVES	CONTROL TECHNIQUES	RISKS RESULTING FROM FAILURE TO ACHIEVE CONTROL OBJECTIVES
15. Compensation benefits payable to the _veteran_ should be increased by an additional allowance for dependents or dependent parent(s) provided the veteran's disability is evaluated at 30 percent or more. Amounts due to the _veteran_ for compensation benefits should be increased by an additional allowance if the veteran's spouse is either in a nursing home or requires regular aid and attendance, provided the veteran's disability is evaluated at 30 percent or more.	15. a. Documented problems and procedures for additional allowances. b. Rating policy decisions on reevaluations. c. Comparison of award amounts to approved rates. d. Documentary evidence to support entitlement. e. Supervisory review of benefit calculations and processing results.	15. Same as above.
16. Compensation benefits payable to the veteran should be offset or reduced by the benefit amounts received from other federal programs such as military retirement pay, severance pay, federal employees compensation act benefits, as well as by active service pay.	16. a. Documented policies and procedures for precluding payment of concurrent benefits for the same disability. b. Supervisory review of benefit calculations and processing results.	16. Same as above.
17. Documented policies and procedures for reducing benefits when veterans are hospitalized at government expense.	17. a. Documented policies and procedures for reducing benefits when veterans are hospitalized at government expense.	17. Same as above.

14. Running awards of compensation
benefits to veterans should be
increased, reduced, or discon-
tinued based on changes in the
veteran's disability evalua-
tions and changes in marital
or dependency status.

14.

a. Management policies for
assessment of ongoing
awards.

b. Rating board decisions on
reevaluations and compar-
ison of award amounts to
approved rates.

c. Documentary evidence to
support entitlement.

d. Supervisory review of
benefit applications and
processing results.

e. Management review and
approval of changes or
unusual processing
results.

f. Audit of processing
results.

c. Supervisory review of
benefit amount calcula-
tions and processing
results.

d. Management review and
approval of large or
unusual award amounts.

14. Incorrect benefits may be
disbursed.

disability resulting from
wartime service.

Compensation benefit amounts
payable

12. An approved request should be
required before benefits are
provided.

12. a. Documented procedures for
the preparation, review,
and approval of benefit
requests.

b. Established procedures for
the preparation of benefit
disbursements and related
forms.

c. Segregation of duties.

d. Supervisory reviews and
approvals.

e. Management reviews.

f. Audits of approved benefit
payments.

13. Monthly disability compensa-
tion benefits for veterans
should be established in ac-
cordance with approved rate
tables which are based on the
veteran's disability
evaluation.

13. a. Established procedures for
the composition of award
amounts and related
approvals.

b. Management designation of
individuals authorized to
intiate benefit amounts
(access to "target
system").

12. a. Wrong amount of funds may
be disbursed.

b. Funds may be distributed
fraudulently.

c. Duplicate benefit payments
may be made.

d. Benefits may be disbursed
without appropriate
supporting documents.

e. Benefit disbursements may
be recorded inaccurately
or not recorded at all.

13. Incorrect benefits may be
approved for disbursement.

--by having attained age 65,

--by having become
unemployable after age 65,
or

--due to discharge or release
from wartime service of less
than 90 days because of
service-connected
disability.

9. An approved rating decision
should be required of the
veteran before disability
pension benefits are provided.

10. Survivor's death pension claim
should be established only for
a person whose relationship to
the veteran meets VA
requirements for either
surviving spouse or
child(ren).

11. Survivor's death pension claim
should be established for a
surviving spouse or child of a
veteran who has less than 90
days wartime service but at
the time of death was reciving
or entitled to receive
compensation or retired pay
for a service-connected

9. See item 4, P. VIII-7.

10. See item 6, P. VIII-8.

11. See item 6, P. VIII-8.

9. See item 4, P. VIII-7.

10. See item 6, P. VIII-8.

11. See item 6, P. VIII-8.

Survivior's death pension claim
should only be established for
an eligible surviving spouse
or child because of the
veteran's nonservice-connected
death provided that:

--the veteran served at least
90 days during one or more
periods of war, or

--the veteran died in active
service and had completed at
least two years honorable
military, naval, or air
service, and

--the surviving spouse or
child meets the applicable
income or net worth
requirements.

8. Disability pension award
should be established only for
a veteran whose request meets
established eligibility/
entitlement criteria. For
example, the veteran must be
permanently and totally
disabled

--from a nonservice-connected
disability not resulting
from the veteran's willful
misconduct,

8. See item 3, p. VIII-7.

8. See item 3, p. VIII-7.

surviving spouse or child of
a totally service-connected
disabled veteran whose death
was not the result of such
disability provided that (1)
the death was not due to
willful misconduct and (2)
the veteran was receiving or
entitled to receive
compensation for a
service-connected disability
that was continuously rated
as totally disabling.

7. Disability pension claims
should only be established for
a person who meets the basic
VA eligibility requirements.

Veteran's disability pension
claim should only be
established for a veteran who:

--has served at least 90 days
during one or more periods
of war,

--was discharged from service
under conditions other than
dishonorable, or

--meets the applicable family
income and net worth
requirements.

6. Survivor's death compensation or DIC should be established only for a person whose relationship to the veteran meets VA requirements for surviving spouse, children, or dependent parent.

Service-connected death
--Death compensation claim should be established only if the veteran's service-connected death occured before January 1, 1957.
--DIC claim should be established only if the veteran's service-connected death occurred either on or after January 1, 1957, or before January 1, 1957, and the eligible claimant elected to receive DIC in lieu of death compensation.

Non-service connected death
--DIC claim should be established only for a

c. Rating-board decisions.

d. Recomputation of benefits.

e. Supervisory review and approval.

6.a. Documented procedures for the preparation, review, and approval of benefit requests.

b. Documentary evidence to support entitlement.

c. Documentary evidence to support election of DIC.

d. Supervisory review of processing results.

6.a. Benefits authorized for payment to ineligible individuals.

b. Eligible individuals may be denied benefits.

established for eligible survivors of veterans who died in the line of duty from service-connected causes, not the result of willful misconduct, or who died after release from active duty service terminating under conditions other than honorable conditions.

3. A compensation award should be established only for a veteran whose request meets established eligibility criteria, such as for a veteran who has a service-connected disability.

4. An approved rating decision should be required for a veteran before compensation benefits are provided.

5. Disability reevaluations for veterans receiving compensation benefits should be periodically scheduled to assess their continuing eligibility.

3.a. Documented procedures for the preparation, review, and approval of benefit request based on eligibility requirements.

4.a. Documented rating procedures for reviewing and approving disability claims.

b. Signature files for authorized personnel.

c. Authorized approval signatures on rating-board forms.

5.a. Documented procedures for establishing reevaluations.

b. Notification and follow-up procedures to assure reevaluations are performed.

3.a. Compensation awards that do not meet eligibility requirements may be approved.

b. Eligible compensation awards may be denied.

4. Benefits may be approved for disbursement without appropriate supporting documents.

5. Incorrect benefits may be approved for disbursement.

CONTROL OBJECTIVES	CONTROL TECHNIQUES	RISKS RESULTING FROM FAILURE TO ACHIEVE CONTROL OBJECTIVES
by an eligible veteran, surviving spouse, child or dependent parent, or a specific claim in the form prescribed by the VA.	c. Inspection of application or claim form for proper completion and signature.	
	d. Management designation of certain individuals to establish claims.	
	e. Limiting access to computer based files or data through the use of DBMS facilities or through passwords or physical controls over on-line terminals.	
	f. Close supervision of employees and files by supervisory personnel.	
2. A compensation claim should only be established for a person who meets the basic VA eligibility requirements.	2. Documented procedures for the preparation, review, and approval of benefit requests.	2.a. Claims for benefits that do not meet established criteria may be approved.
Veterans - Claim should only be established for a veteran whose service was terminated under conditions other than dishonorable.		b. Eligible benefit claims may be denied.
Survivors - Death compensation or DIC claim should only be		

CONTROL OBJECTIVES

C&P program operations should be economical and efficient.

Procedures used to review, process, and report C&P awards and related transactions should be economical and efficient.

TRANSACTION PROCESSING

1. Pending claims for compensation, death and indemnity compensation (DIC), or pension benefits should only be established based on the submission

CONTROL TECHNIQUES

f. Comparisons of C&P claims processing costs to those of similar federal programs.

g. Up-to-date computer systems.

h. Forms are designed to expedite processing.

i. Elimination of unnecessary clerical steps.

j. Accurate determination and reporting of claims processing costs.

1.a. Documented procedures for initiating claims.

b. Proper application or claim form.

RISKS RESULTING FROM FAILURE TO ACHIEVE CONTROL OBJECTIVES

1.a. Improper claims may be established.

b. Eligible claims may be denied.

CONTROL OBJECTIVES	CONTROL TECHNIQUES	RISKS RESULTING FROM FAILURE TO ACHIEVE CONTROL OBJECTIVES

updating data base management systems (DBMS) should be established and maintained in accordance with management policy.

    access. For example, segregation of computer programming and documentation activities and computer processing activities; limiting on-line access to computer files through the use of passwords, terminal locks, or data base management system facilities.

b. Signature files for authorized personnel.

    the detriment of the Veterans Administration.

ECONOMY, EFFICIENCY, AND EFFECTIVENESS

1. C&P program results should be in accordance with laws, regulations, and management policy and plans.

1.a. Documented procedures for monitoring and reviewing program results.

b. Periodic management reviews of program results.

c. Periodic audits of program results.

d. Quality control reviews.

e. Alternative claims processing procedures are periodically considered.

1.a. Ineligible veterans and their survivors or dependents may benefit from the C&P programs.

b. Excessive costs may be incurred in operating the claims processing and reporting systems.

c. Adverse publicity.

CONTROL OBJECTIVES

3. Claims processing procedures should be established and maintained in accordance with laws, regulations, and management policy, as well as properly communicated to operating personnel.

4. Procedures and requirements for accessing, correcting and

CONTROL TECHNIQUES

3.a. Clear statement of procedures, such as policy manuals, procedure manuals, training routines, and supervisory requirements.

b. Periodic verification of the required management and user approvals of new procedures and changes in procedures.

c. Periodic verification of required supervisory approvals for reassignment of responsibilities, changes in forms, and changes in filing systems.

d. Periodic verification of tests, approvals, and documentation of changes to computer program.

e. Periodic comparison of actual processing procedures and documentation, and authorizations for computer programs.

f. Internal review of computer system operations and computer program changes.

4.a. Segregation of responsibilities and restriction of

RISKS RESULTING FROM FAILURE TO ACHIEVE CONTROL OBJECTIVES

3.a. The section/unit may be reorganized and personnel assigned in ways that reduce separation of duties.

b. Procedures may be implemented that circumvent existing internal control techniques.

c. Computer programs may be modified to circumvent controls.

d. Flow of information may be altered to withhold data from personnel entitled to receive it or to provide data to unauthorized personnel.

d. Claims may be processed incorrectly or by the wrong person(s).

4. Unauthorized personnel may misuse or alter records to

CONTROL OBJECTIVES

AUTHORIZATION OF BENEFIT PAYMENTS

1. Award eligibility requirements should be established and maintained in accordance with current laws, regulations, and management policy.

2. Information and methods used to publicize the C&P programs should be authorized in accordance with laws, regulations, and management policy.

CONTROL TECHNIQUES

1.a. Written statements of processing policies and procedures prepared by appropriate management staff detailing eligibility guidelines and criteria.

b. Clear statement of criteria for award requests.

c. Detailed written eligibility requirements used in the claims processing cycle are approved by management.

2.a. C&P program information provided by public is approved by management.

b. Management approved publicity methods.

RISKS RESULTING FROM FAILURE TO ACHIEVE CONTROL OBJECTIVES

1.a. Unauthorized awards may be made.

b. Eligible claimants may be denied benefits.

2.a. Eligible claimants may not apply for benefits.

b. Ineligible claimants may apply for benefits.

c. Unauthorized publicity may occur.

EXAMPLE OF CONTROL OBJECTIVES AND CONTROL
TECHNIQUES DEVELOPED, BASED ON THE REQUIREMENTS
SET IN LEGISLATION THAT AUTHORIZED A SPECIFIC
PROGRAM

Appendix VIII presents the control objectives and techniques related to the Comptroller General's accounting principles and standards as presented in GAO's Policy and Procedures Manual for Guidance of Federal Agencies (titles 2 through 8). In addition to the Comptroller General's accounting principles and standards, agency accounting systems must also satisfy the specific criteria for authorizing use of federal resources included in the individual laws that authorize individual federal programs like the Social Security Administration's Old Age, Survivors, and Disability Insurance Program, Agriculture's Farm Products Price Support Program, and Veterans Administration's Compensation and Pension Programs. Control objectives and control techniques have to be developed for each program, based on the enabling legislation, so the operations of the accounting system that supports each program can be reviewed and evaluated in terms of the specific requirements in the appropriate statutes. Agencies should have developed control objectives and techniques for the programs they are responsible for as part of their work under the Federal Managers' Financial Integrity Act of 1982. If an agency has developed control objectives and techniques for its programs, then the audit staff reviewing its accounting system(s) should only have to review and evaluate the control objectives and techniques for completeness. If the agency has not developed control objectives and techniques for its programs, then the audit staff reviewing its accounting system(s) must develop control objectives and techniques for the agency's programs based on the laws that authorized the programs. This appendix presents control objectives and techniques, as an example, for the Veterans Administration's Compensation and Pension Programs.

APPENDIX IX

Bibliography of Other Requirements

Requirements to Be Considered

Congress:

Title 31, Money and Finance, of the U.S. Code

Authorizing legislation

Appropriation acts

Congressional committee reorts

President:

Reorganization plans

General Accounting Office:

General Accounting Office Policy and Procedures Manual for
Guidance of Federal Agencies

Federal government accounting series pamphlets

Decisions of the Comptroller General

Comptroller General's letters to heads of departments and

agencies

Office of Management and Budget:

Circulars

Bulletins

Notices

Office of Personnel Management:

Federal Personnel Manual

Department of the Treasury:

Treasury Financial Manual

Treasury Financial Manual bulletins

Department circulars

General Services Administration:

Federal Travel Regulations

Federal Property Management Regulations

CONTROL TECHNIQUES

use of passwords, terminal
locks, or data base man-
agement systems
facilitates.

d. Periodic internal
compliance audits.

e. Signature files for
authorized personnel.

f. Provisions for reasonable
protection against compro-
mise of records in data
processing facilities.

CONTROL OBJECTIVES

changes made to claims and
benefit payments.

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