JFMIP

Inventory System Requirements

FFMSR-7
June 1995

Joint Financial Management Improvement Program

he Joint Financial Management Improvement Program (JFMIP) is a joint cooperative undertaking of the Office of Management and Budget, the General Accounting Office, the Department of the Treasury, and the Office of Personnel Management, working in cooperation with each other and with operating agencies to improve financial management practices throughout the government. The Program was initiated in 1948 by the Secretary of the Treasury, the Director of the Bureau of the Budget, and the Comptroller General, and was given statutory authorization in the Budget and Accounting Procedures Act of 1950. The Civil Service Commission, now the Office of Personnel Management, joined JFMIP in 1966.

The overall objective of JFMIP is to make improvements that contribute significantly to the effective and efficient operations of governmental programs. Activities aimed at achieving this objective include:

- Developing general objectives in those areas of common interest to the central agencies for guiding the improvement of financial management across government and promoting strategies for achieving those objectives.

- Reviewing and coordinating central agencies' activities and policy promulgations affecting financial management to avoid possible conflict, inconsistency, duplication, and confusion.

- Undertaking projects and special reviews of significant problems and new technologies in financial management and publishing the findings and conclusions.

- Acting as a catalyst and clearinghouse for sharing and disseminating financial management information about good financial management techniques and technologies.

- Reviewing the financial management efforts of the operating agencies and serving as a catalyst for further improvements.

Publications in the Federal Financial Management System Requirements Series

Framework for Federal Financial Management Systems (January 1995)

Core Financial System Requirements (Janaury 1988, revised 1994 and 1995)

Personnel/Payroll System Requirements (May 1990)

Travel System Requirements (January 1991)

Seized/Forfeited Asset System Requirements (March 1993)

Direct Loan System Requirements (December 1993)

Guaranteed Loan System Requirements (December 1993)

Inventory System Requirements (June 1995)

The JFMIP plays a key role in mobilizing resources and coordinating cooperative efforts in the improvement of financial management practices, and relies on the active participation of federal agencies to be successful. The Joint Program is guided by a Steering Committee consisting of key policy officials from each of the central agencies. A key official from a program agency also serves on the Steering Committee. A small staff headed by an Executive Director provides support to the Committee.

This *Inventory System Requirements* document is one of a series of publications which started with the Core Financial System Requirements published by the Joint Financial Management Improvement Program (JFMIP). The Federal Financial Management System Requirements series addresses the goals of the U.S. Government Chief Financial Officers Council and the JFMIP to promote the efficient management of assets and to improve financial management systems to provide useful financial information on federal government operations.

Agencies are to use these functional requirements in planning and implementing their inventory financial system improvements. As with other system requirements documents, agencies will have to include their unique requirements, both technical and functional, with the requirements in this document. Each agency also must develop a strategy to interface or integrate the inventory financial system with the core financial system and other applicable systems.

We take this opportunity to thank the agency officials and others in the financial management community who contributed to the document. We value their assistance and support.

Virginia B. Robinson
Executive Director

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List of Illustrations

List of Acronyms

CFO Act --- Chief Financial Officers Act of 1990

CFR-- Code of Federal Regulations

EOQ-- Economic Order Quantity

FASAB --- Federal Accounting Standards Advisory Board

FMFIA-- Federal Managers' Financial Integrity Act

FMS ------------------------------------Financial Management Service (Department of the Treasury)

GAAP --Generally Accepted Accounting Principles

GAO ---U.S. General Accounting Office

JFMIP--- Joint Financial Management Improvement Program

OMB --Office of Management and Budget

SFFAS ------------------------------------ Statement of Federal Financial Accounting Standards

The United States Government is the world's largest and most complex enterprise. Currently, federal agencies control hundreds of billions of dollars of inventory. This inventory consists of numerous items, with diverse characteristics, that are accounted for in many different agency inventory systems. As available government resources decline, it is imperative that effective and efficient financial and accounting controls be established over those resources invested in inventories.

The financial management system requirements in this document apply to all entities holding inventory. OMB has issued Statement of Federal Financial Accounting Standards (SFFAS) Number 3, *Accounting for Inventory and Related Property* (October 27, 1993) as recommended by the Federal Accounting Standards Advisory Board (FASAB). SFFAS Number 3 defined inventory as follows: "Inventory is tangible personal property that is (1) held for sale, (2) in the process of production for sale, or (3) to be consumed in the production of goods for sale or in the provision of services for a fee." This document does not explicitly cover operating materials and supplies, stockpile materials, seized and forfeited property, foreclosed property, or goods held under price support and stabilization programs.

The *Inventory System Requirements* document has been prepared as a continuation of the Federal Financial Management System Requirements series that began with the *Core Financial System Requirements* in January 1988. The document has been prepared by an interagency team consisting of members from the Office of Management and Budget (OMB); the General Accounting Office (GAO); the Departments of Defense, Energy, Justice, and Treasury; the General Services Administration; and the National Aeronautics and Space Administration.

The federal government continues to improve its financial management and financial management systems. In the past few years, initiatives have been undertaken to improve financial management systems, such as establishment of the U.S. Government Standard General Ledger and publication of financial management system requirements documents by the Joint Financial Management Improvement Program (JFMIP).

In 1982 Congress enacted the Federal Managers' Financial Integrity Act (FMFIA). This act requires agency heads to establish controls that provide reasonable assurances that (i) obligations and costs comply with applicable law; (ii) funds, property, and other assets are safeguarded against waste, loss, unauthorized use, or misappropriation; and (iii) revenues and expenditures are properly recorded and accounted for.

The Chief Financial Officers Act of 1990 (CFO Act) strengthened the government's efforts by assigning clearer financial management responsibilities to senior officials and by requiring new financial organizations, enhanced financial systems, audited financial statements, and improved planning.

The Federal Accounting Standards Advisory Board (FASAB) was established in October 1990 by the Secretary of the Treasury, the Director of the Office of Management and Budget, and the Comptroller General to recommend federal accounting principles and standards. After the Board's sponsors decide to adopt recommendations, the standards are published by the U.S. General Accounting Office and the Office of Management and Budget and then become effective. The Statements of Federal Financial Accounting Standards (SFFAS) are published by OMB as the official standards for the executive branch. OMB revises and reissues its bulletins on the "Form and Content of Financial Statements" to be consistent with the standards. Pending issuance of basic accounting standards, the hierarchy contained in OMB's "Form and Content" Bulletin shall constitute an "other comprehensive basis of accounting" and shall be used for preparing federal financial statements.

OMB Circular A-127, "Financial Management Systems," initially issued in 1984, was revised in 1993. This Circular sets forth general policies for federal financial management systems and relates these policies to those in OMB Circular A-130, "Management of Federal Information Resources," and OMB Circular A-123, "Management Accountability and Control."

In the spring of 1994, the Chief Financial Officers Council (CFO Council) adopted the following vision for financial management:

Enabling government to work better and cost less requires program and financial managers, working in partnership using modern management techniques and integrated financial management systems, to ensure the integrity of information, make decisions, and measure performance to achieve desirable outcomes and real cost effectiveness.

Increasingly, integrated financial management systems are expected to support program managers, financial managers, and budget analysts at the same time. Information supplied by these systems is expected to become more timely, accurate, and consistent across government. Systems and data are being shared more and more by agencies with common needs.

This document provides the financial requirements for an integrated system that will provide the capability for financial managers to control and account for inventory as defined in Statement of Federal Financial Accounting Standards Number 3, *Accounting for Inventory and Related Property*. This document is a part of a broad program to improve federal financial management which involves the establishment of uniform requirements for financial information, financial systems, reporting, and financial organization.

As shown in Illustration 1, standards and system requirements assist agencies in developing effective and efficient systems and provide a common framework so that outside vendors or in-house programmers can provide software more economically. Each agency should integrate its unique requirements with these governmentwide standard requirements to provide a uniform basis for the standardization of financial management systems as required by the Chief Financial Officers Act of 1990. The responsibility for financial management improvement, implementation of integrated systems, and compliance with established standards rests with the Chief Financial Officer of each agency.

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

- collect accurate, timely, complete, reliable, and consistent information;

- provide for adequate agency management reporting;

- support governmentwide and agency level policy decisions;

- support the preparation and execution of agency budgets;

- facilitate the preparation of financial statements, and other financial reports in accordance with federal accounting and reporting standards;

- provide information to central agencies for budgeting, analysis, and governmentwide reporting, including consolidated financial statements; and

- provide a complete audit trail to facilitate audits.

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

It is critical that financial management system plans support the agency's mission and programs, including planned changes to them, and that the financial management systems plans are incorporated into the agency's plans

Illustration 1

Financial System Improvement Projects

Standards/Requirements	Agency Implementation		
• U.S. Government Standard General Ledger	• Additional Agency Functional Requirements		• Adaptation
• Framework for Federal Financial Management Systems			• Procedures
• Core Financial System Requirements	• Additional Agency Technical Requirements	• Software Selection	• Training
• Personnel/Payroll Requirements			• Documentation
• Travel System Requirements	• Integration Strategy		• Conversion
• Seized/Forfeited Asset System Requirements	• Software/ Hardware Evaluation		• Maintenance
• Direct Loan System Requirements			
• Guaranteed Loan System Requirements			
• Inventory System Requirements			
• Other Requirements			

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for information technology infrastructure and information systems as a whole. Further, system design efforts should include an analysis of how system improvements, new technology supporting financial management systems, and modifications to existing work processes can together enhance agency operations and improve program and financial management. Reassessing information and processing needs and redesigning processes, procedures, and policies are essential steps to meeting user needs.

Integrated Financial Management Systems

Financial management systems must be designed with effective and efficient interrelationships between software, hardware, personnel, procedures, controls, and data contained within the systems. To be integrated, financial management systems must have (i) standard data classifications (definition and formats) established and used for recording financial events; (ii) common processes used for processing similar kinds of transactions; (iii) internal controls over data entry, transaction processing,

and reporting applied consistently; and (iv) a system design that eliminates unnecessary duplication of transaction entry.

The financial management systems policy stated in OMB Circular A-127 requires that each agency establish and maintain a single, integrated financial management system. Without a single, integrated financial management system to ensure timely and accurate financial data, poor policy decisions are more likely due to inaccurate or untimely information; managers are less likely to be able to report accurately to the President, the Congress, and the public on government operations in a timely manner; scarce resources are more likely to be directed toward the collection of information rather than to delivery of the intended programs; and modifications to financial management systems necessary to keep pace with rapidly changing user requirements cannot be coordinated and managed properly. The basic requirements for a single, integrated financial management system are outlined in Section 7 of OMB Circular A-127.

Having a single, integrated financial management system does not necessarily mean having only one software application for each agency covering all financial management system needs. Rather, a single, integrated financial management system is a unified set of financial systems and the financial portions of mixed systems encompassing the software, hardware, personnel, processes (manual and automated), procedures, controls, and data necessary to carry out financial management functions, manage financial operations of the agency, and report on the agency's financial status to central agencies, Congress, and the public. Unified means that the systems are planned for and managed together, operated in an integrated fashion, and linked together electronically in an efficient and effective manner to provide agencywide financial system support necessary to carry out the agency's mission and support the agency's financial management needs.

Integration means that the user is able to have one view into the systems such that, at whatever level the individual is using the system, he or she can get to the information needed efficiently and effectively through electronic means. However, it does not mean that all information is physically located in the same database. Interfaces, where one system feeds data to another system following normal business/transaction cycles, such as salary payroll charges recorded in general ledger control accounts at the time the payroll payments are made, may be acceptable as long as the supporting detail is maintained and accessible to managers. In such cases, interface linkages must be electronic unless the number of transactions is so small that it is not cost-beneficial to automate the interface. Easy reconciliations between systems, where interface linkages are appropriate, must be maintained to ensure accuracy of the data.

To develop any integrated information system, it is critical that the senior systems analysts and systems accountants identify:

- the scope of the functions to be supported (processes),

- how data quality will be assured (data stewardship),

- the information to be processed (management information),

- how systems fit together to support the functions (systems architecture), and

- safeguards needed to ensure the integrity of operations and data (internal control).

All of these pieces must be brought together in a model such as the one shown in Illustration 2. These pieces must work together to form an effective integrated information system. A change to any part of the model will require determination of the implications on other parts of the model. For example, a new reporting requirement may require changes throughout the entire model.

Illustration 2

Integrated Model for
Federal Information Systems
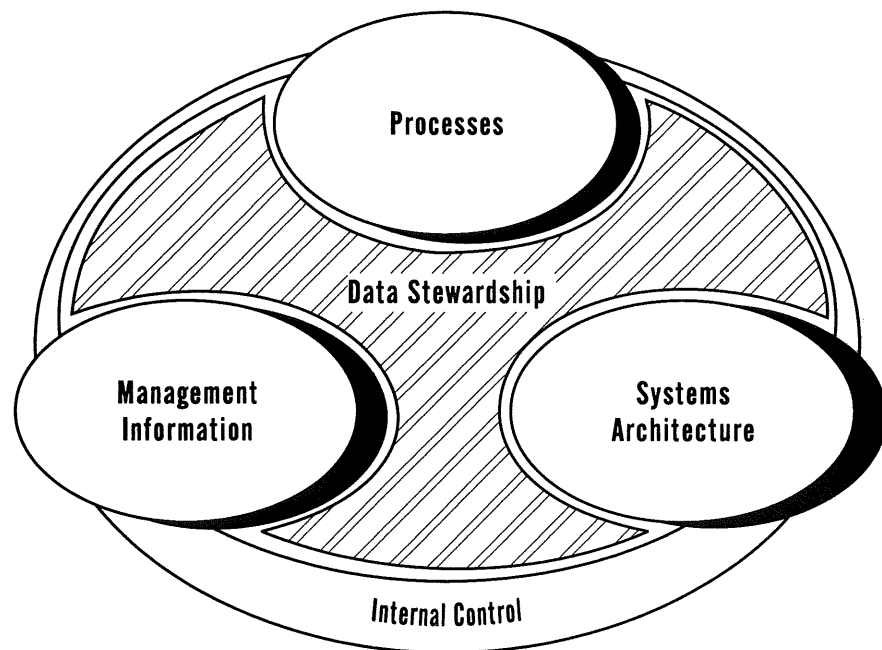
Agency Financial Management Systems Architecture

Agency financial management systems are information systems which track financial events and summarize information to support the mission of an agency, provide for adequate management reporting, support agency level policy decisions necessary to carry out fiduciary responsibilities, and support the preparation of auditable financial statements. Agency financial management systems fall into four categories: core financial systems, other financial and mixed systems (including inventory systems), shared systems, and departmental executive information systems (systems to provide management information to all levels of managers). These systems must be linked together electronically to be effective and efficient. Summary data transfers must be provided from agency systems to central systems to permit summaries of management information and agency financial performance information on a governmentwide basis.

Subject to governmentwide policies, the physical configuration of financial management systems, including issues of centralized or decentralized activities, processing routines, data, and organizations, is best left to the determination of the agency, which can determine the optimal manner in which to support the agency mission. The physical design of the system, however, should consider the agency's organizational philosophy, the technical capabilities available, and the most appropriate manner to achieve the necessary single, integrated financial management system for the agency.

The agency systems architecture shown in Illustration 3 provides a logical perspective identifying the relationships of various agency system types. Although this does not necessarily represent the physical design of the system, it does identify the system types needed to support program delivery/financing and financial event processing for effective and efficient program execution.

Inventory System

As shown in Illustration 3, inventory systems are an integral part of the total financial management system for those federal agencies which maintain inventory. The inventory system supports programmatic objectives and interacts with the core financial system to validate funds availability; update budget execution data; record inventory assets and expenses; and record revenues, gains, and losses. The inventory system also interacts with the agency's acquisition system to acquire items for inventory and with cost accounting systems to support valuations of inventory.

Illustration 3

Agency Systems Architecture
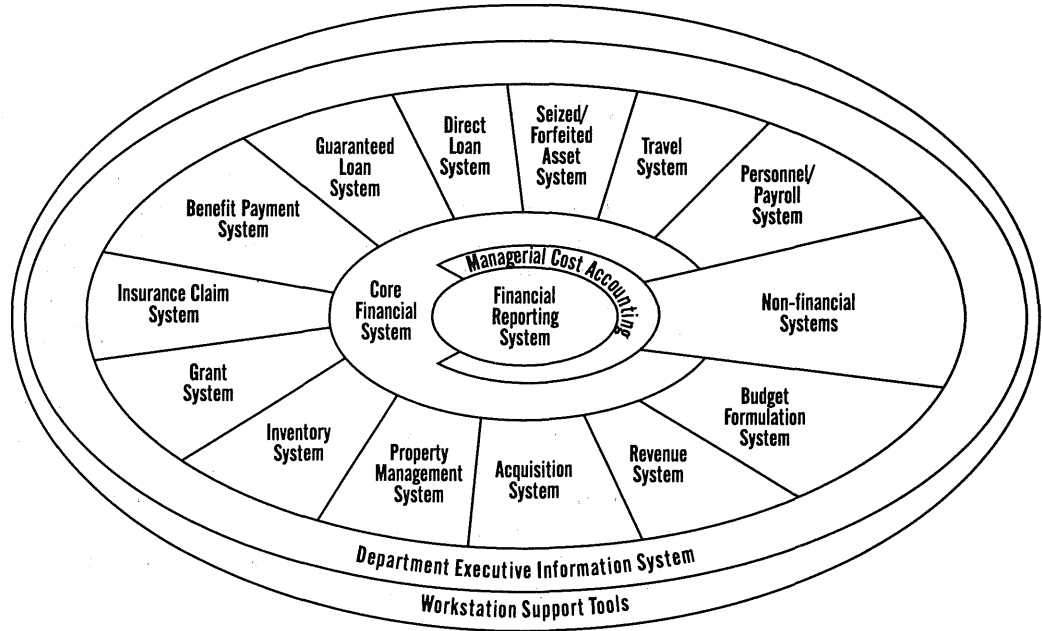
This chapter presents an overview of federal inventory management, including applicable federal policies.

Overview

The federal government manages billions of dollars worth of inventories. Costs of capital, deterioration, obsolescence, theft, and other factors have not always been properly identified and reported. Many federal agencies have poor links between accounting systems and systems for managing inventories, resulting in inadequate identification and reporting. Valuation practices have varied widely among agencies, as have those for costing, planning, and inventory control. As a result, the federal government has had difficulties in properly carrying out its fiduciary responsibilities related to inventory.

To address these problems, in 1993, OMB adopted FASAB recommendations on accounting for inventory and related property. This established consistent federal accounting requirements for inventory, including definition, recognition, valuation, and disclosure. This document identifies and describes the system requirements necessary to support inventory control and accounting for inventory consistent with the FASAB requirements and good management.

Policy

The policies governing inventory management and financial systems that affect inventory systems include the following:

- Chief Financial Officers Act of 1990 (CFO Act). The CFO Act provides new tools to improve the management of the federal government. It established Chief Financial Officers in major executive agencies as well as a new Deputy Director for Management and a Controller in the Office of Management and Budget. The CFO Act reinforces the need for and development of the government's financial systems. It also requires the preparation of annual audited financial statements.

- Government Performance and Results Act (GPRA, 1993). The GPRA, now being pilot project tested, requires agencies by 1998 to develop strategic plans and performance goals and to measure and report on performance compared to goals.

- Federal Managers' Financial Integrity Act (FMFIA, 1982). The FMFIA requires that all executive agencies implement, maintain, and report on internal accounting and administrative controls.

- OMB Circular A-127, "Financial Management Systems" (July 1993). Circular A-127 prescribes policies and standards for executive departments and agencies to follow in developing, operating, evaluating, and reporting on financial management systems.

- OMB Circular A-123, "Management Accountability and Control." Circular A-123 provides guidance to federal managers on improving the accountability and effectiveness of federal programs and operations by establishing, assessing, correcting, and reporting on management controls.

- OMB Circular A-130, "Management of Federal Information Resources" (June 1993). Circular A-130 establishes policies and procedures to be followed by executive departments and agencies in managing information, information systems, and information technology.

- Statement of Federal Financial Accounting Standards (SFFAS) Number 3, *Accounting for Inventory and Related Property* (October 27, 1993) sets the accounting requirements for inventory, including definition, recognition, valuation, and disclosure.

- OMB Bulletin No. 94-01, "Form and Content of Agency Financial Statements" (updated annually). Bulletin No. 94-01 provides specific guidance for the preparation of financial statements, including minimum disclosure requirements.

- Treasury Financial Manual Bulletin No. S2-93-01, "U.S. Government Standard General Ledger" (December 1992). Bulletin No. S2-93-01 informed federal agencies of changes to the U.S. Government Standard General Ledger (SGL). The SGL, published as a supplement to the Treasury Financial Manual, provides a uniform chart of accounts to standardize federal agency accounting and to support the preparation of standard external reports.

- The Treasury Financial Manual, Chapter 4100, "Federal Agencies' Financial Reports" (updated as needed). Chapter 4100 describes the Department of the Treasury's requirements for federal agency financial reports to Treasury.

- OMB Circular A-34, "Instructions on Budget Execution" (revised October 1994 and updated periodically). Circular A-34 sets forth the requirements for apportionments and reports on budget execution.

- OMB Circular A-11, "Preparation and Submission of Budget Estimates" (updated annually). Circular A-11 establishes the policies and procedures for preparation and submission of agency budget estimates to the Office of Management and Budget.

- Code of Federal Regulations (CFR) title 41, Chapter 101, Part 101-27, "Inventory Management." Part 101-27 sets policies and guidelines for management of federally-owned inventories of personal property. Part 101-27 includes provisions concerning economic order quantities, shelf-life, minimizing long supply, and elimination of items from inventory.

- Code of Federal Regulations (CFR) title 48, Chapter 1, Federal Acquisition Regulations (FAR). Part 45, "Government Property," prescribes procurement-related rules for management of government-owned property in the hands of contractors.

These policy documents are updated periodically. Current versions should be consulted when applying these requirements to systems.

Inventory Valuation

SFFAS Number 3, *Accounting for Inventory and Related Property*, defines the requirements for valuing inventory. Two primary methods are identified, but exceptions are allowed in some cases. An inventory system must support accounting for inventory using the method preferred by the agency within the bounds of SFFAS Number 3. The following excerpts from SFFAS Number 3 discuss inventory valuation:

Inventory shall be valued at either (1) historical cost or (2) latest acquisition cost.

(1) Historical cost shall include all appropriate purchase, transportation and production costs incurred to bring the items to their current condition and location. Any abnormal costs, such as excessive handling or rework costs, shall be charged to operations of the period. Donated inventory shall be valued at its fair value at the time of donation. Inventory acquired through exchange of non-monetary assets (e.g., barter) shall be valued at the fair value of the asset received at the time of the exchange. Any difference between the recorded amount of the asset surrendered and the fair value of the asset received shall be recognized as a gain or a loss.

The first-in, first-out (FIFO); weighted average; or moving average cost flow assumptions may be applied in arriving at the historical cost of ending inventory and cost of goods sold. In addition, any other valuation method may be used if the results reasonably approximate those of one of the above historical cost methods (e.g., a standard cost system).

(2) The latest acquisition cost method provides that the last invoice price, (i.e., the specific item's actual cost used in setting the current year stabilized standard [sales] price) be applied to all like units held including those units acquired through donation or nonmonetary exchange. The inventory shall be revalued periodically but at least at the end of each fiscal year. Revaluation results in recognition of unrealized holding gains/losses in the ending inventory value. Upon adjustment for unrealized holding gains/losses, the latest acquisition cost method then results in an approximation of historical cost.

An allowance for unrealized holding gains/losses in inventory shall be established to capture these gains/losses. The ending balance of this allowance shall be the cumulative difference between the historical cost, based on estimated or actual valuation, and the latest acquisition cost of ending inventory. The balance shall be adjusted each time the inventory balance is adjusted. The adjustment necessary to bring the allowance to the

appropriate balance shall be a component of cost of goods sold for the period as described below.

The cost of goods sold for the period shall be computed as follows:

Beginning inventory at beginning-of-the-period latest acquisition cost

> Less: allowance for unrealized holding gains/losses at the beginning-of-the-period

> Plus: actual purchases

Cost of Goods Available for Sale

> Less: ending inventory at end-of-the-period latest acquisition cost

> Plus: ending allowance for unrealized holding gains/losses at the end-of-period

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Cost of Goods Sold

EXCEPTION TO VALUATION. Valuing inventories at expected net realizable value is acceptable if there is (1) an inability to determine approximate costs, (2) immediate marketability at quoted prices, and (3) unit interchangeability (e.g., petroleum reserves). Application of this exception may result in inventories being valued at greater than historical cost.

One of the key ingredients needed in an inventory system is the establishment of a system of financial controls over materials for which the activity is accountable. Another consideration is the financial information required by the inventory manager to manage the agency's inventory mission efficiently. The responsibilities of an inventory system include:

- Providing a capability to safeguard property by exercising financial controls to accurately account for and report on items in inventory;

- Supporting generally accepted accounting principles (GAAP) as recommended by the Federal Accounting Standards Advisory Board and issued by the Office of Management and Budget; and

- Being flexible and responsive to management and customer requirements.

Summary of Functions

Illustration 4 shows the functions of an inventory system and the related systems which exchange information with it.

Illustration 4

Inventory System Overview
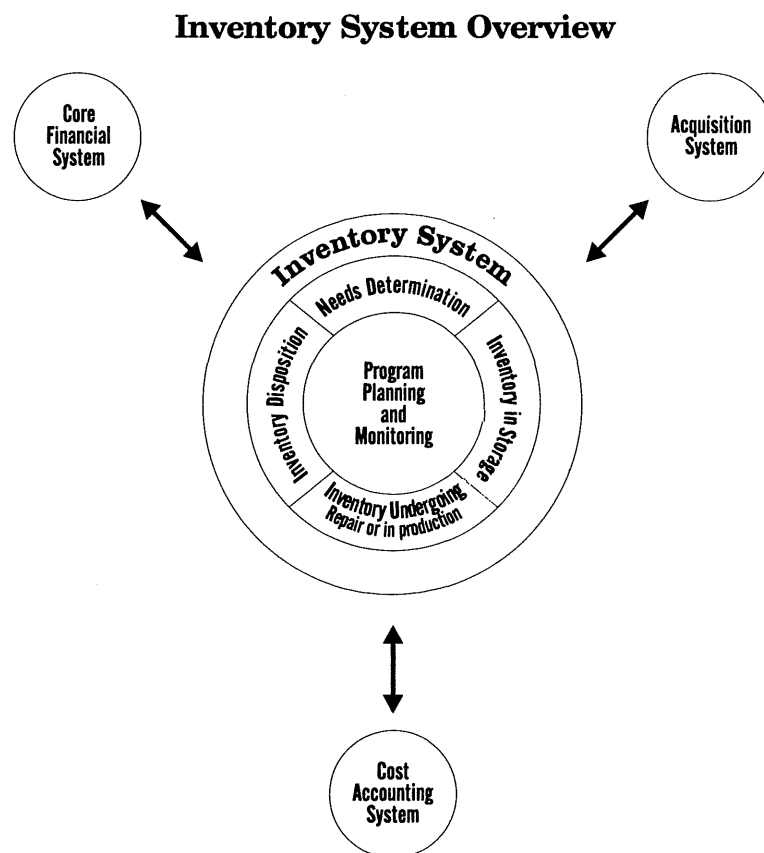
The following is a brief description of the major functions of an inventory system. The Functional Requirements chapter provides a detailed description of each function, including the lower level processes and activities within each function, and describes typical controls for the inventory application.

Needs Determination

Needs determination is a supply or logistics function which develops quantity and resource requirements for inventory or production. Inventory planning is the essence of inventory control. Its basic principles are maintaining very current data on customer demand, lead time, internal process costs, and stock levels, and replenishing stocks in a timely manner. The budgetary process is used when the level of inventory balances and activity must be approved through the agency's budget justification and/or legislative procedures. The Needs Determination function consists of the following processes:

- Inventory Planning Process, and

- Budgeting Process.

Inventory in Storage

Inventory is tangible personal property that is (1) held for sale, (2) in the process of production for sale, or (3) to be consumed in the production of goods for sale or in the provision of services for a fee. This means that for some period of time, the agency will be holding inventory items until those items or the finished goods they are turned into can be sold or otherwise disposed of. The Inventory in Storage function encompasses those processes that occur during that period of time when the agency is holding the inventory in storage. The Inventory in Storage function consists of the following processes:

- Receipt and Inspection Process, and

- Storing Process.

Inventory Undergoing Repair or in Production

Inventory in the process of production for sale or to be consumed in the production of goods for sale are classified as inventory under SFFAS Number 3. The inventory system must be able to account for items or activities associated with these types of inventory. The Inventory Undergoing Repair or in Production function consists of the following processes:

- Repairing Process, and

- Work-in-Process Tracking Process.

**Inventory
Disposition**

According to the definition of inventory in SFFAS Number 3, the point of having inventory is to sell it or use it in the provision of goods or services for a fee. The Inventory Disposition function consists of the following processes:

- Loaning Process,

- Issuing Process, and

- Disposal Process.

**Program
Planning
and Monitoring**

To support efficient, effective, and economical inventory levels and usage of inventory items, agencies must provide adequate planning and monitoring processes for their inventory activities. The Program Planning and Monitoring function consists of the following processes:

- Policies and Standards Process, and

- Monitoring Process.

Data Requirements

The inventory system stores, accesses and updates several types of data. In this document, a grouping of related types of data is referred to as an "information store." The term "information store" is used rather than "database" or "file" to avoid any reference to the technical or physical characteristics of the data storage medium. Actual data storage (physical databases and files) must be determined by each agency during system development and implementation based upon agency statutory requirements, technical environment, processing volumes, organizational structure, and degree of system centralization or decentralization.

The information stores defined here are logical groupings of data. Some of this data may be derived from summarizing more detailed data and, as a result, may not be stored in a permanent, physical form in some systems. In other cases, implementation of a single information store may involve several record types or files. As stated above, the physical storage characteristics are considered part of the specific system implementation strategy, which is outside the scope of this document.

Examples of the information stores that may be used by the inventory system are as follows:

- Inventory Items - Information on items contained in the agency's inventory. It includes the following types of data as examples:
    - item identifier (e.g., product code [shared with the acquisition system], description, commodity class)
    - unit data (e.g., unit of measure, unit cost, unit price, holding cost)

- ordering data (e.g., economic order quantity, safety stock level, anticipated lead time, reorder point)

- stock quantity data (e.g., available for issue, backorders, on hold, due in, in transit, location, condition, financial category)

● Acquisition Information - Information on procurement activity to acquire inventory items (shared with or obtained from the acquisition system). It includes the following types of data as examples:

- purchase request data

- acquisition status data

- receiving data (e.g., items, quantities, dates)

● Historical Demand - Data on past demand for items in inventory. It includes the following types of data as examples:

- customer demand (e.g., quantities, time periods, status)

- replenishment lead time history

● Core Financial System Information - Information for performing funds control checks and accounting for inventory (shared with or obtained from the core financial system). It includes the following types of data as examples:

- budget execution data

- cost data

- valuation data

- receivables

● Inventory Level Funds Availability - Budget execution data maintained by the inventory system at a lower level of detail than the core financial system, if funds are controlled at that level. The inventory system also accesses the core financial system for funds control purposes using data maintained by the core financial system. It includes the following types of data as examples:

- limits by commodity or other inventory element

- fund usage by commodity or other inventory element

● Customer Orders - Information on products or services requested by a customer. It includes the following types of data as examples:

- requesting office (e.g., customer number, location, authorized requesting official)

- items (e.g., product/service code, quantity, estimated cost, special terms and descriptions)

— delivery (e.g., requested delivery date, promised delivery date, shipping address)

— financial information classification

— invoicing data (e.g., fund citation, billing office)

— issuing data (e.g., dates, quantities, items, shipment mode)

— bill calculation data

Illustration 5 depicts the relationships between the information stores and the system functions. An "X" is placed in the box for the combination of an information store and a function if that function accesses the information store in any way.

Illustration 5

Relationship of Information Stores and the Inventory System Functions

	Needs Determination		Inventory in Storage		Inventory Undergoing Repair or in Production		Inventory Disposition			Program Planning and Monitoring Function	
	Inventory Planning	Budgeting	Receipt and Inspection	Storing	Repairing	Work-in-Process Tracking	Loaning	Issuing	Disposal	Policies and Standards	Monitoring
Inventory Items											
Item identifier data	X	X	X	X	X	X	X	X	X	X	X
Unit data	X	X	X	X	X	X	X	X	X	X	X
Ordering data	X		X	X	X	X		X		X	X
Stock quantity data	X	X	X	X	X	X	X	X	X		X
Acquisition information											
Purchase request data	X		X	X	X	X		X			X
Receiving data	X		X	X	X	X	X				X
Historical Demand											
Customer demands data	X	X				X	X	X	X	X	X
Replenishment lead time data	X	X	X			X				X	X
Core Financial System Information											
Budget execution data	X	X	X		X	X	X	X	X		X
Cost data	X	X	X	X	X	X	X	X	X	X	X
Valuation data	X	X	X	X	X	X	X	X	X	X	X
Receivables	X	X					X	X	X		X
Inventory Level Funds Availability											
Limits data	X	X	X		X	X	X	X	X		X
Fund usage data	X	X	X		X	X	X	X	X		X
Customer Orders											
Requestor data	X						X	X			X
Item ordered data	X			X	X	X	X	X			X
Delivery data	X		X	X	X	X	X	X			X
Invoicing data							X	X			X
Issuing data	X			X	X	X	X	X			X
Bill calculation data							X	X			X

This chapter describes the functional requirements for an inventory system. The following functions must be supported by the system:

- Needs Determination

- Inventory in Storage

- Inventory Undergoing Repair or in Production

- Inventory Disposition

- Program Planning and Monitoring

The functional requirements identified define the typical processing and data requirements for federally managed inventory programs. Inventory is tangible personal property which fits the definition of SFFAS Number 3. Although many of the concepts in this document can be applied to related property as defined in SFFAS Number 3, such as operating materials and supplies, stockpile materials, and others, the requirements presented here focus on inventory. These requirements are intended to be consistent with the accounting requirements of FASAB as published in SFFAS Number 3 and with policy established in OMB Circulars A-123, A-127, A-130 and other related requirements.

Although one can and should use the model presented in this document (i.e., determining needs, storing items, disposing of or using items) in a manufacturing environment to apply to raw materials inventory, work-in-process inventory, and finished goods inventory separately, this document will take the approach that the Inventory in Storage function gets in raw materials, the Inventory Undergoing Repair or in Production function produces work-in-process, and the Inventory Disposition function tracks and issues finished goods. Individual items may also go through a series of inventory systems as they are used to produce various products or services. For example, an organization devoted to building engines gets engine parts in as raw materials, turns them into finished engines, and sells them to an organization devoted to building vehicles. The second organization, which may be part of the same agency, takes the engines and other vehicle parts in as raw materials, turns them into finished vehicles, and sells them to other organizations. Both of these organizations should have an inventory system to support their activities and control their inventories and costs.

These requirements are to be used as a guide for agencies to use when enhancing existing systems or developing new systems. These requirements assume the agency has a fully automated system that encompasses the complete scope of requirements in this document. Some agencies may determine that it is not practical to fully automate all functions based on such factors as operating environment and costs. Accordingly, it will be necessary for agencies to make adjustments to adapt the requirements to meet their specific program and system requirements.

Needs Determination Function

Needs determination is a supply or logistics function which develops quantity and resource requirements for inventory or production, consisting of inventory planning and budgeting. Inventory planning is the essence of inventory control. Its basic principles are maintaining very current data on customer demand, lead time, internal process costs, and stock levels, and replenishing stocks in a timely manner.

The principle of economic order quantity replenishment is critical. CFR 41, Chapter 101, Part 101-27 requires that "All executive agencies, except the Department of Defense, within the United States, excluding Alaska and Hawaii, shall replenish inventories of stock items having recurring demands, except items held at points of final use, in accordance with the economic order quantity (EOQ) principle." Despite the exclusions in this regulation, the EOQ principle generally should be observed for all inventories held for sale, because it works well to minimize overall costs. Adjustments to EOQ calculations should be made to reflect anticipated changes in demands.

Inventory managers should seek to minimize inventories by other methods, in addition to applying the EOQ principle. The primary means of doing so are (1) working closely with customers to develop accurate long-term demand forecasts, and (2) working closely with vendors to ensure accurate forecasts of delivery time and to minimize delivery times by shortening manufacturing cycle times and using other just-in-time techniques.

In addition to the planning process, which should be performed by all agencies managing inventories, many agencies use a budgetary process to control inventories. The budgetary process is used when the level of inventory balances and activity must be approved through the agency's budget justification and/or legislative procedures.

If inventory levels are expected to remain relatively predictable and are based on customer demand rather than on legislative mandates, the agency may not need as extensive a budgeting process as described here. A revolving fund with sufficient capitalization and cash flow may be managed effectively with the proper application of planning and monitoring techniques without the added burden of budget justification and control.

General Requirements

The Needs Determination function consists of the following processes:

- Inventory Planning Process, and

- Budgeting Process.

**Inventory Planning
Process**

Information on the best practices in inventory planning and other aspects of inventory management, in addition to what is presented in this document, is available in Appendix A to the Department of the Treasury *Report on Inventory Management*, which was completed and submitted to the Treasury on March 31, 1994.

The Planning process applies to both of the following activities:

● Inventory Purchase Planning, and

● Production Planning

Inventory Purchase Planning. This activity decides when inventory replenishment is needed and calculates inventory replenishment quantities. It determines order quantities based on customer demand and lead time history, internal process costs, unit item cost, and current stock levels as adjusted by anticipated program demands. Ordering information is provided to the acquisition system for fulfillment through the appropriate procurement vehicles.

To support this activity, an inventory system must:

● Record customer demand and replenishment lead time data for a period of years, analyze it for anomalies, and compute demand and lead time forecasts on a regular, frequent schedule. These should be reviewed regularly by inventory managers, though computer-generated forecasts generally should be changed only when information is available to the manager that is not available to the automated system.

● Compute and routinely update the ordering costs, which may vary depending on method of procurement and other factors. The ordering costs might include costs of

— reviewing the stock position;

— preparing the purchase request;

— selecting the supplier; receiving, inspecting, and placing the material in storage; and

— paying the vendor.

● Estimate and routinely update the per unit inventory holding cost, which is an estimate of the cost to hold each additional unit of inventory. Its primary elements are storage space, obsolescence, interest on inventory investment, and inventory shrinkage (due to deterioration, theft, damage, etc.).

● Recompute the Economic Order Quantity (EOQ) on a regular, frequent schedule, using the demand forecast, ordering cost, inventory holding cost, and unit cost of the material. In lieu of the EOQ, any other

optimum order quantity calculation may be used, provided (1) it is based on sound business principles and (2) it minimizes total cost, including the sum of ordering and inventory holding costs.

- Recompute the safety stock, if any, on a regular and frequent schedule. The safety stock may include variables manipulated by management to establish intended service levels.

- Recompute the reorder point level on a regular and frequent schedule, considering stock available for issue, backorders, quantities on hold, and quantities due in.

- Determine if replenishment is needed on a regular and frequent schedule, basing the determination on net stock and reorder point. If needed, immediately initiate a replenishment action using the Economic Order Quantity or other order quantity, as described above.

Production Planning. This activity supports planning for production based on customer orders and product demand forecasts. Production here means processes such as manufacturing, repairing, or others that might be included under part 2 of the SFFAS Number 3 definition of inventory (i.e., tangible personal property ... (2) in the process of production for sale). To support this activity, an inventory system must:

- Provide information on current inventories and historical usage to be used in capacity planning.

- Establish overall production targets necessary to fill customers' orders and meet operating schedules.

- Support the incorporation of component availability and anticipated lead times for delivering orders into a master production schedule.

- Support predefined inspection plans and quality standards.

Budgeting Process
The Budgeting process identifies funds available to an agency for inventory purchases. In some agencies, the amount of funds provided to an agency for inventory acquisition is determined through the budget justification process as an approved level of inventory requirements of that agency and is enacted into legislation.

Revolving funds are often used to acquire inventory items for resale. Agencies using revolving funds for inventory may not need to comply strictly with all the requirements associated with this process depending on the structure and authorization of their funds. However, at a minimum, plans should be prepared and monitored to ensure that sufficient levels of cash and/or budgetary resources are maintained in these funds.

The inventory system must be consistent with the core financial system in how it supports budget execution and funds control. The inventory system software may depend entirely on the core financial system software for support of budget establishment and funds control, or it may depend only partially, with some tasks being performed by the core financial system software and some by the inventory system software.

The types of items procured are usually determined by mission requirements. Various types of inventory items authorized and acquired by an agency may involve inventory groups termed "commodities". Examples are electronics, construction, repair parts, and general items. Where management sets a funding limitation on the total inventory purchases, the budgetary resources may be provided to an agency or subdivided within the agency, to limit the acquisition of items within a commodity by limitations imposed on available resources for a commodity.

The Budgeting process consists of the following activities:

- Inventory Budget Establishment, and

- Control of Inventory Funding.

Inventory Budget Establishment. This activity establishes budgetary limitations for inventory. To support this activity, an inventory system must:

- Support the budgeting of resources for inventories. Normally, budgeted resources for inventories are determined by considering (1) projected customer orders based on historical customer activity, and (2) management decisions projecting future inventory needs.

- Identify available funds by inventory commodity.

- Distinguish available funds for items that are slow-moving and are carried in the inventory for more than one accounting cycle.

Control of Inventory Funding. This activity supports the control of funds allocated to inventories in a manner consistent with OMB Circular A-34 and the JFMIP *Core Financial System Requirements*. To support this activity, an inventory system must:

- Access the core financial system to ensure that funds are available prior to the approval of a request for acquisition of inventory items. There must be a validation of available funds prior to release of requistions orders or purchase requests for inventory items.

- Provide for reducing or terminating acquisitions when funds are limited or not available for new buys.

- Identify funds utilized and rates of fund utilization by inventory commodity.

- Control availability of funds by inventory commodity.

- Calculate fund usage and project the date on which funds will be exhausted at the current rate of usage.

Internal Information Management Requirements

Listed below are internal management information requirements for the Needs Determination function. This information should be available to agency inventory managers and designated internal review officials on a periodic or an as requested basis. This is not an all-inclusive list of internal information requirements for the Needs Determination function. Each agency must determine the specific management information needs necessary to manage its inventory programs based on the agency mission and applicable statutory requirements. Each agency must also determine whether the information should be provided on hard copy reports, through system queries, or both.

The inventory system should provide at least the following types of management information:

Demand. The quantity by item ordered by customers over a period of time. Care must be taken to ensure that comparisons of demand information use not only comparable periods of time but also comparable procedures for including or excluding unfilled orders, discrepancies, customer returns, etc.

Procurement Lead Time. The lead time needed to place an item into inventory expressed in days.

Procurement Cycle. Supports demands from the end of the fiscal year until the next scheduled procurement. For each fiscal year, it represents the dollar value of that portion of the procurement cycle that requires funding during that fiscal year. The dollar value of the procurement cycle may also be expressed as days of customer demand.

Requirements. Information on the dollar value of inventory requirement levels and, where applicable, the days of demand represented by the dollar value. Requirements levels are a predictor of trends in a budget/resource requirement and are a key element in determining the amount of material that needs to be procured to maintain the inventory levels. The budgeting formula in its simplest form is requirements less assets equals the buy requirement.

Assets. Information on the value of inventory. Assets information shows the trend in the amount of the inventory held for sale and is a key element in determining the amount of material that needs to be procured to maintain the material levels in inventory.

Available Funds. This summary provides available funds by commodity and identifies funds reserved for special purposes.

Budget versus Actual. This summary presents budgeted versus actual funds expended on the purchasing of inventory items. Summary information by fund or organization would usually be obtained from the core financial system. If the agency budgets for inventory by type of item or location, this information would be more likely obtained from the inventory system.

Rates of Fund Utilization. This summary presents rates of fund utilization by inventory type category and manager. It also projects the rate of use of funds and anticipates exhaustion dates.

Inventory in Storage Function

Inventory is tangible personal property that is (1) held for sale, (2) in the process of production for sale, or (3) to be consumed in the production of goods for sale or in the provision of services for a fee. This means that for some period of time, the agency will be holding inventory items until those items or the finished goods they are turned into can be sold or otherwise disposed of. This function encompasses those processes that occur during that period of time when the agency is holding the inventory in storage.

Items received into inventory may be purchased, donated, or bartered for. They may be either stocked items to be sold in their original form or raw materials to be used in the production of goods for sale or provisions of services for a fee. Inventory is recognized as an asset when title passes to the entity obtaining the inventory or when goods are delivered.

Procurement of inventory items is handled by the agency's acquisition system, which supports the activities of processing orders, awarding contracts, recording commitments and obligations, making adjustments, and providing information to the core financial system for budget execution and payment purposes. The inventory system must be integrated, at a minimum, with the acquisition and core financial systems to share information on items ordered, received, in storage, and sold or otherwise disposed of.

General Requirements

The Inventory in Storage function consists of the following processes:

- Receipt and Inspection Process, and

- Storing Process.

Receipt and Inspection Process

The Receipt and Inspection process establishes physical control over items received for inventory purposes and supports the valuation of and accounting for items received. It consists of the following activities:

- Item Receipt,

- Inspection,

- Placement into Inventory, and

- Initial Valuation and Financial Categorization.

Item Receipt. This activity processes items received, (including items returned by customers) most typically on a loading dock, but also by other methods as appropriate. To support this activity, an inventory system must:

- Record information on material returned by customers.

- Record information on the receipt in sufficient detail to allow matching of receipt, purchase order/contract, and invoice for payment purposes. Examples of data to collect include item numbers, quantities, units of measure, vendor, and purchase order number.

- Record the date of receipt to be used for purposes of the Prompt Pay Act and to monitor the timeliness of placing items into inventory and the age of inventory items.

- Differentiate between partial receipts against an undelivered order and full receipts.

- Provide for performing quantity and price conversions between different units of measure. For example, the item purchase unit may be cases (CS) and the receiving activity unit of measure may be each (EA).

- Identify transportation discrepancies (i.e., any discrepancy between the government or commercial bill of lading and item received), and initiate the transportation discrepancy report (e.g., SF 361) and follow-up.

Inspection. This activity involves inspecting items received to verify that they match in type, condition, quantity, quality, and any other critical factors to what was ordered. To support this activity, an inventory system must:

- Record items in transit and the quantities of each if title to inventory items transfers at the point of origin.

- Record the acceptance or rejection of new or returned items at their destination and the quantities of each. Update inventory on hand information as a result.

- Record the date of acceptance for purposes of the Prompt Pay Act.

- Provide information on items received and accepted necessary to support the payment management function of the Core financial system.

- Provide customer credit/refund on items returned in accordance with the agency's return policy.

- Identify shipping discrepancies (e.g., SF 364) and product quality deficiencies (e.g., SF 368) between the items received and the information provided on shipping documents and purchase orders. Support the follow-up of discrepancies conducted by the procurement and finance offices.

Placement into Inventory. This activity establishes physical control over the items accepted into inventory. To support this activity, an inventory system must:

- Identify the intended location of the item and track its movement from the point of initial receipt to its final destination.

- Record identifiers, quantities, condition, location, and other elements necessary to establish physical control.

- Classify inventory items by commodity class to meet agency needs for management and control.

Initial Valuation and Financial Categorization. This activity records the initial value of items received. According to SFFAS Number 3, inventory should be valued at either (1) historical cost or (2) latest acquisition cost. The specific method to be used for valuing inventory should be defined in the Program Planning and Monitoring function and be consistent with the principles in SFFAS Number 3. To support this activity, an inventory system must:

- Distinguish between the unit cost of an inventory item and its selling price.

- Maintain sufficient information to support the inventory valuation method chosen in the Program Planning and Monitoring function (e.g., historical cost using FIFO, weighted average, or moving average cost flow assumptions; latest acquisition cost).

- Allow the cost of an item to include all appropriate purchase, transportation, and production costs incurred.

- Categorize inventory items as described in SFFAS Number 3 as (1) inventory held for sale, (2) inventory held in reserve for future sale, (3) excess, obsolete, and unserviceable inventory, or (4) inventory held for repair. These categories shall be used for financial statement purposes.

- Provide financial information in the appropriate format and using the appropriate method to other financial management systems used by the agency. For example:
  - Provide total cost information by financial category for items added into inventory to the core financial system for posting by the General Ledger Management function and the Cost Management function.
  - If the agency has a cost accounting system to support a manufacturing, industrial fund, or similar function, provide cost

and other appropriate information on items provided to that other function.

- Provide information needed to support reconciliation between the inventory system's records and other systems' records.

Storing Process   The Storing process supports the monitoring of and accounting for inventory on hand. This process focuses on inventory which is held as stock as opposed to work-in-process, which is handled in the Work-in-Process Tracking process below. The Storing process consists of the following activities:

- Physical Verification,

- Movement and Tracking,

- Accounting for Stored Items, and

- Accounting for Items in Transit.

Physical Verification. This activity supports the internal control process of verifying records of inventory on hand through comparisons with physical counts. If the data maintained in the system does not match the actual inventory, the system must be updated to reflect reality. These adjustments may affect physical control data, financial data, or both. To support this activity, an inventory system must:

- Provide support for physical verification of inventory balances by location and type.

- Record changes in physical condition (e.g., excellent, good, fair, poor), quantities, etc., based on the results of physical inventory verifications.

- If the agency maintains perpetual inventory records, provide for the matching of physical counts with inventory quantity and financial records through cycle counting or other inventory management techniques.

- If the agency does not maintain perpetual inventory records, provide for reconciliation using beginning of period inventory balances, receipts, and dispositions up to the cutoff point for the physical inventory.

- Ensure the retention of records of physical inventory counts until (a) the count is reconciled, (b) all adjusting entries for the physical count are resolved and entered into the financial records, and (c) the next

physical count is accomplished, reconciled, and entered into the records.

● Provide for identification of all errors arising from reconciliation processes that apply to a time period prior to the last inventory adjustment. All such errors must be corrected, to include appropriate adjustments to prior gains and losses.

Movement and Tracking. This activity monitors inventory items that are moved from one location to another but still remain on the books of the agency and under its control. To support this activity, an inventory system must:

● Record changes in the location of an inventory item, such as from one warehouse to another, and any associated changes in the person or organization responsible for stewardship of the item.

● Record the value and quantities of items in transit from one location to another.

Accounting for Stored Items. This activity maintains financial data on inventory items in storage. To support this activity, an inventory system must:

● Record losses from the recognition of destroyed, lost, or pilfered items.

● If financial adjustments are required as a result of a physical verification, send the appropriate information to the core financial system and cost accounting system to ensure that they stay in balance with the inventory system.

● Adjust inventory item costs for significant differences between the amount recorded for the items upon receipt and the invoiced amounts paid for the goods.

● Generate financial transactions to record the transfer of inventory between financial categories such as from inventory held for sale to excess, obsolete, and unserviceable inventory, or between cost categories as defined for internal management. Send this information to the core financial system and cost accounting system as appropriate.

● Value excess, obsolete, and unserviceable inventory at expected net realizable value. The difference between the carrying amount of the inventory before identification as excess, obsolete, or unserviceable and its expected net realizable value shall be recognized as a loss (or gain) and either separately reported or disclosed. Any subsequent adjustments to its net realizable value or any loss (or gain) upon disposal shall also be recognized as a loss (or gain).

- Recognize and record unrealized holding gains/losses when using the latest acquisition cost method for valuing inventory.

- Calculate the historical cost of ending inventory and cost of goods sold using the cost flow assumption (e.g., FIFO, weighted average, moving average, standard cost) chosen by the agency in accordance with SFFAS Number 3 when using the historical cost method for valuing inventory.

- Make adjustments to inventory valuations to reflect net realizable value instead of historical cost or latest acquisition cost if the conditions specified in SFFAS Number 3 under "Exception to Valuation" are met or if the inventory is declared to be excess, obsolete, or unserviceable in accordance with SFFAS Number 3.

- Maintain the distinction between the cost of inventory items and selling price. Make adjustments to them separately.

- Compute the value of items on the property records by multiplying quantities on hand or on loan by the unit cost of the applicable item. These values are totaled and the sum reconciled with the general ledger value.

Accounting for Items in Transit. This activity maintains financial data and accounting control over inventory items which are in transit between storage locations. To support this activity, an inventory system must:

- Record the value and quantity of items shipped from contractors or vendors for which title has passed to the government.

- Record the value and quantity of items shipped from the inventory organization to another organization for which accountability has been retained by the inventory organization until receipt by the recipient.

- Record the value and quantity of items identified as in transit being moved from one inventory storage location to another.

Internal Information Management Requirements

Listed below are internal management information requirements for the Inventory in Storage function. This information should be available to agency inventory managers and designated internal review officials on a periodic or an as requested basis. This is not an all-inclusive list of internal information requirements for the Inventory in Storage function. Each agency must determine the specific management information needs necessary to manage its inventory programs based on the agency mission and applicable statutory requirements. Each agency must also determine whether the

information should be provided on hard copy reports, through system queries, or both.

The inventory system should provide at least the following types of management information:

Unfilled Orders. The dollar value of customer orders held by the inventory managers that have not yet been filled.

Discrepancies. The numbers and types of discrepancies found between items ordered and received. This enables managers to identify potential problem areas in the ordering and distribution processes. It is supported by detailed information on specific discrepancies to support follow-up and resolution activities.

Acceptance and Rejection Summary. The number of items received, accepted, and rejected from each supplier. This can be used to evaluate the performance of suppliers and in reconciling with payment and general ledger posting activities.

Days Supply. The number of days until the current on-hand quantity of an item or group of items is likely to become zero, based on current demand forecasts.

Master Inventory. Information regarding all items in inventory at a location, such as stock numbers, descriptions, quantity on hand, unit cost, and location.

Inactive Stock. Information regarding items that have not been used over a user-defined period to allow managers to identify slow-moving items.

Item Expiration/Shelf Life. Information regarding items that have expired or are due to expire.

Cycle Count. Provides the status of cycle counting in each warehouse, for inventory verification purposes.

Inventory Accuracy. Provides information regarding variances between actual counts and on-hand quantities as a result of performing a physical inventory.

Inventory Undergoing Repair or in Production Function

Inventory in the process of production for sale or to be consumed in the production of goods for sale are classified as inventory under SFFAS Number 3. The inventory system must be able to account for items or activities associated with these types of inventory.

General Requirements

The Inventory Undergoing Repair or in Production function consists of the following processes:

- Repairing Process, and

- Work-in-Process Tracking Process.

Repairing Process

The Repairing process supports the monitoring of and accounting for inventory in need of repair. According to SFFAS Number 3, inventory held for repair may be accounted for in one of two ways: (1) the allowance method or (2) the direct method. The Repairing process consists of the following activities:

- Transfer to Repair Status,

- Account for Repair Costs, and

- Return to Inventory.

Transfer to Repair Status. This activity supports the repair of inventory items in need of it. Inventory items in this financial category are segregated for financial statement purposes and to support the proper control of such items. To support this activity, an inventory system must:

- Record the transfer of an inventory item from its current status to the status of "in repair". Provide information to the core financial system to record the change in financial category.

- Adjust the valuation of inventory items in accordance with the repair accounting treatment selected by the agency in conformance with SFFAS Number 3.

- Establish an allowance for repairs consistent with the estimated annual cost of repairs if using the allowance method.

Account for Repair Costs. This activity supports the accounting treatments for repair costs. To support this activity, an inventory system must:

- Identify the costs of repair activities.

- Account for repair costs as a charge to the allowance account, a capitalization in the inventory account up to the value of a serviceable item, or a repair expense depending on the accounting method used and the types and costs of repair.

- When transitioning to a new repair accounting method, separately identify prior period amounts for repair expense and record the appropriate accounting adjustments.

Return to Inventory. This activity supports the return of items to inventory after repair. To support this activity, an inventory system must:

- Record the transfer of an inventory item from the status of "in repair" to its proper status and location. Provide information to the core financial system to record the change in financial category.

- If the item is determined to be unserviceable, transfer it to the disposal process.

Work-in-Process Tracking Process

The Work-in-Process Tracking process supports the monitoring of and accounting for inventory in a production process, such as manufacturing. The Work-in-Process Tracking process consists of the following activities:

- Production Ordering,

- Accounting for Work-in-Process Costs, and

- Recording Finished Goods in Inventory.

Production Ordering. This activity establishes orders for work to be performed based on customer orders or product demand forecasts. This work may be performed within the agency, by another agency, or by a private contractor. To support this activity, an inventory system must:

- Support the establishment (including technical specifications and accounting classification needed by the inventory system) of orders to be placed with a contractor or other government entity to perform production work on items needed.

- Project the production elements necessary to complete the production cycle. These production elements must reflect bills of material,

manufacturing requirements, and production time to produce or repair products.

Accounting for Work-in-Process Costs. This activity supports the accounting treatments for work-in-process. To support this activity, an inventory system must:

- Provide financial information in the appropriate format and method to other financial management systems used by the agency. For example, provide work-in-process costs by the designated accounting classification structure (e.g., fund, program, organization, project, object class) to the core financial system for posting by the General Ledger Management function and the Cost Management function.

- If the agency has a separate cost accounting system to support cost accumulation by work elements such as job order, activities, products, etc., accept cost and other appropriate information from that system.

- Track accumulated costs which should include the value of direct materials, direct labor, and overhead where applicable (including standard costs and rates, if applicable) for work-in-process. Percentage of completion information should be used to value work-in-process.

- Provide features to record unit costs and prices of products and services.

Recording Finished Goods in Inventory. This activity accepts finished goods that have been manufactured and places them into the inventory of finished goods held for sale. To support this activity, an inventory system must:

- Transfer work-in-process to finished goods for inventory categorization and accounting purposes.

- Identify the intended location of the item and track its movement from the point of initial receipt to its final destination.

- Record identifiers, quantities, condition, location, and other elements necessary to establish physical control.

- Classify inventory items by commodity class or type to meet agency needs for management and control.

Internal Information Management Requirements

Listed below are internal management information requirements for the Inventory Undergoing Repair or in Production function. This information should be available to agency inventory managers and designated internal review officials on a periodic or an as requested basis. This is not an all-inclusive list of internal information requirements for the Inventory Undergoing Repair or in Production function. Each agency must determine the specific management information needs necessary to manage its inventory programs based on the agency mission and applicable statutory requirements. Each agency must also determine whether the information should be provided on hard copy reports, through system queries, or both.

The inventory system should provide at least the following types of management information:

Repair Status. Identifies items transferred from an inventory facility to a repair facility and either the return of the item back into active inventory or the transfer to the disposal process because the item was determined to be unserviceable.

Production Order. Provides information, including technical specifications and accounting classifications, regarding work to be performed for items needed in inventory. The order should identify projected bills of material, manufacturing requirements, and production time to produce or repair products.

Work-in-Process Tracking. Accumulated costs of work-in-process, including the value of direct materials, direct labor, and overhead, where applicable.

Inventory Disposition Function

According to the definition of inventory in SFFAS Number 3, the point of having inventory is to sell it or use it in the provision of goods or services for a fee. Ensuring that the relationship between cost and price is understood is one of the main reasons why there is increasing emphasis on cost accounting in the government.

Upon sale (when the title passes or the goods are delivered) or upon use in the provision of a service, the related expense shall be recognized and the cost of those goods shall be removed from inventory. Revenue is based on the selling price for the inventory. The cost of goods sold is based on the valuation of the inventory. The difference between the revenue and cost of goods sold is the gain or loss.

General Requirements

The Inventory Disposition function consists of the following processes:

- Loaning Process,

- Issuing Process, and

- Disposal Process.

Loaning Process

The Loaning process supports the monitoring of and accounting for inventory which has been loaned out to others but is still maintained on the agency's books as inventory. For example, the Department of Defense often loans out tents, bedding, and other materials from inventory to the Boy Scouts, the Olympics, and the American Red Cross. The Loaning process consists of the following activities:

- Loan Out, and

- Return to Inventory.

Loan Out. This activity supports the accounting and control of inventory items that have been loaned out for use by another organization temporarily. To support this activity, an inventory system must:

- Record changes in the location of the inventory items and the associated changes in the person or organization responsible for stewardship of the item.

- Record the value and quantities of items in transit from one location to another.

Return to Inventory. This activity supports the return of items to inventory after they have been loaned out. To support this activity, an inventory system must:

- Record the transfer of an inventory item from the status of "on loan" to its proper status and location.

- Adjust the value of items being returned in worse condition or that are not returned at all. If the financial category needs to be changed to "held for repair" or "excess, obsolete, or unserviceable", generate the appropriate financial transactions.

Issuing Process

The Issuing process receives requisitions or orders in from customers. Agencies are encouraged to use Electronic Data Interchange (EDI) to obtain customer orders electronically without the need for manual keying. Some inventory programs sell directly to the public in a store environment. These programs would most likely use a cash register/point of sale system to record sales. That system should provide information to the inventory system so that it can update the inventory records and pass the accounting information on to the core financial system.

In a typical supply fund, customer orders are filled by issuing inventory items in stock and on hand. In other operations, orders may be for a particular service to be performed or good to be manufactured. In that case, individual customer orders must be forwarded on to the Needs Determination function. The Issuing process consists of the following activities:

- Customer Eligibility and Fund Verification,

- Customer Order Entry,

- Distribution,

- Discrepancy Resolution,

- Bill Calculation, and

- Accounting for Issuances.

Customer Eligibility and Fund Verification. In many inventory operations, particularly those using catalog prices, the agency is provided assurances on the order that the customer has the funds available to fill the order. However, in some cases where the price is not as predictable, the customer may provide a maximum amount they are willing to pay. In those situations, this activity records those maximums and verifies that they are not exceeded. To support this activity, an inventory system must:

- Verify that the customer order is received from an eligible customer who is authorized to use the system and order the items.

- Record the fund citation provided by the customer so that it may be included on billings.

- Ensure that inventory items issued are limited to available funds provided by the customer.

- If available funds are expected to be exceeded because of price changes, etc., advise the customer of the new price. If requested by the customer, performance and/or shipment should be withheld until the customer has provided the additional funds required or has been given an opportunity to cancel or reduce the order.

Customer Order Entry. This activity records customer orders when they are received. To support this activity, an inventory system must:

- Establish and maintain customer records if customers are billed or if trackings of individual customer data, business history, and preferences are important to the program.

- Record relevant information on the customer order, including items ordered, quantities requested, customer name and address, specifications, if appropriate; date received; and other data needed consistent with the inventory program.

- If the customer is a federal agency, record the fund citation provided.

- When insufficient stock is available to fulfill the total requirement, issue stock and backorder the balance as policy permits.

- Send special orders, orders for services or goods to be manufactured to specification, and other similar orders to the Needs Determination function.

- Determine and record the value of the customer order. Send a transaction to the core financial system to record receipt of an unfilled customer order. If the customer is not a federal agency, recognize budgetary resources only up to the amount of cash received, unless otherwise authorized by statute. If the customer is a federal agency, budgetary resources can be recognized for the entire amount.

- If checks or cash are received with the customer order, record it against the customer order and send the information to the Receipt Management function of the core financial system.

Distribution. This activity takes items out of inventory and delivers them to the customer. To support this activity, an inventory system must:

- Prepare picking lists to be used in pulling inventory items from storage.

- Reduce quantities on hand by the number of items removed.

- Provide advice to customers on shipments of material so that the customers may establish financial controls, as applicable, over shipments in transit from suppliers, and to establish the point of transfer of title. Title to inventory items may be passed to the customer at the point of sale or the point of destination, depending upon the sales agreement with the customer.

Discrepancy Resolution. This activity resolves discrepancy complaints made by customers concerning items issued to them. To support this activity, an inventory system must:

- Maintain records of items issued, including quantities, shipment methods, dates, destinations, etc., to assist in the resolution activities.

- Compare customer order records to issue records and flag any differences for follow-up.

Bill Calculation. This activity determines the appropriate prices to charge for inventory items and prepares bills for items sold on account. Inventory items may be sold to customers at different selling prices in accordance with legal and other mandates. Billing information and receivables established by this activity are transmitted to and managed through the Receipt Management function of the core financial system. To support this activity, an inventory system must:

- Determine the appropriate price for a particular customer order using the pricing models and formulas defined in the Pricing Method Definition activity.

- Provide quality controls to ensure that all appropriate costs have been provided to the pricing formula for a particular customer order.

- Develop the information necessary to prepare an initial invoice for a customer that provides adequate support for the prices charged.

- Either prepare the initial invoice itself or pass the information required to the core financial system for it to prepare the invoice.

- Provide the core financial system with the data necessary to establish the receivable and support subsequent administration of the receivables management and collection processes.

Accounting for Issuances. This activity records the accounting entries needed as a result of issuing inventory items. Revenue from sales is recognized at the point the title to the inventory item passes from the holder of the inventory to the customer or as otherwise established by policy. To support this activity, an inventory system must:

- Decrease the inventory (finished goods) account and increase the cost of goods sold account by the amount at which the inventory items sold are valued (cost).

- Record revenue and the appropriate offsetting account (e.g., cash, receivables, advances) in the amount for which the inventory items are sold (price).

- Record the value of items issued from storage or shipped to customers for which title does not pass to the customer until a subsequent event occurs.

Disposal Process

The Disposal process supports the disposal of inventory items that are excess, obsolete, or unserviceable and therefore not saleable. It consists of the following activities:

- Item Transfer to Disposal, and

- Accounting for Disposal.

Item Transfer to Disposal. This activity supports transfer of inventory items being held for sale or for future sale to an organization or group which will dispose of the items. To support this activity, an inventory system must:

- Decrease the quantity of the inventory item on hand by the number of items sent to the disposal organization.

- Record confirmation of receipt of the items by the disposal organization.

Accounting for Disposal. This activity provides accounting for items which are to be disposed of. To support this activity, an inventory system must:

- Recognize asset transfers and/or losses as appropriate and in accordance with SFFAS Number 3 for items designated as excess, obsolete, or unserviceable, including items (1) transferred to other federal agencies under mandated federal utilization programs, (2) sold as scrap, or (3) donated to state and local governments under mandated federal donation programs.

- Transfer balances between financial categories, for example, from "inventory held for sale" to "excess, obsolete, and unserviceable inventory."

- Account for the proceeds resulting from disposition of inventory items as scrap.

Internal Information Management Requirements.

Listed below are internal management information requirements for the Inventory Disposition function. This information should be available to agency inventory managers and designated internal review officials on a periodic or an as requested basis. This is not an all-inclusive list of internal information requirements for the Inventory Disposition function. Each agency must determine the specific management information needs necessary to manage its inventory programs based on the agency mission and applicable statutory requirements. Each agency must also determine whether the information should be provided on hard copy reports, through system queries, or both.

The inventory system should provide at least the following types of management information:

Loaned Items. Provides for accountability of items loaned out to others. Includes information such as the person or activity to whom the item is loaned, the time period for the loan, the item identification number, serial number, description, condition, value, and quantity.

Stock Availability. A measure of supply effectiveness based on the percentage of orders for stocked items that were filled from available assets. It is computed by dividing the number of orders filled by the total number of orders received for stocked items within a specified time period.

Customer Order. Information on orders placed by customers with the inventory activity, such as customer identification, item number, stock number, description, quantity, value, price, shipping information, and status.

Inventory Turnover. Information regarding the number of stock turns for a defined time interval.

Stock Usage. Information regarding items issued from inventory based on a user-defined time period.

Losses. Quantities and dollar amounts of losses resulting from destruction, shrinkage, and pilferage. Such losses that are determined to be unacceptable shall be investigated, the causes for the losses identified, the responsible

individuals identified, and appropriate actions taken to limit the recurrence of such losses.

Disposals. Identify items transferred from the inventory facility to a disposal activity for disposition. Information provided should include item identification number, stock number, item description, condition, quantity, and value.

Program Planning and Monitoring Function

To support efficient, effective, and economical inventory levels and usage of inventory items, agencies must provide adequate planning and monitoring processes for their inventory activities. Policies and standards which are reasonable and consistent with agency mission objectives must be established for pricing inventory items, valuing inventory held for sale, and determining the cost of inventory items in the process of production for sale. Ongoing monitoring and performance reporting is needed to verify that the policies are being carried out properly and are continuing to be appropriately defined.

General Requirements

The Program Planning and Monitoring function consists of the following processes:

- Policies and Standards Process, and

- Monitoring Process.

Policies and Standards Process

The Policies and Standards process determines the methods to be used to set prices, value inventory held for sale, and identify the costs associated with work-in-process. Once management determines what the methods are to be, the inventory system software and information stores are set up or modified to implement those methods. Valuation of inventory will follow SFFAS Number 3 requirements to value inventory at either (1) historical costs or (2) latest acquisition cost. Definition of the cost methods and practices will follow FASAB cost accounting standards, when issued. Supporting cost accounting systems (manual or automated) are outside the scope of this document. SFFAS Number 3 allows, but does not require, the assignment of standard costs to inventory items to be used if the results reasonably approximate those of one of the acceptable historical cost methods identified in the SFFAS Number 3. Standard costs are costs estimated in advance that are expected to be incurred in making a product or performing a service. This process consists of the following activities:

- Pricing Method Determination,

- Valuation Method Determination (Inventory Held for Sale), and

- Cost Method Determination (Inventory in the Process of Production for Sale).

Pricing Method Determination. This activity establishes the methods to be used in determining the appropriate price to be charged to customers in return for goods sold or services provided. To support this activity, an inventory system must:

- Establish price computation models or formulas to be used in the Bill Calculation activity. Pricing models for federal entities are usually based on costs incurred, but may be based on other factors, such as specific legislation for the agency,[1] utility, and condition.

- Provide methods to support pricing by groupings or commodities of items.

- Identify separate methods of pricing needed based on statutory authority or other agency policy. For example, the pricing method used may depend on the nature of the customer, such as within the same agency, another federal agency, a United States corporation or citizen, or a foreign government.

- Provide quality controls over input data to the pricing model to ensure that all appropriate costs are included and are accurate.

Valuation Method Determination (Inventory Held for Sale). This activity establishes the methods to be used when determining how to value inventory held for sale and for accumulating inventory operating costs. To support this activity, an inventory system must:

- Establish methods or formulas to be used in valuing and accounting for inventory based on cost. Costs to be considered for inventory held for sale include appropriate purchase, transportation, and production costs incurred to bring the items to their current condition and location.

- Establish appropriate cost methods that apply to the various types of inventories held by an agency. Different methods might also be needed for inventory held for sale based on the type of items, such as medical supplies, perishable goods, and hazardous materials.

- Establish methods to maintain the net realizable value of inventory items.

Cost Method Determination (Inventory in the Process of Production for Sale). This activity establishes methods complying with SFFAS Number 3 to be used when determining how to determine costs for inventory items in the process of production (work-in-process), i.e., in the process of being repaired or manufactured. To support this activity, an inventory system must:

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1   For example, Federal Prison Industries is authorized by legislation to establish the price of its products at "not to exceed market price without regard to cost."

- Establish methods or formulas to be used in valuing and accounting for inventory in the process of production based on cost. Costs to be considered for inventory in repair or in the process of production (work-in-process) include materials, labor and overhead used to convert the items to a finished product.

- Establish appropriate cost methods that apply to the various types of inventories involved in the production process. Different methods might be needed to assign costs to raw materials, work-in-process, and finished goods in a manufacturing entity.

- Establish methods to capture and accumulate costs for work-in-process that account for repair or manufacturing performed by an independent third party such as contractors or other government activities. The cost for work-in-process will be based on documented cost incurred. The process used to validate such work-in-process costs should be based, to the maximum extent possible, on reporting mechanisms used for contract management, project management, or other similar purposes.

- Provide the ability, where the standard cost method is being used to record costs for work-in-process, to record standard costs and actual costs for each inventory item, in order to support usage and cost variance analysis. Standard costs will include the anticipated amounts of material, labor, overhead and other applicable factors.

Monitoring Process   The Monitoring process supports management's review of the inventory operations. It consists of the following activities:

- Variance Analysis,

- Performance Measurement, and

- Audit Trails.

Variance Analysis. This activity supports the analysis of information maintained by the inventory system to identify favorable and unfavorable variances. Such analysis makes it possible to make knowledgeable refinements to operations in order to achieve the intended objectives of the inventory system more effectively.

This activity also provides features to analyze standard and actual costs. Cost analysis provides information for management to control costs and take corrective actions. The cost accounting function provides capabilities to determine variances between standard per-unit rates and actual per-unit costs for materials and parts, labor, and overhead when applicable. Actual costs

are compared with the standard costs to identify why the cost variances occurred. Such variances may be used to determine the cost effectiveness of programs, departments, or activities; to evaluate performance; and to evaluate the efficiency and economy of resources used. To support this activity, an inventory system must:

- Track actual and standard cost variances for materials (price and usage), labor (rate and efficiency), and overhead (actual and applied) when a standard cost method is used.

- Establish exception thresholds, perform cost analysis, and monitor trends and variances.

- Record reasons for significant deviations between standard and actual costs.

- Provide capabilities to support adjustments of rates and dispositions of variances by performing periodic allocations.

- Match costs and revenues within the time periods in which they were incurred or realized to provide for the identification of gains or losses from sales.

- Support analysis of operations on an annual basis to determine if revenues are sufficient to cover the costs of the entire inventory program.

Performance Measurement. This activity provides a technique for the inventory manager to measure outcomes or the benefits of purchasing items for the inventory program. The performance measures listed below are intended to provide financial information that describes the attributes of a program entity, accomplishments or results, and the status of efficiency and effectiveness of operations. Performance measures for an inventory system typically include, but are not limited to, the following:

Program Performance Trends

- The percentage of reports of item discrepancies filed with suppliers and types of discrepancies being incurred to the total number of buys by contractor. This indicator is useful in evaluating the performance of suppliers providing items to an agency.

- The percentage accuracy of the quantities and values of inventory records versus quantities physically on hand.

- The percentage of shipments-on-time accuracy. This percentage should include warehouse denials and location accuracy.

- The percentage of items disposed of as opposed to the total dollar value of inventory.

- The percentage of losses or damage in storage such as exceeding shelf life, damage, or loss while storing or restoring an item.

- Discrepancies by customer. The ratio of discrepancies by customer to total sales by customer. This measure identifies the level of customer discrepancy complaints.

- Fill rate. The percentage of demands met at the time of initial processing of the customer order.

Financial Measures

- The price ratio of the cost of sample buys to published prices in catalogs, etc.

- Turnover ratios, which are the result of dividing the sum of twelve months cost of goods sold by the average of the same twelve months end-of-month inventory values.

Efficiency Measures

- The ratio of the administrative acquisition or order lead times to industry norms.

- Cost per receipt and issue. The cost of receiving items and issuing items by a storage activity.

- Response time. The time interval from the date a customer enters an order to the date the material is received by the customer and recorded. This may be calculated based on average wait time for all customer orders or on a statistically valid sample.

- Report of Discrepancy (ROD) processing time. The time interval from the date of each ROD to issuance of the response to a customer. This measures how quickly the supplier is responding to the customer.

Audit Trails. This activity supports auditors' work in the area of inventory management when preparing or verifying financial statements. To support this activity, an inventory system must:

- Provide sufficient transaction audit trails to support balances of inventory shown on the agency's general ledger and changes in those balances.

- Maintain the documentation supporting inventory transactions until audited for accuracy and approved by external financial auditors, but not less than 3 years. Retention may be longer when (a) required by regulations, (b) there is a possibility of legal action involving the inventories, or (c) contract terms or modifications require longer retention.

Internal Information Management Requirements

Listed below are internal management information requirements for the Program Planning and Monitoring function. This information should be available to agency inventory managers and designated internal review officials on a periodic or an as requested basis. This is not an all-inclusive list of internal information requirements for the Program Planning and Monitoring function. Each agency must determine the specific management information needs necessary to manage its inventory programs based on the agency mission and applicable statutory requirements. Each agency must also determine whether the information should be provided on hard copy reports, through system queries, or both.

The inventory system should provide at least the following types of management information:

Cost per Dollar of Sales. This summary presents the ratio of the total inventory operations cost (including the cost of goods sold) to the gross dollar value of sales. Inventory operations cost includes the cost of transportation of the material, repair, direct and indirect labor, utilities, relevant administrative expenses, and capital depreciation, etc.

Operations Cost. This summary provides the operations cost of inventories by function.

Performance Measures. As described above.

Audit Trails. As described above.

This section provides guidelines to assist in the development, documentation and implementation of application controls over inventories.

Application Controls

To maintain control of inventories, all acquisitions of, and expenditures for, inventory should be based on accounting records and recorded in inventory records as close as feasible to the time the transactions occur; i.e., the receipt (purchase, production, return, transfer, recognition of gain) or expenditure (issue, transfer, sale, write-off). Internal control procedures and records are required to reflect the existence, condition, valuation, pricing, and cost associated with the inventory. Inventory managers should therefore:

- Provide that the controls over inventories are reviewed, tested, and evaluated for effectiveness and revision. Such reviews are to be performed frequently to ensure that the internal controls are sufficient to provide assurance of the effectiveness of the internal controls. Significant discrepancies identified as a result of physical inventory should be investigated, documented, and resolved in accordance with statutory and agency requirements.

- Provide for the prompt investigation of inventory variances, which generally consist of inventory overages or shortages in terms of quantity or price as determined by the applicable activity. Such variances should be investigated and documented and the cause for the variance determined. Individuals responsible for the discrepancy shall be identified, and corrective actions are required with appropriate adjusting entries entered into the financial inventory system.

- Provide guidelines for the development, documentation and implementation of physical controls to safeguard and provide accountability for inventory items. Such physical controls include delegations of authority and separation of duties and responsibilities. The following are the major inventory functions that are subject to controls: (a) purchasing (both for inventory and direct delivery), (b) receiving, (c) storing (locator system), (d) issuing, (e) shipping and (f) scrapping/disposal.

- Support the prompt recording of all transactions by the inventory system.

- Ensure that appropriate security controls and resources are in place to protect inventories.

Physical Inventory Controls

Physical inventory controls generally should:

- Require that physical inventories are conducted to ensure that the number of items reflected in the property records is accurate.

- Assure that physical inventory counts are performed periodically depending on the risk of loss inherent in the type and dollar amount of inventory items.

- Provide guidelines for the development, documentation, and conduct of physical inventories. Well written instructions that detail the physical inventory-taking procedures, and adherence to those instructions.

- Ensure that a sampling methodology is normally used in the physical inventory program, particularly for large inventories where the size of the inventory may preclude a 100 percent physical inventory. The sampling methodology must be based on valid statistical principles.

- Ensure that inventory locator records are properly maintained.

- Protect and secure items from damage, theft, and loss.

Reconciliation of Physical Inventory Counts to Standard General Ledger Accounts

The standard general ledger accounts should:

- Contain summary dollar amounts that represent the value of an agency's inventory.

- Be updated based on applicable source documents and be supported by item property accountability records maintained in logistics systems by property and supply managers.

- Be reported in financial statements as required by the CFO Act and in other reporting requirements mandated by the Office of Management and Budget, the Department of the Treasury, and the Congress.

Customer order

An order (e.g., requisition) for inventory items received from a customer.

Cycle counting

A technique for counting specific parts of an inventory throughout the year to validate the accuracy of inventory records and controls.

Finished goods

Manufacturing organization's completed product held for sale.

Historical cost method

Historical cost includes all appropriate purchase, transportation, and production costs incurred to bring the items to their current condition and location. Any abnormal costs, such as excessive handling or rework costs, are charged to operations of the period. The first-in, first-out (FIFO); weighted average; or moving average cost flow assumptions may be applied in arriving at the historical cost of ending inventory and cost of goods sold. (From SFFAS 3)

Inventory

Inventory is tangible personal property that is (1) held for sale, (2) in the process of production for sale, or (3) to be consumed in the production of goods for sale or in the provision of services for a fee. (From SFFAS 3)

Inventory held for sale

Items for sale or transfer to (1) entities outside the federal government, or (2) other federal entities. (From SFFAS 3)

Items in transit

Items being moved from one location to another, including between storage locations and in transit from suppliers for which title has passed to the government.

Latest acquisition cost method

The latest acquisition cost method provides that the last invoice price (i.e., the specific item's actual cost used in setting the current year stabilized standard [sales] price) be applied to all like units held including those units acquired through donation or non-monetary exchange. (From SFFAS 3)

Lead time

The total number of days from the time of need identification for an item until the item is placed into inventory.

Raw materials

Items to be used in the production of goods for sale or provisions of services for a fee.

Shelf life

The span of time an item may be kept until it is considered unusable by the supplier or inventory manager.

Unit cost

Assigned inventory cost per unit of measure.

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Department of Energy
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General Accounting Office
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General Services Administration
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