INTRODUCTION

Local units of administration (LUA) use many consumable materials in their operations, including administration, instruction, food service and operations and maintenance. This chapter discusses some of the conceptual issues regarding inventory maintenance and use. Chapter I-17 provides details regarding the management of capital assets which also are inventories. Chapter I-12 covers inventory accounting for consumable supplies.

The Importance of Inventories

Inventories can be defined as materials required for an LUA to provide services, education and support, without incurring excess investment in stocks or increased costs and without generating excess losses because of pilferage, waste, or damages. LUAs maintain inventories to ensure that LUA staff has the supplies and materials when they need them to do their jobs. Some large LUAs maintain warehouses to store inventories. Inventories could be stored in a warehouse or a room in a school or central office. In either instance, it serves the same purpose providing immediate access to the users of the inventories.

Ordering large quantities of supplies and materials can help to minimize ordering and receiving costs and permit purchase discounts. An inventory is used as protection against running out due to fluctuations in demand or lead times during the reordering period.

Content of Inventories

LUAs which maintain warehouses for their inventories might store a wide range of supplies and materials including:

- Educational supplies used in art, science, industrial arts,
- Food,
- Maintenance and construction supplies including lumber, plumbing, glass, and paint,
• Physical education and athletic supplies,
• Office supplies.

In small operations, LUA inventories normally might be limited to office supplies, custodial supplies and the child nutrition program's food inventory.

It is suggested that a stock catalog be developed to include each inventory item maintained in stock. This catalog should be available to all schools and departments to assist them in ordering inventories. Finally, all efforts should be made to standardize inventories. Most schools can use the same type, style and quality of a particular item. Standardization can reduce the costs of ordering and maintaining inventories.

**ORDERING INVENTORIES**

Some of the questions that need to be addressed when maintaining an inventory include, "When to order?" and "How much to order?".

**When to Order**

The "when to order" point is determined by the expected demand and the time it takes (i.e., lead time) for the inventory to be ordered and received. Generally in an LUA, the heaviest demand is at the beginning of the school year. If the inventory system is computerized, often the system includes a "re-order" point which indicates when stock of a particular inventory items needs to be ordered.

**How Much to Order**

Once decisions are made regarding when to order, it must be decided how much to order. This is an economic issue that compares the cost of maintaining an inventory with the convenience of having inventory available on an "as needed" basis.

If an LUA chooses to make purchases only when inventory items are needed, the cost of placing these orders would be very high, due to the clerical time, receiving, checking, filing and invoice processing involved. In addition, punctual delivery might be a problem. If inventories were purchased only once a year, the ordering costs would be lower, but the year-around investment in inventory would be extremely high. A number of analytical methods have been developed for calculating the correct amount of inventory to maintain. This chapter does not address these methods; however, the reader may consult the standard texts on this subject. At a minimum, the LUA should analyze the usage of large volume supplies to determine the optimum re-order point.

In the commercial sector, the cost of maintaining an inventory can range from 18% to 35%, with some estimates as high as 50% of the inventory item. This cost is known as the carrying cost. The cost of an order can be as low as a telephone call or a postage stamp to as high as $150 per order. Carefully analyzing these questions will allow the LUA to make the correct decision regarding its inventory.
Ordering this School Year for next School Year

One of the major questions for LUAs is, "when should they order educational supplies for the upcoming school year?" Many LUAs wait until July 1 to order supplies for the upcoming school year. In some respects, this process can be considered appropriate since there is no budget available to fund these inventories until July 1. However, it may not be practical since vendors will have less than one month to deliver the inventories to be available for the upcoming school year.

There are two alternatives which allow an LUA to order inventories before July yet record the expenditure in the subsequent year.

Use of an Internal Service Fund

Often LUAs that maintain a warehouse use the internal service fund classification to account for the inventories in the warehouse. As explained in Chapter I-20, this fund classification is used to account for goods and services provided to other funds within the LUA.

A central stores warehouse internal service fund could be established by transferring applicable capital assets to this fund. The capital assets could include the warehouse building, shelving, delivery trucks, carts and office equipment. In addition, all consumable inventory would be transferred to this fund. The capital assets and inventories would be classified as assets and the offset would be to a capital contribution revenue account (account number 6100).

When inventories are withdrawn from the stock, the school/department requisitioning the inventory would report an expenditure/expense and the internal service fund would record the revenue. Therefore, if the LUA chooses to purchase the inventory for the next school year in this school year, the purchases would be reported as inventories, an asset account, rather than as a cost of the internal service fund. Budgeted expenditure accounts would not be affected until the subsequent year as the inventory is consumed. However, the LUA would need to have adequate cash in the internal service fund to pay the vendors for the inventory. An initial amount of cash may be in the form of a cash advance from the general fund to be repaid or as a transfer which would not be repaid. (See Chapter I-20, Internal Service Funds.)

Reporting Inventory in a Governmental Fund

If an LUA chooses to purchase inventory for the next school year in the current year, it could record the purchase in the "Inventory for Consumption" account (account number 0171), rather than as an expenditure. When the inventory is used in the subsequent year, its use would be recorded as an expenditure in the appropriate governmental fund type. The inventory is not required to be kept in a central warehouse, as long as it was not used until the next school year. If an LUA chooses this alternative, it must use the consumption inventory method. Under this method, the inventory is reported as an expenditure when used or consumed, rather than when purchased. These methods are described later in this chapter and in Chapter I-12.
RECEIVING INVENTORIES

Receiving is essentially a clerical operation. Because many clerical functions are regarded as "routine," the importance of receiving is often overlooked. Problems in receiving can include a shortage in quantity, damaged material, and wrong items shipped. If these problems are not detected and corrected during the receiving operation, the cost to correct the mistake later is much higher.

A typical receiving procedure consists of four steps.

1. Unloading and Verifying the Shipment

   The number of containers unloaded should be compared to the carrier's manifest to make certain the total order has been received. The containers should be inspected for external damage. The receiving clerk should note any damages on the receipt that the clerk signs. Failure to follow this procedure can relieve the carrier of any liability.

2. Unpacking and Inspecting the Inventory

   A receiving clerk should complete three verifications:

   • Compare the inventory received against the vendor's packing slip and against the LUA's purchase order to verify that the correct items have been shipped.
   • Verify the quantity of the shipment in the same manner as above.
   • Inspect the general condition of the inventory to determine if any damage was incurred during shipment.

3. Completion of the Receiving Report

   LUAs should use some type of a receiving report. This report could be a specialized form or more often is a copy of the original purchase order. The inventory clerk checks off what has been received and outstanding portions of the order. Then usually the requisitioner, the purchasing department, and the accounting department must be notified of the delivery.

4. Delivery of the Material

   If an LUA uses a warehouse, often all inventory items are initially delivered to the warehouse and subsequently delivered to the user school or department. Sometimes materials are delivered directly to the schools or user departments. The same procedures listed above need to be implemented when delivery is decentralized. Since many deliveries are made in the summer when only a custodian may be on duty in a school, special effort must be made to ensure that the items received are the same as those ordered.
STORING INVENTORIES

If a warehouse or storeroom is properly organized, it should provide the following benefits to users of inventory:

- Ready accessibility to users
- Efficient utilization of space
- A reduced need for inventory handling equipment (such as forklifts)
- Minimization of inventory deterioration
- Minimization of inventory pilferage
- Ease in physical inventory

Storage Equipment

The type of equipment used in storage can vary depending upon the quality of the storage facility. This equipment could include pallets, skids, open shelving, closed shelving, cabinets, bins, and stacking boxes. The use of the proper type of storage equipment is essential to a quality storage area.

CONTROLLING INVENTORIES

The following two basic systems can be used in physically controlling inventories:

- A closed inventory system
- An open inventory system

Closed System

A closed inventory system is one in which all inventories are physically stored in a closed or controlled area. Locking the storage area is the best method for protecting these inventories. Inventory would only be received or disbursed through authorizing documents. This system is designed to afford maximum physical security and to ensure accounting control of inventories.

Open System

Normally in an open system, no warehouse or storeroom exists. Inventories are stored as close to the point of use as physically possible. For example, computer paper would be stored near the computer's printer. Another example of an open system would be the office supplies in the finance office.

When inventories are delivered directly to schools, the open system is used. This system is easy to use; however, it places little emphasis on the physical security of inventories. In ideal situations, this method can be justified if the inventories are used relatively quickly, and they are not subject to a high rate of deterioration or obsolescence.
**Records**

Prior to the use of computers, LUAs would maintain a "bin tag" listing the amount of inventory for the specific item. As items are received, they were added to the tag and as items were requisitioned, the inventory on the tag was reduced. However with computers, inventory records have become more sophisticated. As indicated in chapter I-12, many LUAs use a perpetual inventory system. When using this method, a continuous record of changes in inventories is maintained. In other words, the value of physical inventory should closely agree with book value of the inventory. When using this method, the inventory can be physically counted and compared with the accounting records anytime during the year.

**Physical Inventories**

No matter how well inventories are controlled, there always will be some discrepancies between the actual and the book balances of inventories. Since mistakes can happen, every inventory item should be counted physically and checked against its book balance at least once a year. A physical inventory can be conducted in one of the following three ways:

1. Annual Inventory - Most LUAs that maintain significant amount of inventories conduct an annual physical inventory, usually at June 30.

2. Continuous Inventory - Inventories can be divided into approximately 52 equal segments (i.e., once a week) and a portion of the inventory is counted every week.

3. Low-point Inventory - Some LUAs count their inventories when they reach a low point, thus making it easier to count. Normally, this would be in the spring of the year before school is ended.

Regardless of which method an LUA uses, efforts should be made to properly document the inventory in order that the independent auditor (i.e., usually the Georgia Department of Audits and Accounts) can give an opinion of the amount reported on the LUA's balance sheet.

**INVENTORY METHODS**

Current generally accepted accounting principles (GAAP) allow LUAs to account for governmental funds inventory using two methods, the purchases method or the consumption method. Proprietary and fiduciary funds are required to use the consumption method. Each of these methods is explained below.

**Purchases Method**

Generally, most LUAs use this inventory method. Under this method, LUAs recognize the cost of an inventory item when it is purchased. However since inventory items purchased are reported on the operating statement rather than the balance sheet, GAAP require that
any material amount of inventories on hand at year-end should be reported on the appropriate fund's (i.e., usually the general fund or food service fund) balance sheet.

During the year, a running balance of the cost of inventory items is not known. Therefore a physical inventory must be taken at year-end.

**Consumption Method**

Normally, the large LUAs who maintain some type of central stores warehouse use the consumption method of accounting for inventories. Under this method, inventories are charged as expenditures when used (i.e., consumed) rather than when purchased. If inventory usage is recorded on a monthly basis, the balance sheet reports the amount of inventory on hand at the end of each month. When using this method, it is easier for the LUA to check physical inventory with book inventory to determine if all inventory is accounted for. Additionally, the consumption method is required for government-wide financial reporting purposes. If an LUA chooses to utilize the purchase method, a year end adjustment to convert to the consumption method is required.

See Chapter I-12 for discussion of inventory valuation methods.

**SUMMARY**

1. LUAs maintain inventories to ensure that the LUA staff has the supplies and materials when they need them to do their jobs.

2. Inventory supplies include food, maintenance and construction items, educational supplies, and physical education and athletic supplies.

3. It is important to know when to order and how much to reorder to balance the needs of users and the use of resources.

4. Inventories can be accounted for using either an internal service or governmental fund.

5. It is important when receiving inventory to carefully evaluate condition and quantities received against orders placed.

6. When storing inventories, it is important to consider placement and physical conditions. Both open and closed inventory storage are also options.

7. Records of inventory usage and balances must be maintained in the accounting system to facilitate both reordering as well as conducting a physical inventory.

8. Both the purchases method and consumption method are available to account for inventory in governmental funds, provided the inventory is adjusted to the consumption method on the government-wide presentation of financial statements. Only the consumption method is allowed for proprietary and fiduciary funds.