Chapter 16--Auditing the Production and Personnel Services Cycle

Production Cycle

The production cycle interfaces with:

1. The expenditure cycle in buying raw materials
2. The personnel services cycle in incurring factory labor costs
3. The revenue cycle in selling finished goods

Audit Objectives

Transaction class audit objectives (for manufacturing transactions) and account balance audit objectives (pertaining to inventory and cost of goods sold) are matched with the five management assertions in Fig. 16-2:

1--existence or occurrence
2--completeness
3--rights and obligations
4--valuation or allocation
5--presentation and disclosure

Materiality, Inherent Risk, Analytical Procedures and Audit Strategy

As an auditor, make sure you understand the capital intensiveness of a given manufacturing process as well as the mix of raw materials and labor used in that process so you are aware of the role of fixed costs in an audit client's cost structure. This understanding is important in evaluating the reasonableness of various line items on the financial statements.

Various factors which contribute to misstatement risk in inventory and cost of goods sold include:

1. volume of transactions–a higher volume increases the likelihood of misstatements
2. controversy surrounding the allocation of inventoriable costs such as indirect materials, manufacturing overhead, and joint product costs
3. difficulty in determining inventory quantities because of multiple sites and a wide diversity of items
4. threats posed by spoilage, theft, and obsolescence

Keep in mind the importance of analytical procedures. For example, an increased profit margin combined with a rise in the number of days an item of inventory sits on the shelf it is possible that inventory is overstated. Let us consider the analytical procedures in Fig. 16-4.

Consideration of Internal Control Components

Please do not forget that aspects of all five components of a client's IC are applicable to manufacturing transactions in the production cycle. For example, management's philosophy and operating style includes its approach to taking and monitoring business risks related to production decisions and inventory levels.

Control Activities--Manufacturing Transactions

Here we have four categories of activities that compose the control activities component of internal control:

1. information processing controls that include proper authorization, documents and records, and independent checks
2. segregation of duties
3. physical controls
4. performance reviews

Common Documents and Records

You should be familiar with the documents and records mentioned on pages 683 and 684 in your textbook.

Functions and Related Controls

Below is a list of various manufacturing functions:

1. Planning and controlling production

2. Issuing raw materials
3. Processing goods in production
4. Transferring completed work to finished goods
5. Protecting inventories

6. Determining and recording manufacturing costs

7. Maintaining correctness of inventory balances. This includes:

Obtaining an Understanding and Assessing Control Risk

The auditor tries to identify potential misstatements, necessary controls and tests of controls relevant to assessing CR for production cycle transactions. This means you should become familiar with the functions, potential misstatements, necessary controls, tests of controls and audit objectives in Fig. 16-5 on pages 685-686.

Substantive Tests of Inventory Balances

Determining Detection Risk

An acceptable level of detection risk for inventory assertions will have an inverse relationship with inherent and control risk assessments. Relevant CR assessments will vary based on the transaction class affecting a given inventory account.

The combined inherent and CR assessments are often highest for the existence or occurrence and valuation or allocation assertions for inventory balances. Acceptable levels of DR may need to be lower for these assertions.

Designing Substantive Tests

Please examine carefully Figure 16-7 in your book as it discusses initial procedures, analytical procedures, tests of details of balances, required procedure, and presentation and disclosure.

Initial Procedures

The auditor should obtain an understanding of the client's business and industry to set the context for the evaluation of analytical procedures and tests of details. One should also understand the importance of consignment inventories.

The auditor should scan current period entries in the general ledger accounts to identify postings that are unusual. Ask yourself the question: Do inventory schedules tie in with the general ledger?

Analytical Procedures

Knowing that a sharp decrease in the client's inventory turnover ratio reflects what is happening in the industry may assist the auditor in deciding that the drop is not indicative of errors pertaining to E or O or completeness of the client data used in computing the inventory turnover ratio but instead may be indicative of a valuation problem related to a drop in demand.

Tests of Details of Transactions

The auditor should test entries to inventory accounts. Examples of vouching recorded entries in the inventory accounts are:

Completeness and valuation inventory assertions involves tracing documentation for purchases and the cost of factors added to production to entries in inventory accounts.

The auditor should also test cutoff of purchases, manufacturing and sales transactions. Purchases in transit at year-end with terms FOB shipping point should be in the buyer's inventory and A/P. Inventory in transit to customers at year end with terms FOB shipping point should be included in sales and not inventory. Purchases in transit at year end with terms FOB destination point should not be included in the buyer's inventory. Inventory in transit at year end to customers with terms FOB destination point should not be included in sales.

Tests of Details of Balances

This involves observing the client's physical inventory count. SAS 1 requires the auditor to observe inventories whenever inventories are material to the financial statements. In performing this auditing procedure, the client has responsibility for the taking of the inventory.

If a customer has multiple locations the auditor should observe at all significant locations.

A client's instructions for taking inventory should include:

–names of employees responsible for supervising the inventory-taking
–dates of the counts
–locations to be counted

–detailed instructions on how the counts are to be made
–use and control of prenumbered inventory tags and summary sheets
–provisions for handling the receipt, shipment, and movement of goods during the counts
–segregation of goods not owned

In observing inventories, the auditor should:

–scrutinize the care with which client employees are following the inventory plan
–see that all merchandise is tagged and no items are double tagged
–determine that prenumbered inventory tags and compilation or summary sheets are properly controlled
–make some test counts and trace quantities to summary sheets
–be alert for empty containers and hollow squares that may exist when goods are stacked in solid formations
–watch for damaged and obsolete inventory items
–inquire about slow-moving items

If inventories are material and the auditor does not observe at or near year end, SAS 1 indicates that tests of the accounting records alone are not sufficient as to quantities. The auditor must make or observe some physical inventory counts of inventory. If a client determines inventory by statistical sampling, SAS 1 states the auditor must:

1. Be sure the sampling plan has statistical validity
2. Has been properly applied
3. Be sure that the results in terms of precision and reliability are reasonable

Observation of Beginning Inventories

An unqualified opinion on the income statement requires the auditor to observe the taking of the beginning and ending inventories. In a new engagement, an auditor may review the prior auditor's report and/or working papers. For a client that has not been audited, the auditor may review client count summaries, testing prior inventory transactions and applying gross profit tests. The observation of client's inventory taking applies to many assertions but is primary evidence for E or O and also relates to:

Completeness–quantities in excess of perpetual records indicate that the records are incomplete

V or A–quantities observed provide the basis for compiling the total dollar amounts on inventory summaries

Test Clerical Accuracy of Inventory Listings

The auditor should trace his or her own test counts to inventory listings and vouch items on the listings to the inventory tags and count sheets used in the physical inventory.

Test Inventory Pricing

Pricing consistency can be established by looking at last year's working papers and/or the prior year's financial statements.

Test Cost of Manufactured Inventories

Pricing tests of WIP and finished goods depends on the reliability of the client's cost accounting records and cost accumulation methods. If standard costs are used the auditor should test the calculation of the standards (e.g. ,compare with engineering specifications).

Confirm Inventories at Locations Outside the Entity

If inventory is stored in a public warehouse the auditor must observe evidence on inventory existence from the custodian. If inventories are a substantial percentage of assets, then SAS 1 requires

Examine Consignment Agreements and Contracts

Management should segregate goods not owned during inventory taking.

Tests of Details of Balances: Accounting Estimates

When auditing inventory, the auditor must determine whether it is appropriate to write down the value of inventory below cost because the inventory is obsolete. The auditor should review the sale of inventory after year-end to determine the reasonableness of costs compared to subsequent sales prices. For example, the auditor will usually:

–compare the cost of inventory items with the client's current sales
–review inventory turnover after year-end
–consider whether a change in replacement costs is an indicator of changing market conditions

Comparison of Statement Presentation to GAAP

The auditor should examine any purchase commitments for goods. If material losses are present on purchase commitments they should be recognized in the financial statements.

Personnel Services Cycle

Payroll transactions is the main focus here. This cycle interfaces with cash disbursement transactions in the expenditure cycle and distribution of factory labor costs pertains to the production cycle.

Please make sure that you review Fig.16-10 dealing with audit objectives on page 707.

Materiality, Inherent Risk, Analytical Procedures and Audit Strategy

Before doing an audit of personnel services, the auditor should understand:

–the significance of personnel services to the client
–the nature of compensation, as hourly compensation requires a different control system than salaried compensation
–the importance of various compensation packages such as bonuses, stock options, and stock appreciation rights

For many service firms, such as banks and high tech firms, personnel services is a major expense. Thus, it is a material audit area for many firms.

The auditor is rarely concerned about the completeness assertion in the payroll cycle as most employees will let an employer know if they are not paid or underpaid. However, payroll fraud is a major concern for many clients.

Payroll fraud may occur at two levels:

1--preparing and processing payroll data for fictitious employees

2--padding of labor costs in government contract work

Audit risk is mostly in the processing of payroll transactions.

Examples of analytical procedures used by the auditor in the early stages of an audit of personnel services are in Fig. 16-11 on p. 708.

Consideration of Internal Control Components

All five components of IC are relevant to the personnel services cycle. Be sure you review those discussed in the text on page 710.

<u>Control Activities--Payroll</u>

Be familiar with the common documents and records discussed on pages 711-712. You should also study the flowchart on page 713 that deals with a payroll transactions system.

<u>Functions and Related Controls</u>

Please make sure you study and are familiar with Fig. 16-13 on pages 714-715 dealing with control risk considerations for payroll transactions.

Hiring Employees

All hirings should be documented on a personnel authorization form. Controls over adding new hires to the personnel data master file reduce the risk of payroll payments to fictitious employees.

Authorizing Payroll Changes

All changes should be authorized in writing by the personnel department before entering data in the personnel master data file. Controls over changes relate to the V or A as well as R and O assertions.

Termination notices should be issued for those who leave an entity's employ. This control relates to the existence or occurrence assertion.

Preparing Attendance and Timekeeping Data

Security personnel should supervise clock card procedures. Clock cards hours should be supported by time tickets for work done.

Preparing Payroll

Many times, two runs are done for payroll in a batch processing system. In run one, payroll transactions are sorted by employee number and data are subjected to an edit routine. Run one yields a payroll transactions tape and an exception and control report. Run two involves calculation of the payroll and preparation of the payroll register and checks. You should be familiar with these controls for paying the payroll and protecting unclaimed wages from bogus claims:

–payroll checks should be signed and distributed by authorized personnel not involved in preparing or recording the payroll
–payroll checks should be distributed only on proper authorization of employees
–unclaimed payroll checks should be stored in a safe place

Obtaining the Understanding and Assessing Control Risk

One starts the process of assessing CR for payroll transactions by identifying potential misstatements and necessary controls. When you read Chapter 16 please pay close attention to Fig.16-13 on page 714-715.

The risk of overstatement of payroll is posed by:

Substantive Tests of Payroll Balances

These procedures are usually performed at or near the balance sheet date.

Determining Detection Risk

Evidence of effective controls over inherent risk for existence or occurrence and valuation or allocation assertions allows low assessments of CR leading to moderate or high acceptable levels of detection risk.

Designing Substantive Tests

1. Analytical procedures

The auditor should compare payroll expenses with prior year balances and budgets. The auditor should also compute the ratio of total payroll expense to total payroll and compare it to last year.

2. Recalculate accrued payroll liabilities

3. Verify officers' compensation

4. Audit employee benefits and pension plans

Inventory Fraud and Its Detection and Prevention

There are numerous methods for stealing inventory and other assets

Larceny

Larceny is the most basic type of scheme in which an employee simply takes inventory from the company premises without attempting to conceal it in the books and records.

In many cases, employees take items openly, during business hours, in plain view of co-workers. How does this happen? People tend to assume friends and acquaintances are honest.

Employees who steal inventory are often highly trusted within their organizations.

Fake sale–occurs when the accomplice of the employee-fraudster “buys” merchandise but the employee does not ring up the sale and the accomplice takes the merchandise without making any payment.

Asset requisition and transfers–fraudsters use internal documents to gain access to merchandise which they otherwise might not be able to handle without raising objections. Transfer documents do not account for missing merchandise the way false sales do, but they allow a fraudster to move assets from one location to another. The most basic scheme occurs when an employee requisitions materials to complete a project then steals the materials. In some cases, the fraudster simply overstates the amount of supplies or equipment it will take to complete his work and pilfers the excess.

Purchasing and receiving schemes

Falsifying incoming shipments–one of the most common ways for employees to abuse the purchasing and receiving functions is for a person charged with receiving goods on behalf of the victim company to falsify the records of incoming shipments. The obvious problem with this kind of scheme is that if the receiving report does not match the vendor’s invoice, there will be a problem with payment.

False shipments of inventory and other assets–to conceal thefts of inventory and other assets, fraudsters sometimes create false shipping documents, such as a false packing slip, and false sales documents to make it appear that missing inventory was not actually stolen but was instead sold. One benefit to using false shipping documents to misappropriate inventory or other assets is that the product can be removed from the warehouse by someone other than the fraudster.

Instead of fabricated sales, some employees understate legitimate sales so that an accomplice is billed for less than delivered. The result is that a portion of the merchandise is sold at no cost.

Shrinkage

When inventory is stolen, the key concealment issue for the fraudster is shrinkage. Inventory shrinkage is the unaccounted for reduction in the company's inventory that results from theft. Shrinkage is one of the red flags that signal fraud. Fraudsters must conceal shrinkage to prevent others from asking questions.

One of the simplest methods for concealing shrinkage is to change the perpetual inventory record so that it will match the physical inventory count. This is also known as a forced reconciliation of the account. Basically, the perpetrator just changes the numbers in the perpetual inventory to make them match the amount of inventory on hand.

There are two sides to the inventory equation, the perpetual inventory and the physical inventory. Instead of altering the perpetual inventory, a fraudster who has access to the records from a physical inventory count can change those records to match the total of the perpetual inventory.

Fictitious Sales and Accounts Receivable

When the perpetrator makes an adjusting entry to the perpetual inventory and cost of sales accounts he or she also must consider that there was no sales transaction on the books to correspond to these entries. If a perpetrator wished to fix this problem, he would have entered a debit to A/R and a corresponding credit to Sales to make it appear that the missing goods had been sold.

Of course, the problem of payment then arises, because no one is going to pay the goods and services which were "sold" in this transaction. There are two routes the fraudster may take here. The first is to charge the sale to an existing account. In some cases, fraudsters charge fake sales to existing receivables accounts which are so large that the addition of the assets stolen will not be noticed. The other adjustment that is typically made is a writeoff to discounts and allowances or bad debt expense.

<u>Physical Padding</u>

One other technique that is used is stacking empty boxes on shelves to create the illusion of extra inventory.

Let us now return to some techniques that an auditor or fraud examiner can use to detect fraud involving the inventory account.

<u>Detection of Inventory Fraud</u>

Statistical Sampling

Companies with inventory accounts typically have enormous populations of source documents. Statistical sampling allows the auditor to inspect key attributes on a smaller portion of those documents. For example, the auditor may select a statistically valid, random sample of purchase requisitions to determine that all requisitions in the sample selected were properly approved. Statistical sampling enables the auditor to predict the occurrence rate for the population and therefore, determine with some accuracy the error rate or the potential for fraud.

Other items which may be sampled on a statistical basis include the following:

Perpetual Inventory Records

Unexplained entries in the perpetual records might reveal embezzlement losses.

Shipping Documents

Inventory theft may be uncovered by answers to questions such as:

Analytical Review

By using an analytical review, inventory fraud may be detected because certain trends become immediately clear. For example, if the cost of goods sold increases by a disproportionate amount relative to sales, and no changes occur in the purchase prices, quantities purchased, or quality of products purchased, the cause of the disproportionate increase in cost of goods sold might be one of two things: the ending inventory has been depleted by theft or inventory has been charged with embezzlement.

Questions to consider as an auditor when evaluating inventory:

- Will identical inventory items in various areas be accumulated to allow a tie in total counts to a summary listing subsequent to the observation?

- Is the movement of inventory adequately controlled during the physical count to insure a proper cut-off?
- Are significant differences between physical counts and detailed inventory records investigated before the accounting and inventory records are adjusted to match the physical counts?
- Will inventory at remote locations be counted?
- Will special counting procedures or volume conversions be necessary?
- How will the stage of completion of work-in-process inventory be identified?
- Are there any other matters that should be noted for the inventory count?