CHAPTER 11
AUDITING INVENTORY, GOODS AND SERVICES, AND ACCOUNTS PAYABLE: THE ACQUISITION AND PAYMENT CYCLE
LEARNING OBJECTIVES

1. Identify the significant accounts, disclosures, and relevant assertions in the acquisition and payment cycle
2. Identify and assess inherent risks of material misstatement in the acquisition and payment cycle
3. Identify and assess fraud risks of material misstatement in the acquisition and payment cycle
4. Identify and assess control risks of material misstatement in the acquisition and payment cycle
LEARNING OBJECTIVES

5. Describe how to use preliminary analytical procedures to identify possible material misstatements in acquisition and payment cycle accounts, disclosures, and assertions.

6. Determine appropriate responses to identified risks of material misstatement for acquisition and payment cycle accounts, disclosures, and assertions.
LEARNING OBJECTIVES

7. Determine appropriate tests of controls and consider the results of tests of controls for acquisition and payment cycle accounts, disclosures, and assertions.

8. Determine and apply sufficient appropriate substantive audit procedures for testing acquisition and payment cycle accounts, disclosures, and assertions.
LEARNING OBJECTIVES

9. Apply the frameworks for professional decision making and ethical decision making to issues involving conducting the audit of acquisition and payment cycle accounts, disclosures, and assertions
• Fraud perpetrated by:
  • Making fictitious journal entries
  • Understating the cost of inventory purchases, thereby achieving lower cost of goods sold and higher net income
• Audit firm, Deloitte, issued unqualified audit opinions and agreed with management’s assessment that internal controls were effective
Following the discovery of fraud, a material weakness in internal controls was also reported.

Company was fined $1 million and Schwartz off was permanently barred from serving as an officer or director of a public company, and was fined $394,830 by the SEC.
• What types of accounts are included in the audit of the acquisition and payment cycle? (LO 1)
• What are the inherent, fraud, and control risks that exist in this cycle? (LO 2, 3, 4)
• The Thor and Schwartz off case illustrates control deficiencies that enabled the fraud to go undetected. What do these types of control deficiencies imply about the approach the auditor will need to use to audit the inventory-related accounts and assertions? (LO 4, 6, 7)
What controls can mitigate the risks associated with accounts in the acquisition and payment cycle? (LO 4)

What substantive audit procedures could have detected this type of fraud earlier? (LO 6, 8)
EXHIBIT 11.1 - MAJOR ACCOUNTS IN ACQUISITION AND PAYMENT CYCLE

Cash
- Payments

Accounts Payable
- Payments
- Purchase of Raw Materials, Other Goods & Services

Inventory
- Purchases Direct Labor Overhead Returns
- Sales Obsolescence

Expense Accounts
- Expenses

Factory Overhead
- Expenses
- Applied Overhead

Cost of Goods Sold
- Sales Obsolescence
- Returns
INVENTORIES

• Items of tangible personal property held for sale in ordinary course of business, that are:
  • In process of production for such sale
  • To be currently consumed in production of goods or services to be available for sale
• Accounting for inventories is significant to balance sheet and income statement
ACTIVITIES INVOLVED IN ACQUISITION AND PAYMENT CYCLE

- Requisition for goods or services
- Cash disbursements
- Purchase of goods and services
- Approval of items for payment
- Receipt of, and accounting for, goods and services
ACTIVITIES INVOLVED IN THE ACQUISITION AND PAYMENT CYCLE

- **Requisition**: Request for purchase of goods or services by an authorized department or function
  - Documented on paper or in a computer system
  - Might involve an automated purchasing system: Networked software system linking a company’s Web site to vendors whose offerings and prices have been preapproved by appropriate management
  - Enables purchasers to negotiate favorable prices with vendors
BENEFICIAL TASKS PERFORMED BY AUTOMATED PURCHASING SYSTEM

• Applying preloaded specifications and materials lists to the system to start the process
• Automatically flagging invoices that do not reconcile with purchase orders
• Creating change orders and analyzing variances from purchase orders
SUPPLY CHAIN MANAGEMENT

• Management and control of materials in logistics process from acquisition of raw materials to delivery of finished products to the end user

• Acquisition and payment cycle within a company is a computerized process that is integrated with supply chain management
RELEVANT FINANCIAL STATEMENT ASSERTIONS - ASSERTIONS RELEVANT TO INVENTORY

<table>
<thead>
<tr>
<th>Existence or occurrence</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Inventory balances exist at balance sheet date</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Completeness</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Inventory balances include all inventory transactions that have taken place during the period</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Rights and obligations</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Company has title to inventory as of the balance sheet date</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Valuation or allocation</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Recorded balances reflect true underlying economic value of those assets</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Presentation and disclosure</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Inventory is properly classified on the balance sheet and disclosed in the notes to the financial statements</td>
</tr>
</tbody>
</table>
RELEVANT FINANCIAL STATEMENT ASSERTIONS - ASSERTIONS RELEVANT TO ACCOUNTS PAYABLE

Existence or occurrence
• Accounts payable balances exist at the balance sheet date

Completeness
• Accounts payable balances include all accounts payable transactions that have taken place during the period

Rights and obligations
• Company owes a liability for accounts payable as of balance sheet date

Valuation or allocation
• Recorded balances reflect true underlying economic value of those liabilities

Presentation and disclosure
• Accounts payable is properly classified on the balance sheet and disclosed in the notes to the financial statements
LEARNING OBJECTIVE 2

IDENTIFY AND ASSESS INHERENT RISKS OF MATERIAL MISSTATEMENT IN THE ACQUISITION AND PAYMENT CYCLE
PERFORMING RISK ASSESSMENT PROCEDURES

• Requires information about:
  • Inherent risks at the:
    • Financial statement level
    • Account and assertion levels
  • Fraud risks including feedback from audit team brainstorming sessions
  • Strengths and weaknesses in internal control
  • Results from preliminary analytical procedures
IDENTIFYING INHERENT RISKS

• Inventory is a complex accounting and auditing area
  • It is usually material, complex, and subject to manipulation
• Large number of inventory-related frauds have been perpetrated
• Requires exercise of high levels of professional skepticism by the auditor
LEARNING OBJECTIVE 3

IDENTIFY AND ASSESS FRAUD RISKS OF MATERIAL MISSTATEMENT IN THE ACQUISITION AND PAYMENT CYCLE
IDENTIFYING FRAUD RISK FACTORS

- Frauds in this cycle involve overstatement of inventory or assets and understatement of expenses
  - Theft of inventory by the employee
  - **Inventory shrinkage**: Reduction in inventory presumed to be due to physical loss or theft
  - Employee schemes involving fictitious vendors as means to transfer payments to themselves
<table>
<thead>
<tr>
<th>Event</th>
<th>Affected Accounts</th>
<th>Possible Manipulations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Purchase inventory</td>
<td>Inventory, accounts payable</td>
<td>Under-record purchases</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Record purchases in a later period</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Not record purchases</td>
</tr>
<tr>
<td>2. Return inventory to supplier</td>
<td>Accounts payable, inventory</td>
<td>Overstate returns</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Record returns in an earlier period</td>
</tr>
<tr>
<td>3. Inventory is sold</td>
<td>Cost of goods sold, inventory</td>
<td>Record at too low an amount</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Not record cost of goods sold nor reduce inventory</td>
</tr>
<tr>
<td>4. Inventory becomes obsolete</td>
<td>Loss on write-down of inventory, inventory</td>
<td>Not write off or write down obsolete inventory</td>
</tr>
<tr>
<td>5. Periodic count of inventory quantities</td>
<td>Inventory shrinkage, inventory</td>
<td>Overcount inventory (double counting, etc.)</td>
</tr>
</tbody>
</table>
• Recorded billions of line rental expenses as fixed assets
• Auditors were not suspicious because expenses were consistent with previous years
• Auditors should have been skeptical that WorldCom was able to achieve what other companies in its industry could not
AUDITING IN PRACTICE - FRAUD IN THE ACQUISITION AND PAYMENT CYCLE AT PHAR-MOR

- Diverted more than $10 million to support a now failed minor-league basketball league
- To cover up - Inflated the inventory costs at each store
- Overstatements were needed to balance the cash outflow to the creation of an asset
LEARNING OBJECTIVE 4

IDENTIFY AND ASSESS CONTROL RISKS OF MATERIAL MISSTATEMENT IN THE ACQUISITION AND PAYMENT CYCLE
IDENTIFYING CONTROL RISKS

• A need to understand the controls that the client designs and implements to address the inherent and fraud risks of material misstatement
• For gaining an overall understanding of internal controls, auditor considers entity-wide controls and transaction controls at the account and assertion levels
  • Such understanding is normally gained by means of a walkthrough of the process, inquiry, observation, and review of the client’s documentation
ENTITY-WIDE CONTROL

• Auditor considers the control environment that includes such principles as:
  • Commitment to integrity and ethical values
  • Holding individuals accountable for their internal control responsibilities
REASONABLE ASSURANCE REQUIRED FROM INVENTORY CONTROL SYSTEM

• All purchases are authorized
• Existence of timely, accurate, and complete recording of inventory transactions
• Receipt of inventory is properly accounted for and independently tested to verify quality in adherence to company standards
• Cost accounting system is up-to-date
REASONABLE ASSURANCE REQUIRED FROM INVENTORY CONTROL SYSTEM

- **Periodic inventory system**: No continuous record of changes in inventory is kept
  - Ending inventory is determined by an actual physical count of every item

- **Perpetual inventory system**: Book inventory is continuously in agreement with inventory on hand within specified time periods, useful in:
  - Useful in keeping track of actual availability of goods
  - Determining what the correct time to reorder might be
REASONABLE ASSURANCE REQUIRED FROM INVENTORY CONTROL SYSTEM

• **Cycle counts**: Periodic testing of accuracy of perpetual inventory record by counting all inventories on a cyclical basis

• Products are systematically reviewed for obsolescence

• Management periodically

• Reviews inventory

• Takes action on excessive inventory

• Manages inventory to minimize losses caused by technological obsolescence
REASONABLE ASSURANCE REQUIRED FROM INVENTORY CONTROL SYSTEM

• New products are introduced only after market studies and quality-control tests are made
• Long-term contracts are closely monitored
EXHIBIT 11.3 - OVERVIEW OF COMMON CONTROLS IN THE REQUISITION PROCESS

Inventory Purchases: Manufacturing Organization
- Written requisitions are made for specific products by the production manager or stockroom manager.
- Computer-generated requisitions are generated based on current inventory levels and production plans.

Inventory Purchases: Retail Organization
- Overall authorization to purchase product lines is delegated to individual buyers by the marketing manager. The authorization is built into the computer as a control. The limits for individual goods can be exceeded only on specific approval by the marketing manager.
- Store managers may be granted authority to purchase a limited number of goods. The store manager’s ability to issue a purchase order may be subject to overall corporate limits, usually specified in dollars.
- The supplier may have access to the retailer’s inventory database and, by contract, ship replacement merchandise based on sales activity and reorder points.

Inventory Purchases: Just-in-Time Manufacturing Process
- An agreement is signed with the supplier whereby the supplier agrees to ship merchandise (just in time) according to the production schedule set by the manufacturer. A long-term supply contract is negotiated specifying price, quality of products, estimated quantities, penalties for product shortages or quality problems, and so forth. Specific purchase orders are not issued; rather, the production plan is communicated to the supplier with the specified delivery dates. The production plan serves as the requisition.

Supplies Purchases
- Requisitions are issued by individual departments and sent to the appropriate department manager for approval.
- Each department may be given a budget for supplies and may have the ability to issue purchase orders directly for needed items or may be able to purchase a limited number of items without a purchase order.
CONTROLS RELATED TO PURCHASE OF GOODS AND SERVICES

• Approval of a contract with suppliers
• Restricted access to the computer program
• Monitoring of inventory and purchase levels by management
• To avoid the risk of purchasing agents entering into kickback arrangements with vendors, controls include:
  • Requiring competitive bids for large purchases
  • Rotating purchase agents across product lines
AUDITING IN PRACTICE - WEAK INTERNAL CONTROLS, UNETHICAL DECISIONS, AND A FICTITIOUS VENDOR

- Weak controls led to a fraud in the automotive parts production industry
- Manager in charge
  - Asked vendors to provide money and gifts and later required a commission (bribe) on sales
  - Set up a fictitious vendor and embezzled nearly $200,000 over about 18 months
AUDITING IN PRACTICE - WEAK INTERNAL CONTROLS, UNETHICAL DECISIONS, AND A FICTITIOUS VENDOR

• Lessons from this fraud:
  • If controls are not followed, employees may exploit this situation
  • Fraud hotlines required for employees, vendors, and third parties to report inappropriate activity without fear of retaliation
  • Professional skepticism is required by the company and its external auditors
  • Controls must be strong in the purchasing area
  • Mandating vacations for all employees can be a useful control in trying to prevent and detect fraud
Companies may consider the following additional controls:

- Maximum quantity that can be ordered within a given time period
- Minimum amount of previous usage during a specified time period
- Required review by a purchasing agent for some accounts or for high-dollar levels
RECEIPT OF, AND ACCOUNTING FOR, GOODS AND SERVICES

- Receiving department should make sure that:
  - Only authorized goods are received
  - Goods meet order specifications
  - Accurate count of the goods received is taken
  - Accountability is established to assure that all receipts are recorded
ALTERNATIVE METHODS OF RECORDING THE RECEIPT OF GOODS

• Preparing prenumbered receiving documents to record all receipts by the receiving department
• Electronically scanning bar codes on the goods received to record quantity by the receiving department
• Receiving goods directly in the respective departments, such as office supplies, and approving payment for the merchandise
• Receiving goods directly into the production process
EXHIBIT 11.4 - COMPARISON OF CONTROLS IN TRADITIONAL AND AUTOMATED SYSTEMS

<table>
<thead>
<tr>
<th>Traditional Receiving System</th>
<th>Automated Integrated Receiving System</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchase orders are prepared and sent to vendors.</td>
<td>Long-term contract is signed with vendor specifying:</td>
</tr>
<tr>
<td></td>
<td>• Quality</td>
</tr>
<tr>
<td></td>
<td>• Shipping and delivery requirements</td>
</tr>
<tr>
<td></td>
<td>• Payment terms</td>
</tr>
<tr>
<td></td>
<td>• Penalties for performance failures</td>
</tr>
<tr>
<td></td>
<td>• Reconciliations between trading partners for goods shipped/received</td>
</tr>
<tr>
<td>Purchase orders are based on projected sales or production, or current inventory levels.</td>
<td>Quantities are based on production plans or sales programs. Quantities and delivery times are updated monthly or more frequently depending on scheduling and shipping constraints.</td>
</tr>
<tr>
<td>Price is either negotiated or competitively bid among a number of vendors.</td>
<td>Price is locked in with a preferred vendor.</td>
</tr>
<tr>
<td>Independent receiving function exists.</td>
<td>Goods are delivered to production line.</td>
</tr>
<tr>
<td>Independent, sequentially numbered receiving documents are prepared to provide evidence that the goods are received.</td>
<td>Disruptions of production provide evidence that goods were not delivered.</td>
</tr>
<tr>
<td>Accounts payable department matches purchase order, receiving document, and invoice and accrues accounts payable.</td>
<td>Accruals are set up based on contract (production, sales of goods, etc.).</td>
</tr>
<tr>
<td>Payments are made via check or by electronic transfer once or twice a month.</td>
<td>Payments are electronically transferred to vendor based on contractual terms.</td>
</tr>
<tr>
<td>Differences between goods received and goods ordered are identified before payments are made.</td>
<td>Processes are described in the contract to resolve difference between goods received and goods that were shipped by vendor.</td>
</tr>
</tbody>
</table>
THREE-WAY MATCH: CONTROL FOR PAYMENT APPROVAL

• Type of control that determines accuracy of vendor’s invoice by matching:
  • Purchase Order
  • Receiving Information
  • Vendor invoice

• In case of discrepancies:
  • Review with purchasing agent
  • Supporting documentation and authorization are presented to accounts payable department for payment
AUTOMATED MATCHING PROCESS

Purchase orders are entered into a purchase order database that is accessed by the receiving department.

Receipt of goods recorded through scanning the bar code and cross-referencing the receipt to the purchase order.

Computerized application matches the three documents. If the three-way match is within a pre-specified tolerance limit, the invoice is approved for payment.

A payment date is scheduled, and a check is automatically generated on the scheduled date and is signed using an authorized signature plate.
CONTROL PROCEDURES IN AUTOMATED MATCHING PROCESS

- Authorized vendors
- Restricted access
- Automatic processes
- Reconciliations inherent in the process
- Automation of error-prone activities
- Restricted access to transferring funds
- Monitoring
CONTROLS FOR AUTOMATED CASH DISBURSEMENTS

• Review of transactions - Involves reviewing the expenditures and comparing them to other key data
• Direction of vendor disputes to someone outside the process
• Periodic review of the system by the internal audit department
• Periodic reconciliation of inventory on hand with inventory per the books
### EXHIBIT 11.5 - CONTROL RISK ASSESSMENT QUESTIONNAIRE: ACQUISITION AND PAYMENT CYCLE

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Are purchases of inventory approved at the proper level?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Is there adequate documentation of approvals?</td>
<td></td>
<td></td>
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<tr>
<td>3. Are purchase orders prenumbered and accounted for?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Are purchases of inventory made from an approved vendor list?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Are changes to the approved vendor list approved at the proper level?</td>
<td></td>
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<tr>
<td>6. Does the company have a formal policy and appropriate oversight about the nature of appropriate vendor relationships and gifts?</td>
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<tr>
<td>7. Are controls over the process of handling returned goods adequate?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Is the recording of purchases made in a timely manner?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Is the recording of returns made in a timely manner?</td>
<td></td>
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</tr>
</tbody>
</table>
DESCRIBE HOW TO USE PRELIMINARY ANALYTICAL PROCEDURES TO IDENTIFY POSSIBLE MATERIAL MISSTATEMENTS IN ACQUISITION AND PAYMENT CYCLE ACCOUNTS, DISCLOSURES, AND ASSERTIONS
EXHIBIT 11.6 - USING RATIOS IN PRELIMINARY ANALYTICAL PROCEDURES IN THE ACQUISITION AND PAYMENT CYCLE

**Inventory Ratios**
- Gross margin analysis
- Inventory turnover (cost of goods sold/ending inventory)
- Number of days’ sales in inventory (365/inventory turnover)
- Shrinkage ratio (inventory write-down/ending inventory)
- Inventory per square foot of retail space (for retail clients; and comparisons should be made across locations in stores of comparable size and product mix to test for unexpected differences)
- Inventory overhead application. Analyze the relationship between materials, labor, and overhead to total product costing; compare over time and across product categories.

**Accounts Payable Ratios**
- Accounts payable turnover (purchases/average accounts payable)
- Days outstanding in accounts payable (365/accounts payable turnover)
- Accounts payable/current liabilities
- Purchase returns and allowances/purchases
FACTORS SUGGESTING A HEIGHTENED RISK OF FRAUD IN ACQUISITION AND PAYMENT CYCLE

• Unexpected increases in gross margin
• Inventory that is growing at a rate greater than sales
• Expenses that are either significantly above or below industry norms
• Unexpected increases in the number of suppliers
• Capital assets that seem to be growing faster than the business and for which there are no strategic plans
FACTORS SUGGESTING A HEIGHTENED RISK OF FRAUD IN ACQUISITION AND PAYMENT CYCLE

• Expense accounts that have significant credit entries
• Travel and entertainment expense accounts, but no documentation or approval of expenditures
• Inadequate follow-up to the auditor’s recommendations on needed controls
<table>
<thead>
<tr>
<th>LEARNING OBJECTIVE 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>DETERMINE APPROPRIATE RESPONSES TO IDENTIFIED RISKS OF MATERIAL MISSTATEMENT FOR ACQUISITION AND PAYMENT CYCLE ACCOUNTS, DISCLOSURES, AND ASSERTIONS</td>
</tr>
</tbody>
</table>
RESPONDING TO IDENTIFIED RISKS OF MATERIAL MISSTATEMENT

• Developing an audit approach that includes:
  • Tests of controls, if applicable
  • Substantive procedures
    • Tests of details
    • Substantive analytical procedures, if applicable
  • Appropriateness and sufficiency of selected procedures vary for each relevant assertion
EXHIBIT 11.7 - PANEL A: SUFFICIENCY OF EVIDENCE FOR EXISTENCE OF INVENTORY
EXHIBIT 11.7 - PANEL B: APPROACHES TO OBTAINING AUDIT EVIDENCE FOR EXISTENCE OF INVENTORY

**Client A—Low Risk**
- 30% tests of details
- 40% analytics
- 30% tests of controls

**Client B—High Risk**
- 50% tests of details
- 30% analytics
- 20% tests of controls
LEARNING OBJECTIVE 7

DETERMINE APPROPRIATE TESTS OF CONTROLS AND CONSIDER THE RESULTS OF TESTS OF CONTROLS FOR ACQUISITION AND PAYMENT CYCLE ACCOUNTS, DISCLOSURES, AND ASSERTIONS
SELECTING CONTROLS TO TEST

• The internal controls to be tested are those that help to assure that all purchases are:
  • Authorized and all payments are for goods received,
  • Made at appropriate amount and in correct time period
  • Paid only once to the authorized vendor
TYPICAL TESTS OF CONTROLS

• Inquiry of relevant personnel
• Observation of the control being performed
• Examination of documentation corroborating that the control has been performed
• Reperformance of the control by the auditor testing the control
PERFORMING TESTS OF CONTROLS

• Evidence of proper authorization
  • Paper-based systems
    • Signatures and appropriate documentation
  • Computerized systems
    • Controlled through access controls and exception reports that are tested using computerized audit techniques
    • Inquiry and examination of documentation
OUTCOMES OF CONSIDERING THE RESULTS OF TESTS OF CONTROLS

• When control deficiencies are identified

  Assess those deficiencies to determine their severity

  Modify the preliminary control risk assessment

  Document the implications of the control deficiencies
OUTCOMES OF CONSIDERING THE RESULTS OF TESTS OF CONTROLS

• When no control deficiencies are identified

  Determine whether the preliminary assessment of control risk as low is still appropriate

  Determine the extent that controls can provide evidence on the correctness of account balances

  Determine planned substantive audit procedures
AUDITING IN PRACTICE - INVENTORY CONTROLS AT CSK AUTO CORPORATION

• Highlights the implications of ineffective controls over inventory
• Control deficiencies were assessed to be material weaknesses
• CSK’s auditors would have to rely heavily on substantive tests of details to obtain sufficient evidence related to inventory
DETERMINE AND APPLY SUFFICIENT APPROPRIATE SUBSTANTIVE AUDIT PROCEDURES FOR TESTING ACQUISITION AND PAYMENT CYCLE ACCOUNTS, DISCLOSURES, AND ASSERTIONS
SUBSTANTIVE TESTS OF INVENTORY AND COST OF GOODS SOLD

• Requires assurance that inventory:
  • Exists
  • Is actually owned by the company
  • Is valued accurately

• Should be performed for all relevant assertions related to:
  • Significant acquisition and payment cycle accounts
  • Disclosures
**EXHIBIT 11.8 - ASSERTIONS AND SUBSTANTIVE AUDIT PROCEDURES FOR INVENTORY AND COST OF GOODS SOLD**

<table>
<thead>
<tr>
<th>Assertions</th>
<th>Substantive Audit Procedures</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Existence/occurrence</strong></td>
<td>1. Review the client’s proposed physical inventory procedures to determine whether they are likely to result in a complete and correct physical inventory.</td>
</tr>
<tr>
<td>2. Observe the client’s count of the annual physical inventory. Randomly select items from the client’s perpetual inventory record and observe (count) the items on hand. Sample should emphasize high-dollar-value items.</td>
<td></td>
</tr>
<tr>
<td><strong>Completeness</strong></td>
<td>1. Perform year-end cutoff tests by noting the last shipping and receiving document numbers used before physical inventory is taken. Review the purchase and sales journal for a period of time shortly before and after year end, noting the shipping and receiving document numbers to determine whether the goods are recorded in the proper time period.</td>
</tr>
<tr>
<td>2. Make inquiries of the client regarding the potential existence of goods on consignment or located in outside warehouses. For material items, either visit the locations or send a confirmation to the outside warehouse management.</td>
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</tr>
<tr>
<td>3. Make inquiries of the client regarding allowances made for expected returns. Determine client policy for accounting for returned items. Review receipt of transactions for a selected period of time to determine whether significant returns are received and appropriately accounted for.</td>
<td></td>
</tr>
<tr>
<td><strong>Rights and obligations</strong></td>
<td>1. Review vendor invoices when testing disbursements to determine that proper title is conveyed.</td>
</tr>
<tr>
<td>2. Review purchase contracts to assess rights to return merchandise.</td>
<td></td>
</tr>
<tr>
<td><strong>Valuation/ allocation</strong></td>
<td>1. Determine whether the valuation method is appropriate for the client.</td>
</tr>
<tr>
<td>2. Inquire of production and warehouse personnel about the existence of obsolete inventory.</td>
<td></td>
</tr>
<tr>
<td>3. Note potentially obsolete inventory while observing the physical inventory counts. Trace the potentially obsolete items to the client’s inventory compilation, and determine whether they are properly labeled as obsolete items.</td>
<td></td>
</tr>
<tr>
<td>4. Test inventory cost by taking a sample of recorded inventory, and trace to source documents, including:</td>
<td></td>
</tr>
<tr>
<td>• Tracing raw material purchases to vendor invoices</td>
<td></td>
</tr>
<tr>
<td>• Testing standard costs as built up through the standard cost system</td>
<td></td>
</tr>
</tbody>
</table>
| 5. Test for the possibility of obsolete inventory that should be written down to market value:
• Reasonableness test
  • Example - To estimate account balance and to determine whether that amount is close to what the client has recorded
• Regression analysis
AUDITING IN PRACTICE - WEAKNESSES IN PERFORMING SUBSTANTIVE ANALYTICAL PROCEDURES

• Deloitte’s PCAOB Inspection Report - Example of the inappropriate use of substantive analytical procedures
  • Firm failed to perform sufficient procedures to test existence of issuer’s inventory
  • Used a substantive analytical procedure to test the year-end inventory balance, but the procedure was inappropriately used
AUDITING IN PRACTICE - WEAKNESSES IN PERFORMING SUBSTANTIVE ANALYTICAL PROCEDURES

• Used inventory balances from small number of locations at which it had performed inventory observations during the first half of the year to predict the inventory balances
• Did not obtain evidence that inventory balances at the issuer’s retail locations were similar
INVENTORY AND COST OF GOODS SOLD: EXISTENCE OR OCCURRENCE ASSERTION

• Reviewing client’s proposed physical inventory procedures to determine whether they are likely to result in a complete and correct physical inventory
• Observing client’s count of annual physical inventory
  • Randomly selecting items from client’s perpetual inventory record and observing the items on hand
  • Sample should emphasize high-dollar-value items
COMPLETE YEAR-END PHYSICAL INVENTORY

- Observe the client taking inventory to determine the accuracy of the procedures
- Make selected test counts that can later be traced into the client’s inventory compilation
- Test client’s inventory compilation by tracing test counts to the compilation and independently test the client’s computation of extended cost
- Look for evidence of slow-moving, obsolete, or damaged inventory needed to be written down to lower of cost or market
COMPLETE YEAR-END PHYSICAL INVENTORY

• Use GAS to gather following types of evidence:
  • Mathematical accuracy of inventory records
  • Reports of recent shipments used for cutoff testing
  • Items to count during physical inventory observation
  • Evaluations of gross margin amounts by product line
  • Analyses of inventory whose cost exceeds market value
  • Comparison of inventory quantities to budgetary plans
  • List of inventory items with unusual prices, units, or descriptions
EXHIBIT 11.9 - PROCEDURES FOR OBSERVING A CLIENT’S PHYSICAL INVENTORY

1. Meet with the client to discuss the procedures, timing, location, and personnel involved in taking the annual physical inventory.
2. Review the client’s plans for counting and tagging inventory items.
3. Review the inventory-taking procedures with all audit personnel. Familiarize them with the nature of the client’s inventory, potential problems with the inventory, and any other information that will ensure that the client and audit personnel will properly recognize inventory items, high-dollar-value items, and obsolete items, and understand potential problems that might occur in counting the inventory.
4. Determine whether specialists are needed to test or assist in correctly identifying inventory items.
5. Upon arriving at each site:
   a. Meet with client personnel, obtain a map of the area, and obtain a schedule of inventory counts to be made for each area.
   b. Obtain a list of sequential tag numbers to be used in each area.
   c. Observe the procedures the client has implemented to shut down receipt or shipment of goods.
   d. Observe that the client has shut down production.
   e. Obtain document numbers for the last shipment and receipt of goods before the physical inventory is taken. Use the information to perform cutoff tests.
6. Observe the counting of inventory and note the following on inventory count working papers:
   a. The first and last tag number used in the section.
   b. All tag numbers and the disposition of all tag numbers in the sequence.
   c. The product identification, product description, units of measure, and number of items on a count sheet.
   d. Items that appear to be obsolete or of questionable value.
   e. All high-dollar-value items included in inventory.
   f. Movement of goods into or out of the company during the process of inventory taking. Determine if goods are properly counted or excluded from inventory.
7. Document your conclusion as to the quality of the client’s inventory-taking process, noting any problems that could be of audit significance. Determine whether a sufficient inventory count has been taken to properly reflect the goods on hand at year end.
COMPLETE YEAR-END PHYSICAL INVENTORY

• Auditor also performs the following tasks:
  • Makes test counts of selected items and records them for tracing into client’s inventory compilation
  • Takes notations of all items that appear to be obsolete or are in questionable condition
  • Observes the handling of scrap and other material
  • Observes whether any physical movement of goods occurs during counting of inventory
  • Records all high-dollar-value items for subsequent tracing into client’s records
COMPLETE YEAR-END PHYSICAL INVENTORY

• When multiple locations contain inventory, auditors:
  • Review a variety of locations for comparison
  • Use analytical procedures to see if locations not visited seem to have inventory levels that are significantly different from those observed
CLIENT TAKING PHYSICAL INVENTORY BEFORE YEAR END

• Acceptable provided:
  • Internal control is effective
  • There are no red flags that might indicate both opportunity and motivation to misstate inventory
  • Auditor can effectively testing year-end balance through a combination of analytical procedures and selective testing of transactions between the physical count and year end
  • Auditor will review transactions in the roll-forward period for evidence of any manipulation or unusual activity
COMPLETE YEAR-END PHYSICAL INVENTORY

• Complementary testing methodologies
  • Confirming inventory amounts with the trading partner
  • Examining subsequent payments from the trading partner, or visiting selected trading partners to inspect inventory
INVENTORY AND COST OF GOODS SOLD - COMPLETENESS ASSERTION

• Performing year-end cutoff tests
  • Noting last shipping and receiving document numbers used before physical inventory is taken
  • Reviewing the purchase and sales journals for a period of time shortly before and after year end
    • Noting the shipping and receiving document numbers to determine whether the goods are recorded in the proper time period
INVENTORY AND COST OF GOODS SOLD - COMPLETENESS ASSERTION

• Making inquiries regarding the potential existence of goods on consignment or located in outside warehouses
  • For material items, either visiting the locations or sending a confirmation to the outside warehouse management
ALLOWANCE FOR RETURNS

• Determining client policy for accounting for returned items

• Reviewing receipt of transactions for a selected period of time to determine whether significant returns are received and appropriately accounted for
INVENTORY AND COST OF GOODS SOLD: RIGHTS AND OBLIGATIONS ASSERTION

- Reviewing vendor invoices when testing disbursements to determine that proper title is conveyed
- Reviewing purchase contracts to assess rights to return merchandise
INVENTORY AND COST OF GOODS SOLD - VALUATION/ALLOCATION

• Determining whether the valuation method is appropriate for the client
• Inquiring of production and warehouse personnel about the existence of obsolete inventory
• Noting potentially obsolete inventory while observing physical inventory counts
  • Tracing the potentially obsolete items to client’s inventory compilation
  • Determining whether they are properly labeled as obsolete items
INVENTORY AND COST OF GOODS SOLD - VALUATION/ALLOCATION

• Testing inventory cost by taking a sample of recorded inventory, and tracing:
  • Source documents, including:
    • Raw material purchases to vendor invoices
    • Testing standard costs as built up through the standard cost system
  • Testing for possibility of obsolete inventory that should be written down to market value:
    • Reviewing trade journals for changes in product technology
INVENTORY AND COST OF GOODS SOLD - VALUATION/ALLOCATION

- Following-up on potentially obsolete items noted during the observation of the client’s physical inventory counts
- Using audit software to read inventory file and age the inventory items and compute inventory turnover
- Inquiring of the client about sales adjustments that have been offered to sell any products
- Verifying sales price by reviewing recent
- Analyzing sales by product line
INVENTORY AND COST OF GOODS SOLD - VALUATION/ALLOCATION

- Reviewing purchase commitments for potential loss exposures
- Using audit software to test extensions and prepare a printout of differences
- Using audit software to foot the inventory compilation
TESTING A STANDARD COSTING SYSTEM

• Valuation of ending inventory is directly affected by quality of client’s cost system

• Auditor should inquire about the following:
  • Method for developing standard costs
  • How recently the standards have been updated
  • Method for identifying components of overhead and of allocating overhead to products
  • Methods for identifying variances, following up on their causes, and allocating them to inventory and cost of goods sold
EXHIBIT 11.10 - AUDIT PROGRAM FOR STANDARD COST SYSTEM

Audit Program for Standard Cost System

AUDIT OF STANDARD COST SYSTEM

Prepared by __________________________
Reviewed by __________________________

<table>
<thead>
<tr>
<th>Performed by:</th>
<th>W/P Ref:</th>
</tr>
</thead>
<tbody>
<tr>
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</tbody>
</table>

1. Review prior-year audit documentation for a description of the standard cost system. Inquire about any major changes made in the system during the current year.

2. Tour the production facilities and make note of cost centers, general layout of the plant, storage of inventory, functioning of the quality control department, and process for identifying and accounting for scrap or defective items.

3. Examine prior-year audit documentation and current-year variance accounts as a basis for determining the amount of variances identified by the standard cost accounting system. Determine whether the variances imply the need for significant revisions in the standard cost system.

4. Inquire of the process used to update standard costs. Determine the extent to which revisions have been made during the current year.

5. Inquire whether significant changes have been made in the production process during the current year, whether major manufacturing renovations have taken place, and whether new products have been added.

6. Randomly select X number of standard cost buildups for products, and for each product buildup selected:
   - Review engineering studies on the cost buildup, noting the items used, amount of product used, and standard cost of the product used.
   - Test the reasonableness of the client’s costs by randomly sampling components of product cost and tracing back to purchases or contracts with suppliers.
   - Review payroll records to determine that labor costs are specifically identified by product or cost center and used in calculating variances.
TESTING A PERPETUAL INVENTORY SYSTEM

- Auditor needs to determine that:
  - Authorized receipts and sales of inventory are recorded accurately and promptly
  - Only authorized receipts and sales of inventory have been recorded
INVENTORY AND COST OF GOODS SOLD: PRESENTATION AND DISCLOSURE ASSERTION

• Review client’s financial statement disclosures of:
  • Inventory valuation methods used
  • FIFO cost figures and LIFO liquidation effects
  • Percentage of inventory valued by different methods
  • Classification of inventory as raw material, work in process, and finished goods
  • Existence of contingent losses associated with long-term contracts or purchase commitments
  • Inventory policy regarding returns and allowances
NOTE 10. INVENTORIES

All inventories are stated at the lower of cost or market. Cost for a substantial portion of U.S. inventories is determined on a last-in, first-out ("LIFO") basis. LIFO was used for approximately 32% of total inventories at December 31, 2011 and 2010. Cost of other inventories is determined by costing methods that approximate a first-in, first-out ("FIFO") basis.

Inventories at December 31 were as follows (in millions):

<table>
<thead>
<tr>
<th></th>
<th>2011</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Raw materials, work-in-process and supplies</td>
<td>$2,847</td>
<td>$2,812</td>
</tr>
<tr>
<td>Finished products</td>
<td>3,982</td>
<td>3,970</td>
</tr>
<tr>
<td>Total inventories under FIFO</td>
<td>6,829</td>
<td>6,782</td>
</tr>
<tr>
<td>Less: LIFO adjustment</td>
<td>(928)</td>
<td>(865)</td>
</tr>
<tr>
<td>Total inventories</td>
<td>$5,901</td>
<td>$5,917</td>
</tr>
</tbody>
</table>
FRAUD-RELATED SUBSTANTIVE PROCEDURES FOR INVENTORY AND COST OF GOODS SOLD

• Procedures where there is a heightened risk of fraud:
  • Observing all inventory locations simultaneously
  • Confirming inventories at locations that are outside the entity
  • Comparing carrying inventory amounts to recent sales amounts
  • Examining consignment agreements and determining that consignments are properly accounted for
FRAUD-RELATED SUBSTANTIVE PROCEDURES FOR INVENTORY AND COST OF GOODS SOLD

• Sending confirmations to vendors confirming invoices and unusual terms
• Determining if there are bulk sales at steep discounts
  • Indication of decreasing values for the company’s products
AICPA Practice Alert No. 94-2, *Auditing Inventories — Physical Observations* provides examples of how clients fraudulently manipulate inventory amounts:

- Empty boxes or hollow squares in stacked goods
- Mislabeled boxes containing scrap, obsolete items, or lower-value materials
- Consigned inventory, inventory that is rented, or traded-in items for which credits have not been issued
- Inventory diluted so it is less valuable
SUBSTANTIVE TESTS OF ACCOUNTS PAYABLE AND RELATED EXPENSE ACCOUNTS

• If there is little risk of an understatement of accounts payable, testing might be limited to substantive analytical procedures

• When evaluating evidence regarding expense accounts, auditor should consider that management is more likely to:
  • Understate rather than overstate expenses
  • Classify expense items as assets rather than vice versa

• Most relevant assertion related to expenses in acquisition and payment cycle is completeness assertion
## EXHIBIT 11.12 - ASSERTIONS AND AUDIT PROCEDURES FOR ACCOUNTS PAYABLE

<table>
<thead>
<tr>
<th>Assertions</th>
<th>Audit Procedures</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Existence/occurrence</strong></td>
<td>1. Perform a cutoff test of purchases and cash disbursements</td>
</tr>
<tr>
<td><strong>Completeness</strong></td>
<td>1. Request vendors’ monthly statements or send confirmations to major vendors requesting a statement of open account items</td>
</tr>
<tr>
<td></td>
<td>2. Agree monthly statements and confirmations from major vendors with accounts payable list</td>
</tr>
<tr>
<td></td>
<td>3. Examine a sample of cash disbursements made after the end of the year to determine whether the disbursements are for goods and services applicable to the previous year</td>
</tr>
<tr>
<td></td>
<td>4. Perform analytical review of related expense accounts, such as travel and entertainment or legal expenses</td>
</tr>
<tr>
<td><strong>Rights and obligations</strong></td>
<td>1. Review long-term purchase commitments, and determine whether a loss needs to be accrued.</td>
</tr>
<tr>
<td><strong>Valuation or allocation</strong></td>
<td>1. Use GAS to verify mathematical accuracy of accounts payable, and agree to general ledger.</td>
</tr>
<tr>
<td><strong>Presentation and disclosure</strong></td>
<td>1. Review client’s financial statement disclosure of:</td>
</tr>
<tr>
<td></td>
<td>• Accounts payable</td>
</tr>
<tr>
<td></td>
<td>• Expense accounts such as travel and entertainment</td>
</tr>
</tbody>
</table>
ACCOUNTS PAYABLE AND RELATED EXPENSE ACCOUNTS: SUBSTANTIVE ANALYTICAL PROCEDURES

Analytical model built using either audited data or independently generated data

Expense account not within expected range
  - Auditor develops hypotheses as to why it may differ
  - Systematically investigates the situation through tests of details

Expense account falls within expected range
  - Auditor can comfortably conclude that expenses are not materially misstated
AUDITING IN PRACTICE - UNDERSTATEMENT OF LIABILITIES AND EXPENSES AT ADVANCED MARKETING SERVICES

- Advanced Marketing Services entered into a scheme to fraudulently overstate company’s earnings
- The scheme involved not informing retailers of credits due to them for certain advertising and promotional services that they provided
- An analytical comparison of expenses with previous years and with sales volumes might have been a good indicator that something was wrong
REVIEW OF UNUSUAL ENTRIES TO EXPENSE ACCOUNTS

• A vast majority of transactions to expense accounts should be debits
• Exceptions to this rule are accounts that represent estimates or accounts that are based on a relationship with specific asset or liability accounts such as fixed assets (depreciation) or bonds (interest expense)
AUDITING IN PRACTICE - WORLDCOM AND UNUSUAL ADJUSTING ENTRIES

- Credited line expense by reducing restructuring reserves
  - Process used to keep line expenses at 42% of total costs
- Reserve account was debited for a round figure
- An examination of the credits in the expense account would have provided insight into this highly unusual accounting transaction
FRAUD-RELATED SUBSTANTIVE PROCEDURES FOR ACCOUNTS PAYABLE AND RELATED EXPENSES

• Sending blank confirmations to vendors to furnish information on outstanding invoices, payment terms, payment histories
• Scanning journals for unusual or large year-end transactions and adjustments
• Reviewing client’s vendor files for unusual items
• Obtaining and examining documentation for payments of invoices for amounts just under the limit that typically requires some level of approval
DOCUMEmTINg Substantive Procedures

• Substantive analytical procedures conducted, conclusions reached, and related actions taken
• Evidence about physical inventory observations for all material amounts
• Evidence about product costing
• Evidence pertaining to net realizable valuable calculations
• Evidence from inventory specialists
DOCUMENTING SUBSTANTIVE PROCEDURES

- Summaries of evidence obtained and conclusions reached about material amounts of inventory on consignment
- Evidence from evaluating subsequent disbursements for accounts payable
- Vendor statements
- Confirmations with vendors regarding accounts payable
- Evidence of conducting a review of unusual entries