Audit of the Inventory and Warehousing Cycle

Chapter 21
Learning Objective 1

Describe the business functions and the related documents and records in the inventory and warehousing cycle.
Flow of Inventory and Costs

<table>
<thead>
<tr>
<th>Raw Materials</th>
<th>Work-in-Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beginning inventory</td>
<td>Raw materials used</td>
</tr>
<tr>
<td>Purchases</td>
<td>Raw materials used</td>
</tr>
<tr>
<td>Ending inventory</td>
<td>Cost of goods manufactured</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Direct Labor</th>
<th>Finished Goods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actual</td>
<td>Beginning inventory</td>
</tr>
<tr>
<td>Applied</td>
<td>Ending inventory</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Manufacturing Overhead</th>
<th>Cost of goods sold</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actual</td>
<td>Beginning inventory</td>
</tr>
<tr>
<td>Applied</td>
<td>Ending inventory</td>
</tr>
</tbody>
</table>
Functions in the Cycle

Flow of Inventory
- Process purchase orders
- Receive raw materials
- Store raw materials
- Process the goods
- Store finished goods
- Ship finished goods

Put materials in storage
Put materials in production
Put completed goods in storage
Ship finished goods
Learning Objective 2

Explain the five parts of the audit of the inventory and warehousing cycle.
Audit of Inventory

Part of audit

Acquire and record raw materials, labor, and overhead

Internally transfer assets and costs

Cycle(s) Where tested

- Acquisition and payment
- Payroll and personnel
- Inventory and Warehousing
Audit of Inventory

Part of audit

Ship goods and record revenue and costs → Physically observe inventory → Price and compile inventory

Cycle where tested

Sales and collection → Inventory and warehousing → Inventory and warehousing
Learning Objective 3

Design and perform audit tests of cost accounting.
Cost Accounting Controls

- Physical controls over raw materials, work in process, and finished goods inventory
- Controls over the related costs
Methodology for Designing Controls and Substantive Tests

Understand internal control – cost accounting system

Assess planned control risk – cost accounting system

Determine extent of testing controls

Design tests of controls and substantive tests of transactions for the cost accounting system to meet transaction-related audit objectives

Audit procedures
- Sample size
- Items to select
- Timing
Tests of Cost Accounting

- Physical controls over inventory
- Documents and records for transferring inventory
- Perpetual inventory master files
- Unit cost records
Learning Objective 4

Apply analytical procedures to the accounts in the inventory and warehousing cycle.
### Analytical Procedures: Inventory and Warehousing Cycle

<table>
<thead>
<tr>
<th>Analytical procedure</th>
<th>Possible misstatement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compare gross margin percentage with that of previous years</td>
<td>Overstatement or understatement of inventory and cost of goods sold</td>
</tr>
<tr>
<td>Compare inventory turnover (cost of goods sold divided by average inventory) with that of previous year</td>
<td>Obsolete inventory overstatement or understatement of inventory</td>
</tr>
</tbody>
</table>
## Analytical Procedures: Inventory and Warehousing Cycle

<table>
<thead>
<tr>
<th>Analytical procedure</th>
<th>Possible misstatement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compare unit costs of inventory with those of previous years</td>
<td>Overstatement or understatement of unit costs, which affect inventory and cost of goods sold</td>
</tr>
<tr>
<td>Compare extended inventory value with that of previous years</td>
<td>Misstatements in compilation, unit costs, or extensions, which affect inventory and cost of goods sold</td>
</tr>
</tbody>
</table>
### Analytical Procedures: Inventory and Warehousing Cycle

<table>
<thead>
<tr>
<th>Analytical procedure</th>
<th>Possible misstatement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compare current year manufacturing costs with those of previous years (variable costs should be adjusted for changes in volume)</td>
<td>Misstatements of unit costs of inventory, especially direct labor and manufacturing overhead, which affect inventory and cost of goods sold</td>
</tr>
</tbody>
</table>
Learning Objective 5

Design and perform physical observation audit tests for inventory.
Audit Responsibilities for Client Physical Counts

- Be present at the time the client counts inventory
- Observe the client’s counting procedures
- Make inquiries of client personnel about their counting procedures
- Make their own independent tests of the physical count
Controls Over Physical Count

- Proper instructions for the physical count
- Supervision by responsible personnel
- Independent internal verification of the counts
- Independent reconciliations of the physical counts with perpetual inventory master files
- Adequate control over count sheets or tags
Audit Decisions

Timing

Sample size

Selection of items
Physical Observation Tests

The most important part of the observation of inventory is determining whether the physical count is being taken in accordance with the client’s instructions.
Balance-related Audit Objectives

Existence:
Inventory as recorded on tags exist.

Completeness:
Existing inventory is counted and tagged.

Accuracy:
Inventory is counted accurately.

Classification:
Inventory is classified correctly on the tags.
Balance-related Audit Objectives

Cutoff: Transactions are recorded in the proper period.

Realizable value: Obsolete and unusable inventory items are excluded or noted.

Rights: The client has rights to inventory recorded on tags.
Learning Objective 6

Design and perform audit tests of pricing and compilation for inventory.
Audit of Pricing and Compilation

Inventory price tests

Pricing and compilation procedures

Pricing and compilation controls

Valuation of inventory

Purchased inventory

Manufactured inventory
Learning Objective 7

Integrate the various parts of the audit of the inventory and warehousing cycle.
Interrelationship of Various Audit Tests

Tests of acquisition and payment cycle

**Raw materials**
- Acquisitions of raw materials
- Raw material used

**Work in process**
- Other manufacturing costs
- Raw material used
Interrelationship of Various Audit Tests

Tests of payroll and personnel cycle

- Work in process
  - Direct labor
  - Indirect labor
Interrelationship of Various Audit Tests

Inventory tests
- Cost accounting records
- Physical inventory observation
- Pricing and compilation

Raw materials
- Ending inventory

Work in process
- Ending inventory

Finished goods
- Ending inventory
Interrelationship of Various Audit Tests

Work in process

Cost of goods manufactured

Finished goods

Cost of goods manufactured

Tests of sales and collection cycle

Finished goods

Cost of goods sold
End of Chapter 21