Chapter 8

Audit Planning and Materiality

■ Concept Checks

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1. The eight major steps in planning audits are:

    1. Accept client and perform initial planning
    2. Understand the client's business and industry
    3. Perform preliminary analytical procedures
    4. Set preliminary judgment of materiality and performance materiality
    5. Identify significant risks due to fraud or error
    6. Assess inherent risk
    7. Understand internal control and assess control risk
    8. Finalize overall audit strategy and audit plan

2. Prior to accepting a client, the auditor should investigate the client. The auditor should evaluate the client's standing in the business community, financial stability, and relations with its previous CPA firm. The primary purpose of new client investigation is to ascertain the integrity of the client and the possibility of fraud. The auditor should be especially concerned with the possibility of fraudulent financial reporting since it is difficult to uncover. The auditor does not want to needlessly expose himself or herself to the possibility of a lawsuit for failure to detect such fraud.

3. The five elements of a strategic understanding of the client's business are:

    1. *Industry and External Environment* – Understand risks and accounting requirements unique to the client's industry.
    2. *Business Operations and Processes* – Considers factors such as key customers and suppliers, sources of financing, and manufacturing operations.
    3. *Management and Governance* – Encompasses the organizational structure and the activities of the board of directors and audit committee.
    4. *Client Objectives and Strategies* – Understand the client's strategic plan and objectives related to financial reporting, effectiveness and efficiency of operations, and compliance with laws and regulations.
    5. *Measurement and Performance* – Understand key performance indicators used by management to assess progress toward its objectives.

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1. The preliminary judgment about materiality is the maximum amount by which the auditor believes the financial statements could be misstated and still not affect the decisions of reasonable users. Several factors affect the preliminary judgment about materiality and are as follows:
   1. Materiality is a relative, rather than an absolute, concept.
   2. Benchmarks are needed for evaluating materiality.
   3. Qualitative factors affect materiality decisions.
   4. If the financial statements are widely distributed to users, the preliminary judgment of materiality will probably be set lower than if the financial statements are not widely distributed.
   5. The level of acceptable audit risk will also affect the preliminary judgment of materiality.

2. A preliminary judgment about materiality is set for the financial statements as a whole. Performance materiality is the maximum amount of misstatement that would be considered material for an individual segment of the audit, or account balance. The amount of performance materiality for any given segment or account is dependent upon the preliminary judgment about materiality. Ordinarily, performance materiality for any given segment or account would have to be lower than the preliminary judgment about materiality. In many cases, it will be considerably lower because of the possibility of misstatements in different accounts that, in total, cannot exceed the preliminary judgment about materiality.

3. Known misstatements are those where the auditor can determine the actual amount of the misstatement. Likely misstatements are from differences in management's and the auditor's judgment about an estimate, or from the projection of sample misstatements to the population being tested. If the auditor tests a sample of $100,000 of inventory and finds misstatements totaling $5,000, the likely misstatement if the account balance is $500,000 is $25,000 ($5,000/100,000 x $500,000).

■ Review Questions

8-1 There are three primary benefits from planning audits: it helps the auditor obtain sufficient appropriate evidence for the circumstances, helps keep audit costs reasonable, and helps avoid misunderstandings with the client.

8-2 The new auditor (successor) is required by auditing standards to communicate with the predecessor auditor. This enables the successor to obtain information about the client so that he or she may evaluate whether to accept the engagement.

8-2 (continued)

The predecessor is required to respond to the successor's request for information; however, the response may be limited to stating that no information will be given. The successor auditor should be wary if the predecessor is reluctant to provide information about the client.

8-3 Auditing standards require auditors to document their understanding of the terms of the engagement with the client in an engagement letter. The engagement letter should include the engagement's objectives, the responsibilities of the auditor and management, and the engagement's limitations. An engagement letter is an agreement between the CPA firm and the client concerning the conduct of the audit and related services. It should state what services will be provided, whether any restrictions will be imposed on the auditor's work, deadlines for completing the audit, and assistance to be provided by client personnel. The engagement letter may also include the auditor's fees. In addition, the engagement letter informs the client that the auditor cannot guarantee that all acts of fraud will be discovered.

8-4 Because the Sarbanes–Oxley Act of 2002 explicitly shifts responsibility for hiring and firing of the auditor from management to the audit committee for public companies, the audit committee is viewed as "the client" in those engagements.

8-5 One of the principles underlying auditing standards notes that the auditor obtains an understanding of the entity and its environment to provide a basis for identifying and assessing the risks of material misstatements in the financial statements. Auditors need an understanding of the client's business and industry because the nature of the business and industry affect business risk and the risk of material misstatements in the financial statements. Auditors use the knowledge of these risks to determine the appropriate extent of further audit procedures.

The five major aspects of understanding the client's business and industry, along with potential sources of information that auditors commonly use for each of the five areas, are as follows:

1. *Industry and External Environment* – Read industry trade publications, AICPA Industry Audit Guides, and regulatory requirements.
2. *Business Operations and Processes* – Tour the plant and offices, identify related parties, and inquire of management.
3. *Management and Governance* – Read the corporate charter and bylaws, read minutes of board of directors and stockholders meetings, and inquire of management.
4. *Client Objectives and Strategies* – Inquire of management regarding their objectives for the reliability of financial reporting, effectiveness and efficiency of operations, and compliance with laws and regulations; read contracts and other legal documents, such as those for notes and bonds payable, stock options, and pension plans.

8-5 (continued)

5. *Measurement and Performance* – Read financial statements, perform ratio analysis, and inquire of management about key performance indicators that management uses to measure progress toward its objectives.

8-6 During the course of the plant tour, the CPA will obtain a perspective of the client's business, which will contribute to the auditor's understanding of the entity and its environment. Remember that an important aspect of the audit will be an effective analysis of the inventory cost system. Therefore, the auditor will observe the nature of the company's products, the manufacturing facilities and processes, and the flow of materials so that the information obtained can later be related to the functions of the cost system.

The nature of the company's products and the manufacturing facilities and processes will reveal the features of the cost system that will require close audit attention. For example, the audit of a company engaged in the custom-manufacture of costly products such as yachts would require attention to the correct charging of material and labor to specific jobs, whereas the allocation of material and labor charges in the audit of a beverage-bottling plant would not be verified on the same basis. The CPA will note the stages at which finished products emerge and where additional materials must be added. He or she will also be alert for points at which scrap is generated or spoilage occurs. The auditor may find it advisable, after viewing the operations, to refer to auditing literature for problems encountered and solved by other CPAs in similar audits.

The auditor's observation of the manufacturing processes will reveal whether there is idle plant or machinery that may require disclosure in the financial statements. Should the machinery appear to be old or poorly maintained, the CPA might expect to find heavy expenditures in the accounts for repairs and maintenance. On the other hand, if the auditor determines that the company has recently installed new equipment or constructed a new building, he or she will expect to find these new assets on the books.

In studying the flow of materials, the auditor will be alert for possible problems that may arise in connection with the observation of the physical inventory, and he or she may make preliminary estimates of audit staff requirements. In this regard, the auditor will notice the various storage areas and how the materials are stored. The auditor may also keep in mind for further investigation any apparently obsolete inventory.

The auditor's study of the flow of materials will disclose the points at which various documents such as material requisitions arise. He or she will also meet some of the key manufacturing personnel who may give the auditor an insight into production problems and other matters such as excess or obsolete materials, and scrap and spoilage. The auditor will be alert for the attitude of the manufacturing personnel toward internal controls. The CPA may make some inquiries about the methods of production scheduling, timekeeping procedures, and whether work standards are employed. As a result of these observations, the internal documents that relate to the flow of materials will be more meaningful as accounting evidence.

8-6 (continued)

The CPA's tour of the plant will give him or her an understanding of the plant terminology that will enable the CPA to communicate fluently with the client's personnel. The measures taken by the client to safeguard assets, such as protection of inventory from fire or theft, will be an indication of the client's attention to internal control measures. The location of the receiving and shipping departments and the procedures in effect will bear upon the CPA's evaluation of internal control. The auditor's overall impression of the client's plant will suggest the accuracy and adequacy of the accounting records that will be audited.

8-7 One type of information the auditor obtains in gaining knowledge about the client's industry is the nature of the client's products, including the likelihood of their technological obsolescence and future salability. This information is essential in helping the auditor evaluate whether the client's inventory may be obsolete or have a market value lower than cost.

8-8 A related party is defined by auditing standards as an affiliated company, principal owner of the client company, or any other party with which the client deals where one of the parties can influence the management or operating policies of the other.

Material related party transactions must be disclosed in the financial statements by management. Therefore, the auditor must identify related parties and make a reasonable effort to determine that all material related party transactions have been properly disclosed in the financial statements. Because instances of fraudulent financial reporting often involve transactions with related parties, auditors should be alert for the presence of fraud risk.

8-9 Because of the lack of independence between the parties involved, the Sarbanes–Oxley Act prohibits related party transactions that involve personal loans to executives. It is now unlawful for any public company to provide personal credit or loans to any director or executive officer of the company. Banks or other financial institutions are permitted to make normal loans to their directors and officers using market rates, such as residential mortgages.

8-10 Fairly recent economic events and the continued instability in global financial markets led to the collapse of several large financial firms, which triggered a broader economic decline affecting all industries. These declines are likely to have a significant impact on financial reporting.

First, severe market declines may impact the accounting for many types of investments and other assets that now may be impaired or may have experienced significant declines in their fair values. The determination of those accounts is largely dependent on numerous management judgments and estimates. Auditors should apply appropriate professional skepticism as they evaluate management's judgments and estimates.

8-10 (continued)

Second, the significant lack of sales and other revenues may place undue pressure on management to meet revenue targets, including the need for entity survival. Thus, there may be a greater presence of fraud risk due to these significant pressures. Third, auditors should closely evaluate the entity's ability to continue as a going concern. There may be instances where the auditor's report should be modified to include an explanatory paragraph describing the auditor's substantial doubt about the entity's ability to continue as a going concern.

8-11 The information in a mortgage that is likely to be relevant to the auditor includes the following:

1. The parties to the agreement
2. The effective date of the agreement
3. The amounts included in the agreement
4. The repayment schedule required by the agreement
5. The definition and terms of default
6. Prepayment options and penalties specified in the agreement
7. Assets pledged as collateral or encumbered by the agreement
8. Liquidity restrictions imposed by the agreement
9. Purchase restrictions imposed by the agreement
10. Operating restrictions imposed by the agreement
11. Requirements for audit reports or other types of reports on compliance with the agreement
12. The interest rate specified in the agreement
13. Any other requirements, limitations, or agreements specified in the document

8-12 Information in the client's minutes that is likely to be relevant to the auditor includes the following:

1. Declaration of dividends
2. Authorized compensation of officers
3. Acceptance of contracts and agreements
4. Authorization for the acquisition of property
5. Approval of mergers
6. Authorization of long-term loans
7. Approval to pledge securities
8. Authorization of individuals to sign checks
9. Reports on the progress of operations
10. Discussion about outstanding litigation and other contingencies

It is important to read the minutes early in the engagement to identify items that need to be followed up on as a part of conducting the audit. For instance, if a long-term loan is authorized in the minutes, the auditor will want to make certain that the loan is recorded as part of long-term liabilities.

8-13 The three categories of client objectives are (1) reliability of financial reporting, (2) effectiveness and efficiency of operations, and (3) compliance with laws and regulations. Each of these objectives affects the auditor's assessment of the risk of material misstatement and evidence accumulation as follows:

1. *Reliability of financial reporting* – The financial reporting framework selected by management may affect the reliability of financial reporting. For example, management's selection of the cash basis of accounting may affect the risks of material misstatement differently than the risk of material misstatement that might be present if management selects U.S. GAAP or IFRS as the framework for financial reporting. Furthermore, changes in those standards by the standards-setting bodies may impact the complexity of the underlying accounting for transactions, accounts, and disclosures, which increases inherent risks. If management sees the reliability of financial reporting as an important objective, and if the auditor can determine that the financial reporting system is accurate and reliable, then the auditor can often reduce his or her assessment of the risk of material misstatement and planned evidence accumulation for material accounts. In contrast, if management has little regard for the reliability of management's financial reporting, the auditor must increase inherent risk assessments and gather more appropriate evidence during the audit.
2. *Effectiveness and efficiency of operations* – This area is of primary concern to most clients. Auditors need knowledge about the effectiveness and efficiency of a client's operations in order to assess client business risk and the risk of material misstatement in the financial statements. For example, if a client is experiencing inventory management problems, this would most likely increase the auditor's assessment of risk for the planned evidence accumulation for inventory.
3. *Compliance with laws and regulations* – It is important for the auditor to understand the laws and regulations that affect an audit client, including significant contracts signed by the client. For example, the provisions in a pension plan document would significantly affect the auditor's assessment of risk and evidence accumulation in the audit of the unfunded liability for pensions. If the client were in violation of the provisions of the pension plan document, risk and planned evidence for pension-related accounts would increase.

8-14 The purpose of a client's performance measurement system is to measure the client's progress toward specific objectives. Performance measurement includes ratio analysis and benchmarking against key competitors.

Performance measurements for a chain of retail clothing stores could include gross profit by product line, sales returns as a percentage of clothing sales, and inventory turnover by product line. An Internet portal's performance measurements might include number of Web site hits or search engine speed. A hotel chain's performance measures include occupancy percentages and average room rate.

8-15 Gordon could improve the quality of his analytical tests by:

1. Making internal comparisons to ratios of previous years or to budget forecasts.
2. In cases where the client has more than one branch in different industries, computing the ratios for each branch and comparing these to the industry ratios.

8-16 The decrease of the current ratio indicates a liquidity problem for Harper Company since the ratio has dropped to a level close to the requirements of the bond indenture. Special care should be exercised by the auditor to determine that the 2.05 ratio is proper since management would be motivated to hide any lower ratio. The auditor should expand procedures to test all current assets for proper cutoff and possible overstatement and to test all current liabilities for proper cutoff and possible understatement.

8-17 Materiality is defined as the magnitude of misstatements that individually, or when aggregated with other misstatements, could reasonably be expected to influence the economic decisions of users made on the basis of the financial statements.

"Obtain reasonable assurance," as used in the audit report, means that the auditor does not *guarantee* or insure the fair presentation of the financial statements. There is some risk that the financial statements contain a material misstatement.

8-18 Materiality is important because if financial statements are materially misstated, users' decisions may be affected, and thereby cause financial loss to them. It is difficult to apply because there are often many different users of the financial statements. The auditor must therefore make an assessment of the likely users and the decisions they will make. Materiality is also difficult to apply because it is a relative concept. Auditing standards offer little specific guidance regarding the application of materiality. The auditor must, therefore, exercise considerable professional judgment in the application of materiality.

8-19 Because materiality is relative rather than absolute, it is necessary to have benchmarks for establishing whether misstatements are material. For example, in the audit of a manufacturing company, the auditor might use as benchmarks: net income before taxes, total assets, current assets, and working capital. For a governmental unit, such as a school district, there is no net income before taxes, and therefore that would not be an available benchmark. Instead, the primary benchmarks would likely be fund balances, total assets, and perhaps total revenue.

8-20 The following qualitative factors are likely to be considered in evaluating materiality:

a. Amounts involving fraud are usually considered more important than unintentional errors of equal dollar amounts.
b. Misstatements that are otherwise minor may be material if there are possible consequences arising from contractual obligations.
c. Misstatements that are otherwise immaterial may be material if they affect a trend in earnings.

8-21 If an audit is being performed on a medium-sized company that is part of a conglomerate, the auditor must make a materiality judgment based upon the conglomerate. Materiality may be larger for a company that is part of a conglomerate because even though the financial statements of the medium-sized company may be misstated, the financial statements of the large conglomerate might still be fairly stated. If, however, the auditor is giving a separate opinion on the medium-sized company, the materiality would be lower than for the audit of a conglomerate.

8-22 There are several possible answers to the question. One example is:

Cash	$ 500	Overstatement
Fixed assets	$3,000	Overstatement
Long-term loans	$1,500	Understatement

Note: Cash and fixed assets are tested for overstatement and long-term loans for understatement because the auditor's objective in this case is to test for overstatements of owner's equity.

The least amount of performance materiality was allocated to cash and long-term loans because they are relatively easy to audit. The majority of the total allocation was to fixed assets because there is a greater likelihood of misstatement of fixed assets in a typical audit.

8-23 When allocating the preliminary judgment about materiality for the financial statements as a whole to individual segments, the auditor considers both efficiency and effectiveness of the audit. An auditor might set a lower level of performance materiality for a particular account balance if it is easy to audit and no misstatements are expected (e.g., notes payable), or if the auditor expects that a misstatement of a lower amount in a particular account or transaction might influence an investor (e.g., disclosure of a related party transaction).

8-24 If performance materiality for accounts receivable is $40,000 and the auditor finds a $55,000 overstatement of a receivable balance, the auditor would document the misstatement and evaluate results of the remaining audit procedures in accounts receivable. The $55,000 overstatement is an example of a known misstatement. The auditor could request the client make an adjustment to correct the overstatement or make a note of the overstatement for follow-up at a later point in the audit. If accounts receivable testing was performed using sampling techniques, the auditor would also project total known misstatements to the population and may perform additional tests depending on the outcome.

■ Multiple Choice Questions From CPA Examinations

8-25 a. (4) b. (1) c. (4)

8-26 a. (4) b. (4) c. (2)

8-27 a. (4) b. (1) c. (1)

■ Multiple Choice Questions From Becker CPA Exam Review

8-28 a. (3) b. (3) c. (3)

■ Discussion Questions And Problems

8-29

AUDIT ACTIVITIES	RELATED PLANNING PROCEDURE
1. Review accounting principles unique to the client's industry.	(2) Understand the client's business and industry
2. Determine the likely users of the financial statements.	(1) Accept client and perform initial audit planning
3. Evaluate the appropriate financial statement measures for determining amounts likely to be considered material by users of the financial statements.	(4) Set preliminary judgment of materiality and performance materiality
4. Identify whether any specialists are required for the engagement.	(1) Accept client and perform initial audit planning
5. Send an engagement letter to the client.	(1) Accept client and perform initial audit planning
6. Tour the client's plant and offices.	(2) Understand the client's business and industry
7. Specify materiality levels to be used in testing of accounts receivable.	(4) Set preliminary judgment of materiality and performance materiality
8. Compare key ratios for the company to industry competitors.	(3) Perform preliminary analytical procedures
9. Review management's risk management controls and procedures.	(2) Understand the client's business and industry
10. Identify potential related parties that may require disclosure.	(2) Understand the client's business and industry

8-30 a. A related party transaction occurs when one party to a transaction has the ability to impose contract terms that would not have occurred if the parties had been unrelated. Accounting standards conclude that related parties consist of all affiliates of an enterprise, including (1) its management and their immediate families, (2) its principal owners and their immediate families, (3) investments accounted for by the equity method, (4) beneficial employee trusts that are managed by the management of the enterprise, and (5) any party that may, or does, deal with the enterprise and has ownership, control, or significant influence over the management or operating policies of another party to the extent that an arm's-length transaction may not be achieved.

8-30 (continued)

b. (1) Related party transaction. Canyon Outdoor has entered into an operating lease with a company owned by one of the directors on Canyon's board. Because the board has control and significant influence over management of Canyon, the lease transaction may not be at arm's length.

(2) Not a related party transaction. The fact that Canyon Outdoor has purchased inventory items for many years from Hessel Boating Company is a normal business transaction between two independent parties. Neither party has an ownership interest in the other party, and neither has an ability to exercise control or significance influence over the other.

(3) Related party transaction. The financing provided by Cameron Bank and Trust through the assistance of Suzanne may not be at arm's length given Suzanne's husband has control and significant influence over Canyon Outdoors and may be able to influence the transaction through his wife's employment at the bank or through his influence over Canyon's management.

(4) Not a related party transaction. Just because the two owners are neighbors does not mean that either has significant influence or control over the other. Mere acquaintance does not suggest the transactions would not be at arm's length.

(5) Not a related party transaction. The declaration and approval of dividends payable to shareholders is a normal board function.

c. When related party transactions or balances are material, the following disclosures are required:

1. The nature of the relationship or relationships.
2. A description of the transaction for the period reported on, including amounts if any, and such other information deemed necessary to obtain an understanding of the effect on the financial statements.
3. The dollar volume of transactions and the effects of any change in the method of establishing terms from those used in the preceding period.
4. Amounts due from or to related parties, and if not otherwise apparent, the terms and manner of settlement.

8-30 (continued)

d. Auditors can determine the existence of material transactions with related parties by performing the following procedures:

1. Obtain background information about the client in the manner discussed in this chapter to enhance understanding of the client's industry and business; i.e., examine corporate charter bylaws, minutes of board meetings, material contracts, etc.
2. Perform analytical procedures of the nature discussed in Chapters 7 and 8 to evaluate the possibility of business failure and assess areas where fraudulent financial reporting is likely.
3. Review and understand the client's legal obligations in the manner discussed in this chapter to become familiar with the legal environment in which the client operates.
4. Review the information available in the audit files, such as permanent files, audit programs, and the preceding year's audit documentation for the existence of material non-arm's-length transactions. Also discuss with tax and management personnel assigned to the client their knowledge of management involvement in material transactions.
5. Discuss the possibility of fraudulent financial reporting with company counsel after obtaining permission to do so from management.
6. When more than one CPA firm is involved in the audit, exchange information with them about the nature of material transactions and the possibility of fraudulent financial reporting.
7. Investigate whether material transactions occur close to year-end.
8. In all material transactions, evaluate whether the parties are economically independent and have negotiated the transaction on an arm's-length basis, and whether each transaction was transacted for a valid business purpose.
9. Whenever there are material non-arm's-length transactions, each one should be evaluated to determine its nature and the possibility of its being recorded at the improper amount. The evaluation should consider whether the transaction was transacted for a valid business purpose, was not unduly complex, and was presented in conformity with its substance.
10. When management is indebted to the company in a material amount, evaluate whether management has the financial ability to settle the obligation. If collateral for the obligation exists, evaluate its acceptability and value.
11. Inspect entries in public records concerning the proper recording of real property transactions and personal property liens.

8-30 (continued)

12. Make inquiries with related parties to determine the possibility of inconsistencies between the client's and related parties' understanding and recording of transactions that took place between them.
13. Inspect the records of the related party to a material transaction that is recorded by the client in a questionable manner.
14. When an independent party, such as an attorney or bank, is significantly involved in a material transaction, ascertain from them their understanding of the nature and purpose of the transaction.

8-31 a. First, the minutes of each meeting refer to the minutes of a previous meeting. The auditor should ensure that they have been provided access to all noted minutes, including the next year's minutes, probably for March 2017, to make sure the previous minutes referred to were those from October 21, 2016.

Additionally, the auditor will request the client to include a statement in the client representation letter stating that all minutes were provided to the auditor.

b.

INFORMATION RELEVANT TO 2016 AUDIT	AUDIT ACTION REQUIRED
March 5: 1. Increase in annual dividend payment.	Calculate the total dividends and determine that dividends paid to shareholders are properly reflected in the financial statements.
2. Approval of additional administration expenses to open offices in Portland.	During analytical procedures, an increase in administrative expenses should be included in the auditor's expectation of the expense balance. The auditor should be alert for other potential commitments that may have been made to open offices in the Northwest region.
3. Approval to engage in negotiations for a potential acquisition.	Determine the status of any potential acquisition or merger negotiations. Be alert for any commitments that may have been made as part of the negotiations process that may warrant financial statement disclosure.
4. Potential negative findings from EPA investigation.	Evaluate the status of any resolution of negotiations with the EPA regarding findings in their report. Determine if any final determinations have been made about potential fines. Evaluate the need for recording any provisions for a loss contingency or disclosure of the status of the negotiations.

8-31 (continued)

INFORMATION RELEVANT TO 2016 AUDIT	AUDIT ACTION REQUIRED
5. Officers' bonuses.	Determine whether bonuses were accrued at 12-31-15 and were paid in 2016. Consider the tax implications of unpaid bonuses to officers.
6. Discussion at the Audit Committee and Compensation Committee.	Determine what, if any, decisions made at either meeting have any impact on the audit of the financial statements.

INFORMATION RELEVANT TO 2016 AUDIT	AUDIT ACTION REQUIRED
October 21: 1. Reduction in sales and the related cutback in labor and shipping costs.	During analytical procedures, both the decrease in revenues and the decreases in labor and shipping costs should be included in the auditor's expectation of the related account balances. The auditor should be alert to the fact that the drop in operating performance might create undue incentives and pressures that could highlight the risk of fraud.
2. Approval of the acquisition and related financing.	Examine acquisition documentation and financing documentation to understand the impact to the financial statements for recording the acquisition and the debt transaction. Consider what commitments and contingencies exist and evaluate the appropriateness of the recording of the acquisition transaction and related disclosures.
3. Consideration of a new incentive stock option plan.	Determine if the new incentive stock option plan has been approved. If so, consider accounting treatments required to reflect any commitments on the part of the company and evaluate the tax implication of the plan and need for related disclosure.
4. Identification of deficiencies in internal control.	Discuss the deficiencies in internal control with management and evaluate the impact of any remediation activities to address the deficiencies. Evaluate the impact of remediation on the auditor's tests of controls and need for substantive procedures.
5. Resolution of the EPA report findings.	Examine the EPA resolution agreement and determine if provision has been recorded for the expected costs to modify the air handling equipment. Consider the need for any additional disclosures of this resolution.
6. Discussion at the Audit and Compensation Committee.	Determine what, if any, decisions made at either meeting have any impact on the audit of the financial statements.

8-31 (continued)

c. The auditor should have obtained and read the March minutes, before completing the 12-31-15 audit. Two items were especially relevant and require follow-up for the 12-31-15 audit: the investigation by the EPA and approval for the 12-31-15 bonuses.

8-32 a. Gross margin percentage for drug and nondrug sales is as follows:

	DRUGS	NONDRUGS
2016	40.6%	32.0%
2015	42.2%	32.0%
2014	42.1%	31.9%
2013	42.3%	31.8%

The explanation given by Adams is correct in part, but appears to be overstated. The gross margin percentage for nondrugs is approximately consistent. For drugs, the percent dropped significantly in the current year, far more than the industry decline. The percent had been extremely stable before 2016. In dollars, the difference is approximately $82,000 (42.2% – 40.6% x $5,126,000), which appears to be significant. Of course, the decline in Jones' prices may be greater than the industry due to exceptional competition.

b. As the auditor, you cannot accept Adams' explanation if $82,000 is material. The decline in gross margin could be due to an understatement of drug inventory, a theft of drug inventory, or understated sales. Further investigation is required to determine if the decline is due to competitive factors or to a misstatement of income.

8-33

OBSERVED CHANGE	POSSIBLE EXPLANATION(S)
1. The allowance for obsolete inventory increased from the prior year, but the allowance as a percentage of inventory decreased from the prior year.	a. Shipments of inventory sold prior to year end were included in the client's inventory counts as of the balance sheet date. f. The client purchased a large block of inventory on account close to year end.
2. Long-term debt increased from the prior year, but total interest expense decreased as a percentage of long-term debt.	d. Portions of existing long-term debt were refinanced at lower interest rates. (Note: This explanation would not be sufficient by itself given it does not help explain the increase in long-term debt). i. Short-term borrowings were refinanced on a long-term basis at lower interest rates.

8-33 (continued)

OBSERVED CHANGE	POSSIBLE EXPLANATION(S)
3. The dollar amount of operating income is consistent with the prior year although the entity was more profitable on a net income basis.	d. Portions of existing long-term debt were refinanced at lower interest rates. e. The effective tax rate decreased, as compared to the prior year. i. Short-term borrowings were refinanced on a long-term basis at lower interest rates.
4. The quick ratio decreased from the prior year, although the amount of cash and net accounts receivable is almost the same as the prior year.	f. The client purchased a large block of inventory on account close to year end.

8-34 a.

1. Commission expense could be overstated during the current year or could have been understated during each of the past several years. Or, sales may have been understated during the current year or could have been overstated in each of the past several years.
2. Obsolete or unsalable inventory may be present and may require markdown to the lower of cost or market.
3. Especially when combined with 2 above, there is a high likelihood that obsolete or unsalable inventory may be present. Inventory appears to be maintained at a higher level than is necessary for the company.
4. Collection of accounts receivable appears to be a problem. Additional provision for uncollectible accounts may be necessary.
5. Especially when combined with 4 above, the allowance for uncollectible accounts may be understated.
6. Depreciation expenses may be understated for the year.

b. **ITEM 1** – Make an estimated calculation of total commission expense by multiplying the standard commission rate times commission sales for each of the last two years. Compare the resulting amount to the commission expense for that year. For whichever year appears to be out of line, select a sample of individual sales and recompute the commission, comparing it to the commission recorded.

8-34 (continued)

ITEMS 2 AND 3 – Select a sample of the larger inventory items (by dollar value) and have the client schedule subsequent transactions for these items. Note the ability of the company to sell the items and the selling prices obtained by the client. For any items that the client is selling below cost plus a reasonable markup to cover selling expenses, or for items that the client has been unable to sell, propose that the client mark down the inventory to market value.

ITEMS 4 AND 5 – Select a sample of the larger and older accounts receivable and have the client schedule subsequent payments and credits for each of these accounts. For the larger accounts that show no substantial payments, examine credit reports and recent financial statements to determine the customers' ability to pay. Discuss each account for which substantial payment has not been received with the credit manager and determine the need for additional allowance for uncollectible accounts.

ITEM 6 – Discuss the reason for the reduced depreciation expense with the client personnel responsible for the fixed assets accounts. If they indicate that the change resulted from a preponderance of fully depreciated assets, test the detail records to determine that the explanation is reasonable. If no satisfactory explanation is given, expand the tests of depreciation until satisfied that the provision is reasonable for the year.

8-35 a. Target and Kohl's are similar, but their business descriptions indicate somewhat different market positioning. Target indicates it offers customers everyday essentials and fashionable, differentiated merchandise at discounted prices. Kohl's indicates it sells moderately-priced private label, exclusive and national brand apparel, footwear, accessories, beauty, and home products.

b. December is the peak selling month for retailers due to the holiday shopping season, which is then followed by a brief period with significant product returns. Since a company's natural year-end should generally be at a low point in the annual business cycle, a January 31st year-end makes sense.

c. For the fiscal year ending in January 2015, Target had a gross margin of 29.4% and Kohl's gross margin was 36.4%. Target's inventory turnover was 6.01, and Kohl's was 3.15.

d. Based on Target's description as selling at discount prices, it makes sense that Target would have a lower gross margin but higher inventory turnover.

8-36 a. The direct projection of error = (misstatements/amount sampled) x population value.

($10,000/$1,000,000) x $2,500,000 = $25,000

b. No, the overall financial statements are not acceptable. Including the projected error for inventory, the total overstatement errors are $58,000, which exceeds materiality of $50,000.

c. The auditor should either propose an audit adjustment so that the unadjusted statement amount is less than materiality, and/or perform more testing to obtain a better estimate of the population misstatements. The additional testing will likely focus on receivables and inventory because they have the largest estimated misstatements.

8-37 a. Ling should consider the overall audit assurance desired, expected misstatements in a particular segment, and the cost of obtaining audit evidence (efficiency).

b. Ling set performance materiality for cash at the lowest amount because cash can be completely audited, typically there are no misstatements, and the evidence is mostly objective versus subjective (e.g., not based on estimates or complex calculations).

c. Ling set performance materiality for inventory at a lower amount because there are concerns about obsolescence and because inventory turnover is a ratio of interest to analysts. Auditing standards suggest auditors should consider setting a lower materiality for segments of the audit where there is increased scrutiny.

d. Performance materiality is the highest for accounts receivable because the account is large and requires sampling to test the balance. In addition, Ling has determined that MT, Inc., has strong credit policies and customers generally pay their balance on time.

e. Setting materiality at a lower level results in collecting more audit evidence.

8-38 a. The profession has not established clear-cut guidelines as to the appropriate preliminary estimates of materiality. These are matters of the auditor's professional judgment.

The illustrative materiality guidelines in Fig 8-6 (p. 238) are used in applying materiality for the problem. Other guidelines may be equally acceptable.

STATEMENT COMPONENT	PERCENT GUIDELINES	DOLLAR RANGE (IN MILLIONS)
Earnings from continuing operations before taxes	3 - 6%	$12.5 - $ 25.1
Current assets	3 - 6%	$67.6 - $135.2
Current liabilities	3 - 6%	$36.5 - $72.9
Total assets	1 - 3%	$38.6 - $115.8

b. The allocation to the individual accounts is not shown. The difficulty of the allocation is far more important than the actual allocation. There are several ways the allocation could be done. The most likely way would be to allocate only on the basis of the balance sheet rather than the income statement. Even then the allocation could vary significantly. One way would be to allocate the same amount to each of the balance sheet accounts on the consolidated statement of financial position. Using a materiality limit of $12,500,000 before taxes (because it is the most restrictive) and the same dollar allocation to each account excluding retained earnings, the allocation would be approximately $595,000 to each account. There are 21 account summaries included in the statement of financial position, which is divided into $12,500,000.

An alternative is to assume an equal percentage misstatement in each of the accounts. Doing it in that manner, total assets should be added to total liabilities and owners' equity, less retained earnings. The allocation would be then done on a percentage basis.

c. Auditors generally use *before* tax net earnings instead of *after* tax net earnings to develop a preliminary judgment about materiality given that transactions and accounts being audited within a segment are presented in the accounting records on a pretax basis. Auditors generally project total misstatements for a segment and accumulate all projected total misstatements across segments on a pretax basis and then compute the tax effect on an aggregate basis to determine the effects on after tax net earnings.

8-38 (continued)

d. By allocating 75% of the preliminary estimate to accounts receivable, inventories, and accounts payable, there is far less materiality to be allocated to all other accounts. Given the total dollar value of those accounts, this may be a reasonable allocation. The effect of such an allocation would be that the auditor might be able to accumulate sufficient appropriate evidence with less total effort than would be necessary under part b. Under part b., it would likely be necessary to audit, on almost a 100% basis, accounts receivable, inventories, and accounts payable. On most audits it would be expensive to do that much testing in those three accounts.

It would likely be necessary to audit accounts such as cash and temporary investments on a 100% basis. That would not be costly on most audits because the effort to do so would be small compared to the cost of auditing receivables, inventories, and accounts payable.

e. It is necessary for you to be satisfied that the actual estimate of misstatements is less than the preliminary judgment about materiality for all of the benchmarks. First you would reevaluate the preliminary judgment for earnings. Assuming no change is considered appropriate, you would likely require an adjusting entry or an expansion of certain audit tests.

■ Case

8-39 This case illustrates the common problem of an audit partner having to allocate his scarcest resource — his time. In this case, Winston Black neglects a new client for an existing one and causes himself several serious problems.

a. Auditing standards incorporate the AICPA statement of quality control standards governing an audit practice. One of the quality control standards requires that firms maintain client acceptance procedures. Henson, Davis has such a policy; however, whatever enforcement mechanism for compliance with it must not be sufficient, as McMullan Resources was accepted without the procedures being completed. More to the point, auditing standards make the importance of adequate communication by a successor auditor with the predecessor auditor abundantly clear. In this case, Sarah Beale initiated a communication, but then left it incomplete when the predecessor auditor did not return her call. She rationalized this away by accepting representations from the new client. Of

8-39 (continued)

course, the predecessor auditor may be able to offer information that conflicts with the new client's best interest. It is not appropriate or in accordance with auditing standards to consider management's representations in lieu of a direct communication with the predecessor auditor. The client should not have been accepted until a sufficient communication occurred.

Can this be remedied? Yes and no. While auditing standards require communication with the predecessor auditor before accepting the engagement, a communication with the predecessor auditor should be conducted now, presumably by Black. However, if alarming information were obtained, Henson, Davis would find itself in the awkward position of having accepted a client it might not want. In that case, if it decides to withdraw from the engagement, it may be breaching a contractual obligation. If it continues, it may be taking an unwanted level of business and/or audit risk.

A related implication is the wisdom of Black's assumption about Beale's competence and how that affects her performance on the engagement. Black relied on Beale extensively, yet Beale's performance on the new client acceptance was deficient. Does this mean that Beale's performance in other areas was deficient as well? Certainly, Black can do a thorough review of Beale's work, but review may or may not reveal all engagement deficiencies.

Black's handling of this engagement also implies something about his attitude and objectivity. This was an initial engagement, yet he delegated almost all responsibility up to final review to Beale. He got credit for bringing in the new client, which directly benefited him in terms of his compensation. It would be against his best interest to not accept (withdraw from) this client. If he is unwilling to "do the right thing" here, how will he handle other difficult audit problems?

b. In the audit of long-term contracts, it is essential to obtain assurance that the contract is enforceable so that income can be recognized on the percentage-of-completion basis. It is also important to consider other aspects of the contract that relate to various accounting aspects, such as price and other terms, cancellation privileges, penalties, and contingencies. In this case, Beale has concluded that the signed contract, written in French, is McMullan's "standard" contract, based on client representation. Of course, auditing standards require that management's representations, a weak form of evidence, be corroborated with other evidence where possible. Beale might argue that the confirmation obtained constitutes such evidence.

8-39 (continued)

Beale's argument may seem logical with regard to enforcement; however, the confirmation form refers to existing disputes. It says nothing about contractual clauses that may foreshadow enforceability. For that reason the audit program requires the contract to be read. How would an auditor know whether the contract form was that of a standard contract without reading it? Furthermore, it may be unrealistic to assume there is such a thing as a "standard" contract in the first place. Long-term and short-term contracts are the result of negotiation and often contain special clauses and changed language.

In this case, not reading the contract was an insufficiency and the French-language copy should be translated by an independent translator and read by the auditors.

c. Compliance with auditing standards is a matter that is always subject to professional judgment. One professional auditor may conclude he or she has complied with auditing standards, and another would conclude that auditing standards have been violated, so these matters are very seldom clear cut. However, in this case, it appears that Black and Beale may have violated auditing standards in the following ways:

Principles Underlying Auditing Standards note the following*: The auditor must plan the work and supervise any assistants.* The requirements of predecessor and successor auditor communications discussed above relate to this standard. More generally, the audit partner should participate in planning, at least with a timely review. This would be more important than otherwise in the situation of a first-time engagement, as we have here. Similarly, some level of on-going partner supervision would seem prudent and logical. Black, apparently, did not really participate at all until final review.

Principles Underlying Auditing Standards note the following: *The auditor is responsible for obtaining sufficient appropriate audit evidence about whether material misstatements exist through designing and implementing appropriate responses to the assessed risks.* As discussed above, the work on the Montreal contract was deficient and further evidence is required.

In addition, whenever underlying principles of auditing standards are not achieved there are implied violations of other standards. It might be argued that Beale was not proficient as an auditor because of her failures with the new client acceptance procedures and the Montreal contract. Similarly, it might be argued that due professional care was not taken both by Beale and by Black for delegating so much to Beale.

■ Integrated Case Application – Pinnacle Manufacturing

8-40 (see text web site for Excel solutions for parts d. and e - Filename **P40.xls)**

a.

PINNACLE MANUFACTURING—PART I

Account Balance	**% Change 2015–2016**	**% Change 2014–2015**
Net sales	1.45%	2.70%
Cost of goods sold	2.85%	4.18%
Operating expenses	-2.51%	2.40%
Income from operations	1.87%	-23.10%
Net receivables	51.30%	8.61%
Inventory	26.23%	1.05%
Accounts payable	37.09%	24.71%
Long-term debt	9.30%	- 0.17%

b.

Ratios		**Amounts (in thousands)** 2016	2015	2014
	Current assets	53,172	41,625	41,406
Current ratio:	Current liab.	30,413	21,527	18,942
		1.75	1.93	2.19
Debt to equity	Debt	54,833	43,868	41,322
	Equity	60,602	59,392	58,353
		90.5%	73.9%	70.8%
	Net Inc. bef tax	2,093	1,897	3,059
Net Inc. bef tax/sales	Sales	150,738	148,586	144,686
		1.4%	1.3%	2.1%
Gross margin %	Gross profit	41,453	42,331	42,698
	Sales	150,738	148,586	144,686
		27.5%	28.5%	29.5%
Inventory turnover	COGS	109,285	106,255	101,988
	Ave. inventory	28,887	25,404	25,272
		3.8	4.2	4.0

c. While Pinnacle continues to experience some growth in net sales in 2016 over 2015, that growth is less than the growth in 2015 over 2014. Unfortunately, cost of goods sold continues to increase at higher rates than increases in sales resulting in lower gross margin percentages in 2016, although the increase in cost of goods sold in 2016 over 2015 was not as significant as the increase in 2015 over 2014.

8-40 (continued)

Apparently Pinnacle management made changes that have reduced overall operating expenses given the 2.51% decline in operating expenses in 2016 over 2015. Those changes resulted in an increase in income from operations in 2016 relative to the decrease experienced in 2015 and a slight increase in net income before taxes in 2016 over 2015.

While profitable, the review of changes in balance sheet accounts indicates that receivables are increasing at significant rates (51.30% in 2016) relative to increases in sales of only 1.45%. This buildup in receivables may lead to significant collection challenges in 2016 and beyond. Similarly, buildup of inventory may lead to excess amounts of inventory, especially if sales do not continue to increase beyond 2016. Concerns about inventory obsolescence are likely to be increasing given the slower inventory turnover in 2016.

The reduction in the current ratio suggests that liquidity is decreasing in 2016 relative to prior years. The increase in accounts payable to finance the inventory buildup in addition to increases in long-term debt suggests that management is increasing its borrowings to provide cash flow during a time where cash collections from receivables appear to be slowing as receivables continue to build. Increased borrowings (both short-term and long-term) will place greater needs on managing cash flow and liquidity in 2016 and beyond.

d. See page 8-27 for Pinnacle's common-size income statement. For the overall financial statements, the focus is on all accounts except direct expenses. For the direct expenses, it is better to use the disaggregated information. The suggested solution was prepared using Excel (Filename P840.xls).

Account Balance	**Estimate of $ Amount of Potential Misstatement**
Salaries & Wages	Salary and wages expenses are lower this year relative to prior years. Need to determine if salaried workers were laid off or terminated and extent that number of hourly workers or overtime was reduced in 2016.
Property taxes	Decrease of $155,000 when property increased
Bad debts	See requirement g. for an analysis

8-40 (continued)

Depreciation expense	Increase of almost $700,000, perhaps partly due to new building and equipment purchases
Federal Income Taxes	FIT as a % of NIBT was 45% in 2015. 45% of 2016 NIBT is $941.9 million. Actual FIT for 2016 was $883.4 million. Difference of $585,000
Interest expense	Short-term plus long-term interest bearing debt increased by 22%, from $32.6 million in 2015 to $39.8 million in 2016, but interest expense decreased. If interest rates have not changed, interest expense would be expected to increase by a similar amount to $2,804,800 ($2,299,000 x 1.22). Potential misstatement of $622,900 ($2,804,800 - $2,181,900)

e. See pages 8-28 to 8-30 for common-size income statement for each of Pinnacle's three divisions. The suggested solution was prepared using Excel (Filename P40.xls). For disaggregated information it is best to ignore the allocated expenses.

Account Balance	**Estimate of $ Amount of Potential Misstatement**
Welburn:	
Security	Decrease of $70,000 or .36% of sales relative to .43% in 2015 and 2014.
Solar-Electro:	
Payroll benefits	Increased almost $50,000 while salaries and wages decreased. Potential misallocation between divisions.
Legal Service	Large increase may be indicative of other issues affecting disclosures and asset or liability valuation.
Miscellaneous	Increase of over $190,000 needs investigation.

8-40 (continued)

(part of requirement d.)

Pinnacle Manufacturing Company
Income Statement - All Divisions
For the Year Ended December 31

	2016 Dollar Value	2016 % of Sales	2015 Dollar Value	2015 % of Sales	2014 Dollar Value	2014 % of Sales
Sales	150,918,731	100.00%	148,764,555	100.00%	144,860,245	100.00%
Sales Returns and Allowances	181,103	0.12%	178,518	0.12%	173,832	0.12%
Cost of Sales*	109,284,780	72.41%	106,255,499	71.43%	101,988,165	70.40%
Gross Profit	41,452,848	27.47%	42,330,538	28.45%	42,698,248	29.48%
OPERATING EXPENSES-Allocated						
Salaries-Management	2,281,266	1.51%	2,387,993	1.61%	2,295,081	1.58%
Salaries-Office	315,169	0.21%	296,681	0.20%	306,856	0.21%
Licensing and certification fees	190,650	0.13%	172,883	0.12%	162,279	0.11%
Security	550,603	0.36%	637,580	0.43%	630,353	0.44%
Insurance	93,197	0.06%	103,842	0.07%	108,491	0.07%
Medical benefits	23,721	0.02%	29,453	0.02%	28,810	0.02%
Advertising	162,512	0.11%	178,009	0.12%	165,678	0.11%
Business publications	6,989	0.00%	5,555	0.00%	774	0.00%
Property taxes	22,585	0.01%	178,009	0.12%	175,692	0.12%
Bad debts	841,699	0.56%	1,034,060	0.70%	992,094	0.68%
Depreciation expense	5,336,783	3.54%	4,641,982	3.12%	4,367,565	3.02%
Accounting fees	273,956	0.18%	297,777	0.20%	299,789	0.21%
Total operating expenses-Allocated	10,099,130	6.69%	9,963,824	6.70%	9,533,462	6.58%
OPERATING EXPENSES-Direct						
Salaries-Sales	14,970,669	9.92%	15,327,777	10.30%	14,904,392	10.29%
Wages Rental	491,794	0.33%	595,389	0.40%	575,725	0.40%
Wages-Mechanics	1,113,539	0.74%	1,339,626	0.90%	1,333,411	0.92%
Wages-Warehouse	4,891,065	3.24%	5,340,271	3.59%	5,473,249	3.78%
Garbage collection	27,649	0.02%	29,771	0.02%	37,969	0.03%
Payroll benefits	2,657,889	1.76%	2,937,730	1.97%	2,894,300	2.00%
Rent- Warehouse	802,855	0.53%	764,346	0.51%	758,345	0.52%
Telephone	32,402	0.02%	45,173	0.03%	57,867	0.04%
Utilities	262,393	0.17%	267,005	0.18%	274,365	0.19%
Postage	89,763	0.06%	133,518	0.09%	151,278	0.10%
Linen service	17,282	0.01%	12,350	0.01%	16,083	0.01%
Repairs and maintenance	166,985	0.11%	168,405	0.11%	178,213	0.12%
Cleaning service	89,800	0.06%	81,589	0.05%	78,088	0.05%
Legal service	396,016	0.26%	190,540	0.13%	152,238	0.11%
Fuel	286,547	0.19%	341,192	0.23%	279,512	0.19%
Travel and entertainment	103,389	0.07%	103,842	0.07%	100,479	0.07%
Pension expense	228,555	0.15%	237,350	0.16%	127,011	0.09%
Office supplies	149,828	0.10%	148,340	0.10%	171,109	0.12%
Miscellaneous	300,188	0.20%	105,931	0.07%	144,012	0.10%
Total operating expenses-Direct	27,078,608	17.94%	28,170,145	18.94%	27,707,646	19.13%
Total Operating Expenses	37,177,738	24.63%	38,133,969	25.63%	37,241,108	25.71%
Operating Income	4,275,110	2.83%	4,196,569	2.82%	5,457,140	3.77%
Other Expense-Interest	2,181,948	1.45%	2,299,217	1.55%	2,397,953	1.66%
Income Before Taxes	2,093,162	1.39%	1,897,352	1.28%	3,059,187	2.11%
Federal Income Taxes	883,437	0.59%	858,941	0.58%	1,341,536	0.93%
Net Income	**1,209,725**	0.80%	**1,038,411**	0.70%	**1,717,651**	1.19%

* Details of manufacturing expenses are not included in this schedule.

8-40 (continued)

(part of requirement e.)

Pinnacle Manufacturing Company
Income Statement - Welburn Division
For the Year Ended December 31

	2016 $ Value	2016 % of Div. Sales	2015 $ Value	2015 % of Div. Sales	2014 $ Value	2014 % of Div. Sales
Sales	122,585,513	100.00%	120,830,903	100.00%	117,639,471	100.00%
Sales Returns and Allowances	127,673	0.10%	124,975	0.10%	121,694	0.10%
Cost of Sales*	90,373,709	73.72%	87,905,900	72.75%	84,375,503	71.72%
Gross Profit	32,084,131	26.17%	32,800,028	27.15%	33,142,274	28.17%
OPERATING EXPENSES-Allocated						
Salaries-Management	1,851,775	1.51%	1,934,168	1.60%	1,858,914	1.58%
Salaries-Office	255,833	0.21%	240,298	0.20%	248,539	0.21%
Licensing and certification fees	139,951	0.11%	127,659	0.11%	119,829	0.10%
Security	446,938	0.36%	516,406	0.43%	510,552	0.43%
Insurance	75,647	0.06%	84,103	0.07%	87,868	0.07%
Medical benefits	19,389	0.02%	24,032	0.02%	23,507	0.02%
Advertising	131,917	0.11%	144,181	0.12%	134,193	0.11%
Business publications	4,213	0.00%	2,981	0.00%	415	0.00%
Property taxes	17,873	0.01%	144,181	0.12%	142,304	0.12%
Bad debts	687,885	0.56%	831,572	0.69%	797,823	0.68%
Depreciation expense	4,206,533	3.43%	3,759,789	3.11%	3,537,525	3.01%
Accounting fees	223,534	0.18%	240,196	0.20%	241,817	0.21%
Total operating expenses-Allocated	8,061,488	6.58%	8,049,566	6.66%	7,703,286	6.55%
OPERATING EXPENSES-Direct						
Salaries-Sales	12,579,213	10.26%	12,694,443	10.51%	12,343,793	10.49%
Wages Rental	-		-		-	
Wages-Mechanics	-		-		-	
Wages-Warehouse	4,006,809	3.27%	4,325,377	3.58%	4,433,082	3.77%
Garbage collection	-		-		-	
Payroll benefits	2,039,389	1.66%	2,379,426	1.97%	2,344,248	1.99%
Rent- Warehouse	670,746	0.55%	623,389	0.52%	618,494	0.53%
Telephone	25,901	0.02%	36,045	0.03%	46,175	0.04%
Utilities	194,700	0.16%	216,266	0.18%	222,226	0.19%
Postage	77,924	0.06%	108,136	0.09%	122,519	0.10%
Linen service	14,126	0.01%	10,510	0.01%	13,685	0.01%
Repairs and maintenance	123,450	0.10%	117,538	0.10%	124,383	0.11%
Cleaning service	65,853	0.05%	66,085	0.05%	63,250	0.05%
Legal service	115,735	0.09%	131,334	0.11%	104,934	0.09%
Fuel	217,964	0.18%	276,343	0.23%	226,387	0.19%
Travel and entertainment	80,265	0.07%	84,103	0.07%	81,380	0.07%
Pension expense	187,891	0.15%	192,240	0.16%	102,872	0.09%
Office supplies	121,617	0.10%	120,149	0.10%	138,590	0.12%
Miscellaneous	57,147	0.05%	57,910	0.05%	78,729	0.07%
Total operating expenses-Direct	20,578,730	16.79%	21,439,294	17.74%	21,064,747	17.91%
Total operating expenses	28,640,218	23.36%	29,488,860	24.41%	28,768,033	24.45%
OPERATING INCOME	3,443,913	2.81%	3,311,168	2.74%	4,374,241	3.72%

* Details of manufacturing expenses are not included in this schedule.

8-40 (continued)

(part of requirement e.)

Pinnacle Manufacturing Company
Income Statement - Solar-Electro Division
For the Year Ended December 31

	2016 $ Value	2016 % of Div. Sales	2015 $ Value	2015 % of Div. Sales	2014 $ Value	2014 % of Div. Sales
Sales	22,605,731	100.00%	21,680,289	100.00%	21,126,896	100.00%
Sales Returns and Allowances	43,825	0.19%	38,773	0.18%	37,756	0.18%
Cost of Sales*	17,008,377	75.24%	16,156,496	74.52%	15,507,635	73.40%
Gross Profit	5,553,529	24.57%	5,485,020	25.30%	5,581,505	26.42%
OPERATING EXPENSES-Allocated						
Salaries-Management	338,015	1.50%	352,230	1.62%	338,525	1.60%
Salaries-Office	46,697	0.21%	43,759	0.20%	45,259	0.21%
Licensing and certification fees	19,303	0.09%	15,287	0.07%	14,350	0.07%
Security	81,580	0.36%	94,046	0.43%	92,980	0.44%
Insurance	13,808	0.06%	15,319	0.07%	16,005	0.08%
Medical benefits	3,537	0.02%	4,376	0.02%	4,280	0.02%
Advertising	24,078	0.11%	26,255	0.12%	24,436	0.12%
Business publications	874	0.00%	542	0.00%	76	0.00%
Property taxes	3,264	0.01%	26,255	0.12%	25,913	0.12%
Bad debts	120,493	0.53%	157,730	0.73%	151,328	0.72%
Depreciation expense	889,483	3.93%	684,667	3.16%	644,192	3.05%
Accounting fees	39,666	0.18%	44,689	0.21%	44,992	0.21%
Total operating expenses-Allocated	1,580,798	6.99%	1,465,155	6.76%	1,402,336	6.64%
OPERATING EXPENSES-Direct						
Salaries-Sales	2,192,482	9.70%	2,402,414	11.08%	2,336,053	11.06%
Wages Rental	-		-		-	
Wages-Mechanics	-		-		-	
Wages-Warehouse	695,918	3.08%	787,698	3.63%	807,312	3.82%
Garbage collection	-		-		-	
Payroll benefits	478,669	2.12%	433,321	2.00%	426,916	2.02%
Rent- Warehouse	103,983	0.46%	109,403	0.50%	108,544	0.51%
Telephone	4,730	0.02%	6,567	0.03%	8,412	0.04%
Utilities	53,278	0.24%	39,383	0.18%	40,468	0.19%
Postage	7,131	0.03%	19,695	0.09%	22,315	0.11%
Linen service	2,578	0.01%	1,490	0.01%	1,941	0.01%
Repairs and maintenance	34,121	0.15%	39,383	0.18%	41,677	0.20%
Cleaning service	20,694	0.09%	12,033	0.06%	11,516	0.05%
Legal service	268,954	1.19%	45,950	0.21%	36,714	0.17%
Fuel	53,975	0.24%	50,326	0.23%	41,229	0.20%
Travel and entertainment	18,196	0.08%	15,319	0.07%	14,822	0.07%
Pension expense	34,297	0.15%	33,988	0.16%	18,187	0.09%
Office supplies	22,199	0.10%	21,880	0.10%	25,238	0.12%
Miscellaneous	234,892	1.04%	42,982	0.20%	58,433	0.28%
Total operating expenses-Direct	4,226,097	18.69%	4,061,832	18.74%	3,999,777	18.93%
Total operating expenses	5,806,895	25.69%	5,526,987	25.49%	5,402,113	25.57%
OPERATING INCOME	-253,366	-1.12%	-41,967	-0.19%	179,392	0.85%

* Details of manufacturing expenses are not included in this schedule.

8-40 (continued)

(part of requirement e.)

Pinnacle Manufacturing Company
Income Statement - Machine-Tech Division
For the Year Ended December 31

	2016 $ Value	2016 % of Div. Sales	2015 $ Value	2015 % of Div. Sales	2014 $ Value	2014 % of Div. Sales
Sales	5,727,487	100.00%	6,253,363	100.00%	6,093,878	100.00%
Sales Returns and Allowances	9,605	0.17%	14,770	0.24%	14,382	0.24%
Cost of Sales*	1,902,694	33.22%	2,193,103	35.07%	2,105,027	34.54%
Gross Profit	3,815,188	66.61%	4,045,490	64.69%	3,974,469	65.22%
OPERATING EXPENSES-Allocated						
Salaries-Management	91,476	1.60%	101,595	1.62%	97,642	1.60%
Salaries-Office	12,638	0.22%	12,624	0.20%	13,057	0.21%
Licensing and certification fees	31,396	0.55%	29,937	0.48%	28,100	0.46%
Security	22,086	0.39%	27,128	0.43%	26,820	0.44%
Insurance	3,742	0.07%	4,420	0.07%	4,618	0.08%
Medical benefits	795	0.01%	1044	0.02%	1022	0.02%
Advertising	6,517	0.11%	7,573	0.12%	7,048	0.12%
Business publications	1,902	0.03%	2,032	0.03%	283	0.00%
Property taxes	1,448	0.03%	7,573	0.12%	7,475	0.12%
Bad debts	33,321	0.58%	44,759	0.72%	42,942	0.70%
Depreciation expense	240,767	4.20%	197,527	3.16%	185,850	3.05%
Accounting fees	10,756	0.19%	12,891	0.21%	12,983	0.21%
Total operating expenses-Allocated	456,844	7.98%	449,103	7.18%	427,840	7.02%
OPERATING EXPENSES-Direct	198978					
Salaries-Sales	198,978	3.47%	230,922	3.69%	224,543	3.68%
Wages Rental	491,794	8.59%	595,389	9.52%	575,724	9.45%
Wages-Mechanics	1,113,539	19.44%	1,339,627	21.42%	1,333,411	21.88%
Wages-Warehouse	188,339	3.29%	227,196	3.63%	232,853	3.82%
Garbage collection	27,649	0.48%	29,771	0.48%	37,970	0.62%
Payroll benefits	139,832	2.44%	124,984	2.00%	123,136	2.02%
Rent- Warehouse	28,126	0.49%	31,554	0.50%	31,306	0.51%
Telephone	1,771	0.03%	2,560	0.04%	3,280	0.05%
Utilities	14,415	0.25%	11,357	0.18%	11,670	0.19%
Postage	4,708	0.08%	5,688	0.09%	6,445	0.11%
Linen service	579	0.01%	350	0.01%	457	0.01%
Repairs and maintenance	9,414	0.16%	11,484	0.18%	12,153	0.20%
Cleaning service	3,253	0.06%	3,472	0.06%	3,322	0.05%
Legal service	11,327	0.20%	13,255	0.21%	10,590	0.17%
Fuel	14,608	0.26%	14,522	0.23%	11,897	0.20%
Travel and entertainment	4,928	0.09%	4,420	0.07%	4,277	0.07%
Pension expense	6,368	0.11%	11,121	0.18%	5,951	0.10%
Office supplies	6,012	0.10%	6,312	0.10%	7,281	0.12%
Miscellaneous	8,141	0.14%	5,035	0.08%	6,856	0.11%
Total operating expenses-Direct	2,273,781	39.70%	2,669,019	42.68%	2,643,122	43.37%
Total operating expenses	2,730,625	47.68%	3,118,122	49.86%	3,070,962	50.39%
OPERATING INCOME	1,084,563	18.94%	927,368	14.83%	903,507	14.83%

* Details of manufacturing expenses are not included in this schedule.

8-40 (continued)

f. Both the companywide and the divisional income statements are useful, but for different purposes. The companywide information is useful for identifying material fluctuations in the financial statements. However, the disaggregated information is more helpful in identifying the source of the fluctuations.

g. **Estimate of Potential Understatement in Allowance**

	2016	2015	2014
A/R Turnover			
Sales	150,738	148,586	144,686
Average accounts receivable	10,831	8,278	7,936
Turnover	13.9	17.9	18.2
Days Sales Outstanding			
365	365	365	365
Turnover	13.9	17.9	18.2
Days	26.3	20.4	20.1

	2016	2015	2014
Bad Debt Expense as percentage of gross sales:	.56%	.70%	.68%

In the prior two years, bad debt expense as a percentage of gross sales has approximated .7%. In 2016, the days sales outstanding increased 28.92% from 20.4 days to 26.3 days. If you increase the .7% by 28.92%, bad debts as a percentage of sales would increase from .7% to .9%, which would suggest an estimated bad debt expense of $1,358,269.

The difference between recorded bad debt expense of $841,699 and the expected bad debt expense of $1,358,269 would require an increase of $516,570 to bad debt expense and the allowance for doubtful accounts.

Analysis of Inventory Balance

Account Balance	% Change 2015-2016	% Change 2014-2015
Net sales	1.45%	2.70%
Cost of goods sold	2.85%	4.18%
Inventory	26.23%	1.05%

8-40 (continued)

Ratios		**2016**	**2015**	**2014**
Gross margin %	Gross profit	41,453	42,331	42,698
	Sales	150,738	148,586	144,686
		27.5%	28.5%	29.5%
Inventory turnover	COGS	109,285	106,255	101,988
	Ave. inventory	28,887	25,404	25,272
		3.8	4.2	4.0
Days Inventory Outstanding				
		365	365	365
Inventory Turnover		3.8	4.2	4.0
		96.1	86.9	91.3

The significant buildup of inventories in 2016, despite slower growth in sales creates significant concerns about the potential for inventory obsolescence. Inventory is sitting in the warehouse longer in 2016 (by almost 10 days) relative to 2015. More extensive analysis regarding inventory obsolescence will be needed.

Analysis of Short-Term and Long-Term Debt

Account Balance	**% Change 2015-2016**	**% Change 2014-2015**
Accounts payable	37.09%	24.71%
Short-term/Current LTD	49.3%	6.47%
Long-term Debt	9.3%	-0.17%
Interest Expense	-5.1%	-4.1%

Accounts payable and short-term/current borrowings are up significantly. The increase of 37.09% in accounts payable is much greater than the increase in the ending inventory balance. And, short-term/Current LTD is up almost 50%, with long-term debt up about 9.3%. Despite increases in short-term and long-term debt, interest expense declined almost 5% in 2016. Additional work will be done to address the potential for material misstatements in these accounts.

h. There is a low to moderate risk that Pinnacle will fail financially in the next twelve months. The company has been profitable the past three years, is generating cash flows, and most of the ratios indicate no severe financial difficulties. Several ratios, such as the current ratio and debt to equity have deteriorated somewhat, but not enough to cause significant concerns.

8-41 ACL Problem

a. The following is a printout of the Statistics command for Invoice Amount:

```
Field    : invoice_amount
            Number                  Total           Average
Positive :   4,082          46,400,198.71         11,367.03
Zeros    :       0
Negative :       0                   0.00              0.00
Totals   :   4,082          46,400,198.71         11,367.03
Abs Value:                  46,400,198.71
Range    :                      44,178.67
Highest  : 44,379.67 41,986.89 40,404.44 39,840.77 39,117.53
Lowest   : 201.00 256.57 335.98 370.50 379.95
```

There are no negative amounts.

b. The total amount of outstanding invoices is $893,619.03.

c. A number of the invoices have been outstanding for more than three months, indicating potential problems with collectibility.

d. The statistical information will be useful in identifying the range of invoice values, including outstanding invoices, to identify confirmation and other tests of the existence of accounts receivable. The analysis of outstanding invoices by days outstanding will assist in evaluating the allowance for doubtful accounts.